Chancellor’s Welcome

Welcome to St. Louis Community College, the largest community college system in Missouri.

In deciding to attend STLCC, you have taken an important step toward your future. But you have many more steps and many more decisions to make.

We are here to help you take those next steps. We can help you discover your interests and learn what career suits you. We can help you achieve your goal for a career or transfer to a four-year institution.

With 15 college-transfer options and more than 100 career programs, STLCC offers you the opportunity to explore your interests and examine your options. We are the largest resource for college transfer, career development and job training. At an affordable rate, you can earn a degree or certificate by attending classes either full or part time. We also offer many distance-learning options.

Our multiple locations and extensive variety of programs and courses ensure that our student body is as diverse as our community. When you walk into our classrooms, you’ll enter a friendly, student-centered learning environment and have access to the most current technology and equipment available. You’ll find faculty who specialize in teaching at the undergraduate level and hold advanced degrees – master’s, doctoral or advanced licensing in technical fields. Faculty who teach our career programs have worked in business and industry and keep current with changes in their fields, giving you the most up-to-date information about those fields.

STLCC offers the counseling, academic advising, study help and financial aid support you need to succeed. Many opportunities exist on campus to help you contribute your talents and skills to the college and community through service learning, student government, clubs and organizations, honor societies, student publications, theatrical productions, special interest groups and intercollegiate athletics.

With highly focused instruction, small classes, flexible schedules and affordable tuition, STLCC offers you the very best opportunity to expand your mind – and change your life.

Now take that next step – and let us help you achieve your goals.

Mission Statement

St. Louis Community College expands minds and changes lives every day. We create accessible, dynamic learning environments focused on the needs of our diverse communities.
### Table of Contents

- About St. Louis Community College ........................................... iii
- Economic Value ........................................................................ iii
- St. Louis Community College Campuses .................................... iv

**SECTION 1—GENERAL INFORMATION**
- College Calendar ...................................................................... ix
- Phone Directory ........................................................................ 1-2
- Admissions ................................................................................ 3
- Fees and Refunds ...................................................................... 5
- Financial Aid ............................................................................ 8
- Academic Policies ..................................................................... 8
- Student Services ....................................................................... 14
- College Policies ...................................................................... 15
- Community Programs ............................................................ 17
- St. Louis Community College Foundation ............................... 18
- Accreditation and Approval ...................................................... 19

**SECTION 2—COLLEGE PROGRAMS**
- Associate in Arts Degree Program .......................................... 23
- General Transfer Studies Degree ............................................. 29
- Associate of Arts in Teaching .................................................... 32
- Associate in Fine Arts Degree Program .................................... 33
- Associate in Science Degree Program ...................................... 35
- Associate in Applied Science Degree Program ....................... 38
- Certificate Programs .............................................................. 38

**SECTION 3—2009-2010 COURSE DESCRIPTIONS**
- Course Descriptions ............................................................... 102-177

**SECTION 4—PERSONNEL**
- Board of Trustees ..................................................................... 178
- Cosand Center ......................................................................... 178
- Florissant Valley ...................................................................... 178
- Forest Park ............................................................................. 180
- Meramec .................................................................................. 183
- Wildwood ................................................................................ 186
- Index to College Programs ....................................................... 187-188
- St. Louis Community College Campus Maps ......................... 189-190
- Admission Application ............................................................ 191-192

### ABOUT THIS CATALOG

The St. Louis Community College 2009-2010 Catalog contains information on entering the college, choosing a program, getting the most out of the collegiate experience, and moving toward a career or advanced study.

The first part of the catalog explains the academic policies, procedures and student services of St. Louis Community College. The second part outlines college transfer and career programs offered. A list of courses and course descriptions is contained in the third section. College personnel are identified in the fourth section.

Courses listed in the transfer and career programs sections may not be offered every semester. A class schedule that lists courses currently being offered and a description of each course is published every semester.

The information in this catalog is current as of April 2009. The college may at any time change policies and procedures outlined in this catalog. For information on policy changes, refer to the Board of Trustees Policy Manual available in the campus libraries and on the college’s Web site. The information in this catalog is not a substitute for Board policies.

This catalog is available in alternate formats. Contact a campus Access Office for more information.

### NOTICE OF NON-DISCRIMINATION

St. Louis Community College is committed to non-discrimination and equal opportunities in its admissions, educational programs, activities and employment regardless of race, color, creed, religion, sex, sexual orientation, national origin, ancestry, age, disability or status as a disabled or Vietnam-era veteran and shall take action necessary to ensure non-discrimination.

For information contact:

**CBIL**
- Judy Koenig
  - Supervisor
  - Downtown Education Center
  - 300 S. Broadway
  - St. Louis, MO 63102-2800
  - 314-539-5360

**Cosand Center/Employment**
- Patricia Henderson
  - Senior Manager of Employment
  - 300 S. Broadway
  - St. Louis, MO 63102-2800
  - 314-539-5214

**Florissant Valley**
- Laura Sterman
  - Vice President, Student Affairs
  - 3400 Pershall Road
  - St. Louis, MO 63135-1408
  - 314-513-4250

**Forest Park**
- Herb Gross
  - Vice President, Student Affairs
  - 5600 Oakland Avenue
  - St. Louis, MO 63110-1316
  - 314-644-9212

**Meramec**
- Stephen Peterson
  - Vice President, Student Affairs
  - 11333 Big Bend Road
  - St. Louis, MO 63122-5720
  - 314-984-7609

**Wildwood**
- Marilyn Taras
  - Director of Student Affairs
  - 2645 Generations Drive
  - Wildwood, MO 63040-1168
  - 636-422-2004

**Section 504/Title II Coordinator**
- Dr. Donna Dare
  - Acting Vice Chancellor of Education
  - 300 S. Broadway
  - St. Louis, MO 63102-2800
  - 314-539-5285

### ACCOMMODATIONS STATEMENT

St. Louis Community College makes every reasonable effort to accommodate individuals with disabilities. If you have accommodation needs, please contact the Access Office at the campus where you are registering at least six weeks before the beginning of the class. Event or other public service accommodation requests should be made with the event coordinator or applicable location non-discrimination officer at least two working days prior to the event or public service.

Individuals with speech or hearing impairments may call via Relay Missouri by dialing 711.
**About St. Louis Community College**

St. Louis Community College offers a challenging learning environment that points students in directions that lead to success. Since voters in St. Louis City and County established the college in 1962, nearly one million people have attended, enriching their lives and contributing to the economic development of the metropolitan area. Each year, nearly 100,000 students enroll in college transfer and career programs; job skill, personal development and college preparatory classes; and customized programs sponsored by employers.

Associate degrees in Applied Science, Arts, Fine Arts, Science and Teaching are offered as well as certificates of proficiency and specialization. The college’s Center for Business, Industry & Labor also serves the local business community through assessment, counseling, consulting and training services.

Learning is accessible through four campuses – Florissant Valley, Forest Park, Meramec and Wildwood; three education centers – south St. Louis County, downtown St. Louis and North St. Louis; numerous business, industrial and neighborhood sites throughout the metropolitan area; and Web-based courses via the Internet.

Governed by a board of six elected trustees and supported by local taxes, state funds and student fees, the college has an annual budget of more than $175 million. Accreditation is through the Higher Learning Commission of the North Central Association of Colleges and Schools. St. Louis Community College focuses its resources on helping students find the right academic and career pathways. Through its alumni and community partnerships, the college is helping St. Louis become the best place to live and work in the 21st century.

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**Economic Value**

St. Louis Community College is your best financial investment now – and a great investment for your future. Student fees at STLCC are among the lowest in the area. A large portion of instructional costs is financed by tax revenue; therefore, you pay less for a high-quality academic experience. And graduates of STLCC are the region’s best economic investment.

- Research shows that for every credit hour completed, STLCC students will earn $116 more per year while in the work force.
- Students enjoy 24.2 percent rate of return on their STLCC educational investment, and recover all costs (including wages foregone while attending classes) in 6.2 years.
- Skills from current and former STLCC students increase earnings in the college’s service area by $528 million directly, and by another $410 million indirectly.
- After leaving the college, the average STLCC student will spend 38 years in the work force. The student who leaves with a two-year college degree will earn $500,000 more than someone with a high school diploma or a GED.
- For every dollar appropriated by the state and local government, student earnings will increase by an average of $1.02 per year every year through the rest of their working lives. Likewise, for every state dollar appropriated, the college service area will see social savings of 28 cents per year every year.
- More than 90 percent of STLCC credit and non-credit students are employed full or part time in the community while attending classes.
- The total economic impact of STLCC is more than $3 billion.
CAMPUS LOCATIONS:

Geographic accessibility to higher education is one of the cornerstones of St. Louis Community College. There are four main campuses strategically located throughout the St. Louis metropolitan area, from the very north in Ferguson at the Florissant Valley campus, to the city’s central corridor at the Forest Park campus, to the southwest at the Meramec campus, to the far west at the Wildwood campus.

In addition, the college has three education centers throughout its service area to better serve increasing and shifting populations. Courses and programs also are offered at numerous area high schools, community centers, libraries, churches, hospitals and museums.
FOREST PARK
5600 Oakland Avenue • St. Louis, MO  63110-1316
314-644-9100
Morris F. Johnson III, President
www.stlcc.edu/fp/

Forest Park is the district’s city campus, located across I-64 from the world-famous St. Louis Zoo and adjacent to several other major health, cultural and educational institutions, such as the St. Louis Science Center. It is Missouri’s leading provider of health technology training, offering 13-plus medical programs and certificates. More than 7,400 students are enrolled in career and transfer programs in business, technology, humanities and sciences as well as allied health.

The campus is the premier trainer for the hospitality industry in St. Louis, specializing in hospitality studies/culinary arts, taught in a $5 million hospitality studies center. In addition, the campus supports the Advanced Network Training Center which is a certified Cisco Academy and Microsoft IT Academy offering a degree in Information Systems and numerous courses toward industry certifications.

Diversity and global education are a major focus for this urban campus which welcomes more than 700 international students speaking more than 80 languages. In 2008, the campus was recognized with the Andrew Heiskell Award for Innovation in International Education from the Institute of International Education.

MERAMEC
11333 Big Bend Road • St. Louis, MO  63122-5720
314-984-7500
Paul P. Pai, President
www.stlcc.edu/mc/

The Meramec campus, located on 78 park-like acres in Kirkwood, is known for its excellent general transfer program. Meramec’s wide range of career program selections includes architectural technology, interior design, horticulture, occupational therapy assistant and physical therapist assistant. The campus also has the largest fine arts program within the college and is home to the Center for Visual Technology, a graphic arts computer facility that provides state-of-the-art instruction, utilizing the latest computer equipment and the most current software available. Meramec serves more than 9,600 college credit students.
The Wildwood campus is located on 132 acres surrounded by a developing native prairie. It is the newest campus in the district and serves west St. Louis County, one of the fastest-growing areas in the college’s service area. Initially, associate degrees in General Transfer Studies, Business Administration and Teaching as well as continuing education courses, are being offered. The campus opened in August 2007 with a 73,000-square-foot building, the first phase of a three-phase building plan. It houses high-tech classrooms and labs, offices, student services, lounges, a bookstore, and a multipurpose room. In an effort to reduce the building’s impact on the environment and community, the campus incorporates design concepts that emphasize state-of-the-art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. The Wildwood campus was the first community college facility in the Midwest to receive Leadership in Energy and Environmental Design (LEED) Gold certification.

The Cosand Center, named for the founder and first president of STLCC, is the college’s focal point for business and industry training. As part of the college’s Center for Business, Industry & Labor, the Downtown Education Center is fully furnished to meet the training, conference and workshop needs of area businesses. It also serves as the administrative headquarters for the district.
SOUTH COUNTY EDUCATION & UNIVERSITY CENTER
4115 Meramec Bottom Road • St. Louis, MO 63129-2126
314-984-7200
www.stlcc.edu/campuses/education_centers/

The South County Education and University Center (SCEUC), an off-campus extension of the St. Louis Community College at Meramec, is located at the corner of Lemay Ferry and Meramec Bottom roads. The 59,000-square-foot complex provides state-of-the-art computer labs and interactive classrooms in a nationally recognized facility. SCEUC partners with the University of Missouri-St. Louis to offer on-site upper division classes.

WILLIAM J. HARRISON NORTHSIDE EDUCATION CENTER
4666 Natural Bridge Road • St. Louis, MO 63115-1923
314-951-9850
www.stlcc.edu/campuses/education_centers/

St. Louis Community College opened the William J. Harrison Northside Education Center August 25, 1994, in an effort to expand college services to the north St. Louis community. The center is dedicated to the memory of Dr. Harrison, an educator, historian, and community and civil rights activist. The center offers college-level classes available for credit through the Forest Park campus as well as non-credit continuing education classes, employee development programs and contractual training. The college will break ground on a new and larger facility in the Jeff-Vanderlou neighborhood during 2009.
CENTERS OF EXCELLENCE

Four Centers of Excellence at St. Louis Community College provide advanced technology training on state-of-the-art equipment for high wage jobs in high demand occupations. The College’s centers won the Missouri Community College Association’s 2002 Technology Innovation Award. Developed with funding from the Regional Technical Education Councils (RTEC), the four Centers include:

The Advanced Network Training Center (ANTC)
Located on the Forest Park campus, this center is a certified regional Cisco Academy offering an Associate of Applied Science in Information Systems and certificates in Data Communications and Network Administration.

Digital Arts and Technology Alliance
Located on the Meramec campus, this center provides programming that meets the technical and educational demands for digital arts and technology training in Architectural Design, Digital Media, Interior Design, Landscape Design and Video Editing.

Emerson Center for Engineering and Manufacturing
The Emerson Center for Engineering and Manufacturing provides certificate and degree programs as well as customized training for the St. Louis region’s manufacturing and engineering workforce. The center, located on the Florissant Valley campus, prepares workers and managers for high skill, high wage and high demand jobs. It also provides programming for the nationally-recognized Project Lead the Way initiative.

Plant and Life Sciences Center
This districtwide Center of Excellence promotes educational opportunities within the regional corridor of businesses and industries engaged in a range of plant and life science initiatives for high occupational demand areas: Biotechnology, Chemical Technology, Clinical Laboratory Technologies and Horticulture/Plant Science.

For more information on the Centers of Excellence and the programs and services offered through each center, contact the Division of Career and Technical Education at 314-539-5317 or 314-539-5395.
## Section 1

### General Information

#### College Calendar

**FALL SEMESTER 2009**
- **Service days** ............................................ Tue-Fri ................................. Aug 18-21
- **Saturday classes begin** ................................ Sat ........................................ Aug 22
- **Sunday classes begin** ................................ Sun ........................................ Aug 23
- **Classes begin** ........................................ Mon ........................................ Aug 24
- **Labor Day (no classes)** ................................ Sat-Mon ................................ Sep 5-7
- **Late start classes begin** ................................ Mon ........................................ Sep 14
- **Midterm** ................................................ Fri ........................................ Oct 16
- **Midterm grades due** ................................ Mon ........................................ Oct 19
- **Service Day ([Midterm break]/no classes)** ........ Tue ........................................ Oct 20
- **Withdrawal deadline** ................................ Fri ........................................ Nov 13
- **Thanksgiving (no classes)** .......................... Thu-Sun ................................ Nov 26-29
- **Last scheduled class** ................................ Sun ........................................ Dec 13
- **Final exams** ........................................ Mon-Sun ................................ Dec 14-20
- **Grades due** ........................................ Mon ........................................ Dec 21
- **Official degree conferral date** ....................... Tue ........................................ Dec 22
- **Last day College open** ................................. Wed ........................................ Dec 23

**SPRING 2010**
- **College opens** .......................................... Fri ........................................ Jan 4
- **Service days** ........................................ Mon-Fri ................................ Jan 11-15
- **Saturday classes begin** ................................ Sat ........................................ Jan 16
- **Sunday classes begin** ................................ Sun ........................................ Jan 17
- **Martin Luther King, Jr. Holiday (no classes)** .... Mon ........................................ Jan 18
- **Classes begin** ........................................ Tue ........................................ Jan 19
- **Late start classes begin** ................................ Mon ........................................ Feb 8
- **Presidents’ Day Holiday (no classes)** ............. Mon ........................................ Feb 15
- **Midterm** ................................................ Fri ........................................ Mar 12
- **Midterm grades due** ................................ Mon ........................................ Mar 15
- **Spring break (no classes)** ................................ Mar 15-21*
- **No classes** ........................................ Sat-Sun ................................ Apr 3-4
- **Withdrawal deadline** ................................ Fri ........................................ Apr 16
- **Last scheduled class day** ................................ Mon ........................................ May 10
- **Final exams** ........................................ Tue-Mon ................................ May 11-17
- **Grades due** ........................................ Thu ........................................ May 20
- **Official degree conferral date** ....................... Fri ........................................ May 21
- **Commencement** ........................................ ........................................ TBD

*Professional Development service day may be designated on one day during Spring Break (see above).
Saturday classes will not meet March 20 and April 3.
Sunday classes will not meet March 21 and April 4.

**SUMMER 2010**
- **3 wk. & 11 wk. classes begin** ....................... Tue ........................................ May 18
- **Memorial Day holiday (no classes)** ................ Mon ........................................ May 31
- **6 wk. & 8 wk. classes begin** ........................ Mon ........................................ June 7
- **Independence Day Holiday (no classes)** ........ Sun-Mon ................................ July 4-5
- **Last scheduled class day** ............................. Sun ........................................ Aug 1
- **Grades due** ........................................ Mon ........................................ Aug 2
- **Official degree conferral date** ....................... Tue ........................................ Aug 3

The full summer session will last 11 weeks.
### Florissant Valley

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<tr>
<th>Department</th>
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<tbody>
<tr>
<td>Academic Affairs</td>
<td>314-513-4214</td>
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<tr>
<td>Access Office, disAbility Support Services</td>
<td>314-513-4551</td>
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<tr>
<td>Admissions/Registration</td>
<td>314-513-4244</td>
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<tr>
<td>Admissions FAX</td>
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<tr>
<td>Advising</td>
<td>314-513-4256</td>
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<tr>
<td>Alumni Relations</td>
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<td>Assessment Center</td>
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<td>Athletics</td>
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<td>Biology Department</td>
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<td>Bookstore</td>
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<td>Business and Human Development Division</td>
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<td>Counseling Center</td>
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<td>Engineering and Technology Department</td>
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<td>English Department</td>
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<td>Enrollment Management</td>
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<td>Financial Aid</td>
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<td>Gateway to College</td>
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<td>Liberal Arts Division</td>
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<td>Mathematics Department</td>
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<td>Media Services</td>
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<td>Mathematics, Science, Engineering and Technology Division</td>
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<td>North County CARES</td>
<td>314-513-4742</td>
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<td>Physics Department</td>
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<tr>
<td>President</td>
<td>314-513-4208</td>
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<td>Social and Behavioral Science Department</td>
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<td>Student Access and Achievement Services</td>
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<td>Student Affairs</td>
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<td>Student Affairs FAX</td>
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<tr>
<td>Teacher Education Department</td>
<td>314-513-4712</td>
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<td>Theatre Box Office</td>
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<tr>
<td>Transcripts</td>
<td>314-644-9670</td>
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<tr>
<td>Tutoring (Academic Support)</td>
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<td>Veterans’ Services</td>
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### Forest Park

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<tr>
<td>Academic Support and Continuing Education Division</td>
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<td>Access Office, disAbility Support Services</td>
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<td>Admissions/Registration</td>
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<td>Advising Center</td>
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<td>Allied Health and Natural Sciences Division</td>
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<td>Assessment Center</td>
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<td>Athletics</td>
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<td>Bookstore</td>
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<td>Business, Math and Technology Division</td>
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<tr>
<td>Cafeteria</td>
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<tr>
<td>Campus Life</td>
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<td>Campus Ministry</td>
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<td>Career Resource Center</td>
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<td>Cashier</td>
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<td>Children’s Center</td>
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<td>Dental Clinic</td>
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<td>Financial Aid</td>
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Individually with speech or hearing impairments may call via Relay Missouri by dialing 711.
Humanities and Social Science Division 314-644-9390
Library and Instructional Resources 314-644-9210
Nursing Department 314-644-9313
President 314-644-9743
Student Affairs 314-644-9212
Student Success Center 314-644-9267
Switchboard 314-644-9100
Teacher Education Department 314-644-9278
Transcripts 314-644-9670
Veterans’ Services 314-644-9226

William J. Harrison Northside Education Center
General Information 314-951-9850

Meramec
Academic Affairs 314-984-7679
Access office, disAbility Support Services 314-984-7673
Accounting/Business Related Department 314-984-7514
Admissions/Registration 314-984-7601
Advising 314-984-7575
Art Department 314-984-7632
Assessment Center 314-984-7596
Athletics 314-984-7791
Behavioral Sciences Department 314-984-7697
Biology/Horticulture Department 314-984-7715
Bookstore 314-984-7660
Business Administration/Economics Department 314-984-7138
Business Services 314-984-7668
Cafeteria 314-984-7672
Campus Life 314-984-7641
Campus Police 314-984-7667
Career and Employment Services 314-984-7611
Cashier 314-984-7736
Child Care Center 314-984-7886
Communications Department 314-984-7537
Community Relations and Alumni Association 314-984-7529
Continuing Education 314-984-7777
Counseling 314-984-7575

English Department 314-984-7543
Financial Aid 314-984-7650
History/Government Department 314-984-7691
Humanities Department 314-984-7537
Information/Office Systems Department 314-984-7519
Instructional Administration Center 314-984-7389
Instructional Resources 314-984-7616
Mathematics Department 314-984-7769
Nursing Department 314-984-7759
Occupational Therapy Assistant Department 314-984-7364
Physical Education Department 314-984-7791
Physical and Engineering Sciences Department 314-984-7724
Physical Therapist Assistant Department 314-984-7366
President 314-984-7762
Services for Students with Disabilities 314-984-7673
Student Affairs 314-984-7609
Supplemental Instruction/Tutoring Services 314-984-7877
Teacher Education Department 314-984-7681
Theatre Box Office 314-984-7562
Transcripts 314-644-9670
Veterans’ Services 314-984-7649

South County Education & University Center
General Information 314-984-7200

Wildwood
Academic Affairs 636-422-2000
Bookstore 636-422-2030
General Information 636-422-2000

Cosand Community College Center
General Information 314-539-5000
Admissions

OPEN ADMISSIONS POLICY

St. Louis Community College (STLCC) has an open admissions policy in keeping with its original purpose to provide quality, low-cost education to area residents. Although admission to the College is not based on minimum academic qualifications, certain programs have required standards for admission and retention.

The College reserves the right to guide enrollment on the basis of placement tests, pre-enrollment interviews, physical examinations (if required for a specific program), previous achievement and other criteria.

For programs requiring reading competency; English writing and/or mathematics courses, a battery of assessment tests is required for placement. Students not meeting standards for admission into certain courses or programs may enroll in courses designed to help them qualify.

Before registering for courses, students must be admitted to the College. Students may apply for admission at any time during the year, although some programs begin only in the summer or fall semester. Applications and credentials may be submitted as early as one year in advance of the first semester of enrollment or as late as eight weeks prior to the beginning of a semester.

An admission application for St. Louis Community College is available on page 191 of this catalog.

SELECTIVE ADMISSIONS PROGRAMS

Standards of admission and retention have been established for certain programs and courses to make sure students have the necessary aptitude and background for success. Students applying for a program with selective admissions criteria may be required to take additional tests for admission purposes and/or meet certain requirements to continue in the program. Contact the department, a counselor or an advisor for program specific information.

ADMISSION CATEGORIES

Students register as either a regular or general student. Regular students are full-time or part-time students who want to work toward an associate degree, certificate of proficiency or certificate of specialization, and may enroll in from one to 18 credit hours per semester. Students applying for financial aid, veterans’ benefits or the A+ scholarship program must have regular student status.

Students wishing to participate in intercollegiate athletics or are applying as an international student on a student visa must also have regular student status.

General students may enroll in from one to 18 credit hours per semester with limited admissions credentials. A general student may apply for regular status at a later time. Credits earned as a general student may be applied toward a degree or a certificate if the courses taken are part of the program requirements. (See “Change of Status.”)

Regular Students

Regular students must complete the following steps:
1. Fill out an application for admission and send it to the campus Admissions/Registration office.
2. Request high school to mail to the Admissions/Registration office an official transcript showing grades, class rank and date of graduation. Students who have received a General Education Development (GED) certificate should submit scores from that examination. For courses taken at other colleges, an official transcript should be sent directly from that college to the St. Louis Community College Admissions/Registration office. Students with 15 or more semester hours of college credit need not send a high school transcript unless the Admissions/Registration office requests one.
3. Take required assessment tests depending upon program. Students should check in advance with the campus Admissions/Registration office.

General Students

General students should complete the following steps:  
1. Fill out an application for admission and send it to the Admissions/Registration office.
2. Send additional information to the Admissions/Registration office if requested.
3. Take an assessment test if required (dependent upon course enrollment).

Non-Traditional Applicants

Applicants who have not completed a traditional high school program that is recognized by the College may apply for admission.

Students who do not meet the required admission guidelines may apply as a non-high school graduate. See related section below.

Non-High School Graduates:

- Must be at least 18 years of age and not have attended high school for at least 6 months
- Take the College’s assessment test or submit SAT or ACT scores for evaluation
- Submit high school transcript from last school attended

Admissions eligibility is determined by the Vice President for Student Affairs.
Graduates of Home Schools, Non-Accredited High Schools and Non-Accredited Correspondence Schools:

- Must be at least 18 years of age
- Submit transcript verifying completion of academic program
- Submit required score levels from the ACT and/or SAT

Students who do not meet the required admission guidelines may apply as a non-high school graduate. See related section.

Dual Enrollment

High school juniors and seniors may attend classes through the Dual Enrollment program which provides students an opportunity to take courses not offered in their high school or to continue a course series beyond the level offered in high school. Eligible students may earn college credit hours before the time they would normally begin college. Students must follow all college policies and procedures, and fulfill the following requirements:

- Complete dual enrollment application
- Discuss definite course or interest with counselor/principal
- Obtain required signatures from parent/guardian and authorized school official
- Have achieved a cumulative high school GPA of 2.0 or higher
- Submit copy of high school transcript
- Apply to the Access office for disability-related accommodations and services if applicable.

**Documentation of disability that meets the College's requirements will be required.** It should be noted that the requirements for and the types of accommodation at the postsecondary level are based on the Americans with Disabilities Act and Section 504, and are often significantly different from the Individuals with Disabilities Education Act.

Dual Credit

High school juniors and seniors may receive college credit for specified classes at high schools participating in the College's dual credit program. Dual credit students must follow all college policies and procedures, and fulfill the following requirements:

- Complete the dual credit application
- Have a cumulative high school GPA of 3.0 or higher
- Obtain written permission to enroll from a designated high school official and from a parent/guardian
- Meet the College's requirements for entry into the course
- Pay a non-refundable fee for the course which is equal to the cost of the course if taken on campus
- Apply to the Access office for disability-related accommodations and services if applicable.

**Documentation of disability that meets the College's requirements will be required.** It should be noted that the requirements for and the types of accommodation at the postsecondary level are based on the Americans with Disabilities Act and Section 504, and are often significantly different from the Individuals with Disabilities Education Act.

International Applicants

International students, unless admitted under a contract or agreement establishing alternative requirements, must fulfill the following requirements for admission:

1. Complete the requirements for admission as a regular student.
2. Request the “International Student” information packet from the Admissions/Registration office from the campus of choice and follow the procedures outlined.
3. Complete the equivalent of a 12-year elementary and secondary school program. An equivalent to the U.S. B average or better is required for courses taken at the secondary school level.
4. Submit transcripts of their high school and college work. These records must include the following information translated into the English language: descriptive titles of courses studied, final grades in each course and an explanation of the grading system.
5. Have all admission requirements and required documents must have on file 120 days before the start of classes if prospective students are still residing outside of the United States. Prospective students presently attending a college or high school in the United States must submit all materials 30 days before the start of classes.
6. Score 500 or above on the written TOEFL (Test of English as a Foreign Language), 173 or better on the computer-based TOEFL, or the ACT/ESL Compass test with scores greater than 37 on the grammar portion, with above 37 on the reading, and with above 55 on the listening portion. The applicant must have taken the test within the last two years.
7. Submit a grade average of 3.0 on all course work completed at English language centers or for intensive English courses completed at other colleges or universities if prospective students are already in the United States. Students in regular academic programs at all other accredited institutions must have earned a cumulative grade point average of 2.0.
8. Submit a financial statement which certifies that they have adequate funds to carry them under normal conditions through their course of study without the need for local financial assistance. This form must be notarized and completed within the last four months.
9. Purchase the College’s health insurance plan for international students, unless they can show proof of coverage through a comparable medical insurance plan. The plan must include repatriation and medical evaluation. Students must submit verification documents to the Admissions/Registration office before they can register for classes.
International students on F-1 Visas must comply with the following regulations:

- Complete a minimum of 12 credit hours per semester.
- Maintain a cumulative grade point average of 2.0 or above.
- Complete a certification program in not more than four semesters or an associate degree program in not more than six semesters, excluding summer sessions.
- If such a student completes fewer than 12 credit hours or earns a cumulative grade point average of less than 2.0, he or she will be placed on probation for the next semester of attendance.
- If the student completes fewer than 12 credit hours or earns a grade point average less than 2.0 while on probation, he or she will not be permitted to re-enroll.
- Foreign-born students (both permanent residents and refugees) should have a command of written and spoken English in order to successfully complete college work.

RE-ADMISSION

Former students who have not attended St. Louis Community College for a semester or more may re-activate their files by updating their admission status with the Admissions/Registration office. Before changing status to regular student, transcripts of all college work not currently on file at STLCC must be sent to the Admissions/Registration office.

Files for students who have not attended within five years will be destroyed. Transcribed grades earned at STLCC are retained. Students may be required to resubmit high school records, transcripts from other colleges and universities or other documents that may have been destroyed.

CHANGE OF STATUS

Students who wish to change from general to regular status should complete the following steps:

1. Inform the Admissions/Registration office of intent to become a regular student.
2. Complete all admission requirements for regular student status.

Individuals who have not successfully completed entry-level college courses in college composition and mathematics are required to take assessment tests.

Fees and Refunds

Because much of the support for St. Louis Community College comes from state funds and local taxes, students who live within the service area of the College pay a small part of the cost of their education. The service area includes St. Louis City, St. Louis County and portions of Franklin and Jefferson counties which are part of the Meramec Valley R-3 School District and the Rockwood R-6 School District. Students may be required to submit an affidavit showing residency.

A resident student is defined as follows:

a. An unemancipated minor student who has not attained the age of 21 and is under the care, custody or support of the individual or individuals having legal custody of the student and who live in the district.

b. An emancipated minor student who has not attained the age of 21 and who is not under the care, custody and support of an individual or individuals having legal custody, but lives in the district.

c. An adult student who has attained the age of 21 and who has established residency within the St. Louis Community College district.

d. A non-immigrant unemancipated minor alien student, holding a visa type B, F, H (except H-1B), J, M, 0-2, P or Q and who is a legal dependent of an individual(s) who holds permanent alien status or who holds a visa in a category other than those specified above and who lives within the district.

e. A non-immigrant alien holding a visa in a category other than those specified above will be assessed in-district fees if he/she has established residency within the district.

The burden of proof to establish eligibility for resident status rests completely with the student. The factual criteria used to determine resident status is as follows:

- Missouri voter registration
- Missouri domicile lease/deed
- Missouri automobile registration
- Missouri driver’s license with current address
- Missouri personal property tax receipt
- Marriage license and any of the above documentation identifying district residence of spouse
- Paycheck from employer with employee’s home address as part of check information
- Proof of checking account with home address printed on checks
- Utility bill showing home address

Refer all questions concerning residency to the Admissions/Registration office.
FEES

Student fees are one of the three primary sources of funding for St. Louis Community College. State funds, appropriated by the Missouri legislature and approved by the governor, contribute some 30 percent. Another 36 percent of total revenue comes from local property owners who pay taxes within the College's taxing district. Student fees account for 30 percent of the money needed to maintain the College. The other four percent comes from other miscellaneous sources.

Students normally pay fees in full when registering. The College may bill those students who register early enough and plan to pay their accounts in full by a due date prior to the start of classes.

The College accepts cash, checks, MasterCard, Visa and Discover for payments made at the Cashier's office. In addition, the College accepts online payments when using the credit cards mentioned above or ACH (automatic clearing house) payments using checking or saving account information. Check with the Admissions/Registration office concerning fee payment.

The College also has an installment payment plan for maintenance fees. Please visit www.stlcc.edu for more information concerning the payment plan.

The College reserves the right to charge a transaction fee if other special services are required, and the College has a $20 bad check processing fee. If a student is not paid in full or signed up for the payment plan, a financial hold will be placed against the student's record until this debt has been cleared. Classes will be dropped if financial arrangements have not been made prior to the payment due date.

Residents of the college service area, who are 60 years and older may enroll for half the usual fees. Missouri residents ages 65 years and older may enroll on a not-for-credit, space available basis in any credit course for a $15 non-refundable registration fee.

For a current schedule of maintenance fees contact a campus Admission/Registration office or the college Web site at http://www.stlcc.edu/Admissions_and_Registration.

Optional Fees

- Course Fees: Students enrolling in courses that require special equipment, field trips, insurance, etc., will be charged additional fees. These are outlined in course information.
- MoPIRG Fee (Meramec classes only): Assessed fees include an optional non-refundable $7 payment to the Missouri Public Interest Research Group (MoPIRG). Students may decline to pay the fee BEFORE making a payment. Students paying for classes online, who want to decline contributing to MoPIRG, should deduct $7 from the amount due.

Fees for International Students

Maintenance fees for international students residing in the United States on non-immigrant visas will be assessed according to their visa category and their residency. Those on permanent resident visa will be charged district fee rates based upon appropriate documentation. Contact the Admissions/Registration office.

Fees listed may have changed since publication of this catalog. The latest information is available in the Admissions/Registration office and at www.stlcc.edu/http://www.stlcc.edu/Admissions_and_Registration/.

Refunds

Students withdrawing from a course prior to or during the early part of the semester will be eligible for a refund of fees based on the following schedule:

Courses of a minimum of 15-weeks duration:
Before the end of the week prior to the beginning of classes. . . . . . . . . . . . . 100% refund
Before the end of the first week of classes. . . . . . . . . . . . . 80% refund
Before the end of the third week of classes. . . . . . . . . . . . . 50% refund
After the third week of classes . . . . . . . . . . . . . . . . . . . . none

FEES WILL BE REFUNDED BASED ON THE FOLLOWING SCHEDULE:

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Federal Financial Aid (Title IV) Recipients

Refunds to all Title IV recipients who withdraw during an enrollment period for which they have been charged will be identified and processed to comply with federal regulations.

Title IV of the Federal Higher Education Act (HEA) requires that students who receive federal grants (Federal Pell Grant, Federal Supplemental Educational Opportunity Grant) and federal loans repay some of their federal financial aid if they do not attend class through 60 percent of the term. Most students who do not attend at least one class through the 60 percent point of the term will owe some of their Title IV aid back to the U.S. Department of Education.

Please refer to the following Web site for more information about the return of unearned Title IV funds as required by HEA Title IV law and regulations: www.stlcc.edu/Admissions_and_Registration/Financial_Aid/General_Information.html.

When the Federal Higher Education Act (HEA) of 1965 was amended in 1998, a new concept was established with regard to Title IV student financial aid programs. The new concept is that students earn their Title IV federal financial aid if they do not stay enrolled long enough to earn all of their aid, then some of the aid has to be returned to the HEA Title IV programs as unearned Title IV aid. Colleges are required to implement the return of unearned Title IV funds policy.

HEA Title IV financial aid programs include Federal Pell Grant, Federal Supplemental Education Opportunity Grant (FSEOG), Federal Work-Study (FW-S), and Federal Stafford Loans. Federal
Work-Study earnings are NOT affected by HEA Title IV law and regulations concerning the return of unearned federal financial aid. Only grants and loans are impacted by the new policy.

Students who want to withdraw from a course(s) should withdraw from the course(s) by using the appropriate form that is submitted to the Admissions/Registration office. The return of unearned Title IV funds policy will impact only those students who withdraw from all of their courses before 60 percent of the semester is completed. The policy will affect those students who do not withdraw from their course(s) but simply cease to attend classes. Pursuant to federal guidelines, the College will determine a last date of attendance for those students.

Unearned HEA Title IV funds are returned to the Title IV programs based on a federally mandated formula. Under this formula, colleges are obligated to return unearned funds used for institutional charges and students are obligated to return unearned funds beyond the institutional charges.

When a college has to return unearned Title IV funds from institutional charges, the money is returned to programs in the following order: Unsubsidized Federal Stafford Loans, Federal PLUS Loans, Federal Pell Grants, Federal SEOG, other Title IV assistance. The Charles Gallagher Student Financial Assistance Program (Missouri state grant) potentially falls in the category of other Title IV assistance, since state grant programs receive some of their funds through HEA Title IV.

When a student has to return unearned Title IV funds that he/she received beyond the institutional charges, the money is returned to the programs in the following order: Unsubsidized Federal Stafford Loans, Federal PLUS Loans, Federal Pell Grants (multiplied by 50 percent), Federal SEOG (multiplied by 50 percent), other Title IV assistance (multiplied by 50 percent for grants). Note that student’s responsibility for repayment of unearned Title IV money is reduced by one-half.

If a student owes unearned Title IV funds from a federal loan, the money is returned (repaid) in accordance with the terms and conditions of the promissory note.

If a student owes unearned Title IV funds from a federal grant, the College must notify the student within 30 days of determining the student’s withdrawal. The student retains eligibility for Title IV funds from an initial 45-day period, during which one of the following should happen: (1) student repays unearned Title IV grant money in full, or (2) the student makes satisfactory arrangements with the U.S. Department of Education (USDE) to repay the unearned Title IV grant money. If the student does not take one of these two steps, he/she loses eligibility for HEA Title IV funds.

The institutional charges (maintenance fees) incurred by the student are considered to be paid by HEA Title IV funds for the purpose of the formula, even if the institutional charges were directly paid by a source other than Title IV funds. USDE give colleges the option of billing students for unearned HEA Title IV funds that the school has to repay as part of the institutional charges.

The following is an example of the HEA Title IV return of unearned funds formula supplied by USDE:

A student withdrew from all courses with 40 percent of the days in the semester completed. The student paid $1,000 in institutional charges (maintenance fees). This student received $3,000 in HEA Title IV aid - $1,000 in a loan and $2,000 in grants. The student earned $1,200 of the of the Title IV aid (40 percent times $3,000). The unearned Title IV aid is $1,800 ($3,000 minus $1,200). Because only 40 percent of the HEA Title IV aid is earned, the College has to return $600 of the $1,000 paid in institutional charges to Title IV programs ($1,000 minus $400). Since loans are prioritized for return of unearned funds, the $600 is paid to the student’s federal loan.

The student now owes $1,200 in unearned Title IV funds, the difference between the $1,800 total of unearned Title IV funds and the $600 that the school has paid back from institutional charges. Because loans are prioritized for the return of funds, $400 is paid to the federal loan by the school for unearned institutional charges.

The remaining $800 in unearned Title IV aid (the $1,800 minus the $600 in unearned institutional charges paid to the loan and the $400 in unearned aid to the student paid to the loan) is owed to the federal grants. Because the student’s liability for return of unearned Title IV aid to grants is reduced by 50 percent, the student owes $400 to the federal grant program.

Sources for the information above: 34 Code of Federal Regulations part 668.22; USDE Spring 2000 Reauthorization Training Guide; December 2000 USDE HEA Title IV Reauthorization Teleconference.

Medical/Job Related Withdrawals

If a student withdraws from all classes for medical or job-related reasons, he/she may receive a pro-rated refund when acceptable evidence of the necessity to withdraw (verified by a physician/employer) is presented. An instruction sheet detailing the procedure is available from the Admissions/Registration office.

Active Duty Military Service

A refund for classes in progress will be issued to students forced to withdraw as a result of being called to active duty military service.

It is the responsibility of the student to complete withdrawal procedures and submit a copy of military orders.
Financial Aid

St. Louis Community College provides a comprehensive financial aid program funded by federal, state and private agencies. Aid awards fall into four categories: grants, scholarships, loans and work. Although superior ability and talent are recognized through the College’s and other scholarship programs, most aid is awarded on the basis of financial need.

It is not within the scope of this catalog to explain all of the financial aid programs available. More information explaining the programs is available along with an application on the college Web site at www.stlcc.edu/Admission_and_Registration/Financial_Aid.

Students are encouraged to apply for aid as early as possible (at least by April 1 for the fall semester) because some funds may be depleted. Students should use aid programs as a supplement to personal or family funds rather than as the only way of paying for college.

Students who wish to know more about their financial aid eligibility should contact the Financial Aid office. In general, students must demonstrate need through an approved federal need analysis system.

Students receiving certain types of financial aid are required to submit official high school transcripts, placement test scores and official college transcripts. They also are required to declare a program of study and enroll in courses appropriate to that program. Students are given a maximum amount of time within which to complete programs, based on enrollment status, and a maximum number of applicable credit hours transcripted.

Students must pass at least two-thirds of all credit courses attempted.

Students are expected to maintain satisfactory grades to remain eligible for aid. A 2.0 cumulative grade point average is required. See “Satisfactory Academic Progress.” Grades of F, W, I, PR and U are not acceptable toward meeting these requirements.

At the end of each session, progress is assessed. Students who do not meet the requirements will be placed on financial warning the next session of enrollment. During the financial warning session, financial aid eligibility may be continued. Failure to meet the criteria during the financial warning semester will result in suspension and termination from Title IV aid. Students who fail, withdraw or receive an Incomplete for all classes in which they enroll will not be eligible for financial aid the next semester of enrollment.

Students may appeal termination of financial aid by writing a letter of appeal to the campus manager of financial aid. Students must document any extenuating circumstances that prevented them from maintaining the required standards.

VETERANS AND OTHER AID

Detailed information about services for veterans is available from the veteran’s services representative in the Admissions/Registration office.

Some students also may be eligible for financial aid from agencies such as Department of Mental Health, Department of Vocational Rehabilitation and Rehabilitation Services for the Blind. Students must make their own arrangements for such aid.

A+ SCHOOLS PROGRAM

Under grants made available through the Missouri A+ School Program, qualified graduates of participating high schools are eligible for scholarship grants to St. Louis Community College. Students must fulfill A+ Program requirements at the high school before applying for grants. Students should contact high school counselors for eligibility requirements. Information also available at: www.stlcc.edu/financialaid/programs/a_plus_program.

Academic Policies

CREDIT/COURSE LOAD

The unit of credit is the semester hour. Normally, one credit may be earned in a lecture course which meets for one hour each week during a semester. In a laboratory course, one credit usually is granted for two to three hours in a lab each week during the semester.

Course load is the total number of hours spent in class each week during a semester. Students enrolled in at least 12 hours are classified as full-time and normally carry a course load of 12 to 18 hours. Students intending to register for more than 18 credit hours must obtain approval from the campus Counseling office.

DEGREES AND CERTIFICATES OFFERED

The College offers five associate degrees, the certificate of proficiency and the certificate of specialization. Most of the College’s degrees and certificates are designed to be taken on a full- or part-time basis. Degrees can be completed in two years of full-time attendance. Certificates usually can be completed in one or two semesters. However, since most students attend classes part time, degrees and certificates can take longer to complete. (See “Degree and Certificate Time Limits.”)

The associate in arts degree is designed for students who plan to transfer to another college and work toward a bachelor’s degree. The associate of arts in teaching degree is designed for students who plan to transfer to another college and work toward a bachelor’s degree in teacher education. The associate in fine arts degree is offered jointly with the University of Missouri-St. Louis and is designed for students who plan to transfer to UM-St. Louis and earn a bachelor of fine arts degree. The associate in applied science degree helps students develop practical and theoretical skills that prepare them for entry-level jobs. The associate in science degree is designed to transfer to a particular institution in a specialized area.

The certificate of proficiency is for persons whose intended job does not require an associate degree. It also is for persons who wish additional information/skills in a particular subject area.

The certificate of specialization is for persons who desire information/skills in a specific area usually related to a current job.
REQUIREMENTS FOR GRADUATION
Requirements for an associate degree are as follows:

1. Satisfactory completion of one of the programs listed in this catalog.
2. Completion of a minimum of 64 credit hours. Fifteen of the last 25 hours of credit applicable to the associate degree must be completed at St. Louis Community College.
   a. A maximum of four credit hours from courses numbered below 100 may apply as unspecified electives toward the associate degree. Credit hours below 100 may not be applied as electives defined by discipline, such as “science-mathematics elective” or “humanities-communications elective.”
   b. A maximum of nine credit hours in special problems courses may apply as unspecified electives toward the associate degree. Special Problems courses may not be applied as electives defined by disciplines such as “science-mathematics elective” or “humanities-communications elective.”
3. A cumulative grade point average of 2.0 (C) or higher. Credits from previously-attended colleges are not computed in the average.
4. Completion of a minimum of two credit hours of physical education, at least one in an activity course. A few specialized PE courses will not fulfill this requirement; see an academic advisor for detailed information. Appropriate accommodations will be made for students with disabilities.
5. Missouri Requirement: The course requirements in federal and state constitutions and American history and institutions must be met by the satisfactory completion of one of the following courses:
   • HST:100 American Civilization
   • HST:101 American History I
   • HST:102 American History II
   • HST:103 American History I (Honors)
   • HST:104 American History II (Honors)
   • HST:105 The United States in the Twentieth Century
   • HST:107 History of Black America
   • HST:137 African-American History I
   • HST:138 African-American History II
   • PSC:101 Introduction to American Politics
   • PSC:103 State and Urban Politics
   • PSC:106 Blacks and the American Political Process
   • PSC:205 Constitutional Issues

Students who have taken HST:101, HST:102, HST:103, or HST:104, cannot receive credit toward graduation for HST:100. Students taking HST:100 cannot receive credit toward graduation for HST:101, HST:102, HST:103 or HST:104.
6. To obtain a certificate of proficiency or a certificate of specialization students must earn a cumulative grade point average of 2.0 (C) or higher.
7. College policy requires students who apply for a degree to participate in an appropriate outcomes assessment prior to degree being awarded.
8. Two-thirds of all credit hours required for certificates must be completed at STLCC.

Note: Completion of graduation requirements does not mean professional certification or registration or approval to sit for board or licensing examinations.

SECOND ASSOCIATE DEGREE
Persons who wish to receive a second associate degree must earn 15 additional credit hours and complete all academic requirements for the additional program.

APPLICATION FOR GRADUATION
Students preparing to graduate with a degree or certificate must file a graduation application with the Admissions/Registration office not later than the end of the sixth week of the fall or spring semester or the third week of the summer session.

DEGREE AND CERTIFICATE TIME LIMITS
Students are expected to complete degree and certificate requirements within six years of the date the program of study was declared.

Students failing to meet the original time limit must meet the degree and certificate requirements of any catalog in effect within six years of the semester and year of application for graduation.

Former STLCC students returning to the College may not continue the original program of study if the program was deactivated prior to their re-entry.

HONORS
Transcripts and diplomas of graduates who have earned cumulative grade point averages of 3.5 or higher will be designated With Academic Honors.

Transcripts and diplomas of graduates who have earned cumulative grade point averages of 4.0 will be designated With Highest Academic Honors.

Full-time students who are enrolled in at least 12 credit hours and who earn current grade point averages of 3.5 or higher will be designated Dean’s List for that semester.

Part-time students will be designated Dean’s List at the accumulation of each increment of 12 credit hours with a grade point average of 3.5 or higher.

HONORS PROGRAM
Admission to the college honors program is based on any of the following criteria: a 3.5 or better GPA in either high school or college based on a 4.0 scale, a score of 1100 or better on the Scholastic Achievement Test (SAT) or a score of 25 or better on the American College Testing Program Assessment (ACT).

Both transfer and career programs offer a variety of ways to earn honors credit including honors courses and projects and honors contracts within regular courses. Students who earn 15 hours of honors credit will receive the designation of Honors Program Scholar on their diplomas and transcripts.

For more information contact the campus honors coordinator.
ASSESSMENT

St. Louis Community College collects and uses assessment data to improve student learning, academic achievement, and overall institutional effectiveness. When combined with thoughtful interpretation by faculty and staff, assessment supports the overall decision-making needs of the College and the specific decision-making needs of individual units and programs.

Students often are asked to participate in assessment to provide information they may use in making decisions about their education or careers. Such assessments are "formative"—intended only to provide helpful information—and have nothing to do with students' grades or other "summative" evaluations. Faculty, staff, and administrators regularly assess performance of classes, courses, or departments to ensure that their desired outcomes are being achieved. Ultimately, assessment is the means by which St. Louis Community College can guarantee that it is fulfilling its mission: advancing student learning. A mission-based approach to assessment helps the College focus its efforts and keep its promise to the St. Louis community. For more information, visit www.stlcc.edu/assessment.

Assessment at St. Louis Community College occurs at a number of different points and for a number of different reasons:

- Assessment is required prior to advisement and registration. St. Louis Community College uses Accuplacer, a computerized placement test. Accuplacer gives essential information about academic skills and needs. Test results indicate whether students are college ready or will be required to complete one or more preparatory courses in reading, writing, or mathematics.
- The Accuplacer test is required of all students unless academic credentials are submitted that qualify students to take such courses without testing.
- The College may waive all or part of the entry assessment if students provide written documentation of one of the following:
  - A college transcript or grade report documenting successful completion (with a C grade or higher) of reading, writing or mathematics course prerequisites
  - A college degree from an accredited institution
  - An appropriate ACT score earned within the last 3 years:
  - A composite score of 21 or above to waive the reading and writing tests
  - A math score of 23 or above to waive the math test
  - An appropriate SAT score earned within the last 3 years:
  - A verbal score of 500 or above to waive the reading and writing tests
  - A math score of 580 or above to waive the math test.

If documentation cannot be provided, students will be required to take the appropriate placement test(s). Scores will remain valid up to three years from the semester in which the test was taken; thereafter, students will be required to retake the Accuplacer test. Call the Assessment Center for testing schedule, or visit the Web site: www.stlcc.edu/admissions_registration/getting_started/assessment_placement_tests.html.

If you are a student with a disability and need accommodations for your entry assessment, call the Access office for an appointment prior to testing. You must provide current written documentation of a disability that is based on adult norms from a qualified professional or agency. For more information, contact the campus Access office. Individuals with speech or hearing impairments may call via Relay Missouri by dialing 711.

Assessment at St. Louis Community College occurs at a number of different points and for a number of different reasons:

Exit Assessment

Students completing their associate degrees are required to participate in an exit assessment, typically a nationally-normed standardized test. Such assessments are used to gauge students' levels of competence in general education. In addition, special assessments may be required depending upon students' chosen academic or career areas.

Classroom Assessment

Classroom assessment techniques, or CATs, are ungraded tasks commonly employed by instructors to monitor student learning. The primary purpose of such classroom assessment is to get students' views on how to better help them learn.

Course Assessment

In course assessment, academic departments cooperate to decide which courses to assess and which assessment measures to use. The goal is to gather information which will allow departments to make collegewide changes in courses to increase student learning. These ongoing assessments are necessary to sustain the credibility and transferability of courses and the programs which require them.

Program Assessment

The College offers a number of programs, both academic and career, which are assessed to ensure that they are meeting the standards set both by professionals in the field and various accrediting agencies. Doing so assures students that they are participating in programs whose standards are recognized and accepted by other programs and institutions.

Institutional Assessment

The College assesses its various services and operations on an annual basis. College and student support services are assessed to determine how well they are accomplishing their institutional mission. Various external agencies expect colleges to assess and improve student learning and institutional effectiveness. These agencies include regional accrediting bodies like the Higher Learning Commission, professional accrediting bodies for career programs like nursing as well as government agencies.

ATTENDANCE AND WITHDRAWAL

Students are expected to attend classes. Excessive absences, as determined by the instructor, may result in a failing grade. Attendance requirements should be outlined during the first class meeting.
Students deciding to withdraw from a class are encouraged to talk to the instructor first. To formally withdraw, students must submit official forms to the Admissions/Registration office. To receive a grade of W for the course, the withdrawal process must be completed prior to the end of the College’s 12th week of classes. Late-start and short-term courses have different withdrawal deadlines. Contact the Admissions/Registration office for appropriate dates.

At the end of the second week of classes (first week for summer and interim sessions), students who have registered and paid for a class but are reported by the instructor as not attending will be withdrawn. Classes less than a full semester in length may have different administrative withdrawal dates. The class will be shown on the transcript with a grade of W, and students are not eligible for a refund of fees. After this period the instructor cannot withdraw students from class. It is always the student’s responsibility to initiate a withdrawal.

**CLASS PREPARATION**

On average at least two hours of outside study and preparation are needed for each hour of regular classroom work. Students enrolled for 15 credit hours, therefore, should budget a minimum of 30 clock hours per week for study outside class and laboratory meetings.

**FINAL EXAMINATIONS**

A final examination or other culminating experience usually is required for completion of a course and for a passing grade. Absences from the final examination and the privilege of a make-up examination must be approved by the instructor.

**GRADING SYSTEM AND GRADE POINT AVERAGE**

The following grading symbols and points are used:

<table>
<thead>
<tr>
<th>GRADING SYMBOL</th>
<th>GRADE POINTS</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
<td>superior</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
<td>above average</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>average</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>passing, below average*</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>failure</td>
</tr>
</tbody>
</table>

*The grade of D may be considered unsatisfactory for progress in some programs.

Only grades earned at St. Louis Community College are included in the calculation of grade point averages for degrees and certificates.

The following symbols also may appear on students’ transcripts:

**S**—Satisfactory—A symbol indicating the award of credit. The earned credit(s) count toward graduation, but are not used in grade point average calculations.

**U**—Unsatisfactory—A symbol indicating the award of no credit and no grade points.

I—Incomplete—This normally indicates students have completed a major portion of the work in a class and, for reasons approved by the instructor, are prevented from completing the amount of coursework required during the regular college term. Students must complete the coursework in the time frame established by the instructor, up to one calendar year, in order for the “I” to be changed to a letter grade. Student and instructor must enter into a written agreement describing the work to be completed; the grading criteria, and the time frame for completion. Upon satisfactory completion of all work by the student, the instructor will initiate an appropriate grade change.

After one year, if all requirements are not met, the “I” will change to a permanent grade of “F” on the student’s academic record. With the consent of the instructor, the one-year limit may be extended by the instructor, the department chair or dean. The written agreement must be given to the department chair; who, if an instructor leaves the employ of St. Louis Community College, will assure evaluation of any work that might be completed.

PR—Progress Reenroll—Students who make progress in a course, but do not complete the predetermined minimum amount of course work may, at the discretion of the instructor, be given a PR. This symbol represents no credits earned and carries no grade point value. Students are permitted to take the course again, but must pay tuition a second time.

W—Withdrawal—A transcript notation that reflects withdrawal.

NG—No Grade—This is a temporary indication that the instructor has not assigned a grade.

**Grades of S or U can be awarded only in courses approved for this purpose under guidelines developed by the College.**

**GRADE REPORTS**

The campus Admissions/Registration office maintains records of academic performance for all currently-enrolled students. Grades indicating performance following mid-semester may be obtained directly through the instructor in accordance with the regulations contained in the Family Educational Rights and Privacy Act of 1974. These grades are an assessment of academic progress, but are not recorded as part of the permanent record. Mid-semester grades are not reported for any session.

Final grades become part of students’ permanent records.

**STUDENT GRADES**

Students may view their final grades and print unofficial transcripts by visiting www.stlcc.edu/StudentService and logging in to their student account.

**REPEATING COURSES**

When students repeat a course, the latest grade earned will be used in calculating grade point average. However, all enrollments and grades earned will appear on the transcript. Students must have authorization from a counselor or advisor before a third enrollment in the same course.

Some transfer schools will recalculate grade point averages for admissions purposes and include all grades earned.
CHANGE OF PROGRAM

Students can change programs by filing a form available from the Admissions/Registration office.

Recalculation of Grade Point Average—In some cases, the student may request academic records be reevaluated to establish a new cumulative grade point average. Any grades below a D for courses taken at the College will not be included in the new cumulative grade point average. Other courses will be accepted if they fulfill degree requirements in the new program. Coursework removed from GPA calculations cannot be used to meet degree requirements.

All courses will remain on the transcript.

PROLONGED ABSENCE FROM COLLEGE

Following an absence from the College of 10 consecutive calendar years, former St. Louis Community College students may apply for a one-time recalculation of grade point average with academic forgiveness. Students must apply during their first semester of reenrollment after the 10-year absence. All coursework below “C” will be removed from the GPA calculation. Coursework removed from GPA calculation cannot be used to meet degree requirements. All courses will remain on the transcript.

SATISFACTORY ACADEMIC PROGRESS

All students are expected to make satisfactory academic progress.

1. Good Standing—Cumulative 2.0 GPA after completing at least six credit hours.
2. Academic Probation—Less than a cumulative 2.0 GPA after completing at least six credit hours.
3. Academic Probation/Restricted Probation/Suspension—Students on academic probation will not be allowed to self-advice. Once placed on probation, a student must achieve a cumulative GPA of 2.0 in the next academic term in which he or she is enrolled, or be placed on restricted probation. Students on restricted probation must sign a contract with the Counseling office stipulating conditions for remaining enrolled at the College. Students on restricted probation have two terms in which to raise their GPA to 2.0. Those that fail to do so will be suspended from the college for one academic year.

CREDIT BY EXAMINATION OR EXPERIENCE

Students may be eligible for credit for academic knowledge gained outside the classroom. To earn credit through examination, students must currently be enrolled at St. Louis Community College. The amount of credit earned through examination is limited only by college policy that 15 of the final 25 semester hours toward the associate degree must be earned at STLCC. However, students transferring to another institution should be aware that some schools may have different standards for awarding credit based on examination. Students should talk to an advisor about the transfer of this credit.

Various procedures and programs for credit are available through the campus instructional departments. They include:

- **Advanced Placement Program (AP)**
  Students who have successfully completed college-level courses while still in high school may be eligible for college credit or advanced standing if they make satisfactory scores on the Advanced Placement Examination. This test is sponsored by the College Entrance Examination Board and is administered by participating high schools. Test scores should be sent to the Admissions/Registration office at the campus. Credit or advanced standing may be considered, if the instruction area approves, for scores of three or higher.

- **College Level Examination Program (CLEP)**
  The College Level Examination Program evaluates knowledge gained through reading, job experience, non-college training programs, etc. The program is sponsored by the College Entrance Examination Board. Students may earn credit for general or subject examinations. Students should check with the instruction divisions and campus Counseling office before taking the examination to determine requirements for credit. Test scores should be sent to the Admissions/Registration office.

- **Departmental Examination**
  Several instruction departments offer examinations for students who have acquired knowledge in a particular subject area. Students may petition to receive credit in a course by taking a departmental examination. The dean can refuse permission for students considered insufficiently prepared. An examination fee is charged. Tutoring is not provided, nor is passing the examination guaranteed. If credit is earned, it is recorded on the transcript as “credit by examination.” Students applying to transfer should be aware that some colleges and universities do not accept such credit.

- **Work or Military Experience Evaluation**
  Students who have earned credit from a non-accredited institution or for work experience may be granted college credit on the basis of a written or oral examination and/or certified verification of experience. Experience gained in the armed services, service schools and other sources may be considered for credit. The appropriate instruction division will determine requirements for credit.

TRANSCRIPT SERVICES

Official transcripts of grades and credits earned at the College are issued only by the Central Student Records office. The office is located at the Forest Park campus, Room B-013. The mailing address is Central Student Records, St. Louis Community College, 5600 Oakland Ave., St. Louis, MO 63110. The phone number is 314-644-9670.

Transcripts may be requested in person at the Cashier’s office on campus or by writing directly to the Central Student Records office. Written requests should include semester and year of last attendance, name under which enrolled, and student identification number or Social Security number. Complete information as to street address and location and office or agency to which the transcript is to be mailed is required.

Information on requesting transcripts and a copy of a transcript request form can be found at www.stlcc.edu/Student_Resources/Transcripts.html.
A $5 fee is required for each transcript. Transcripts will not be processed for students with outstanding financial obligations at the College, such as library, parking fines or outstanding loans.

Students may view grades and print unofficial transcripts by going to www.stlcc.edu/SelfService to log in to their information.

TRANSFER CREDIT

To be eligible for acceptance of previously-earned credit, students must be currently enrolled at St. Louis Community College with a declared program of study.

Students should have official transcripts mailed to the College and request an evaluation of previously-earned credits at the campus Admissions/Registration office.

Transcripts from other postsecondary institutions will be evaluated. Credits in which passing grades have to be earned will be accepted and counted in transfer as they fulfill STLCC's program and degree requirements. Transfer credits will be evaluated for degree and prerequisite requirements in the same manner as credits earned at St. Louis Community College.

A transfer student may invoke the College's transfer appeals process to challenge institutional decisions on the acceptance of credit(s) from regionally accredited Missouri public colleges and universities or those that have been advanced to candidacy status by the Higher Learning Commission of the North Central Association.

Accepted transfer credits will be included in the cumulative hours credit at STLCC. Grades earned at other institutions are not recorded and are not made part of the cumulative grade point average at STLCC.

TRANSFER TO ANOTHER SCHOOL

Admission regulations for transfer students vary among receiving colleges and universities. Therefore, students planning to transfer credits to another college or university should contact the college or university prior to enrollment. Although the acceptance of credit is at the discretion of the transfer school, STLCC does have articulation agreements that can facilitate transfer. Generally, college transfer program courses will satisfy various department, elective and degree requirements at receiving schools. Although career programs and courses are designed primarily to support transition to work, some courses and programs are accepted by other colleges and universities. Students in career programs who plan to transfer should check with the receiving school to learn more about what will transfer.

Students completing STLCC's Missouri General Education requirements will receive certification on their transcripts. This certification satisfies all general education requirements of Missouri public colleges and universities except the University of Missouri-Columbia.

The following Missouri colleges are signatories of the General Education agreement:

- Northwestern Missouri State University
- University of Central Missouri
- Culver-Stockton College
- Southeast Missouri State University
- Missouri State University
- Lincoln University
- Truman State University
- Missouri Southern State University
- Missouri Western State University
- University of Missouri-Kansas City
- Missouri University of Science and Technology
- University of Missouri-St. Louis
- Harris-Stowe State University
- Ozarks Technical Community College
- Crowder College
- St. Charles Community College
- East Central College
- Jefferson College
- State Fair Community College
- St. Louis Community College
- Metropolitan Community College
- Three Rivers Community College
- Mineral Area College
- Moberly Area Community College
- North Central Missouri College

CONFIDENTIALITY OF STUDENT RECORDS

The College complies with the Family Educational Rights and Privacy Act (FERPA) which affords you certain rights with respect to your education records. They are as follows:

1. The right to inspect and review your education records within 45 days of the day you request access. This is a list of official records and their locations: Advisement (Advising); Counseling (Counseling); Disciplinary (Student Services); Enrollment Records (Admissions/Registration); Financial Aid (Financial Aid); Placement (Career and Employment Services); Security (College Police); Photo Identification Card (Campus Life).

2. The right to request the amendment of your education records that you believe are inaccurate or misleading. You may request the amendment of the record within 45 days of receiving the request. If the College decides not to amend the record, you may appeal the decision to the Student Appellate Hearing Committee.

3. The right to consent to disclosures of personally identifiable information contained in your education record, except to the extent that FERPA authorizes disclosure without consent.

4. The right to request that directory information not be released without prior consent. Requests to withhold release should be received by the Admissions/Registration office at least 30 days prior to the date the information is to be released.
office on the first day of each term during which the student wishes the withholding to be effective. Directory information may be released without the student's consent and includes the following: name, class level, full- or part-time enrollment, division, program of study, dates of enrollment, degrees received, height and weight for members of athletic teams, awards received, honors and college-issued e-mail addresses.

5. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4605.

**Academic and Student Affairs**

**ACADEMIC ADVISING**

Academic advisors are available to assist students by providing information about college policies and procedures, programs of study, and course requirements. For students planning to transfer, an advisor can help clarify transfer requirements and suggest appropriate coursework; however, the responsibility for course selection and meeting degree and transfer requirements rests with each student.

**ACCESS OFFICE, DISABILITY SUPPORT SERVICES**

The Access office offers support services to students who have documented disabilities of a permanent or temporary nature. The staff is available to provide the following services: individual counseling and academic advising; coordination of needed accommodations such as interpreters, notetakers and readers; and serving as liaison with faculty and staff and professional agencies in the community.

To qualify for services, students must identify themselves to the Access office and provide written documentation of their disabilities that meets the College's documentation criteria and indicates a substantial limitation in the educational environment from qualified professionals or agencies. This should be done at least six weeks prior to the beginning of each semester so that accommodations can be in place when classes begin. After accommodations are assigned by the Access office, students will pick up the notices listing approved accommodations and give the notices to their instructors. It is the student's responsibility to discuss his/her special needs with each instructor. The goal of the program is to minimize physical and attitudinal barriers by providing supplemental services to students and faculty. Another aim is to help students achieve individual autonomy. For more information, contact the Access office on each campus or visit the Web site at www.stlcc.edu/access.

**ALUMNI SERVICES**

Each campus has an alumni association open to all graduates and former students. Alumni association members are eligible for a variety of benefits and services including participation in selected field trip and travel programs; recreational facilities use; library privileges; career planning; general counseling; testing and job placement services; access to continuing education information; alumni publications; and admission to social, cultural and athletic events. In addition, special interest alumni groups are encouraged to organize and develop programs and activities.

Alumni fees are assessed by the campus. Contact the Alumni Association office for information.

**ATHLETICS**

Men's and women's teams and individual athletes from Forest Park, Florissant Valley and Meramec have won numerous regional and national honors. Among the varsity sports offered by the College are baseball, basketball, soccer, softball, track and field, volleyball and wrestling. Students not involved in organized sports can take advantage of the campuses' recreational facilities.

The College is a member of the National Junior College Athletic Association and the Midwest Community College Athletic Conference.

**BLACKBOARD CLASSES**

The College uses the Blackboard Course Management System where important course information like syllabi and assignments are posted on www.stlcc.edu/Blackboard. For Blackboard student help, visit www.stlcc.edu/ Blackboard/Student_Help.html.

The College also uses the BannerWeb System, which contains student information such as class enrollment, financial aid information and personal information. Enrollment information in BannerWeb is transmitted to Blackboard daily.

**CAREER AND EMPLOYMENT SERVICES**

Each campus provides placement services to assist students and alumni with finding full-time, part-time or temporary employment. An online database of employers and job listings is used to provide information about employment opportunities as well as internship and cooperative education programs. Professionals are available to help with producing resumes, improving interviewing skills and developing job search strategies.

Information about hundreds of careers is available at each campus. Decision making, life and career planning, and job search strategies are stressed as a part of career development.

**CHILD CARE**

The Florissant Valley, Forest Park and Meramec campuses offer child care services for children of students when classes are in session.

**COLLEGE CREDIT WEB-BASED INTERNET AND HYBRID COURSES**

Many courses are offered via the World Wide Web. Students attend class using a computer connected to the Internet through a standard Internet Service Provider. The computer can be at the student's home, work or in a campus lab. Students must activate their mystlcc.edu student e-mail account and possess basic computer and Internet skills. Web courses offer students flexibility in that they can be worked on at any time. Like independent study, these courses require a great deal of independent work and consistent effort. Students must be motivated and self-disciplined.

Hybrid courses are taught using two instructional formats: on campus and online, combining traditional face-to-face classroom instruction with computer-based distance education. Students meet on campus one day a week for the lecture portion of the class and then work independently to complete the online portion of the course.

For more information on Web-based course, visit www.stlcc.edu/Distance. Visit www.stlcc.edu/Studentemail for more information on student e-mail activation.
COUNSELING SERVICES

Professional counselors are available to assist students with educational, career and personal concerns. They help students gain a clear understanding of their strengths, identifying options and making choices. A variety of interest and personality tests is available to students using counseling services.

INTERNATIONAL EDUCATION

St. Louis Community College offers opportunities for students, faculty staff and the community to study and experience the world through international and intercultural programs, exchanges and activities, and globalized curriculum. The goal is to prepare students and the community for success in a global economy and a world in which the U.S. plays a key role.

Detailed information about the international program, study abroad, student and faculty exchanges, and international collaborations and partnerships can be obtained by calling the Office of International Education at 314-539-5350 or the vice president for academic affairs on any campus.

LEARNING LABS

Each campus has mathematics, reading, English and other specialized laboratories that offer personal assistance to students to supplement classroom instruction.

These labs provide individual tutorial and remedial help for students enrolled at the College. Students may use the labs on both an informal, walk-in and an appointment basis. The labs are designed primarily to help students who are enrolled in specific courses. However, the labs are open to any student on campus who would like some help with learning skills.

LIBRARIES

Instructional Resources (IR) is a service division on each of the campuses dedicated to the support of instruction, facilitation of learning and enhancement of the cultural environment. IR buildings are centrally located on each campus and house the principal activities of the two departments of Instructional Resources: Library Services and Media Services. A book collection of more than 250,000 volumes, 700 newspapers and periodicals, computer software, and numerous other instructional materials are maintained.

Registered students of the College may use and check out materials from any campus library. Student ID cards serve as library cards and are valid at all campus libraries. Students are encouraged to check with the Reference and Circulation departments for brochures that describe services available and library procedures.

STUDENT ACTIVITIES

Student activities can help students develop and expand interests and find ways to contribute talents and skills to the College. Opportunities for leadership development are available through student government, clubs and organizations, honorary societies, student publications, and special interest groups. In addition, the campuses sponsor film series, concerts, plays, discussion groups, lectures, exhibits, performances, social functions and special presentations.

For informal gatherings, the campuses provide facilities such as game rooms, meeting rooms, music and television lounges, study areas and cafeterias.

STUDENT ID CARDS

All students enrolled in credit courses are required to activate a STLCC OneCard. Photos can be taken in the Campus Life office at Florissant Valley, Forest Park, and Meramec, or the Information Desk at Wildwood. This card is the College’s disbursement card for payments/refunds to student accounts and the card is required for checking out library books and other materials; for use of the game room; recreational facilities, and learning labs; attending student activities and sporting events; and for personal check approval. Students will be charged $20 for a replacement card.

STUDY HELP

The College is committed to helping students succeed. Students who are encountering difficulties with academic work should consult their instructor or a counselor. A tutorial program offered through Counseling is available for some courses.

If a problem should arise which can be traced to ineffective study habits, the student should contact the Study Skills Center which exists to provide helpful solutions to study problems. The College also offers students an opportunity to bolster their grasp of fundamental skills, such as reading and math, through learning labs.

TEXTBOOKS

Textbooks for all on-campus and off-campus classes will be available in the bookstores and at:

- www.flovalleybookstore.com/floris/
- www.forestparkbookstore.com/forpark/
- www.meramecbookstore.com/meramec/
- www.wildwoodbookstore.com/wildwood/

College Policies

CLOSING PROCEDURES

The decision to cancel, delay classes or close an entire campus due to weather or other emergency situations lies with the president of each campus. Upon this decision, closings will be announced on the following stations: KMOX (1120 AM); KMOX-TV, Channel 4; KSDK-TV, Channel 5; and KTIV-TV, Channel 2. This information is also available on www.stlcc.edu.

CONSUMER INFORMATION

St. Louis Community College is required by the Higher Education Amendments of 1998, Public Law 105-244, to provide information regarding several consumer-education related topics. Those topics include: general information about St. Louis Community College, financial aid information for St. Louis Community College, St. Louis Community College’s Completion/Graduation/Transfer Rates Report, Campus Crime Statistics (Clery Act Report), Drug and Alcohol Abuse Program Report, Equity in Athletics (Title IX) Report and Intercollegiate Athletics Annual Revenue/Expenditures (Title IX) Report.

This information may be accessed by visiting the college Web site at www.stlcc.edu/Student_Resources/Policies_and_Procedures and www.stlcc.edu/Legal/Clearly_Reports.html for the Clery Act report.
DRUG ABUSE PREVENTION INFORMATION

St. Louis Community College is committed to providing a positive and healthy environment for students and employees. As citizens, students are subjected to the rules of accountability imposed by federal, state and local laws. The criminal penalties may include fines, restitution, imprisonment, loss of driving privileges and other sanctions. Students of St. Louis Community College assume the obligation to conduct themselves in a manner compatible with the college’s function as an educational institution. Therefore, the use of, being under the influence of, possession of, or distribution of beverage alcohol or illegal drugs on campus or at any college-sponsored function will result in disciplinary action.

Students found to have violated their obligations as described above will be subject to the following sanctions: censure, disciplinary probation, restitution, compensatory service, suspension and dismissal. Actions are outlined in the Students Rights and Responsibilities.

More information is available at http://www.stlcc.edu/Student_Resources/Policies_and_Procedures/Drug_Abuse_Prevention_Information.html

FIREARMS ON COLLEGE PROPERTY

No person (except for licensed police officers) shall possess or carry any firearm, visible or concealed, on college property (including college buildings and grounds – leased or owned by the College – college athletic fields and parking lots) or in any college van or vehicle or at college sponsored events on and off college property.

PARKING ON CAMPUS

Parking tags are required on all vehicles using campus parking facilities. Parking tags are available in the Campus Life office at Florissant Valley, Forest Park and Meramec, or the Information Desk at Wildwood. Parking tags are permanent and are to be kept from one semester to another. Replacement tags are $3.

Accessible parking is available for students with physical disabilities who have state parking authorization.

SEXUAL HARASSMENT

St. Louis Community College is committed to providing an academic and work environment that is free from sexual harassment. In keeping with this commitment, the college prohibits sexual harassment of any member of the college community. Sexual harassment in any form, including verbal, written, physical or visual harassment will not be tolerated. Information about the policy and a list of sexual harassment advisors is available from the human resources office, the Fact Finder student handbook or online at www.stlcc.edu/sh_tutorial.

SMOKING REGULATIONS

St. Louis Community College has adopted a NO Smoking policy. Smoking is permitted outside buildings only at Florissant Valley and Forest Park. Smoking is not permitted anywhere inside the perimeter at Meramec. Wildwood is a tobacco-free campus – no consumption of tobacco is allowed on any campus property.

STUDENT RIGHTS AND RESPONSIBILITIES

Students are expected to assume responsibility for their actions; to know and obey federal, state and local laws; and to know and obey the rules and regulations of the College. College rules and regulations may be found in the Fact Finder student handbook available online at www.stlcc.edu/factfinder and in offices throughout the campuses.

Academic Appeals — Procedures are printed in Rights and Responsibilities section of the handbook and appear in College Administrative Procedures G.10.

Grievance/Disciplinary Appeals — Procedures are printed in Rights and Responsibilities section of the handbook and appear in College Administrative Procedures G.15.


Grievance Process for Persons with Disabilities — Procedures are printed in Rights and Responsibilities section of the handbook and appear in College Administrative Procedures G.6.

The college administrative procedures are available at www.stlcc.edu/Document_Library/Admin_Procedures.pdf.

UNATTENDED CHILDREN

Students are not permitted to bring children to class, nor should children be left unattended in the halls, offices, library, student center or outside on campus property. The College reserves the right to protect the safety and welfare of unattended children. If students leave children unattended, the College will institute appropriate disciplinary action.

WELFARE REFORM RESPONSE

Support services are available to students who receive public assistance, Temporary Assistance for Needy Families (TANF), Food Stamps, Medicaid, or Child Care Assistance.

The TANF office helps students stay in school and succeed in school by providing support, informing them of their rights and finding resources both on and off campus. To access these services, call the TANF office on campus.
**Community Programs**

**ALLIED HEALTH CONTINUING EDUCATION**

Allied Health Continuing Education is a districtwide department within Workforce and Community Development. Programs are offered at each of the main campuses as well as off-campus locations. Allied Health Continuing Education offers credit and non-credit courses. The R.N. First Assistant education courses are credit nursing classes offered by Allied Health Continuing Education. Numerous non-credit courses are offered for nurses, EMS personnel and other allied health professionals. Allied Health Continuing Education offers a non-credit Legal Nurse Consultant Certificate for registered nurses. The course of study combines both credit and non-credit courses that encompass content areas such as law and torts, trial procedures, legal research and writing and specialized medical case analysis. In addition, non-credit courses are offered for the pre-professional nursing and allied health student. American Heart Association Advanced Cardiac Life Support, Basic Cardiac Life Support, Pediatric Advanced Life Support and lay rescuer CPR and first aid classes are offered by Allied Health Continuing Education.

**NEW TRADITIONS**

New Traditions provides resources and academic guidance to assist single parents and displaced homemakers as well as students entering career programs considered non-traditional by gender (for example, women in engineering or men in nursing or child care), who are returning to school or work or who are changing jobs or careers. For more information call 314-539-5317.

**NON-CREDIT CLASSES/ CONTINUING EDUCATION**

Hundreds of non-credit courses ranging from foreign languages and computer applications to photography, cooking, recreation and travel options are offered at the Forest Park, Florissant Valley, Meramec and Wildwood campuses, education centers and at numerous school and community locations. A schedule of non-credit classes is published three times a year. Check the Web site at www.stlcc.edu/Continuing_Education for more information or contact one of the campus Continuing Education offices.

**PROJECT LEAD THE WAY**

St. Louis Community College is the community college partner in the region’s Project Lead the Way program and provides leadership and support for the local initiative. Through Project Lead the Way students in high school earn up to 12 credit hours in engineering technology or 3 credit hours in engineering science that will transfer to a four-year university. Project Lead the Way students also are required to take rigorous academic courses while in high school that better prepare them for college-level coursework. For additional information on Project Lead the Way credit or other Project Lead the Way activities, contact the Career and Technical Education office at 314-539-5317.

**TECH PREP**

St. Louis Community College is the college-level partner in the St. Louis Area Tech Prep Consortium and works with local area high school partners to support students in their transition from high school into career and technical education programs at the College. High school Tech Prep students can earn college credit by successfully completing courses with approved articulation agreements. Once they enter STLCC, they can access their earned college credit and have a head start on their degree. Over 3,000 high school students each year participate in Tech Prep. For additional information on Tech Prep credit or other Tech Prep activities, contact the Career and Technical Education office at 314-539-5317.

**WORKFORCE AND COMMUNITY DEVELOPMENT**

Workforce and Community Development (WCD) is the division of St. Louis Community College that collaborates with business, civic, and community based organizations to provide economic opportunity through workforce education and training designed to maximize individual and organizational performance. WCD provides access to services beyond the traditional college setting by engaging students and workers in the workplace and the community. WCD accomplishes this through the following operational units:

- The Center for Business, Industry & Labor (CBIL) provides consulting, training and operational support services to maximize performance and sustain excellence in businesses. For more information, visit www.cbil.org.
- The Employment and Training Center (ETC) provides services through the Missouri Career Centers that are designed to assist job seekers to find employment. These services include career counseling, assessment, skill improvement, referral to jobs or training, resume preparation and job seeking skills workshops. For more information, visit www.stlcc.edu/Workforce_Development/Employment_and_Training_Center.
- Community Workforce Partnership (CWP) provides opportunities to unemployed and underemployed individuals to enter the workforce in jobs that are in demand and to help employed workers remain competitive and productive through skill upgrades. CWP accomplishes its work by developing partnerships with labor, government and community based organizations that leverage the contributions of the College and the partner organization. For more information, visit www.stlcc.edu/Workforce_Development/Community_Workforce_Partnerships.html.
- The Metropolitan Education and Training Center (MET), located in Wellston, provides area residents with a variety of opportunities to acquire the skills necessary to enter into productive, long-term employment. This training facility is operated through an innovative partnership between the College and key local government and community based organizations dedicated to providing economic opportunity to those most in need. For more information, visit www.stlcc.edu/Workforce_Development/Metropolitan_Education_and_Training_Center.html or call 314-746-0818.
- Women Entrepreneur Training Program offers courses, workshops and mentoring for women who want to start or expand a small business. For more information, call 314-513-4581 or 314-513-4586.
St. Louis Community College Foundation

MISSION
The St. Louis Community College Foundation creates and fosters community linkages that support and advance the College's mission of providing excellent educational opportunities for its students and the community by soliciting and administering gifts and funds for college endowment, capital projects, scholarships, and other programs.

PURPOSE
The St. Louis Community College Foundation was established to provide private financial support for students and college programs. Funds are used to provide various types of support including scholarships, faculty development, program support, and capital needs.

The Foundation supports more than 50 scholarships and a wide range of projects throughout the College's campuses and educational centers. A list of scholarships can be found at www.stlcc.edu/Foundation/Scholarships.html.

Call the Foundation office at 314-539-5385 for more information or e-mail at scholarships@stlcc.edu.

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Accreditation and Approval

St. Louis Community College and its campuses are accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools, 30 North LaSalle St., Suite 2400, Chicago, IL 60602-2504, Telephone: 312-263-0456.

The College is a member of the League for Innovation in the Community College. The League is a nonprofit educational consortium of resourceful community colleges. The League’s mission is to stimulate experimentation and innovation in all areas of community college development and serves as a catalyst, project incubator, and experimental laboratory for all community colleges.

The following programs have been accredited or approved by the agencies listed.

Collegewide:
All college degree programs are approved by the Missouri Department of Higher Education.

The college’s Emergency Medical Services programs have the associated approval of the Missouri Bureau of Emergency Medical Services.

The Nursing programs at each campus are accredited by the National League for Nursing Accrediting Commission, 61 Broadway, New York City, N.Y. 10006, 212-363-5555, and the Missouri State Board of Nursing.

Florissant Valley:
Art
National Association of Schools of Art and Design
Chemical Technology
American Chemical Society
Dietetic Technology
American Dietetic Association
Electronic Engineering Technology
Technology Accreditation Commission of Accreditation Board for Engineering and Technology
Mechanical Engineering Technology
Technology Accreditation Commission of the Accreditation Board for Engineering and Technology

Forest Park:
Allied Health
Accreditation Review Committee on Education in Surgical Technology
American Dental Association Commission on Dental Accreditation
Commission on Accreditation of Allied Health Education Programs
Commission on Accreditation for Respiratory Care
Joint Review Committee on Education in Diagnostic Medical Sonography
Joint Review Committee on Education in Radiologic Technology
Missouri Dental Board
National Accrediting Agency for Clinical Laboratory Science
Automotive Technology and Ford ASSET
National Automotive Technicians Education Foundation, Inc.
Funeral Service
American Board of Funeral Service Education
Hospitality Studies: Culinary Arts (AAS) and Baking and Pastry Arts (CP)
American Culinary Federation

Meramec:
Art
National Association of Schools of Art and Design
Information Reporting Technology
National Court Reporters Association
Occupational Therapy Assistant
American Occupational Therapy Association
Physical Therapy Assistant
American Physical Therapy Association

Articulation Agreements

<table>
<thead>
<tr>
<th>Signed Articulation Agreements</th>
<th>Program Area</th>
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<tr>
<td>Central Methodist University*</td>
<td>AA/AS to BA/BS</td>
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<td>Fontbonne University</td>
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<td>Harris-Stowe State University</td>
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<td>Adult Pathways to Success Program</td>
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<td>Marketing Option</td>
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<td>Health Care Management</td>
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<td>Hospitality and Tourism Management</td>
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<td>Hospitality Services Management</td>
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<td>Industrial Technology</td>
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<td>Mortuary Management</td>
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<td>Maryville University</td>
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<td>Accounting Information Systems</td>
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<td>Business Administration</td>
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<td>Missouri Baptist University</td>
<td>Education: Early Childhood and Elementary Education</td>
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<tr>
<td>Southeast Missouri State University</td>
<td>Industrial Technology (BS) 2+2</td>
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<td>St. Charles Community College</td>
<td>Paramedic Technology</td>
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<td>St. Louis Carpenter's Joint</td>
<td>Construction Technology, AAS</td>
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<td>Apprenticeship Committee</td>
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<td>University of Missouri-St. Louis</td>
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<td>Drawing</td>
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<td>Webster University</td>
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<td>Computer Science, BS</td>
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<td>Management, BA</td>
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<td>William Woods University</td>
<td>Deaf Communication</td>
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<td></td>
<td>Studies/Interpreter Training</td>
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*Agreement has been developed, but is pending final signatures at the time of the printing of the catalog.
Section 2

COLLEGE PROGRAMS
College Programs

FV—Florissant Valley  FP—Forest Park  M—Meramec  W—Wildwood  A—Associate in Arts degree  AAS—Associate in Applied Science degree  AS—Associate in Science  CP—Certificate of Proficiency  AFA—Associate in Fine Arts degree  CS—Certificate of Specialization

**Associate in Fine Arts**—Florissant Valley, Forest Park, Meramec  Art Education, General Fine Arts, Graphic Communications and Photography options available

**Associate of Arts in Teaching**—Florissant Valley, Forest Park, Meramec and Wildwood

Note: programs may not always be available at the campus indicated.

**TRANSFER PROGRAMS**

These programs include freshman- and sophomore-level courses offered in four-year institutions. Students may concentrate in the following subject areas:

<table>
<thead>
<tr>
<th>Subject</th>
<th>AA</th>
<th>AS</th>
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<td>Communications Arts Options</td>
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<td>Advertising/Public Relations</td>
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<td>Film</td>
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<td>Journalism</td>
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<td>Literature</td>
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<td>Multimedia</td>
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<td>Technical/Business Communication</td>
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<td>Technology/Teacher Education</td>
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</table>

**CAREER PROGRAMS**

These programs are designed to help you develop or improve job skills. Selected courses from career programs may transfer to four-year institutions. See an academic advisor or counselor for information concerning transferability of courses.

<table>
<thead>
<tr>
<th>Program</th>
<th>AA</th>
<th>CP</th>
<th>CS</th>
<th>Pg</th>
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## College Programs

**FV**—Florissant Valley  **FP**—Forest Park  **M**—Meramec  **W**—Wildwood  
**AA**—Associate in Arts degree  **AAS**—Associate in Applied Science degree  **AFA**—Associate in Fine Arts degree  
**AS**—Associate in Science  **CP**—Certificate of Proficiency  **CS**—Certificate of Specialization

### CAREER PROGRAMS

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<thead>
<tr>
<th>Program</th>
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Clinical and Field Work

Some degree and certificate programs offered by the College require students to obtain clinical or other field experience as part of their coursework. Students with criminal convictions or illegal drug use may have difficulty progressing in these programs. Healthcare facilities, educational institutions and other field experience settings may mandate that a criminal background check and/or drug screening check (at the student's expense) be conducted prior to placement in a clinical or field setting. Students not passing these checks may be prohibited from participating in the clinical or field experience, thus rendering the student ineligible to satisfactorily meet the course/program requirements. Students should contact an academic advisor or the program coordinator for further details.
ASSOCIATE IN ARTS DEGREE PROGRAM

St. Louis Community College offers an associate in arts degree program with several areas of concentration. The associate in arts degree is designed for students planning to transfer and complete requirements for a bachelor's degree at a four-year college or university. Students should plan their transfer program carefully and become familiar with program requirements at the institution to which they plan to transfer. Many bachelor degree programs have very specific requirements for the freshman and sophomore years and it is the transferring student's responsibility to ensure that courses will apply to the bachelor's degree. Students are encouraged to talk to a counselor or advisor to assist in planning a program of study, or if they are considering a change in academic plans.

All St. Louis Community College associate of arts degrees require 42 credit hours of general education courses. The remaining requirements are specified in an area of concentration for each AA program. General transfer students may fulfill their 18 to 21 hours of electives by concentrating in a general education discipline or taking courses from a variety of disciplines.

General education provides students the opportunity to explore a variety of disciplines and introduces them to the fundamentals of a college education from the perspectives of different subject areas. In addition to giving students a broad foundation that prepares them for any future area of study, it helps them discover the subjects they are most interested in and might want to major in when transferring to a four-year institution.

Students who complete the general education requirements will have “Missouri General Education Requirement completed” noted on their transcripts. Students who achieve their certification will have satisfied all general education requirements at any Missouri public college or university to which they may transfer, except the University of Missouri-Columbia.

The program begins at the foundation level with a cornerstone course, a three-credit course that introduces students to the overall goal of general education and will explore the moral and ethical values of a diverse society in order to understand their own decision-making process. The remaining foundation courses allow students to build the skills they need as they move through the curriculum.

The program continues with main floor courses that make up the bulk of the general education program. Each course addresses institutional competencies for the appropriate knowledge goal and reinforces at least one skill goal. Two of the main floor courses must be speaking-intensive and two must be writing-intensive. Refer to the semester credit class schedule to find such courses. Some classes satisfy both speaking and writing intensive requirements.

The four-credit capstone provides a culminating experience for the general education program. It provides an opportunity for students to use all of the skills and knowledge they have acquired throughout their general education program. The capstone may be interdisciplinary context and allows for some exit assessment. The college Web site www.stlcc.edu/programs/general_education/ provides more information on the general education program.

St. Louis Community College General Education Course Requirements

FOUNDATION COURSES – 13 credit hours required

| IDS:101  | Cornerstone ...........................................3 credits |
| ENG:101  | College Composition I (or) ..........................3 credits |
| ENG:104  | Honors College Composition I ........................3 credits |
| COM:101  | Oral Communication ....................................3 credits |
| MTH:155  | Survey of College Mathematics or ..................3 credits |
| MTH:160  | College Algebra or higher ...........................4 credits |

(except MTH:165 and MTH:166)

MAIN FLOOR COURSES – 25-28 credit hours required

Humanities and Fine Arts – 6 credit hours required

Art

| ART:100  | Art Appreciation ........................................|
| ART:101  | Art History I .............................................|
| ART:102  | Art History II ............................................|
| ART:103  | History of Modern Art ..................................|
| ART:104  | Major Black Artists .....................................|

Communications

| COM:114  | Oral Interpretation of Literature ....................|

English/Literature

| ENG:110  | Creative Writing .........................................|
| ENG:114  | Writing Plays and Filmscripts ........................|
| ENG:201  | Introduction to Fiction ................................|
| ENG:202  | Introduction to Poetry and Plays ......................|
| ENG:203  | American Literature .....................................|
| ENG:204  | American Literature Before 1865 ......................|
| ENG:205  | American Literature Between 1865 and 1945 ........|
| ENG:206  | American Literature After 1945 .......................|
| ENG:207  | Humor in American Literature ..........................|
| ENG:210  | British Literature Before 1800 .......................|
| ENG:211  | British Literature After 1800 ..........................|
| ENG:213  | The Short Novel ..........................................|
| ENG:214  | Contemporary Fiction ....................................|
| ENG:215  | Popular Literature: Fantasy and Horror ..............|
| ENG:216  | Women in Literature .....................................|
| ENG:217  | Major Black Writers .....................................|
| ENG:218  | Literature of American Minorities ....................|
| ENG:222  | Major British Writers ...................................|
| ENG:224  | Fiction Writing ...........................................|
| ENG:225  | Poetry Writing ............................................|
| EDU:226  | Children's Literature (same course as ENG:226) ....|
| ENG:226  | Children's Literature ....................................|
| ENG:227  | Literature of the South ................................|
| ENG:228  | Studies in Literature ....................................|
| ENG:230  | Environmental Literature ..............................|
| ENG:231  | World Literature .........................................|
| ENG:232  | Literature of the Caribbean ............................|

Foreign Language

| ARA:101  | Modern Arabic I ..........................................|
| ARA:102  | Modern Arabic II .........................................|
| CHI:101  | Elementary Chinese I ....................................|
| CHI:102  | Elementary Chinese II ...................................|
| DCS:104  | American Sign Language I ..............................|
| DCS:105  | American Sign Language II .............................|
FRE:101 Elementary French I
FRE:102 Elementary French II
FRE:201 Intermediate French I
FRE:202 Intermediate French II
GER:101 Elementary German I
GER:102 Elementary German II
GER:201 Intermediate German I
GER:202 Intermediate German II
JPN:101 Modern Japanese I
JPN:102 Modern Japanese II
RUS:101 Elementary Russian I
RUS:102 Elementary Russian II
SPA:101 Elementary Spanish I
SPA:102 Elementary Spanish II
SPA:201 Intermediate Spanish I
SPA:202 Intermediate Spanish II

**Humanities**

HUM:101 Humanities I
HUM:102 Humanities II
HUM:106 Black Humanities
HUM:109 Arts and Ideas in the Ancient World
HUM:110 The Middle Ages and The Renaissance
HUM:112 Creative Thinking
HUM:113 Introduction to Irish Studies
HUM:209 Blacks and the World of Cinema

**Mass Communications**

MCM:102 Media Literacy
MCM:130 Film Appreciation
MCM:131 History of Film
MCM:132 Major Themes in Film
MCM:134 Filmmaking
MCM:209 Blacks and the World of Cinema
MCM:215 Major Film Directors
MCM:218 Advanced Filmmaking

**Music**

MUS:113 History of Jazz
MUS:114 The Enjoyment of Music
MUS:128 Survey of Rock Music

**Philosophy**

PHL:101 Introduction to Philosophy
PHL:102 Introduction to Logic
PHL:104 Ethics
PHL:105 Black Philosophy
PHL:106 Black Religion
PHL:109 Bio-Medical Ethics
PHL:111 Environmental Ethics
PHL:112 Business Ethics

**Theatre**

THT:101 Introduction to Theatre
THT:110 History of Theatre

**LIFE AND PHYSICAL SCIENCES**

7-10 CREDIT HOURS REQUIRED

(One lab course required.)

**Laboratory Courses**

**Biology**

BIO:106 Human Heredity
BIO:110 General Zoology
BIO:111 Introductory Biology I
BIO:124 General Botany I

**Chemistry**

CHM:101 Fundamentals of Chemistry I
CHM:102 Fundamentals of Chemistry II
CHM:105 General Chemistry I
CHM:106 General Chemistry II

**Geology**

GEO:111 Physical Geology

**Physical Science**

PSI:105 Physical Science I
PSI:124 Principles of Physical Science

**Physical**

PHY:111 College Physics I
PHY:112 College Physics II

**Non-Laboratory Courses**

**Biology**

BIO:105 Topics in Evolution
BIO:113 Modern Aspects of Biology
BIO:117 Conservation and Ecology
BIO:122 Human Sexuality
BIO:123 Animal Behavior
BIO:144 Marine Ecology
BIO:146 Desert Ecology
BIO:148 Ozark Ecology
BIO:151 Biology of Human Health and Disease

**Geography**

GEG:103 Physical Geography

**Geology**

GEO:100 Earth Science
GEO:103 Environmental Geology
GEO:104 Prehistoric Life
GEO:113 Oceanography

**Physical Anthropology**

ANT:101 Introduction to Physical Anthropology and Archaeology

**Physical Science**

PSI:101 Physical Science Lecture I
PSI:111 Introduction to Astronomy I
PSI:121 Light and Vision
PSI:123 Meteorology

**SOCIAL AND BEHAVIORAL SCIENCES**

9 CREDIT HOURS REQUIRED

Three (3) credit hours must meet Missouri State Requirement.

* Indicates course meets Missouri State Requirement.

**Anthropology**

ANT:102 Introduction to Cultural Anthropology
ANT:103 Cultural Variations
ANT:104 Field Study in Archaeology
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<td>PSC:103*</td>
<td>State and Urban Politics</td>
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<td>North American Archaeology</td>
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<td>British Politics and Society</td>
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<td>Biblical Archaeology</td>
<td>PSC:201</td>
<td>International Relations</td>
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<td>ANT:207</td>
<td>Ancient Civilizations of the Old World</td>
<td>PSC:205*</td>
<td>Constitutional Issues</td>
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<td>U.S. Foreign Policy</td>
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<td>Communication between Cultures</td>
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<td>MCM:101</td>
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</tr>
<tr>
<td>ENG:233</td>
<td>Writing Creative Nonfiction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIB:101</td>
<td>Introduction to Library and Online Research</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any main floor course as well as mathematics</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>courses numbered above MTH:160 (except MTH:165</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>and MTH:166) may be used as an elective.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For the latest updated list of approved General Education Courses, check the College's Web site at: <a href="http://www.stlcc.edu/Programs/General_Education/gened_courses.html">www.stlcc.edu/Programs/General_Education/gened_courses.html</a> or contact a counselor or advisor.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DEGREE CONCENTRATIONS**

St. Louis Community College is a good place to begin a college program in a traditional academic area. It offers the basic curriculum core that is the foundation for majoring in any subject the student may ultimately choose. Completing the General Transfer Studies concentration will prepare a student with the essential first two years of a Baccalaureate degree while retaining flexibility that will accommodate selecting a major field later or changing to a different one from what the student is interested in now.

Students who have definite ideas about their academic interests may find a specific associate in arts concentration that will fit them. Undecided students or students who wish to keep their academic programs more adaptable should choose the General Transfer Studies concentration. The College offers the following concentrations: Business Administration, Communications Arts, Life Sciences, Mathematics, General Transfer (including International Studies option) and Music.
Business Administration

ASSOCIATE IN ARTS DEGREE
Florissant Valley, Forest Park, Meramec and Wildwood

This program offers students the first four semesters of a bachelor’s degree in business administration. Students take courses in communications, humanities, science, mathematics and social science as well as basic business courses in accounting, economics, management and data processing.

Potential students should be interested in managing business transactions and working with other people. They should have a good math background and the flexibility to work in a variety of situations.

Graduates may transfer to any four-year college or university which offers a degree in business administration. Students are strongly advised to work closely with a counselor or advisor to ensure transferability of courses to a particular institution.

Graduates work in finance, production, marketing, personnel, accounting, management and statistics as management trainees, sales representatives and administrative assistants in all areas of commerce and industry for companies and organizations of all sizes.

I. General Education 42-45 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDS:101</td>
<td>Cornerstone</td>
<td>3</td>
</tr>
<tr>
<td>ENG:101</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>COM:101</td>
<td>Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>MTH:160</td>
<td>College Algebra (or higher)</td>
<td>4</td>
</tr>
<tr>
<td>XXX:xxx</td>
<td>Social and Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td>ECO:151</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO:152</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>XXX:xxx</td>
<td>Humanities and Fine Arts</td>
<td>6</td>
</tr>
<tr>
<td>XXX:xxx</td>
<td>Life and Physical Sciences</td>
<td>6</td>
</tr>
<tr>
<td>XXX:xxx</td>
<td>General Education Elective</td>
<td>3</td>
</tr>
<tr>
<td>IDS:201</td>
<td>Capstone</td>
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II. Physical Education Activity 2 credits

III. Area of Concentration 22 credits

<table>
<thead>
<tr>
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</tr>
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<tbody>
<tr>
<td>ACC:110</td>
<td>Financial Accounting I</td>
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<tr>
<td>ACC:114</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUS:104</td>
<td>Introduction to Business Administration</td>
<td>3</td>
</tr>
<tr>
<td>MGT:204</td>
<td>Business Organization and Management</td>
<td>3</td>
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<tr>
<td>Select three courses</td>
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<td>9</td>
</tr>
<tr>
<td>BLW:101</td>
<td>Business Law I (or)</td>
<td>3</td>
</tr>
<tr>
<td>BLW:201</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS:201</td>
<td>Elementary Statistics (or)</td>
<td>3</td>
</tr>
<tr>
<td>BUS:202</td>
<td>Statistical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>IB:100</td>
<td>International Business</td>
<td>3</td>
</tr>
<tr>
<td>IS:103</td>
<td>Information Systems for Business</td>
<td>3</td>
</tr>
<tr>
<td>MKT:203</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

Students should consult advisors in selection of optional courses and electives based upon the college to which the student plans to transfer.

Program total . . . . 66-69 credits

IV. Electives 1-4 credits

Students should consult advisors in selection of optional courses and electives based upon the college to which the student plans to transfer.

Program total . . . . 64 credits
Communications Arts

ASSOCIATE IN ARTS DEGREE
Florissant Valley, Forest Park and Meramec

This program provides students with the first two years of study toward a bachelor’s degree at a four-year college or university. Students take fundamental courses common to most communications programs with a concentration in one of 12 options.

The communications field is composed of the areas of print and broadcast media and other forms of communication used to entertain, educate and inform others. A wide range of positions involving various creative skills is available in these areas.

Student are strongly advised to familiarize themselves with the communications programs at the schools to which they plan to transfer and work with advisers at St. Louis Community College to plan a program to meet those requirements.

I. General Education 42-45 credits

IDS:101 Cornerstone .................................... 3
ENG:101 College Composition I .......................... 3
MTH:160 College Algebra or higher ..................... 4
COM:101 Oral Communication I .......................... 3
XXX...... Missouri State Requirement .................. 3
XXX...... Social and Behavioral Sciences ............... 6
XXX...... Humanities and Fine Arts ..................... 6
XXX...... Life and Physical Sciences .................... 7-10
   (One lab course required)
XXX...... General Education Elective .................. 3
IDS:201 Capstone ........................................ 4

II. Physical Education Activity 2 credits

III. Area of Concentration 12 credits

Complete one of the options listed below

IV. Electives 6-8 credits

Program total ........ 46-44 credits

Advertising/Public Relations Option

Required:
MCM:101 Introduction to Mass Communications
MCM:140 Introduction to Advertising

Select two courses from:
COM:104 Persuasion
MCM:141 Public Relations
MCM:142 Applied Advertising
MCM:201 Media Internship I
MCM:202 Media Internship II
MCM:211 Applied Public Relations

Broadcasting Option

Required:
MCM:101 Introduction to Mass Communications
MCM:120 Introduction to Broadcasting

Select two courses from:
MCM:121 Television Production
MCM:123 Broadcast Journalism
MCM:124 Radio Production
MCM:125 Scriptwriting for TV and Film
MCM:201 Media Internship I
MCM:202 Media Internship II
MCM:213 Advanced Video Production

Creative Writing Option

Select 12 credits from:
ENG:110 Creative Writing
ENG:114 Writing Plays and Filmscripts
ENG:224 Fiction Writing
ENG:225 Poetry Writing
MCM:112 Feature Writing
MCM:123 Broadcast Journalism

Film Option

Required:
MCM:101 Introduction to Mass Communications

Select three courses:
MCM:121 Television Production
MCM:123 Broadcast Journalism
MCM:130 Film Appreciation
MCM:131 History of Film
MCM:132 Major Themes in Film
MCM:134 Filmmaking
MCM:201 Media Internship I
MCM:202 Media Internship II
MCM:215 Major Film Directors
MCM:216 Filmmaking II

Foreign Language Option

Twelve credits in any foreign language

Journalism Option

Required:
MCM:101 Introduction to Mass Communications
MCM:110 Journalism I: Writing and Reporting
MCM:112 Feature Writing

Select one course from:
MCM:111 Journalism II: Editing and Design
MCM:113 Applied Journalism
MCM:114 Photojournalism
MCM:201 Media Internship I
MCM:202 Media Internship II

Literature Option

Select 12 credits from:
ENG:201 Introduction to Fiction
ENG:202 Introduction to Poetry and Plays
ENG:203 American Literature
ENG:204 American Literature Between 1865 and 1945
ENG:205 American Literature After 1945
ENG:206 Modern American Literature
ENG:207 Humor in American Literature
ENG:210 British Literature Before 1800
ENG:211 British Literature After 1800
ENG:213 The Short Novel
ENG:214 Contemporary Fiction
ENG:215 Popular Literature: Fantasy and Horror
ENG:216 Women in Literature
ENG:217 Major Black Writers
ENG:218 Literature of American Minorities
ENG:222 Major British Writers
ENG:226 Children’s Literature
ENG:228 Studies in Literature

Multimedia Option
Select 12 credits from:
MCM:101 Introduction to Mass Communications
MCM:110 Journalism I: Writing and Reporting
MCM:120 Introduction to Broadcasting
MCM:130 Film Appreciation
MCM:140 Introduction to Advertising

Organizational Communication Option
Select 12 credits from:
COM:104 Persuasion
COM:105 Interview Process
COM:110 Organizational Communication
MCM:201 Media Internship I
MCM:202 Media Internship II
IS:103 Information Systems for Business (or)
MCM:101 Introduction to Mass Communications (or)
COM:102 Oral Communications II (or)
COM:103 Small Group Communication (or)
COM:107 Public Speaking (or)
COM:108 Business/Technical Presentation

Speech Communication Option
Select 12 credits from:
COM:102 Oral Communication II
COM:103 Small Group Communication
COM:104 Persuasion
COM:105 Interview Process
COM:107 Public Speaking
COM:108 Business/Technical Presentation
COM:110 Organizational Communication
COM:111 Voice and Articulation
COM:114 Oral Interpretation of Literature

Technical/Business Communication Option
Required:
ENG:219 Advanced Report Writing
COM:108 Business/Technical Presentation
Select 12 credits from:
COM:103 Small Group Communication
COM:105 Interview Process
COM:110 Organizational Communication
MCM:110 Journalism I: Writing and Reporting
MCM:111 Journalism II: Editing and Design
MCM:112 Feature Writing
MCM:140 Introduction to Advertising
MCM:142 Applied Advertising
Six of the above 18 hours may apply toward program electives.

Theatre Arts Option
Select 12 credits from:
COM:111 Voice and Articulation
COM:114 Oral Interpretation of Literature
THT:101 Introduction to Theatre
THT:102 Stagecraft
THT:103 Stage Design and Lighting
THT:106 Theatre Practicum
THT:107 Playwriting
THT:108 Acting I
THT:109 Acting II
THT:110 History of Theatre

CERTIFICATE OF GENERAL EDUCATION
Florissant Valley, Forest Park, Meramec and Wildwood
This program is in the process of being deactivated. New students are no longer being accepted. Students currently enrolled in this program should see an advisor.
GENERAL TRANSFER STUDIES

ASSOCIATE IN ARTS DEGREE
Floissant Valley, Forest Park, Meramec and Wildwood

The General Transfer Studies degree program provides students with the first two years of study toward a bachelor's degree with a major in almost any area at a four-year college or university. Students completing the general transfer studies degree requirements will have completed the 42 hours of general education for all public colleges and universities in Missouri. These courses from various general areas become the foundation for advanced study in areas such as humanities, the social sciences, mathematics, communications, economics, languages, and the fine arts.

I. General Education 42-45 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDS:101 Cornerstone</td>
<td>3</td>
</tr>
<tr>
<td>ENG:101 College Composition I (or)</td>
<td>3</td>
</tr>
<tr>
<td>ENG:104 Honors College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>COM:101 Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>MTH:xxx MTH:155 Survey of College Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>MTH:160 College Algebra or higher (except MTH:165 and MTH:166)</td>
<td>4</td>
</tr>
<tr>
<td>XXX:xxx Missouri State Requirement</td>
<td>3</td>
</tr>
<tr>
<td>XXX:xxx Social and Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td>XXX:xxx Humanities and Fine Arts</td>
<td>6</td>
</tr>
<tr>
<td>XXX:xxx Life and Physical Sciences</td>
<td>7-10</td>
</tr>
<tr>
<td>XXX:xxx General Education Elective</td>
<td>3</td>
</tr>
<tr>
<td>IDS:201 Capstone</td>
<td>4</td>
</tr>
</tbody>
</table>

Completing these general education requirements with a minimum of 42 credit hours will assure the student transferring to a public institution in Missouri of completion of all general education requirements. The student's transcript will carry the note “Missouri General Education Requirements completed.” If the student completes these requirements and earns the associate in arts degree, he/she will be able to transfer at the junior level into the general range of baccalaureate degree programs offered by the public four-year colleges and universities.

II. Physical Education Activity 2 credits

III. Electives 18-21 credits

The electives allow the student to continue to explore various subjects at an introductory level or, as many students prefer, to begin working toward an academic major by concentrating in a particular area. The student interested in psychology, for example, might choose to take such courses as PSY:206, Introduction to Social Psychology, and PSY:208, Abnormal Psychology, as well as the mathematics courses that the student will need to prepare for the more advanced psychology courses at the transfer institution.

As another example, the student wishing to major in English would want to take some literature courses, such as ENG:201, Introduction to Fiction, or ENG:204, American Literature Between 1865 and 1945, as well as the required composition courses. He/she should also begin the study of foreign language required for most English majors.

Students should plan their transfer programs carefully and become familiar with the requirements at the institution to which they plan to transfer. Many bachelor degree programs have very specific requirements for the freshman and sophomore years, and it is the transferring student's responsibility to ensure that courses will apply to the bachelor's degree. Students are encouraged to talk to a counselor or advisor to assist in planning a program of study or if they are considering a change in academic plans. Very detailed information about the requirements of many transfer institutions is available in the counseling offices.

Missouri public colleges and universities, as well as most private institutions, require three semesters (12 to 13 credit hours) of a foreign language for the Bachelor of Arts degree.

General Transfer Studies: International Studies Option

ASSOCIATE IN ARTS DEGREE
Forest Park

This program enhances student's understanding of the forces and issues shaping the contemporary world. The program is especially beneficial to students planning to transfer to four-year colleges and universities and to students desiring international education. Students acquire the understanding, knowledge and skills necessary to function in a politically, economically and culturally interdependent world society.

Students who complete the Certificate of Specialization in International Studies may apply all of those courses towards this degree option.

I. General Education 44-47 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDS:101 Cornerstone</td>
<td>3</td>
</tr>
<tr>
<td>ENG:101 College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>COM:101 Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>MTH:160 College Algebra or higher</td>
<td>4</td>
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Main Floor 27-30 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>XXX:xxx Humanities and Fine Arts</td>
<td>8</td>
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<tr>
<td>XXX:xxx Missouri State Requirement</td>
<td>3</td>
</tr>
<tr>
<td>XXX:xxx Life and Physical Sciences</td>
<td>6</td>
</tr>
<tr>
<td>XXX:xxx Social and Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>XXX:xxx General Education Elective</td>
<td>3</td>
</tr>
<tr>
<td>IDS:201 Capstone</td>
<td>4</td>
</tr>
</tbody>
</table>

II. Physical Education Activity 2 credits

Program total 64 credits
III. Area of Concentration 18 credits

PSC:201 International Relations (required) ............ 3

Select from at least three of the following: 15 credits
ANT:103 Cultural Variations
HST:119 The Modern World
HST:205 History of Modern Middle East
HUM:101 Humanities I
PHL:103 World Religions
PSC:204 Politics of African Nations
PSC:211 US Foreign Policy

Advisors and counselors have a complete list of courses that meet the area of concentration requirements.

Program total ........ 64-67 credits

CERTIFICATE OF SPECIALIZATION

Forest Park

Although this program is designed primarily for college transfer students, other students may gain benefits from their jobs or personal satisfaction by taking all or selected courses in the program.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC:107 Introduction to International Studies</td>
<td>3</td>
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<tr>
<td>ANT:103 Cultural Variations</td>
<td>3</td>
</tr>
<tr>
<td>PSC:201 International Relations</td>
<td>3</td>
</tr>
<tr>
<td>XXXxxx Foreign Language</td>
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<td>International Studies Elective chosen from</td>
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<tr>
<td>PHL:103 World Religions</td>
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<tr>
<td>HST:119 The Modern World</td>
<td></td>
</tr>
<tr>
<td>SPA:106 Introduction to Latin American Civilization</td>
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</tr>
<tr>
<td>IB:100 Introduction to International Business</td>
<td></td>
</tr>
<tr>
<td>XXXxxx Approved Course</td>
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</tbody>
</table>

Program total ........ 18 credits

Life Sciences

ASSOCIATE IN ARTS DEGREE

Florissant Valley, Forest Park and Meramec

This program provides students with the first two years of study toward a bachelor of science degree at a four-year college or university. Students take fundamental science and humanities courses and continue their studies in specialized areas such as biology, chemistry and other specialties after they transfer.

The life sciences include exciting fields that are leading the way into the "age of biology." Professions within the life science field vary widely from the health sciences to biological sciences. Areas of study include biotechnology, plant science, medical sciences, ecology, dental science, chiropractor and pharmacists.

In addition to a high school diploma or GED certificate, other requirements are necessary for enrollment in the life science program. For specific information contact the campus Admissions office.

Students should make a decision early in their college studies concerning which college or university they would like to attend. They are strongly advised to familiarize themselves with the programs at the schools to which they plan to transfer and work with advisors at St. Louis Community College to plan a program to meet those requirements.

I. General Education 42 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IDS:101 Cornerstone</td>
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<tr>
<td>ENG:101 College Composition</td>
<td>3</td>
</tr>
<tr>
<td>COM:101 Oral Communication</td>
<td>3</td>
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<tr>
<td>MTH:160 College Algebra (or higher)</td>
<td>4</td>
</tr>
<tr>
<td>XXXxxx Missouri State Requirement</td>
<td>3</td>
</tr>
<tr>
<td>XXXxxx Social and Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td>XXXxxx Humanities and Fine Arts</td>
<td>6</td>
</tr>
<tr>
<td>CHM:105 General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHM:106 General Chemistry II</td>
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</tr>
<tr>
<td>IDS:201 Capstone</td>
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</tr>
</tbody>
</table>

II. Physical Education Activity 2 credits

BIO:140 Principles of Biology I | 4       |
BIO:141 Principles of Biology II | 4       |
CHM:206 Organic Chemistry Lecture I | 3       |
CHM:207 Organic Chemistry Lecture II | 3       |
CHM:210 Organic Chemistry Laboratory I | 2       |
CHM:211 Organic Chemistry Laboratory II | 2       |
PHY:111 College Physics I | 4       |
PHY:112 College Physics II | 4       |

Program total ........ 70 credits
Mathematics

ASSOCIATE IN ARTS DEGREE
Florissant Valley, Forest Park and Meramec

This program provides students with the first two years of study toward a bachelor's degree at a four-year college or university in the areas of mathematics, engineering, actuarial science, computer science, secondary education or statistics.

Students are strongly advised to familiarize themselves with the mathematics or other major program at the school to which they plan to transfer and work with advisors at St. Louis Community College to plan a program to meet those requirements.

I. General Education 46 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<td>IDS:101</td>
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</tr>
<tr>
<td>ENG:101</td>
<td>College Composition I</td>
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</tr>
<tr>
<td>ENG:102</td>
<td>College Composition II</td>
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<td>COM:101</td>
<td>Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>MTH:210</td>
<td>Analytic Geometry and Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>XXXxxx</td>
<td>Missouri State Requirement</td>
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<tr>
<td>XXXxxx</td>
<td>Social Science Requirement</td>
<td>6</td>
</tr>
<tr>
<td>XXXxxx</td>
<td>Humanities Requirement</td>
<td>6</td>
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<td>XXXxxx</td>
<td>Physics/Chemistry Requirement</td>
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Select from:

<table>
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<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>CHM:105</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHM:106</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHM:206</td>
<td>Organic Chemistry Lecture I</td>
</tr>
<tr>
<td>CHM:207</td>
<td>Organic Chemistry Lecture I</td>
</tr>
<tr>
<td>CHM:210</td>
<td>Organic Chemistry Lab I</td>
</tr>
<tr>
<td>CHM:211</td>
<td>Organic Chemistry Lab II</td>
</tr>
<tr>
<td>PHY:122</td>
<td>Engineering Physics I</td>
</tr>
<tr>
<td>PHY:223</td>
<td>Engineering Physics II</td>
</tr>
<tr>
<td>PHY:224</td>
<td>Engineering Physics III</td>
</tr>
<tr>
<td>IDS:201</td>
<td>Capstone</td>
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</tbody>
</table>

II. Physical Education Activity 2 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS:113, 114, 128, 211, 212</td>
<td>Capstone</td>
</tr>
<tr>
<td>IDS:201</td>
<td>Capstone</td>
</tr>
</tbody>
</table>

IV. Electives 3 credits

Select from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO:140 or higher</td>
<td></td>
</tr>
<tr>
<td>CHM:105 or higher</td>
<td></td>
</tr>
<tr>
<td>IS:117 or higher</td>
<td></td>
</tr>
<tr>
<td>GEO:111 or higher</td>
<td></td>
</tr>
<tr>
<td>PHY:122 or higher</td>
<td></td>
</tr>
</tbody>
</table>

Program total . . . . 70 credits

Music

ASSOCIATE IN ARTS DEGREE
Florissant Valley, Forest Park and Meramec

This program provides students with the first two years of study toward a bachelor of arts degree in music at a four-year college or university. Students take fundamental courses in music theory, music literature, class instruments and performing ensembles. Careers available in music include performing, composing and arranging music, music education, private instruction and music therapy.

Students are strongly advised to familiarize themselves with the music program at the school to which they plan to transfer and work with the advisors at St. Louis Community College to plan a program to meet those requirements.

I. General Education 42-45 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tr>
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<tr>
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</tr>
<tr>
<td>ENG:102</td>
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<tr>
<td>COM:101</td>
<td>Oral Communication I</td>
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<tr>
<td>MTH:155</td>
<td>Survey of College Mathematics or higher level</td>
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<tr>
<td>XXXxxx</td>
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</tr>
<tr>
<td>XXXxxx</td>
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<tr>
<td>XXXxxx</td>
<td>Life and Physical Sciences Requirements</td>
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Choose three credits from:

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<tbody>
<tr>
<td>MUS:113</td>
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<tr>
<td>MUS:102</td>
<td>Music Theory II</td>
</tr>
<tr>
<td>MUS:121</td>
<td>Class Piano I</td>
</tr>
<tr>
<td>MUS:122</td>
<td>Class Piano II</td>
</tr>
<tr>
<td>MUS:201</td>
<td>Music Theory III</td>
</tr>
<tr>
<td>MUS:202</td>
<td>Music Theory IV</td>
</tr>
<tr>
<td>MUS:221</td>
<td>Class Piano III</td>
</tr>
<tr>
<td>MUS:222</td>
<td>Class Piano IV</td>
</tr>
<tr>
<td>MUSxxx</td>
<td>Band, orchestra, choir or jazz ensembles</td>
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II. Physical Education Activity 2 credits

<table>
<thead>
<tr>
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<tbody>
<tr>
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III. Area of Concentration 28 credits

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<td>Music Theory II</td>
<td>4</td>
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<td>MUS:121</td>
<td>Class Piano I</td>
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</tr>
<tr>
<td>MUS:122</td>
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<tr>
<td>MUS:201</td>
<td>Music Theory III</td>
<td>4</td>
</tr>
<tr>
<td>MUS:202</td>
<td>Music Theory IV</td>
<td>4</td>
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<tr>
<td>MUS:221</td>
<td>Class Piano III</td>
<td>2</td>
</tr>
<tr>
<td>MUS:222</td>
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<tr>
<td>MUSxxx</td>
<td>Band, orchestra, choir or jazz ensembles</td>
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Program total . . . . 72-75 credits
ASSOCIATE OF ARTS IN TEACHING

Florissant Valley, Forest Park, Meramec and Wildwood

The Associate of Arts in Teaching Degree Program is a new state approved program which meets the state general education requirements and contains a core area of concentration of four Teacher Education courses which are consistent with the other eleven community colleges in the state of Missouri. This is an effort to promote a more seamless transfer to four-year colleges and universities. This program provides students with the first two years of study toward a bachelor’s degree at a four-year college or university. It is governed and accredited by the State of Missouri. In addition, this program meets the mid-preparation benchmarks of the performance standards established for pre-service teachers in the state of Missouri.

Students should familiarize themselves with education programs at four-year schools and determine which program they plan to pursue early in their coursework at St. Louis Community College. In addition, they should work closely with St. Louis Community College faculty, counselors, and advisors to enable them to make a smooth transfer to the school of their choice. The maximum number of credit hours in teacher education which are allowed in transfer may vary among the transfer institutions. Students are discouraged from self-advising.

An Associate of Arts in Teaching Degree (AAT) requires:
- a cumulative GPA of 2.5
- a minimum score of 235 on each section of the College Base Academic Skills Examination (C-BASE)

Students should also be aware of the following information: cumulative GPA and C-BASE score admission requirements at some four-year transfer institutions may exceed the minimum state requirements. Students will be required to pass a criminal background check and a child abuse check to participate in school observation experiences. Any individual who has been convicted of a felony may not be licensed to teach in the state of Missouri. Students considering this degree should have college level reading as demonstrated on the college placement test or should have completed developmental reading and/or writing coursework prior to entering the Teacher Education core courses. Students are expected to have college level oral and written proficiencies and display clear, correct and effective writing and speaking skills.

I. General Education 42 – 45 credits

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<td>COM: 101</td>
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<td>XXX: xxx</td>
<td>Social and Behavioral Science</td>
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<td>XXX: xxx</td>
<td>Humanities and Fine Arts</td>
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<td>XXX: xxx</td>
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II. Physical Education 2 credits

<table>
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<td>Teaching Profession with Field Experience</td>
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<tr>
<td>EDU: 211</td>
<td>Foundations of Education</td>
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</tr>
<tr>
<td>EDU: 227</td>
<td>Educational Psychology</td>
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<tr>
<td>EDU: 218</td>
<td>Technology for Teachers</td>
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III. Area of Concentration 12 credits

<table>
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<th>Course</th>
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<tbody>
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<td>EDU: 210</td>
<td>Teaching Profession with Field Experience</td>
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<tr>
<td>EDU: 211</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU: 227</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EDU: 218</td>
<td>Technology for Teachers</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives 8 credits

Electives may be selected from education electives, content areas or any other courses. They should be carefully selected with the help of an advisor to meet degree requirements, prerequisites, preparation for the C-BASE, and planned level and area of teacher preparation.

Students seeking elementary certification can choose to complete an approved economics course, an approved geography course or additional education courses.

Students seeking secondary certification should select courses required for their specific area of certification in coordination with their transfer institution.

Program total 64 credits
ASSOCIATE IN FINE ARTS DEGREE PROGRAM

St. Louis Community College offers an associate in fine arts degree with four degree options—art education, general fine arts, graphic communications and photography. The associate in fine arts is offered jointly with the University of Missouri-St. Louis and is designed for students planning to transfer to UM-St. Louis and earn the bachelor of fine arts degree. Freshman and sophomore courses take place at Florissant Valley, Forest Park and Meramec, and junior- and senior-level courses take place on the UM-St. Louis campus.

UM-St. Louis accepts all art courses taken at St. Louis Community College up to a maximum of 66 credit hours. Students should work with a counselor or advisor to ensure their courses will transfer. UM-St. Louis admission counselors are available at Florissant Valley, Forest Park and Meramec to help students complete their transfer applications.

Art Education Option

ASSOCIATE IN FINE ARTS DEGREE
Florissant Valley, Forest Park and Meramec

This transfer option is designed to provide students with the first two years of study towards a professional degree in art education. Upon completion of the AFA - Art Education Option, students can successfully transfer to the University of Missouri-St. Louis to earn a bachelor of fine arts degree in art education or to other four-year art schools or colleges to complete the last two years toward a professional art education degree. Students are strongly advised to familiarize themselves with the art education program at the school to which they plan to transfer and work with advisors at St. Louis Community College to plan a program to meet those requirements.

The AFA - Art Education Option is governed and accredited by the state of Missouri and meets the mid-preparation benchmarks of the performance standards established for pre-service teachers in the state of Missouri. Students should work in consultation with both art and education advisors and will complete required courses in general education, art and professional education. Persons interested in this program should possess a strong interest in the visual arts and a desire to teach at the elementary or secondary level. Students are expected to have college level reading, oral and written language proficiencies and display clear, correct, and effective writing and speaking skills.

Students must achieve a minimum GPA of 2.5. Students transferring to UM-St. Louis with an AFA in Art Education must achieve a minimum score of 235 on each section of the C-BASE before enrolling in UM-St. Louis Level-2 EDU (Education) courses. It is strongly recommended that students begin testing for C-BASE competencies early in their sophomore year at STLCC. Some four-year transfer institutions may have additional requirements including higher GPA or C-BASE scores. Students are encouraged to work closely with an advisor so that they may understand and prepare to meet all entrance requirements.

Students who are planning to transfer to UM-St. Louis should consult with an advisor to learn of the transfer options offered by UM-St. Louis before beginning their coursework toward the STLCC-AFA degree. Some course substitutions are required for transfer through the AFA/BFA articulation agreement with UM-St. Louis. UM-St. Louis offers Bachelor of Fine Arts degrees with K-12 Teacher Certification in:

- Art Education/Graphic Design
- Art Education/Photography
- Art Education/Drawing
- Art Education/Painting
- Art Education/General Fine Arts with emphasis in Painting, Printing, Drawing, Photography or Printmaking

General Education 23 credits
ENG:101 College Composition I 3
COM:101 Oral Communication I 3
HST:101 American History I (or) 3
HST:102 American History II (or) 3
HST:103 American History I, Honors (or) 3
HST:104 American History II, Honors (or) 3
PSY:200 General Psychology 3
PSY:205 Human Growth and Development 3
MTH:155 Survey of College Mathematics (or) 4
MTH:160 College Algebra 4
XXXxxx Science Elective with lab 4

Physical Education Requirement 2 credits

Professional Education 15 credits
EDU:218 Technology for Teachers 3
EDU:120 or ART:185 Art for Children 3
EDU:210 Teaching Profession With Field Experience 3
EDU:227 Educational Psychology 3
EDU:211 Foundations of Education 3

Area of Concentration 22 credits
ART:101 Art History I 3
ART:102 Art History II 3
ART:107 Design I 2
ART:108 Design II 2
ART:109 Drawing I 3
ART:110 Drawing II 3
ART:111 Figure Drawing I 3
ART:131 Computer Art Studio 3

3-D Art Elective 2-3 credits
ART:207 Design III 2
ART:113 Ceramics I 3
ART:116 Sculpture I 3

Art Electives 6 credits
ART:133 Graphic Design I 3
ART:114 Painting I 3
ART:165 Photography I 3
ART:115 Printmaking I 3

Program total 70-71 credits
General Fine Arts Option

ASSOCIATE IN FINE ARTS DEGREE
Florissant Valley, Forest Park and Meramec

This program is designed for students planning to transfer to four-year art schools and colleges to earn a bachelor of fine arts degree. Students may experience both two- and three-dimensional artwork through courses in painting, figure drawing, ceramics, sculpture, printmaking and design, and other studio and imaging disciplines. Persons interested in this program should possess a strong interest in the visual world and a desire to produce work using traditional as well as non-traditional techniques.

General Education 25 credits
ENG:101 College Composition I .............. 3
ENG:102 College Composition II ............ 3
XXX:xxx Missouri State Requirement .... 3
XXX:xxx Social Science Elective ......... 3
MTH:155 Survey of College Mathematics (or) 3
MTH:160 College Algebra .................. 4
XXX:xxx Science Elective .............. 3
ART:101 Art History I ....................... 3
ART:102 Art History II ...................... 3

Physical Education Requirement 2 credits

Area of Concentration 29 credits
ART:107 Design I ............................ 2
ART:108 Design II ........................... 2
ART:109 Drawing I ......................... 3
ART:110 Drawing II ......................... 3
ART:111 Figure Drawing I .................. 3
ART:112 Figure Drawing II .................. 3
ART:207 Design III ......................... 2
ART:208 Design IV ......................... 2
ART:211 Figure Drawing III ................ 3
ART:210 Drawing III ......................... 3

Electives 12-13 credits
ART:131 Computer Art Studio .................. 3
ART:138 Drawing for Graphics I ......... 2
ART:243 Figure Illustration ................. 2
ART:113 Ceramics I .......................... 3
ART:213 Ceramics II .......................... 3
AT:213 Advanced Ceramics .............. 3
ART:165 Photography I ..................... 3
ART:166 Photography II ..................... 3
ART:279 Non-Silver Photography ......... 3
ART:172 Digital Photography .............. 3
ART:275 Photo Imaging I; Photoshop .......... 3
AT:108 Computer Painting and Drawing:
   Corel Painter ............................ 3
AT:175 Video Art I .......................... 3
ART:275 Video Art II ......................... 3
ART:116 Sculpture I .......................... 3
ART:216 Sculpture II .......................... 3
AT:227 3-D Studio ............................ 3
AT:219 Figure Sculpture ..................... 3
AT:230 Figure Sculpture II ............... 3
AT:201 Mixed Media ......................... 3
ART:114 Painting I ......................... 3
ART:214 Painting II ......................... 3
ART:229 Advanced Painting Projects .... 3
AT:228 Figure Painting ...................... 3
AT:121 Watercolor I .......................... 3
AT:221 Watercolor II .......................... 3
ART:115 Printmaking I ...................... 3
ART:215 Printmaking II ..................... 3
AT:215 Advanced Printmaking .......... 3
AT:210 Drawing Problems ................... 3

Program total . . . . . . 68-69 credits

Graphic Communications Option

ASSOCIATE IN FINE ARTS DEGREE
Florissant Valley, Forest Park and Meramec

This program is designed for students planning to transfer to a four-year art school and the University of Missouri-St Louis and earn a bachelor of fine arts degree. The program includes concept origination and development; use of computers; logos, point-of-sale purchase, package and publication design; printing techniques and processes. Persons interested in this program should possess a strong interest in the visual world and a desire to produce work using traditional as well as non-traditional techniques.

General Education 19 credits
ENG:101 College Composition I .............. 3
ENG:102 College Composition II (or) .... 3
ENG:103 Report Writing (or) ............. 3
MCM:217 Publications Writing (or) .... 3
COM:101 Oral Communication I ............. 3
XXX:xxx Missouri State Requirement .... 3
XXX:xxx Social Science Elective ........ 3
XXX:xxx Science Elective ................ 3
MTH:155 Survey of College Mathematics (or) 3
MTH:160 College Algebra .................. 4

Physical Education Requirement 2 credits

Area of Concentration 50 credits
ART:107 Design I ............................ 2
ART:108 Design II ........................... 2
ART:109 Drawing I ......................... 3
ART:110 Drawing II ......................... 3
ART:111 Figure Drawing I .................. 3
ART:112 Figure Drawing II .................. 3
ART:113 Design III ......................... 2
ART:114 Advanced Ceramics .............. 3
ART:165 Photography I ..................... 3
ART:279 Non-Silver Photography ......... 3
ART:172 Digital Photography .............. 3
ART:275 Photo Imaging I; Photoshop .......... 3
AT:108 Computer Painting and Drawing:
   Corel Painter ............................ 3
AT:175 Video Art I .......................... 3
ART:275 Video Art II ......................... 3
ART:116 Sculpture I .......................... 3
ART:216 Sculpture II .......................... 3
AT:227 3-D Studio ............................ 3
AT:219 Figure Sculpture ..................... 3
ART:233 Graphic Design I .................. 3
ART:134 Graphic Design II .................. 3
ART:138 Drawing for Graphics I ........ 2
ART:238 Drawing for Graphics II ........ 2
ART:239 Illustration I ....................... 3
ART:240 Illustration II ..................... 3
ART:233 Graphic Design III ............... 3
ART:234 Graphic Design IV ................. 3
ART:245 Portfolio Design and Professional Practices .... 2
Photography Option

ASSOCIATE IN FINE ARTS DEGREE
Florentine Valley, Forest Park and Meramec

This program is designed for students planning to transfer to a four-year art school and the University of Missouri-St. Louis and earn a bachelor of fine arts degree. Students develop skills in black and white printing techniques; ways to gather information from visual images and use visual elements to form mental constructs; ideas and issues about photography; portrait, architectural, documentary, large format, industrial, field and figure fashion photography; and other areas. Persons interested in this program should possess a strong interest in the visual world and a desire to produce work using traditional as well as non-traditional techniques.

General Education 25 credits

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<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG:101</td>
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<td>ART:168</td>
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Physical Education Requirement 2 credits

Area of Concentration 31 credits

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<td>ART:110</td>
<td>Drawing II (or)</td>
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<td>ART:111</td>
<td>Figure Drawing I</td>
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<td>ART:165</td>
<td>Photography I</td>
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<td>ART:166</td>
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<td>ART:204</td>
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<td>ART:167</td>
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<td>ART:265</td>
<td>Artificial Light Photography</td>
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<td>ART:131</td>
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<td>ART:275</td>
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Photography Electives 6 credits

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<td>ART:267</td>
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<td>ART:272</td>
<td>Documentary Photography</td>
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<td>Large Format Photography</td>
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<td>ART:269</td>
<td>Field Photography</td>
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<td>ART:271</td>
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Program total 71 credits

Other Electives 4-6 credits

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<td>ART:112</td>
<td>Figure Drawing II</td>
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<td>ART:208</td>
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<td>ART:113</td>
<td>Ceramics I</td>
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<td>ART:116</td>
<td>Sculpture I</td>
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<td>ART:114</td>
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<td>ART:115</td>
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<tr>
<td>ART:ATxxx</td>
<td>Computer Art</td>
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Program total 68-70 credits

ASSOCIATE IN SCIENCE DEGREE PROGRAM

The associate of science degree is a specialized degree intended for transfer into a pre-professional program. This degree is substantively different from both the associate in applied science and the associate in arts degrees. The associate in science provides an alternative to the associate of arts degree for those fields that require so much specialized work that the student cannot complete as much general education as the AA degree demands.

Computer Science

ASSOCIATE IN SCIENCE DEGREE
Florentine Valley, Forest Park, Meramec

This program provides students with the first two years of study toward a bachelor’s degree at a four-year college or university. Persons with computer science skills design, engineer, produce, implement, sell or service systems for a variety of organizations. Many are employed to analyze jobs, translate them into computer language, refine programs or operate systems on a daily basis.

Students are strongly advised to familiarize themselves with the computer science program at the schools to which they plan to transfer. The general education component is designed to meet receiving institutions’ guidelines. They should contact the instructional department or a counselor or advisor at St. Louis Community College to plan a program to meet those requirements.

I. General Education 27 credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<td>ENG:101</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG:102</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MTH:155</td>
<td>Survey of College Mathematics (or)</td>
<td></td>
</tr>
<tr>
<td>MTH:160</td>
<td>College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>XXX:xxx</td>
<td>Social Science Elective</td>
<td></td>
</tr>
<tr>
<td>XXX:xxx</td>
<td>Humanities or Social Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>XXX:xxx</td>
<td>Missouri State Requirement</td>
<td>3</td>
</tr>
</tbody>
</table>
II. Physical Education Activity 2 credits

III. Area of Concentration 27 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS:112</td>
<td>3</td>
</tr>
<tr>
<td>IS:227</td>
<td>3</td>
</tr>
<tr>
<td>IS:256</td>
<td>3</td>
</tr>
<tr>
<td>MTH:220</td>
<td>3</td>
</tr>
<tr>
<td>MTH:230</td>
<td>3</td>
</tr>
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<td>MTH:212</td>
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</tr>
<tr>
<td>PHY:223</td>
<td>3</td>
</tr>
</tbody>
</table>

IV. Electives 12-15 credits

Choose one of the following:

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>IS:225</td>
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<tr>
<td>IS:229</td>
<td>3</td>
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</table>

Choose one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH:215</td>
<td>3</td>
</tr>
<tr>
<td>MTH:240</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE:242</td>
<td>3</td>
</tr>
<tr>
<td>ESC:200</td>
<td>4</td>
</tr>
<tr>
<td>CHM:106</td>
<td>5</td>
</tr>
<tr>
<td>ESC:201</td>
<td>4</td>
</tr>
</tbody>
</table>

Or any one of the following not already chosen:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS:225</td>
<td>3</td>
</tr>
<tr>
<td>IS:229</td>
<td>3</td>
</tr>
<tr>
<td>MTH:215</td>
<td>3</td>
</tr>
<tr>
<td>MTH:240</td>
<td>3</td>
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<td>ESC:200</td>
<td>4</td>
</tr>
</tbody>
</table>

Program total 68-71 credits

Engineering Science

ASSOCIATE IN SCIENCE DEGREE
Florissant Valley, Forest Park and Meramec

This program provides students with the first two years of study toward a Bachelor of Science degree at a four-year college or university. Students take fundamental courses common to most engineering disciplines and continue their studies in specialized areas (such as electrical, mechanical, civil, chemical, aerospace and nuclear) during the remaining years at four-year colleges or universities.

St. Louis Community College works with the Missouri University of Science and Technology, University of Missouri-Columbia, Washington University, Southern Illinois University-Edwardsville, UM-St. Louis /Washington University Joint Engineering Program, Parks College of St. Louis University and Rensselaer Polytechnic Institute to facilitate the transferability of specific courses. For the most current information on transferability, please consult an academic advisor; the Engineering Department or the transfer institution’s website. This program is designed to provide the necessary flexibility to meet the technical and general education requirements indicated in the receiving institution’s transfer guidelines.

I. General Education 27 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG:101</td>
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<tr>
<td>ENG:102</td>
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<tr>
<td>ENG:103</td>
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<td>ENG:203</td>
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<td>MTH:210</td>
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<td>CHM:105</td>
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<td>PHY:122</td>
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</tr>
<tr>
<td>XXX: xxx</td>
<td>3</td>
</tr>
<tr>
<td>XXX: xxx</td>
<td>3</td>
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</table>

II. Physical Education Activity 2 credits

III. Area of Concentration 31 credits

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
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<tr>
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<td>IS:227</td>
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<td>ESC:200</td>
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<td>ESC:203</td>
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<tr>
<td>MTH:220</td>
<td>3</td>
</tr>
<tr>
<td>MTH:230</td>
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<tr>
<td>MTH:240</td>
<td>3</td>
</tr>
<tr>
<td>PHY:223</td>
<td>5</td>
</tr>
</tbody>
</table>

IV. Engineering Electives 3-4 credits

Choose one course from the following list based on the engineering field to be pursued and the recommendation of the college to which transfer is expected.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESC:201</td>
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<td>ESC:204</td>
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<tr>
<td>ESC:205</td>
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</tr>
<tr>
<td>ESC:207</td>
<td>3</td>
</tr>
<tr>
<td>ESC:202</td>
<td>3</td>
</tr>
</tbody>
</table>

V. Technical and General Education Electives 6-7 credits

Completion of the AS degree in Engineering Science requires an additional six to seven credit hours selected from any of the courses listed in the following three areas. Elective courses should be selected based on the engineering field to be pursued, and the recommendation of the college to which transfer is expected.

Engineering and Related Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EGR:100</td>
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</tr>
<tr>
<td>ESC:201</td>
<td>4</td>
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<td>ESC:204</td>
<td>3</td>
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<tr>
<td>ESC:205</td>
<td>3</td>
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<tr>
<td>ESC:206</td>
<td>1</td>
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<tr>
<td>ESC:207</td>
<td>3</td>
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<td>ESC:202</td>
<td>3</td>
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<tr>
<td>ME:151</td>
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</tr>
<tr>
<td>ME:249</td>
<td>3</td>
</tr>
<tr>
<td>CE:240</td>
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</tr>
<tr>
<td>CE:243</td>
<td>3</td>
</tr>
<tr>
<td>QC:100</td>
<td>3</td>
</tr>
</tbody>
</table>
III. Professional Education 9 credits

EDU:210 Teaching Profession with Field Experience 3
EDU:211 Foundations of Education 3
PSY:214 Adolescent Psychology (or) 3
PSY:205 Human Growth and Development 3

IV. Engineering Technology Education 21-23 credits

Select courses in the following three areas. Seven credits in each technical area is the minimum for Technology Teacher Certification.

Communications Technology 7 credits

EGR:100 Engineering Drawing 3
ART:131 Computer Art Studio (or) 3
ART:133 Graphic Design I 3
EGR:140 Computer Aided Drafting and Design I (or) 3
EGR:133 Introduction to AutoCAD I 2-3
EGR:141 Introduction to AutoCAD II 2
EGR:139 3-D AutoCAD with AutoShade 2
EGR:255 Advanced Computer Aided Drafting 3
EGR:147 Introduction to Engineering Design* 3
CE:116 Construction Blueprint Reading 3
ME:230 Introduction to 3-D Solid Modeling 4
Art:165 Photography I 2

Energy and Power Technology 7 credits

EE:110 Technical Electric Circuits I (or) 4
EE:130 Electric Circuits I 4
EE:111 Technical Electric Circuits II (or) 4
EE:131 Electric Circuits II 4
EE:132 Electronic Devices 4
EE:241 Transmission and Distribution of Power 3
ME:223 Basic Hydraulics I (or) 3
ME:255 Fluid Power 2-3
EE:121 Fundamentals of Digital Electronics* 3
EE:106 IBM Personal Computer Installation and Repair 1
EE:109 Personal Computer Configuration 1

Materials and Processes Technology 7-9 credits

ME:249 Materials and Metallurgy 3
ME:151 Manufacturing Processes I 3
ME:152 Manufacturing Processes II 3
ME:121 Computer Integrated Manufacturing* 3
ME:101 Welding Technology 3
ME:140 Introduction to Robotics 3
CE:108 Construction Methods (or) 3
CE:115 Construction Materials and Methods 3
V. Technical and Teaching Electives  

Fifteen credits of technical and teaching electives may be selected from the three categories below. Any credits from the above Engineering Technology courses or the science course beyond the required number above apply toward this elective requirement. Selection of courses should be based on the four-year plan of study for the university that one plans to transfer.

**Technical Electives:**

Select from any of the three Engineering Technology areas above or the following list.

- **GE:121** Principles of Engineering* .......... 3
- **GE:122** Engineering Design and Development* .... 3
- **EGR:148** Solid Modeling with Unigraphics* ....... 2
- **EGR:256** Solid Modeling with CATIA* .......... 2
- **ME:241** Numerical Control Programming* ....... 3

**Education Block I Electives:**

- **EDU:227** Educational Psychology ................... 3
- **EDU:218** Technology for Teachers ................... 3

**Missouri General Education Electives:**

- **IDS:101** Cornerstone .................................. 3
- **BIO:111** Introductory Biology I ...................... 4
- **XXX:xxx** Humanities and Fine Arts ................... 6
- **IDS:201** Capstone ...................................... 4

Program total . . . 66-70 credits

ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAM

St. Louis Community College offers numerous career/vocational programs for students entering the job market for the first time, changing jobs or careers or upgrading skills. Three levels of programs are offered: the associate in applied science degree, the certificate of proficiency and the certificate of specialization.

The associate in applied science degree program helps students develop practical and theoretical skills that prepare them for entry-level jobs. These programs can be completed in two years of full-time attendance. However, most students take courses on a part-time basis and take longer to complete their programs. Many courses are offered both day and evening. All associate in applied science graduates must have coursework in the following areas:

**Humanities and Communications** 6 credit hours

Select from Art, College Composition, English Literature and Culture, Foreign Language and Cultures, Humanities, Media, Music, Philosophy, Reading, Speech and Theatre.

**Natural Science and Mathematics** 6 credit hours

Select from Astronomy, Biology, Chemistry, Geology, Physical Geography, Physical Science, Physics and Mathematics.

**Social Science** 6 credit hours

Select from Anthropology, Economics, Geography (except physical), History, Political Science, Psychology and Sociology.

**Physics Education** 2 credit hours

Select from activity courses.

For the remaining hours required for the degree, you may choose general electives or courses that fit a specific major.

CERTIFICATE PROGRAMS

The certificate of proficiency is designed primarily for persons whose intended job does not require an associate degree. It is also suitable for persons who wish additional information and skills in a particular area. Certificates of proficiency usually require one year of full-time attendance to complete. If courses are taken on a part-time basis, however, it will take longer to complete a program.

The certificate of specialization is designed primarily for persons who want information and skills in a specific area, often related to a current job. This certificate may allow students to qualify for promotion, obtain certification, or increase future employment opportunities. Certificates of specialization usually require 18 semester hours of work and can be completed on a full- or part-time basis.

SELECTIVE ADMISSIONS PROGRAMS

Standards of admission and retention have been established for certain programs and courses to make sure students have the necessary aptitude and background for success. Students applying for a program with selective admissions criteria may be required to take additional tests for admission purposes, and/or meet certain requirements to continue in the program. Contact the department, a counselor or an advisor for program specific information.

Accounting

ASSOCIATE IN APPLIED SCIENCE DEGREE

Florissant Valley, Forest Park and Meramec

The degree is designed to provide students with a skill and knowledge background that will enhance an entry into the accounting job market. It is tailored to provide students with a comprehensive foundation in accounting and hands-on experience with computers using commercial accounting software.

Persons planning a career in accounting should have a proficiency in mathematics and be able to analyze, compare and interpret facts and figures quickly. Accuracy and the ability to handle responsibility with limited supervision are important. Courses in computer applications and work experience in the business area are extremely beneficial.

I. Career General Education 21 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG:100</td>
<td>Career English (or)</td>
</tr>
<tr>
<td>ENG:101</td>
<td>College Composition I</td>
</tr>
<tr>
<td>ENG:102</td>
<td>College Composition II</td>
</tr>
<tr>
<td>ENG:103</td>
<td>Report Writing (or)</td>
</tr>
<tr>
<td>ECO:151</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>ECO:152</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>MTH:xxx</td>
<td>Mathematics (140 level or higher)</td>
</tr>
<tr>
<td>BUS:103</td>
<td>Business Mathematics (counts as 3 hours of the Math requirement)</td>
</tr>
<tr>
<td>XXX:xxx</td>
<td>Missouri State Requirement</td>
</tr>
</tbody>
</table>
II. Physical Education Activity 2 credits

III. Area of Concentration 22 credits
ACC:100 Applied Accounting .......................... 3
ACC:110 Financial Accounting I ........................ 4
ACC:114 Managerial Accounting ...................... 3
ACC:208 Intermediate Accounting I ................... 3
ACC:213 Survey of Business Taxes .................. 3
BLW:101 Business Law I ............................. 3
BUS:104 Introduction to Business Administration ... 3

IV. Technology Core Courses 9 credits
ACC:120 Computer Accounting Applications for Business .................. 3
ACC:122 Computer Accounting Applications - Spreadsheets .................. 3
ACC:124 Computer Accounting Applications - Database .................. 3

V. Area of Concentration 6 credits
Complete one of the options listed below.

Accounting Associate Option: Accounting electives

Tax Emphasis Option: Approved tax electives

VI. Business Electives 6 credits
Select two from the following:
ACC:xxx
IS:xxx
MGMT:xxx or MKT:xxx
FIN:xxx
BUS:201

Program total ....... 66 credits

CERTIFICATE OF PROFICIENCY
Florissant Valley, Forest Park and Meramec
The accountant’s role has changed dramatically with the dominant role of computers. This program is designed to provide students with knowledge and skills to meet the changing needs required in today’s job market. A strong foundation in accounting with commercial computer application represents the proficiencies emphasized in this fast-track program. This certificate provides currently employed persons the opportunity to acquire an extensive accounting background; provides necessary skills and proficiencies to attain employment in the accounting field.

Courses 34 credits
BUS:103 Business Mathematics ....................... 3
ACC:100 Applied Accounting ......................... 3
ACC:110 Financial Accounting I ..................... 4
ACC:114 Managerial Accounting .................... 3
ACC:208 Intermediate Accounting I ................. 3
ACC:213 Survey of Business Taxes .................. 3

BLW:101 Business Law I ............................. 3
ACC:120 Computer Accounting Applications for Business .................. 3
ACC:122 Computer Accounting Applications - Spreadsheets .................. 3
ACC:124 Computer Accounting Applications - Database .................. 3
ACC:xxx Accounting Elective .........................

Business Electives 3 credits
Select from:
ACC:xxx
IS:xxx
BUS:xxx
FIN:xxx

Program total ....... 37 credits

Computer Accounting Technology
CERTIFICATE OF SPECIALIZATION
Florissant Valley, Forest Park, Meramec
This fast-track certificate is designed for accounting students on the fast-track to the job market or practicing accountants who want to update technology skills.

Courses 21 credits
ACC:110 Financial Accounting I ..................... 4
ACC:120 Computer Accounting Applications for Business .................. 3
ACC:122 Computer Accounting Applications - Spreadsheets .................. 3
ACC:124 Computer Accounting Applications - Databases .................. 3
ACC:xxx Accounting Elective(s) ......................
(Cannot be ACC:100) (or)
IS:xxx Information System Elective(s) ................ 3

Program total ....... 16 credits

Addictions Study
CERTIFICATE OF PROFICIENCY
Florissant Valley, Forest Park and Meramec
This program provides academic preparation for persons working or preparing to work in the field of alcohol and drug abuse treatment. It will look at commonalities of the various addiction and treatment modalities.

Courses 21 credits
HMS:100 Introduction to Human Services ................ 3
HMS:101 Human Services: Theories and Skills ............ 3
HMS:205 Crisis Intervention ................................ 3
HMS:111 Group Practice in Human Services .............. 3
HMS:201 Workplace Learning: Human Services I .......... 3
HMS:203 Human Services Practicum Seminar I ............ 3
SOC:126 Study of Psychodynamic Substances ............. 3
SOC:211 Alcoholism and Drug Abuse ..................... 3
Electives 3 credits

Select one course from the following:
PSY:200 General Psychology
PSY:205 Human Growth and Development
PSY:208 Abnormal Psychology
SOC:204 Marriage and the Family or other approved elective

Program total . . . . . . . . . . . . . . . . . . . . . . . . . . . . 24 credits

African-American Studies

CERTIFICATE OF SPECIALIZATION
Forest Park

This program is designed for students interested in a broad-based education and in enhancing their knowledge, understanding and capabilities for functioning effectively in a multi-racial society. Although the program is geared to students planning to transfer to four-year colleges, students in career programs will find the insight gained through these courses valuable. All students are urged to take at least one course in African-American Studies.

Courses 18 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUM:106</td>
<td>Black Humanities</td>
<td>3</td>
</tr>
<tr>
<td>PHL:105</td>
<td>Black Philosophy (or)</td>
<td>3</td>
</tr>
<tr>
<td>ENG:217</td>
<td>Major Black Writers*</td>
<td>3</td>
</tr>
<tr>
<td>PSY:200</td>
<td>General Psychology (Black Emphasis)</td>
<td>3</td>
</tr>
<tr>
<td>HST:137</td>
<td>African-American History I (or)</td>
<td>3</td>
</tr>
<tr>
<td>HST:138</td>
<td>African-American History II*</td>
<td>3</td>
</tr>
<tr>
<td>SOC:101</td>
<td>Introduction to Sociology (Black Emphasis)</td>
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<tr>
<td>XXX:xxx</td>
<td>African-American Studies approved Elective</td>
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Electives

* Required courses not selected may be taken as an elective course or any of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART:104</td>
<td>Major Black Artists</td>
<td>3</td>
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<tr>
<td>ECO:103</td>
<td>Economics of the Black Experience</td>
<td>3</td>
</tr>
<tr>
<td>HST:130</td>
<td>African History I</td>
<td>3</td>
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<tr>
<td>HST:131</td>
<td>African History II</td>
<td>3</td>
</tr>
<tr>
<td>HUM:209</td>
<td>Blacks and the World of Cinema</td>
<td>3</td>
</tr>
<tr>
<td>PHL:106</td>
<td>Black Religion</td>
<td>3</td>
</tr>
<tr>
<td>PSC:106</td>
<td>Blacks and the American Political Process</td>
<td>3</td>
</tr>
<tr>
<td>PSC:204</td>
<td>Politics of African Nations</td>
<td>3</td>
</tr>
</tbody>
</table>

Program total . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 credits

Architectural Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE
Meramec

This program prepares students for support positions in the architectural profession. Drafting and presentation skills are emphasized; however, detailing, design and project programming also are major concerns.

A variety of courses is offered from specification writing to rendering, to computer-aided drafting in an effort to expose students to the range of possibilities and knowledge necessary in this field.

The ability to visualize, draft and sketch is necessary. With patience and hard work most students are able to acquire these

Program total . . . . . . . . . . . . . . . . . . . . . . . . . . . . 64 credits

I. Career General Education 18-19 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ENG:100</td>
<td>Career English (or)</td>
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<td>ENG:101</td>
<td>College Composition I</td>
<td>3</td>
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<tr>
<td>ENG:103</td>
<td>Report Writing (or)</td>
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<tr>
<td>COM:101</td>
<td>Oral Communication I</td>
<td>3</td>
</tr>
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<td>XXX:xxx</td>
<td>Missouri State Requirement</td>
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</tr>
<tr>
<td>SOC:103</td>
<td>Human Behavior at Work and in Business (or)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Science Elective</td>
<td>3</td>
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<td>MTH:124</td>
<td>Technical Mathematics (or)</td>
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<td>Intermediate Algebra</td>
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<td>Select from:</td>
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<tr>
<td></td>
<td>Biology, Chemistry, Geology, Math (100+ level),</td>
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<tr>
<td></td>
<td>Physical Geology, Physical Science, or Physics</td>
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</table>

II. Physical Education Activity 2 credits

III. Area of Concentration 40 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC:110</td>
<td>Architectural Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ARC:112</td>
<td>Architectural Design and Production I</td>
<td>3</td>
</tr>
<tr>
<td>ARC:114</td>
<td>Architectural History and Theory</td>
<td>3</td>
</tr>
<tr>
<td>ARC:115</td>
<td>Architectural Rendering and Presentation</td>
<td>3</td>
</tr>
<tr>
<td>ARC:123</td>
<td>Introduction to Computer Aided Architectural Drafting</td>
<td>3</td>
</tr>
<tr>
<td>ARC:209</td>
<td>Mechanical and Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>ARC:211</td>
<td>Architectural Design and Production II</td>
<td>3</td>
</tr>
<tr>
<td>ARC:219</td>
<td>Professional Architectural Practice</td>
<td>2</td>
</tr>
<tr>
<td>ARC:220</td>
<td>Architectural Design and Production III</td>
<td>3</td>
</tr>
<tr>
<td>ARC:222</td>
<td>Site Planning and Landscape Drafting</td>
<td>3</td>
</tr>
<tr>
<td>ART:107</td>
<td>Design I</td>
<td>2</td>
</tr>
<tr>
<td>ART:109</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ARC:229</td>
<td>Architectural Specifications, Materials and Methods</td>
<td>3</td>
</tr>
<tr>
<td>CE:117</td>
<td>Statics and Strengths of Materials</td>
<td>3</td>
</tr>
</tbody>
</table>

IV. Electives 3-4 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC:223</td>
<td>Intermediate Computer-Aided Architectural Drafting</td>
<td>3</td>
</tr>
<tr>
<td>ARC:224</td>
<td>Advanced Computer-Aided Drafting</td>
<td>3</td>
</tr>
<tr>
<td>ARC:227</td>
<td>Architectural Estimating</td>
<td>3</td>
</tr>
<tr>
<td>ARC:228</td>
<td>Architectural Computer Rendering, Modeling and Animation</td>
<td>3</td>
</tr>
<tr>
<td>CE:241</td>
<td>Structural Systems I</td>
<td>4</td>
</tr>
</tbody>
</table>

Program total . . . . . . . . . . . . . . . . . . . . . . . . . . . . 64 credits

Workplace Experience: Students may substitute up to six credit hours of appropriate and relevant workplace learning experience for technical courses and/or electives, included in the program. In order for the workplace learning credit to be counted for the degree requirement, the learning experience must be pre-approved by the department, and an appropriate faculty member must supervise the work.
Automotive Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE
Forest Park

This program prepares students for entry-level positions in the automotive industry at beginning supervisory and managerial levels. Students are trained in every aspect of the mechanical parts of a car; however, auto body repair training is not offered. The program begins during the fall semester only. Part-time or full-time attendance is possible.

Persons interested in this program should be able to work well with people, be capable of assuming responsibility and be able to work without supervision. They should have a strong math and reading background and be mechanically inclined with a high level of manual dexterity and eye/hand coordination.

Graduates of the AAS program are qualified for positions as mechanics and diagnostic technicians at automobile dealerships, independent garages and repair shops, discount stores, tire centers and service centers. Certificate graduates qualify for many entry level positions.

I. Career General Education 19 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG:101</td>
<td>3</td>
</tr>
<tr>
<td>COM:101</td>
<td>3</td>
</tr>
<tr>
<td>MTH:124</td>
<td>3</td>
</tr>
<tr>
<td>PST:124</td>
<td>4</td>
</tr>
<tr>
<td>XXXxxxx</td>
<td>3</td>
</tr>
<tr>
<td>XXXxxxx</td>
<td>3</td>
</tr>
</tbody>
</table>

II. Physical Education Activity 2 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT:291</td>
<td>2</td>
</tr>
</tbody>
</table>

III. Area of Concentration 47 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT:150 Automotive Fuel and Induction Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUT:151 Automotive Engine Operation</td>
<td>3</td>
</tr>
<tr>
<td>AUT:156 Automotive Electricity</td>
<td>3</td>
</tr>
<tr>
<td>AUT:158 Charts, Diagrams, and Handbook Usage</td>
<td>2</td>
</tr>
<tr>
<td>AUT:167 Automotive Electronics</td>
<td>3</td>
</tr>
<tr>
<td>AUT:168 Suspension and Steering I</td>
<td>3</td>
</tr>
<tr>
<td>AUT:169 Suspension and Steering II</td>
<td>3</td>
</tr>
<tr>
<td>AUT:256 Automotive Powertrains</td>
<td>3</td>
</tr>
<tr>
<td>AUT:271 Diagnostic Equipment and Emissions</td>
<td>3</td>
</tr>
<tr>
<td>AUT:272 Accessories, Controls and Air</td>
<td>3</td>
</tr>
<tr>
<td>AUT:273 Automatic Transmissions and Transaxles</td>
<td>3</td>
</tr>
<tr>
<td>AUT:281 Automotive Field Work I</td>
<td>5</td>
</tr>
<tr>
<td>AUT:282 Automotive Field Work II</td>
<td>5</td>
</tr>
<tr>
<td>AUT:291 Automotive Service Management</td>
<td>2</td>
</tr>
<tr>
<td>ENG:101 College Composition I (or)</td>
<td>3</td>
</tr>
<tr>
<td>COM:101 Oral Communication I (or)</td>
<td>3</td>
</tr>
<tr>
<td>MTH:124 Technical Mathematics I</td>
<td>3</td>
</tr>
</tbody>
</table>

Program total . . . . . . . . . 68 credits

Workplace Experience: Students may substitute up to six credit hours of appropriate and relevant workplace learning experience for technical courses, and/or electives, included in the program. In order for the workplace learning credit to be counted for the degree requirement, the learning experience must be pre-approved by the department, and an appropriate faculty member must supervise the work.
Automotive Technology:  
Ford Asset Option  
ASSOCIATE IN APPLIED SCIENCE DEGREE  
Forest Park  
The Ford ASSET (Automotive Student Service Educational Training) program is an alliance among Ford Motor Company, Ford, Lincoln-Mercury and Mazda dealers, and St. Louis Community College. The program is a career program that trains students to become entry-level automotive service technicians at Ford, Lincoln-Mercury and Mazda dealerships. Students get on-the-job training at a sponsoring dealership while earning an Associate in Applied Science Degree in Automotive Technology. Enrollment is restricted by dealer selection. For information contact the Ford ASSET Coordinator.

<table>
<thead>
<tr>
<th>I. Career General Education</th>
<th>18 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG:101 College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>COM:101 Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>MTH:108 Applied Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>PSI:101 Physical Science Lecture</td>
<td>3</td>
</tr>
<tr>
<td>XXXxxx Missouri State Requirement</td>
<td>3</td>
</tr>
<tr>
<td>XXXxxx Psychology or Sociology Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

I. Physical Education Activity 2 credits

II. Area of Concentration 34-35 credits

Banking Option

<table>
<thead>
<tr>
<th>I. Career General Education</th>
<th>27-28 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM:101 Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>ENG:101 College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG:102 College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>ECO:151 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO:152 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>XXXxxx Missouri State Requirement</td>
<td>3</td>
</tr>
<tr>
<td>XXXxxx Social Science Option</td>
<td>3</td>
</tr>
<tr>
<td>MTH:xx MTH:100 or higher</td>
<td>3</td>
</tr>
<tr>
<td>MTH:xx MTH:100 or Higher</td>
<td>3</td>
</tr>
</tbody>
</table>

II. Area of Concentration 2 credits

III. Area of Concentration 34-35 credits

Banking and Finance Core Courses 15 credits

| ACC:110 Financial Accounting I | 4 |
| BUS:104 Introduction to Business Administration | 3 |
| BUS:115 Principles of Banking* | 2 |
| ECO:215 Money and Banking* | 3 |
| IS:116 Microcomputer Literacy | 3 |

Banking Option (required courses) 7-8 credits

| MGT:222 Consumer Lending* | 2 |
| FIN:100 Personal Finance | 3 |
| MKT:203 Principles of Marketing (or) | 2 |
| MKT:215 Marketing Financial Services* | 2 |

Choose 4-5 courses 12 credits

| ACC: 114 Managerial Accounting | 3 |
| BLW:101 Business Law I (or) | 2-3 |
| MGT:220 Law and Banking Principles* | 2 |
| BLW:102 Business Law II (or) | 3 |
| BLW:216 Law and Banking Applications* | 3 |
| BUS:216 Analyzing Financial Statements* | 3 |
| MGT:204 Business Organization and Management | 3 |
| MKT:104 Principles of Selling | 3 |
| FIN: 101 Introduction to Investments | 3 |
| BUS:250 Workplace Learning: Business and Economics | 3 |

* Center for Financial Training  

Program total . . . 63-65 credits

Because good customer relations are vital to the financial service industry, students interested in the program should be highly service-oriented and interested in working with people. Potential students also should be industrious and trustworthy. Previous business and banking experience is helpful.

Graduates of the program are qualified for positions as clerks, tellers and management trainees. These positions can be found in departments such as installment loans, data processing, personnel, credit service, commercial loans and auditing in banks, thrifts or credit unions.

Students may obtain information through the College Admissions office, Counseling, Business Administration or through C.F.T.
**Finance Option**

### I. Career General Education: 27-28 credits

- **COM:101** Oral Communication I ........................... 3
- **ENG:101** College Composition I ........................... 3
- **ENG:102** College Composition II ........................... 3
- **ECO:151** Principles of Macroeconomics ................. 3
- **ECO:152** Principles of Microeconomics ................... 3
- **XXXxxx** Missouri State Requirement ..................... 3
- **XXXxxx** Social Science Option ............................ 3
- **MTH:xxx** MTH:100 or higher ............................. 3-
- **XXXxxx** Math/Science Elective ............................ 3-4

### II. Physical Education Activity 2 credits

- **XXXxxx** XXXxxx

### III. Area of Concentration 35 credits

**Banking and Finance Core Courses 15 credits**

- **ACC:110** Financial Accounting I ......................... 4
- **BUS:104** Introduction to Business Administration .... 3
- **BUS:115** Principles of Banking* .......................... 2
- **ECO:215** Money and Banking* ............................ 3
- **IS:116** Microcomputer Literacy ........................... 3

**Finance Option (required courses) 8 credits**

- **MGT:221** Commercial Lending* .......................... 2
- **FIN:201** Principles of Finance ............................ 3
- **FIN:101** Introduction to Investments .................... 3

**Choose 4-5 courses 12 credits**

- **ACC:114** Managerial Accounting ........................ 3
- **BLW:101** Business Law I (or) ............................ 2-3
- **MGT:220** Law and Banking Principles* ................ 2-3
- **BLW:102** Business Law II (or) ........................... 2-3
- **BLW:216** Law and Banking: Applications* ............. 2-3
- **BUS:216** Analyzing Financial Statements* ............. 2-3
- **MGT:204** Business Organization and Management .... 3
- **MKT:104** Principles of Selling ........................... 3
- **MKT:203** Principles of Marketing ........................ 3
- **BUS:250** Workplace Learning: Business and Economics 3

* Center for Financial Training courses

**Program total . . . . 63-65 credits**

### Biotechnology

**ASSOCIATE IN APPLIED SCIENCE DEGREE**

**Florissant Valley**

Biotechnology is applied biology of cells and their products. The biotechnology classes in this program provide the knowledge and skills to work in a life science research laboratory, in molecular-cellular quality control, in bioprocessing and in other life science industry settings.

Fundamentals of Chemistry I or high school chemistry with a grade of A or B within the past three years is required for entry into this program.

### I. General Education 21 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG:101</td>
<td>3</td>
<td>College Composition I</td>
</tr>
<tr>
<td>MTH:160</td>
<td>4</td>
<td>College Algebra</td>
</tr>
<tr>
<td>COM:101</td>
<td>3</td>
<td>Oral Communication I</td>
</tr>
<tr>
<td>CHM:105</td>
<td>5</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>XXXxxx</td>
<td>3</td>
<td>Missouri State Requirement</td>
</tr>
<tr>
<td>XXXxxx</td>
<td>3</td>
<td>Social Science Elective</td>
</tr>
</tbody>
</table>

### II. Physical Education Activity 2 credits

**Choose 4-5 courses 12 credits**

### III. Area of Concentration 45 credits

**Banking and Finance Core Courses 15 credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO:104</td>
<td>3</td>
<td>Basic Laboratory Methods</td>
</tr>
<tr>
<td>BIO:140</td>
<td>4</td>
<td>Principles of Biology I</td>
</tr>
<tr>
<td>BIO:225</td>
<td>5</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIO:218</td>
<td>4</td>
<td>Microbiology for Biotechnology</td>
</tr>
<tr>
<td>BIO:219</td>
<td>5</td>
<td>Biotechnology I</td>
</tr>
<tr>
<td>BIO:220</td>
<td>5</td>
<td>Biotechnology II</td>
</tr>
<tr>
<td>BIO:221</td>
<td>3</td>
<td>Workplace Learning Biotechnology</td>
</tr>
<tr>
<td>BIO:222</td>
<td>5</td>
<td>Specialized Topics in Biotechnology</td>
</tr>
<tr>
<td>CHM:106</td>
<td>5</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>GE:101</td>
<td>3</td>
<td>Technical Computer Applications</td>
</tr>
<tr>
<td>PHL:109</td>
<td>3</td>
<td>Bio-Medical Ethics</td>
</tr>
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</table>

**IV. Electives 2-4 credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>HRT:103</td>
<td>3</td>
<td>Plant Propagation</td>
</tr>
<tr>
<td>HRT:134</td>
<td>3</td>
<td>Micropropagation of Plants</td>
</tr>
<tr>
<td>BIO:124</td>
<td>4</td>
<td>General Botany</td>
</tr>
<tr>
<td>BIO:224</td>
<td>2</td>
<td>Introduction to Bioinformatics</td>
</tr>
<tr>
<td>BIO:152</td>
<td>2</td>
<td>Quantitative Methods in Biotechnology</td>
</tr>
<tr>
<td>DIT:108</td>
<td>3</td>
<td>Food: Preparation and Science Lecture</td>
</tr>
<tr>
<td>DIT:109</td>
<td>2</td>
<td>Food: Preparation and Science Lab</td>
</tr>
<tr>
<td>BIO:223</td>
<td>1-3</td>
<td>Research Techniques in Biology</td>
</tr>
<tr>
<td>CHM:206</td>
<td>3</td>
<td>Organic Chemistry Lecture I</td>
</tr>
<tr>
<td>CHM:207</td>
<td>3</td>
<td>Organic Chemistry Lecture II</td>
</tr>
<tr>
<td>CHM:210</td>
<td>2</td>
<td>Organic Chemistry Lab I</td>
</tr>
</tbody>
</table>

**Program total . . . . 70-72 credits**

### CERTIFICATE OF SPECIALIZATION

**Florissant Valley**

**Courses**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BIO:104</td>
<td>3</td>
</tr>
<tr>
<td>BIO:219</td>
<td>5</td>
</tr>
<tr>
<td>BIO:220</td>
<td>5</td>
</tr>
<tr>
<td>BIO:222</td>
<td>5</td>
</tr>
</tbody>
</table>

**Program total . . . . 18 credits**
Building Inspection and Code Enforcement Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE

Forest Park

This program provides in-service training for current building inspectors and code enforcement officials and prepares students for entry-level employment. Students will learn to approve architectural plans and specifications, award work permits and to inspect new construction as it progresses. They will become knowledgeable in inspection techniques, soils, architectural materials, plumbing and electrical systems, heating and ventilation systems, and municipal fire safety regulations.

Persons interested in this program should be mechanically inclined, honest, able to work with and pursue small details, able to read and interpret technical documents and construction drawings and specifications.

Graduates are qualified for positions as building inspectors and code enforcement officials with municipal governments, national and state agencies and private firms.

I. Career General Education 24 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG:101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG:103</td>
<td>Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>COM:101</td>
<td>Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>CHM:114</td>
<td>Industrial Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>MTH:124</td>
<td>Technical Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>PSI:101</td>
<td>Principles of Physical Science Lecture</td>
<td>3</td>
</tr>
<tr>
<td>XXXxxxx</td>
<td>Missouri State Requirement</td>
<td>3</td>
</tr>
<tr>
<td>SOC:101</td>
<td>Introduction to Sociology</td>
<td>3</td>
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</tbody>
</table>

Program total . . . . . 32 credits

II. Physical Education Activity 2 credits

III. Area of Concentration 42 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>BIC:101</td>
<td>Basic Building Inspection Techniques</td>
<td>3</td>
</tr>
<tr>
<td>BIC:103</td>
<td>Building Codes and Ordinances</td>
<td>3</td>
</tr>
<tr>
<td>BIC:200</td>
<td>Plumbing and Mechanical Inspection</td>
<td>4</td>
</tr>
<tr>
<td>BIC:201</td>
<td>Electrical Inspection</td>
<td>2</td>
</tr>
<tr>
<td>BIC:202</td>
<td>Administration of Building Regulations</td>
<td>3</td>
</tr>
<tr>
<td>BIC:203</td>
<td>Plan Review I (Non-structural)</td>
<td>3</td>
</tr>
<tr>
<td>BIC:204</td>
<td>Plan Review II (Structural)</td>
<td>3</td>
</tr>
<tr>
<td>BIC:205</td>
<td>Soils, Grading and Waste Water Control</td>
<td>3</td>
</tr>
<tr>
<td>CE:116</td>
<td>Construction Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>FIR:105</td>
<td>Inspection and Fire Prevention</td>
<td>3</td>
</tr>
<tr>
<td>FIR210</td>
<td>Architectural Structural Representation—Materials</td>
<td>3</td>
</tr>
<tr>
<td>ME:135</td>
<td>Mechanics—Statics</td>
<td>3</td>
</tr>
<tr>
<td>ME:243</td>
<td>Strength of Materials</td>
<td>3</td>
</tr>
<tr>
<td>MGT:204</td>
<td>Business Organization and Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Program total . . . . . 68 credits

CERTIFICATE OF PROFICIENCY

Forest Park

This program provides in-service training for current building inspectors and code enforcement officials and prepares students for entry-level employment. Students will learn to approve architectural plans and specifications, award work permits and to inspect new construction as it progresses. They will become knowledgeable in inspection techniques, soils, architectural materials, plumbing and electrical systems, heating and ventilation systems, and municipal fire safety regulations.

Persons interested in this program should be mechanically inclined, honest, able to work with and pursue small details, able to read and interpret technical documents and construction drawings and specifications.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXxxxx Building Inspection, or Fire Protection or Mechanical Engineering Electives from AAS degrees</td>
<td>23</td>
</tr>
<tr>
<td>XXXxxxx Approved Electives from AAS degree</td>
<td>9</td>
</tr>
</tbody>
</table>

Program total . . . . . 32 credits

Housing Inspection Option

CERTIFICATE OF PROFICIENCY

Forest Park

This program provides training for individuals seeking positions in municipal government and private firms. In general, the housing inspector performs inspections on existing homes to insure they meet local and national codes.

Persons interested in this program should be mechanically inclined, honest, able to work with and pursue small details, and able to read and interpret technical documents and construction drawings and specifications.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIC:101 Basic Building Inspection Techniques</td>
<td>3</td>
</tr>
<tr>
<td>BIC:102 Housing Inspection and Programs</td>
<td>3</td>
</tr>
<tr>
<td>BIC:103 Building Codes and Ordinances</td>
<td>3</td>
</tr>
<tr>
<td>BIC:104 Housing Inspection Problems</td>
<td>3</td>
</tr>
<tr>
<td>BIC:200 Plumbing and Mechanical Inspection</td>
<td>4</td>
</tr>
<tr>
<td>BIC:201 Electrical Inspection</td>
<td>2</td>
</tr>
<tr>
<td>COM:101 Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>ENG:101 College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>FIR:105 Inspection and Fire Prevention</td>
<td>3</td>
</tr>
<tr>
<td>FIR210 Architectural Structural</td>
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</tr>
<tr>
<td>SOC:101 Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

Program total . . . . . 33 credits
Business Administration
CERTIFICATE OF PROFICIENCY
Florissant Valley, Forest Park, Meramec and Wildwood
This flexible program is designed to address the educational and occupational needs of several groups of people in the business field. Persons presently employed in business-related areas can upgrade their skills and competencies. People presently employed who possess non-business degrees can enhance their business skills and competencies. They can enroll in short-term, intensive training for job opportunities or they can complete specific undergraduate requirements toward an advanced degree in business. Students will acquire fundamental knowledge and skill in accounting, marketing, management, decision making, economics and statistics.

The ability to communicate effectively verbally and in writing is especially important for persons interested in this program.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG:101 College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MTH:160 College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>ECO:151 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO:152 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ACC:110 Financial Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>ACC:114 Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUS:104 Introduction to Business Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

Select four courses from:
- BLW:101 Business Law I (or)
- BLW:201 Legal Environment of Business | 3 |
- BUS:201 Elementary Statistics (or)
- BUS:202 Statistical Analysis | 3 |
- IB:100 International Business | 3 |
- IS:103 Information Systems for Business | 3 |
- MKT:203 Principles of Marketing | 3 |
- MGT:204 Business Organization and Management | 3 |

Program total ........ 35 credits

CERTIFICATE OF SPECIALIZATION
Florissant Valley, Forest Park and Wildwood
This flexible program is designed to address the career and educational needs of those currently employed in business-related areas. Designed to enhance business skills and competencies, this focused program can be used to expand job-related skills and to provide a foundation for advanced study in business.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACC:100 Applied Accounting I</td>
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<tr>
<td>BUS:104 Introduction to Business Administration</td>
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<tr>
<td>IS:103 Information Systems for Business (or)</td>
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<tr>
<td>IS:xxx Approved Information Systems course</td>
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<tr>
<td>MTH:108 Elementary Applied Mathematics (or)</td>
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<tr>
<td>MTH:xxx Approved 100 level Mathematics course (or)</td>
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<tr>
<td>BUS:103 Business Mathematics</td>
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<td>MGT:204 Business Organization and Management</td>
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</tr>
<tr>
<td>MKT:203 Principles of Marketing</td>
<td>3</td>
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</tbody>
</table>

Program total ........ 18 credits

Chemical Technology
ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley
This program prepares students to work as chemical laboratory technicians with chemists, engineers and environmentalists. Students learn the basics of wet chemical methods and acquire skills in analyzing and interpreting the results of basic chemical instrumentation.

Persons interested in this program should have an interest in math and science. They also should be able to work with people in teams.

Graduates are qualified for positions as industrial chemical technicians in chemical processing plants, and environmental, agricultural, research and manufacturing facilities.

I. Career General Education .... 15 credits
- ENG:100 Career English (or) | 3 |
- ENG:101 College Composition I | 3 |
- ENG:102 College Composition I (or) | 3 |
- ENG:103 Report Writing | 3 |
- MTH:140 Intermediate Algebra | 3 |
- XXX:xxx Missouri State Requirement | 3 |
- XXX:xxx Social Science Elective | 3 |

II. Physical Education Activity ... 2 credits

III. Area of Concentration .... 39 credits
- CHM:101 Fundamentals of Chemistry | 5 |
- CHM:121 Chemical Technology I | 5 |
- CHM:122 Chemical Technology II | 5 |
- CHM:221 Chemical Technology III | 5 |
- CHM:222 Chemical Technology IV | 5 |
- CHM:231 Chemical Technology V | 5 |
- CHM:232 Chemical Technology VI | 5 |
- CHM:213 Chemical Technology Seminar | 2 |
- CHM:214 Advanced Chemical Technology | 2 |

IV. Electives .................. 11 credits
- XXX:xxx Math or Science | 4 |
- PHY:111 College Physics I (or) | 4 |
- BIO:203 General Microbiology I | 4 |
- GE:101 Technical Computer Applications | 3 |

Program total ........ 67 credits

CERTIFICATE OF PROFICIENCY
Florissant Valley

<table>
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<tr>
<th>Courses</th>
<th>Credits</th>
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<td>CHM:122 Chemical Technology II</td>
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<tr>
<td>CHM:221 Chemical Technology III</td>
<td>5</td>
</tr>
<tr>
<td>CHM:222 Chemical Technology IV</td>
<td>5</td>
</tr>
<tr>
<td>CHM:231 Chemical Technology V</td>
<td>5</td>
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<tr>
<td>CHM:232 Chemical Technology VI</td>
<td>5</td>
</tr>
<tr>
<td>CHM:213 Chemical Technology Seminar</td>
<td>2</td>
</tr>
<tr>
<td>CHM:214 Advanced Chemical Technology</td>
<td>2</td>
</tr>
</tbody>
</table>

Program total ........ 34 credits
Civil Engineering Technology
ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley

Civil engineering technicians work as part of the project team in the design and construction of roads, dams, airports, bridges, pollution control systems, water and sewage treatment plants, and all types of commercial and industrial buildings. To accomplish that work, the civil technician could be involved in surveying, soil testing, preparation of drawings, basic design, construction inspection, material testing, contract administration, estimating project costs or technical sales. Many positions provide the opportunity to work out of doors.

An interest in practical problem solving and in observing a project from start to finish is important for persons employed in this field. Prior course work in algebra, geometry and drafting would be helpful. If necessary, developmental courses in those subjects are available.

Graduates are qualified for positions as civil and structural design draftsmen, survey instrument operators, construction inspectors, soils technicians and technical sales representatives.

I. Career General Education 38-39 credits
COM:101 Oral Communication I .......................... 3
EGR:100 Engineering Drawing ........................ 3
ENG:100 Career English (or) ........................... 3
ENG:101 College Composition I ........................ 3
ENG:103 Report Writing (or) ......................... 3
ENG:102 College Composition II ..................... 3
GE:101 Technical Computer Applications .......... 3
MTH:144 Technical Algebra and Trigonometry (or)**
MTH:185 Precalculus .................................. 5
MTH:154 Technical Analytical Geometry and 
Calculus (or)** ........................................
MTH:210 Analytic Geometry and Calculus I .... 4-5
PHY:111 College Physics I .............................. 4
PHY:112 College Physics II ............................. 4
SOC:103 Human Behavior at Work and in Business . 3
XXXxxx Missouri State Requirement ................ 3

II. Physical Education Activity 2 credits

III. Area of Concentration 17-18 credits
CE:103 Structural Drafting (or) ......................... 3
CE:104 Civil Drafting .................................... 3
CE:230 Construction Materials and Testing ........ 3
CE:240 Surveying I ....................................... 3
EGR:133 Introduction to AutoCAD I (or) .........
EGR:140 Computer Aided Drafting and Design I .... 2-3
ME:135 Mechanics-Statics ............................ 3
ME:243 Strength of Materials .......................... 3

IV. Electives (either group required) 9 credits

Group A
CE:234 Structural Analysis ............................ 3
CE:236 Reinforced Concrete Design ................. 3
CE:237 Structural Steel Design ....................... 3

Group B
CE:250 Surveying II .................................... 3
CE:233 Hydraulics ....................................... 3
CE:238 Environmental Systems ..................... 3

Program total ... 66-68 credits

** Students who are planning to pursue a BS in Civil Engineering should take the MTH:185/MTH:210 sequence.

Workplace Experience: Students may substitute up to six credit hours of appropriate and relevant workplace learning experience for technical courses, and/or electives, included in the program. In order for the workplace learning credit to be counted for the degree requirement, the learning experience must be pre-approved by the department, and an appropriate faculty member must supervise the work.

Clinical Laboratory Technology
(Medical Laboratory Technician)
ASSOCIATE IN APPLIED SCIENCE DEGREE
Forest Park

This program prepares students for entry-level positions as clinical laboratory technicians. Through classroom and practical experience in hospital and clinical laboratories, students learn to perform qualitative, quantitative and analytic testing in microbiology, hematology, blood banking, clinical chemistry, serology, immunology and routine analysis.

Persons interested in this program should have an interest in biology, chemistry and the health sciences and be able to follow precise and detailed instructions.

Graduates are eligible to take the National Certifying Registry Examination. Positions are available in hospitals, clinics, doctors' offices, independent laboratories, and public health, research and industrial laboratories.

I. Career General Education 27 credits
ENG:101 College Composition I ....................... 3
ENG:102 College Composition II (or) .............
ENG:xx English Elective .............................. 3
BIO:102 Clinical Physiology ........................ 3
CHM:101 Fundamentals of Chemistry I ............ 5
CHM:212 Bio-Organic and Analytic Chemistry .... 4
MTH:124 Technical Mathematics I ................ 3
XXXxxx Missouri State Requirement .............. 3
SOC:101 Introduction to Sociology (or) ...........
XXXxxx Psychology or Sociology Elective .......... 3

II. Physical Education Activity 2 credits

III. Area of Concentration 43 credits
CLT:100 Orientation of the Medical Laboratory .... 1
CLT:101 Medical Microbiology ........................ 3
CLT:102 Routine Analysis .............................. 2
CLT:103 Hematology .................................... 3
CLT:104 Pathogenic Bacteriology I .................. 4
CLT:105 Basic Laboratory Skills ..............
CLT:200 Pathogenic Bacteriology II ............... 4
CLT:201 Clinical Chemistry I ....................... 5
CLT:202 Clinical Practice I ............................ 4
CLT:204 Blood Bank ................................... 2
Computer Aided Manufacturing (CAM)

CERTIFICATE OF SPECIALIZATION
Florissant Valley

This program upgrades skills of persons currently employed in numerical control programming. It provides persons currently employed in manufacturing with a specialty in numerical control programming and provides students in technical areas with specialization in a specific area of manufacturing. Students learn the basics of numerical control programming through the use of computers and computer graphics with an orientation toward fabrication and assembly of a product after the design phase is completed.

Persons interested in this program should consult the Engineering and Technology department at Florissant Valley to determine whether they have the necessary prerequisites needed for the program.

Graduates are qualified for positions in computer-aided drafting, numerical control programming and/or numerical control machine operators, and related mechanical/manufacturing areas.

Courses                      Credits
GE:101  Technical Computer Applications .................. 3
ME:230  Introduction to 3-D Solid Modeling for Design .......... 4
EGR:133  Introduction to AutoCAD I ..................... 2
ME:140  Introduction to Robotics (or)
EE:236  PLC/Programmable Logic Controller ............. 3
ME:241  Numerical Control Programming ............. 3
ME:152  Manufacturing Processes II ............. 3

Program total ........ 18 credits

Computer Aided Publishing

CERTIFICATE OF SPECIALIZATION
Forest Park

This program combines business writing, editing, design and layout courses with desktop publishing equipment to produce finished advertising and business communications materials. It is designed for persons with some previous experience in advertising or communications who wish to enhance their skills, increase their employability and explore the technological advances in computer aided publishing.

Courses                      Credits
ART:133  Graphic Design I ..................... 3
ART:131  Computer Art Studio ..................... 3
AT:246  Advanced Computer Art Applications ............. 3
MCM:217  Publications/Writing ............. 3
ART:135  Graphic Production I ............. 2
ART:245  Portfolio Design & Professional Practices ............. 2

Program total ........ 18 credits

Computer Aided Design (CAD)

CERTIFICATE OF SPECIALIZATION
Florissant Valley

A CAD operator is able to interpret data from multiple sources, apply traditional drafting skills, utilize operating system software, follow industrial practices and company procedures related to CAD work, and efficiently perform all related tasks to produce final drawings and CAD models.

Courses                      6 credits
EGR:100  Engineering Drawing ..................... 3
GE:101  Technical Computer Applications (or)
GE:121  Principles of Engineering (or)
ESC:100  Engineering Computer Applications and Design ..................... 3

CAD Sequence                      9 credits
Select from the following lists with at least one in each area for a total of at least 9 credit hours:

2-D CAD
EGR:104  Electronic Drafting ..................... 2
EGR:133  Introduction to AutoCAD I ..................... 2
EGR:140  Computer Aided Drafting and Design I ..................... 3
EGR:141  Introduction to AutoCAD II ..................... 2
EGR:143  Introduction to Microstation ..................... 2
EGR:144  Microstation II ..................... 2

3-D CAD
EGR:147  Introduction to Engineering Design ............. 3
EGR:145  Computer Solids Modeling ............. 2
EGR:139  3-D AutoCAD with Autoshade ............. 2
ME:230  Introduction to 3-D Solid Modeling for Design ............. 4
EGR:148  Solid Modeling with Unigraphics ............. 2
EGR:256  Solid Modeling with CATIA ............. 2

CAD Applications
ME:230  Introduction to 3-D Solid Modeling for Design ............. 4
EGR:255  Advanced Computer Aided Drafting ............. 3
GE:122  Engineering Design and Development ............. 3
EGR:257  Unigraphics for Part Design ............. 2

Technical Elective ........ 3 credits
Select course(s) from Engineering and Technology department (prefixes: BE, CE, EE, EGR, ESC, GE, ME, QC).

Program total ........ 72 credits
Electives  2-3
Choose approved elective(s) from
ART:241 Publication Design .......................... 3
ART:236 Typography ................................ 2
AT:247 Broadcast Graphics ......................... 2
MCM:101 Introduction to Mass Communications .. 3
MCM:113 Applied Journalism ..................... 3
MCM:140 Introduction to Advertising ........... 3
MCM:141 Public Relations .......................... 3

Program total . . . . . 18-19 credits

Other Art or Mass Communications courses may also substitute for the elective with the department's permission.

Construction Office Management
CERTIFICATE OF SPECIALIZATION
Florissant Valley

This program was designed to provide students with a solid background in the four areas of concentration relating to the construction industry. These areas are: estimating, scheduling, blueprint reading and management. Students successfully completing this program can seek immediate employment by marketing themselves as individuals qualified to participate in construction bidding and management functions, or can continue on in the Construction Management Technology Program and receive an Associate in Applied Science Degree. The certificate program can be completed either in two-semesters by taking regular semester-long courses, or in a (five-month) compressed format by taking one course in each of the five months.

The program of study will consist of 15 credit hours of course work in estimating, scheduling, blueprint reading and management.

Courses Credits
CE:116 Construction Blueprint Reading ........... 3
CE:131 Construction Estimating ................... 3
CE:132 Construction Scheduling .................. 3
CE:235 Construction Office Practice ............... 3
GE:101 Technical Computer Applications .......... 3

Program total . . . . . 15 credits

Construction Management
Technology
ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley

This program prepares students to work as technicians in the construction industry. Students acquire knowledge and skills in all phases of construction including planning, design, construction methods and contract management.

Persons interested in this program should have an interest in construction and enjoy working outdoors. A solid background in mathematics will assist in problem solving.

Graduates are qualified for positions in the areas of inspection, work scheduling, estimating, material ordering, equipment sales, field management, and construction planning and layout.

I. Career General Education  20-25 credits
ENG:100 Career English (or) ....................... 3
ENG:101 College Composition I ..................... 3
ENG:103 Report Writing (or) ....................... 3
ENG:102 College Composition II .................. 3
COM:101 Oral Communication I .................. 3
MTH:124 Technical Mathematics I (and) .......... 3
MTH:134 Technical Mathematics II ................ 6
MTH:144 Technical Algebra and Trigonometry ... 5
MTH:185 Precalculus (and) ......................... 10
SOC:103 Human Behavior at Work and in Business .. 3
XXX:xxx Missouri State Requirement ............... 3

II. Physical Education Activity  2 credits

III. Area of Concentration  39 credits
ACC:100 Applied Accounting ....................... 3
ARC:209 Mechanical and Electrical Systems I .. 3
EGR:100 Engineering Drawing ..................... 3
GE:101 Technical Computer Applications .......... 3
CE:108 Construction Methods ..................... 3
CE:116 Construction Blueprint Reading .......... 3
CE:131 Construction Estimating .................. 3
CE:132 Construction Scheduling .................. 3
CE:230 Construction Materials and Testing ....... 3
CE:235 Construction Office Practice .......... .... 3
ME:135 Mechanics-Statics ........................ 3
ME:243 Strength of Materials ..................... 3
MGT:101 Introduction to Supervision ............. 3

IV. Electives  6 credits
ACC:110 Financial Accounting I ................. 4
CE:234 Structural Analysis ....................... 3
CE:236 Reinforced Concrete Design ............. 3
CE:237 Structural Steel Design ................. 3
CE:240 Surveying I .................................. 3
CE:250 Surveying II .................................. 3
MGT:204 Business Organization and Management .. 3
MGT:xxx Management Elective ................... 3

Program total . . . . . 67-72 credits

** Students who are planning to pursue a BS degree in construction after completing this AAS degree should take the MTH:185/MTH:210 sequence.

Workplace Experience: Students may substitute up to six credit hours of appropriate and relevant workplace learning experience for technical courses, and/or electives, included in the program. In order for the workplace learning credit to be counted for the degree requirement, the learning experience must be pre-approved by the department, and an appropriate faculty member must supervise the work.
Credit Management

CERTIFICATE OF PROFICIENCY
Florissant Valley

This program has been deactivated effective spring 2009. New students are no longer being accepted. Students currently enrolled in this program should see the department chair or an advisor.

Criminal Justice: Corrections Option
ASSOCIATE IN APPLIED SCIENCE DEGREE
Forest Park

This program will prepare students for entry-level employment in the Criminal Justice/Corrections field. Also it will help those currently employed in the field to gain promotion and will provide a solid academic foundation for those wishing to transfer to other institutions of higher education to finish their academic goals. Students will study the correctional system as it relates to the total criminal justice system, i.e., law enforcement, courts, private security, etc. Probation, parole and rehabilitation will be covered and students will gain a working knowledge of these options to incarceration.

Persons interested in this program should be capable of working effectively with others. Prior course work in psychology, sociology, human services and social studies will be beneficial.

Graduates will be qualified for entry-level positions at the city, county and state level for correctional officers.

I. Career General Education 32-36 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG:101</td>
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<td>ENG:102</td>
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<td>COM:101</td>
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II. Physical Education Activity 2 credits

III. Area of Concentration 30 credits

<table>
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<th>Credits</th>
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<td>CRJ:211</td>
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</table>

Program total . . . . 64-67 credits

CERTIFICATE OF PROFICIENCY
Forest Park

This program prepares students for entry level employment and advancement in the corrections field. Students learn to work toward the prevention of crime through rehabilitation, probation, work release and other modern treatment techniques.

Program total . . . . 33 credits

Criminal Justice: Law Enforcement Option
ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley, Forest Park and Meramec

This program is designed to prepare students for entry-level employment in the criminal justice system; prepare those currently employed by a law enforcement agency for promotion; provide a background in law enforcement for those preparing for studies such as pre-law and advanced study in police management, criminology or social welfare. The program introduces students to the criminal justice system and its components. Students will obtain a working knowledge of the laws and procedures of the Missouri Juvenile Code.

Persons interested in this program should be capable of working effectively with others. Previous participation in team sports, military service and other group experiences are helpful. Prior course work in psychology, sociology, social studies and law is also beneficial.

Graduates are qualified for positions in law enforcement agencies, private security organizations and businesses such as insurance companies, banks and retail operations.

I. Career General Education 30-33 credits

<table>
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<th>Course</th>
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<tbody>
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</table>

II. Physical Education Activity 2 credits

III. Area of Concentration 30 credits

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<td>CRJ:211</td>
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<td>CRJ:xxx</td>
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</tbody>
</table>

Program total . . . . 64-67 credits
III. Area of Concentration credits
CRJ:111 Rules of Criminal Evidence .................. 3
CRJ:122 Introduction to Criminal Justice .......... 3
CRJ:123 Juvenile Justice .............................. 3
CRJ:124 Criminal Law and Procedures ........... 3
CRJ:207 Police Supervision ............................ 3
CRJ:206 Management of Human Conflicts (or)  
SOC:203 Criminology and Deviance .............. 3
CRJ:212 Criminal Investigation ...................... 3

IV. Electives 9-11 credits

Program total . . . . . 64-67 credits

CERTIFICATE OF PROFICIENCY
Florissant Valley, Forest Park and Meramec
This program prepares students for employment and advancement in Law Enforcement. Students are provided with a sound background in legal procedures, a strong base of writing skills and a basic understanding of the government process.

Courses Credits
CRJ:111 Rules of Criminal Evidence .................. 3
CRJ:122 Introduction to Criminal Justice .......... 3
CRJ:123 Juvenile Justice .............................. 3
CRJ:124 Criminal Law and Procedures ........... 3
CRJ:207 Police Supervision ............................ 3
CRJ:212 Criminal Investigation ...................... 3
ENG:101 College Composition I ......................... 3
CRJ:206 Management of Human Conflicts (or)  
SOC:203 Criminology and Deviance .............. 3
PHL:104 Ethics ........................................... 3
Select one course:
HST:100 American Civilization
HST:101 American History I
HST:102 American History II
PSC:101 Introduction to American Politics
PSC:102 American National Politics
PSC:103 State and Urban Politics ..................... 3

Electives 3 credits
Recommended electives include courses in criminal justice, human services, and sociology as related to the Criminal Justice field.

Program total . . . . . 33 Credits

Database Developer
CERTIFICATE OF SPECIALIZATION
Florissant Valley, Forest Park and Meramec
This certificate is designed for individuals who are interested in developing skills to create and manage databases. It will provide the student with the tools, knowledge, and practical experience needed to design, develop, program, implement, and administer a database. Graduates will be qualified for the high demand positions of Advanced User; Developer; Analyst; Administrator; or Programmer in a database environment. The Certificate of Specialization is designed to parallel the courses in the Oracle Developer Certificate of Proficiency (see page 86). This certificate can be an intermediate affirmation of success for a student or provide a quantitative benchmark for those who do not need the additional course material provided in the Oracle Developer Certificate of Proficiency. Advanced users, management and programmers could select this shorter while still intense certificate in database techniques.

Prerequisites:
IS:225 Database Management (or) Database Experience
IS:246 Visual Basic Programming (or)
IS:251 Java Programming (or)
IS:227 C Programming (or) Approved Programming Language

Core Courses 3 credits
IS:257 Advanced Database Design ..................... 3

Oracle Focus 12 credits
IS:133 Introduction to SQL ......................... 3
IS:272 Oracle Database Administration .......... 3
IS:271 Oracle User Interface Design ............ 3
IS:273 Oracle Design and Implementation (or)  
IS:262 Advanced Software Development ........ 3

Electives (select on course) 3 credits
IS:259 Introduction to JavaScript .................. 3
IS:255 Advanced Visual Basic Programming .... 3
IS:256 C++ Programming ......................... 3
IS:270 Oracle PL/SQL .............................. 3

Program total . . . . . 18 credits
Deaf Communication Studies:
Interpreter Education

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley

This two-year American Sign Language interpreter education program provides the instruction and experience needed to interpret between individuals using American Sign Language and English. Focus is on a multi-disciplinary and interdisciplinary approach of interpreting centered around the theory of interpretation. This professional, career program consists of a comprehensive, sequential, and integrated series of courses intended to provide students with the necessary mastery of the theory, techniques and skills required to enter the profession of interpretation.

Students interested in the interpreting profession can expect to expand their worldview, commit to lifelong learning, meet new people and experience diverse situations within large and small group settings.

The foundation of the curriculum is American Sign Language (ASL) which is the native, indigenous language of the North American deaf community. We recognize the deaf community as a linguistic and cultural minority that functions distinctly from the American mainstream culture.

Admission into the program is contingent upon meeting established criteria as defined in the DCS-IEP Advising Checklist.

Graduates of the program will be prepared for entry-level, paraprofessional interpreting positions.

I.  Career General Education  15 credits
   ENG:101 College Composition I  ................. 3
   ENG:102 College Composition II .................. 3
   MTH:xxx 100 level or higher ...................... 3
   XXX:xx Missouri State Requirement ............. 3
   XXX:xx Biological/Physical Science .............. 3

II. Physical Education Activity  2 credits

III. Area of Concentration  51 credits
    COM:111 Voice and Articulation .................. 3
    DCS:106 American Sign Language III ............ 5
    DCS:108 Orientation to Interpreting ............. 3
    DCS:109 Etymology for Interpreters ............. 3
    DCS:110 Deaf Theater Studies .................... 3
    DCS:206 Consecutive Interpreting .............. 3
    DCS:207 Simultaneous Interpreting .............. 3
    DCS:208 DCS Practicum ........................... 3
    DCS:209 Interpreting/Transliterating Lab ....... 1
    DCS:210 Sign to Voice Interpreting .............. 3
    DCS:211 Specialized Interpreting ............... 3
    DCS:212 Deaf History and Culture ............... 3
    DCS:213 Professional Issues and Ethics .......... 3
    DCS:214 Interactive Interpreting ............... 3
    DCS:216 Educational Interpreting -
        Classroom Applications ..................... 3
    DCS:217 Translation Applications of ASL ........ 3
    DCS:218 Pre-Practicum .......................... 3

Program total ........ 68 credits

Deaf Communication Studies:
American Sign Language

CERTIFICATE OF PROFICIENCY
Florissant Valley

The foundation of the curriculum is American Sign Language (ASL), which is the native, indigenous language of the North American deaf community. We recognize the deaf community as a linguistic and cultural minority that functions distinctly from the American mainstream culture.

Students of this program will learn to recognize and adapt to the variations in language that exists within the deaf and non-deaf communities. Students learn to create equivalency in meaning between English and ASL.

These entry-level language courses are open to all members of the deaf and non-deaf community.

Courses  Credits
DCS:104 American Sign Language I .................. 5
DCS:105 American Sign Language II .................. 5
DCS:107 Fingerspelling ............................. 3
DCS:111 Theory of American Sign Language ........ 3
DCS:115 Introduction to Deaf Communication
     Studies ...................................... 3
DCS:116 American Sign Language Semantics ....... 3

Program total ........ 22 credits

Dental Assisting

CERTIFICATE OF PROFICIENCY
Forest Park

This program prepares students to work as members of the dental health care team. Students receive a broad background in all aspects of dentistry through extensive classroom, laboratory and clinical instruction. Major emphasis is placed on gaining proficiency in chairside assisting procedures and expanded functions. Students learn to prepare patients and records for treatment, sterilize and prepare instrument trays, take X-rays and impressions, and prepare restorative materials for dental procedures.

The Missouri Dental Board has approved 19 expanded functions for dental assistants who meet specific certification and training criteria. Competency in one or more expanded functions enlarges the skill mix of the assistant, increases the responsibilities of the assistant and enhances the value of the assistant to the dental health care team. The program will incorporate expanded functions training into the curriculum. Graduates will be certified to perform these functions and can assume expanded roles on the dental health care team as delegated by their employer. These highly skilled professionals will be in great demand.

Persons interested in this program should be comfortable working with people of all ages in close one-to-one relationships. They should have manual dexterity and be attentive to detail.

Courses  Credits
COM:101 Oral Communication I ................... 3
DA:143 Chairside Assisting Operative Dentistry .... 2
DA:144 Preclinical Practice .......................... 1
DA:149 Dental Terminology .......................... 1
DA:150 Infection Control in Dentistry .......... 1
DA:151 Fundamentals of Chairside Assisting ............ 2
DA:157 Dental Radiology .................................. 2
DA:159 Dental Office Procedures ...................... 1
DA:161 Dental Assisting Practicum ..................... 2
DA:162 Dental Systems Management .................... 1
DA:164 Clinical Applications I ......................... 2
DA:165 Dental Materials ................................. 1
DA:166 Dental Lab Procedures ........................... 1
DA:167 Dental Radiology II .............................. 1
DA:168 Integrated Dental Sciences ...................... 2
DA:169 Preventive Dental Health ....................... 2
DA:172 Dental Practice Management .................... 1
DA:173 Chairside Assisting: Dental Specialties ........ 2
DA:174 Clinical Applications II .......................... 2
DA:175 Dental Assisting Practicum II ................... 2
DA:176 Dental Assisting Practicum III ................... 2
DA:201 Expanded Functions I ............................ 1
DA:202 Expanded Functions II ............................ 1
DA:203 Expanded Functions III ........................... 1
ENG:101 College Composition I .......................... 3

Program Total .................. 40 credits

Dental Hygiene

ASSOCIATE IN APPLIED SCIENCE DEGREE
Forest Park

This program prepares students to practice dental hygiene under the supervision of a practicing dentist. Through classroom work and laboratory and clinical experience in the on-campus public dental hygiene clinic, students learn to conduct patient assessments, take medical and dental histories, perform diagnostic tests and examinations, instruct patients in preventive dental health practices, perform various dental procedures, and to design and implement community and school health programs. Persons interested in this program should enjoy working with people from all age groups. An interest in biology and the health sciences is important. Good eye/hand coordination and attention to detail is necessary.

Graduates are qualified for positions as dental hygienists and may serve as clinical practitioners in general or specialty dental practice, or as educators, researchers, administrators, managers, program developers, consultants or dental product sales representatives. Employment is available in the military, health maintenance organizations, community health agencies, private industry, and abroad with the Peace Corps or World Health Organization.

Dental Hygiene Program Prerequisites:
BIO:207 Anatomy and Physiology I
BIO:208 Anatomy and Physiology II
CHM:101 Fundamentals of Chemistry
(These prerequisites must be satisfied prior to entry in the program.)

I. Career General Education 19 credits
COM:101 Oral Communications I ....................... 3
ENG:101 College Composition I ........................ 3
SOC:101 Introduction to Sociology ..................... 3
PSY:200 General Psychology I .......................... 3
BIO:203 General Microbiology .......................... 4
XXX:xx Missouri State Requirement .................... 3

II. Physical Education Activity 2 credits

III. Area of Concentration 53 credits
DHY:126 Dental Radiology I .............................. 2
DHY:127 Oral Anatomy .................................... 3
DHY:129 Concepts of Pre-Clinical Dental Hygiene I .. 3
DHY:129 Dental Medical Emergencies .................... 1
DHY:125 Periodontics I ................................... 2
DHY:128 Biomedical Sciences for the Dental Hygienist . 2
DHY:121 Clinical Applications Lab I ..................... 1
DHY:138 General and Oral Pathology .................... 2
DHY:137 Anatomy and Embryology of the Head and Neck . 2
DHY:130 Concepts of Clinical Dental Hygiene II ....... 3
DHY:132 Clinical Dental Hygiene II ...................... 4
DHY:131 Clinical Applications Lab II .................... 1
DHY:136 Dental Nutrition and Biochemistry ............ 3
DHY:142 Dental Hygiene Summer ........................ 2
DHY:215 Pain Control .................................... 2
DHY:226 Dental Radiology II ............................. 1
DHY:225 Periodontics II .................................. 2
DHY:222 Clinical Dental Hygiene III ..................... 4
DHY:221 Clinical Applications Lab III ................... 1
DHY:220 Concepts of Clinical Dental Hygiene III ....... 2
DHY:232 Clinical Dental Hygiene IV ...................... 4
DHY:230 Transition into Professional Dental Hygiene Practice ............... 2
DHY:228 Dental Pharmacology ......................... 2

Program total .................. 74 credits

Diagnostic Medical Sonography

CERTIFICATE OF PROFICIENCY
Forest Park

This program provides a specialty in ultrasound technology for graduates of an associate degree or two-year hospital-based program in another allied health area. Students attend full-time and complete classroom work and clinical education in an affiliated ultrasound department. Students acquire skills in record keeping, reviewing and recording pertinent clinical patient history, performing the sonographic examination, providing for the comfort and needs of the patient during the examination, and recording the anatomic, pathologic and physiologic data for interpretation by the supervising physician.

Thoroughness, accuracy and empathy are traits needed by persons interested in this program. They also should be versatile and able to follow precise and detailed directions.
Graduates are eligible to take the certifying examination of the American Registry of Diagnostic Medical Sonographers in the specialty areas of abdomen and obstetrics-gynecology. Positions are available in hospital ultrasound departments, clinics, mobile services and private physicians' offices.

<table>
<thead>
<tr>
<th>Core Curriculum</th>
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<tbody>
<tr>
<td>DMS:101</td>
<td>Clinical Foundations of Ultrasound .............. 2</td>
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<tr>
<td>DMS:102</td>
<td>Medical Ethics and Professional Issues ........... 2</td>
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<tr>
<td>DMS:103</td>
<td>Ultrasound Physics and Instrumentation I ........ 2</td>
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<tr>
<td>DMS:104</td>
<td>Ultrasound Physics and Instrumentation II ........ 3</td>
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<tr>
<td>DMS:201</td>
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<tr>
<td>DMS:112</td>
<td>Cardiac Sonography I ......................... 3</td>
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<tr>
<td>DMS:113</td>
<td>Cardiac Sonography Scanning Techniques I ...... 1</td>
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<tr>
<td>DMS:114</td>
<td>Cardiac Sonography Practicum I ............... 2</td>
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<tr>
<td>DMS:115</td>
<td>Cardiac Sonography II ........................ 3</td>
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<td>DMS:116</td>
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<tr>
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<td>Cardiac Sonography Clinical Applications I .... 2</td>
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<td>DMS:118</td>
<td>Cardiac Sonography Practicum II ............... 3</td>
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<td>DMS:207</td>
<td>Cardiac Sonography III ........................ 2</td>
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<tr>
<td>DMS:210</td>
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<td>DMS:211</td>
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<td>Medical Sonography Practicum I ............... 2</td>
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<td>DMS:108</td>
<td>Medical Sonography II ........................ 3</td>
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<td>Medical Sonography Scanning Techniques II .... 1</td>
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<td>DMS:110</td>
<td>Medical Sonography Clinical Applications I ..... 2</td>
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<td>DMS:202</td>
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<table>
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<tr>
<th>Vascular Technology Option</th>
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<td>Vascular Technology Practicum I ............... 2</td>
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<td>DMS:122</td>
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<td>DMS:124</td>
<td>Vascular Technology Clinical Applications I .... 2</td>
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<td>DMS:125</td>
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<td>DMS:212</td>
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<td>DMS:215</td>
<td>Vascular Technology Clinical Applications II .... 2</td>
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<td>DMS:216</td>
<td>Vascular Technology Practicum IV .............. 3</td>
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</tbody>
</table>

Program total ........ 42 credits

**Diesel Technology**

**ASSOCIATE IN APPLIED SCIENCE DEGREE**

*Forest Park*

The AAS degree Diesel Technology program is designed to prepare graduates for careers as medium/heavy truck repair technicians. Graduates will be qualified for positions requiring diagnosis and repair of the following truck systems: diesel engines; suspension and steering; brakes; electrical and electronic; preventive maintenance; drive train; and heating, ventilation and air conditioning. Graduates will be competent for entry-level positions in new vehicle dealerships, truck and bus leasing companies, street and highway departments, and metropolitan transit facilities.

**I. Career General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG:101</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MTH:108</td>
<td>Elementary Applied Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>SOC:101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>BUS:104</td>
<td>Introduction to Business Administration</td>
<td>3</td>
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<tr>
<td>COM:101</td>
<td>Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>PSI:101</td>
<td>Physical Science Lecture I</td>
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<td>Missouri State Requirement</td>
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**II. Physical Education Activity**

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DIE:101</td>
<td>Diesel Engine Operation and Repair</td>
<td>3</td>
</tr>
<tr>
<td>DIE:102</td>
<td>Medium/Heavy Truck Suspension and Steering</td>
<td>3</td>
</tr>
<tr>
<td>DIE:103</td>
<td>Medium/Heavy Truck Electricity</td>
<td>3</td>
</tr>
<tr>
<td>DIE:104</td>
<td>Electronic Information Systems and Manuals</td>
<td>3</td>
</tr>
<tr>
<td>DIE:105</td>
<td>Diesel Fuel Systems</td>
<td>3</td>
</tr>
<tr>
<td>DIE:106</td>
<td>Medium/Heavy Truck Brakes</td>
<td>3</td>
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<td>DIE:107</td>
<td>Medium/Heavy Truck Electronics</td>
<td>3</td>
</tr>
<tr>
<td>DIE:201</td>
<td>Preventive Maintenance Inspection</td>
<td>3</td>
</tr>
<tr>
<td>DIE:206</td>
<td>Medium/Heavy Truck Drivetrains</td>
<td>3</td>
</tr>
<tr>
<td>DIE:203</td>
<td>Truck Heating, Ventilation and Air Conditioning</td>
<td>3</td>
</tr>
<tr>
<td>DIE:204</td>
<td>Service and Parts Management</td>
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</tr>
<tr>
<td>DIE:205</td>
<td>Co-op Work Experience I-Diesel Technology</td>
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</tr>
<tr>
<td>DIE:202</td>
<td>Co-op Work Experience II-Diesel Technology</td>
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<tr>
<td>ME:101</td>
<td>Welding Technology</td>
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Program total ........ 65 credits
### CERTIFICATE OF PROFICIENCY

**Forest Park**

<table>
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<th>Courses</th>
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<td>ENG:101 College Composition I (or)</td>
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<tr>
<td>MTH:108 Elementary Applied Mathematics (or)</td>
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<td>BUS:104 Introduction to Business Administration</td>
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<tr>
<td>DIE:101 Diesel Engine Operation and Repair</td>
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<td>DIE:102 Medium/Heavy Truck Suspension and Steering</td>
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<td>DIE:103 Medium/Heavy Truck Electricity</td>
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<tr>
<td>DIE:104 Electronic Information Systems and Manuals</td>
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<td>DIE:105 Diesel Fuel Systems</td>
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<td>DIE:106 Medium/Heavy Truck Brakes</td>
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<td>DIE:107 Medium/Heavy Truck Electronics</td>
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<td>DIE:201 Preventive Maintenance Inspection</td>
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<td>DIE:202 Co-op Work Experience I-Diesel Technology</td>
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<tr>
<td>DIE:204 Service and Parts Management</td>
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<tr>
<td>DIE:205 Co-op Work Experience II-Diesel Technology</td>
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<tr>
<td>DIE:206 Medium/Heavy Truck Drivetrains</td>
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<tr>
<td>ME:101 Welding Technology</td>
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**Program total . . . . . . 45 credits**

### CERTIFICATE OF SPECIALIZATION

**Forest Park**

<table>
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<td>MTH:108 Elementary Applied Mathematics (or)</td>
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<td>BUS:104 Introduction to Business Administration</td>
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<td>DIE:101 Diesel Engine Operation and Repair</td>
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<td>DIE:104 Electronic Information Systems and Manuals</td>
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<tr>
<td>DIE:206 Medium/Heavy Truck Drivetrains</td>
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</table>

**Program total . . . . . . 18 credits**

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### Dietetic Technology: Food Service Management Option

**ASSOCIATE IN APPLIED SCIENCE DEGREE Florissant Valley**

This program includes a variety of courses in food and nutrition sciences, foodservice systems management, communication and education. Students completing the program are eligible to sit for the national registration exam to become credentialed as a Dietetic Technician, Registered (DTR). Dietetic technicians in the food service management area work independently or in teams with registered dietitians in schools, day-care centers, correctional facilities, health facilities, corporations and hospitals managing employees, purchasing and food preparation, and preparing budgets within food service operations. Food companies, contract food management companies, or food vending distribution operations hire dietetic technicians to develop menus, overseeing food service preparation and food safety, and preparing food labeling and nutrient information.

#### I. Career General Education 19-20 credits

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ENG:101 College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>COM:101 Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>MTH:xxx Mathematics Elective (MTH:108 or higher)</td>
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<td>BIO/CHM: Biology/Chemistry Elective</td>
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<tr>
<td>PSY:200 General Psychology</td>
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#### II. Physical Education Activity 2 credits

#### III. Area of Concentration 46 credits

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<tr>
<th>Courses</th>
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<tbody>
<tr>
<td>DIT:108 Food: Preparation and Science Lecture</td>
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<td>DIT:109 Food: Preparation and Science Lab</td>
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<tr>
<td>DIT:103 Food Management</td>
<td>3</td>
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<tr>
<td>DIT:104 Clinical Nutrition</td>
<td>3</td>
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<td>DIT:214 Nutrition Through the Life Cycle</td>
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<td>DIT:106 Food Management Practicum</td>
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<td>DIT:107 Clinical Nutrition Practicum</td>
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<td>DIT:115 Principles of Nutrition</td>
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<td>DIT:201 Food Systems Management</td>
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<td>DIT:202 Medical Nutrition Therapy</td>
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<td>DIT:204 Seminar: Strategies for Professional Practice</td>
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<td>DIT:206 Seminar: Dietetic Practitioner Issues</td>
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<td>DIT:207 Quantity Foods</td>
<td>3</td>
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<td>DIT:208 Food Systems Management Practicum</td>
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<td>DIT:210 Community Nutrition</td>
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<td>DIT:225 The Cultural Feast: An Introduction to Food and Society</td>
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#### IV. Program Elective 3 credits

(Program Director has list of approved courses.)

**Program total . . . .70-71 credits**
Digital Media:
3D Design and Animation

CERTIFICATE OF PROFICIENCY
Meramec

The Digital Media Certificate in 3D Design and Animation, Certificate of Proficiency program, is designed to meet the needs of those professionals currently working in the various fields of digital imaging and Web page development. These courses will provide returning professional artist and new students the expertise necessary in using the graphic tools made available by advances in technology. Students will learn ways in which traditional methods can be enhanced by computer technology and software. Students in this certificate program will develop skills necessary for expression in the form of digital imaging as it pertains to 3D design and animation. The students will be trained in state-of-the-art facilities using the most current software and hardware available.

Prerequisites:
The following courses must be completed prior to enrolling in the certificate program:
ART:165 Photography I
ART:238 Drawing for Graphics II
ART:240 Illustration II
AT:175 Video Art I (or)
MCM:127 Video Production Studio

Area of Concentration 27 credits

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<td>ART:275</td>
<td>Photo Imaging I/Photoshop</td>
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<tr>
<td>AT:101</td>
<td>Color Management</td>
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<tr>
<td>AT:100</td>
<td>Hardware Configuration and Troubleshooting/Macintosh/Windows</td>
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<td>AT:233</td>
<td>Storyboarding/Animations</td>
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<td>AT:154</td>
<td>Camera and Lighting Techniques for 3D Design</td>
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<tr>
<td>AT:146</td>
<td>3D Modeling I/Surface Modeling</td>
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<td>AT:234</td>
<td>Computer Animation I</td>
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<tr>
<td>AT:160</td>
<td>Digital Capstone</td>
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</table>

Final Course

Program total . . . . . 30 credits

III. Area of Concentration 46 credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DIT:108</td>
<td>Food: Preparation and Science Lecture</td>
<td>3</td>
</tr>
<tr>
<td>DIT:109</td>
<td>Food: Preparation and Science Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT:103</td>
<td>Food Management</td>
<td>3</td>
</tr>
<tr>
<td>DIT:104</td>
<td>Clinical Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>DIT:214</td>
<td>Nutrition Through the Life Cycle</td>
<td>3</td>
</tr>
<tr>
<td>DIT:106</td>
<td>Food Management Practicum</td>
<td>3</td>
</tr>
<tr>
<td>DIT:107</td>
<td>Clinical Nutrition Practicum</td>
<td>3</td>
</tr>
<tr>
<td>DIT:115</td>
<td>Principles of Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>DIT:201</td>
<td>Food Systems Management</td>
<td>3</td>
</tr>
<tr>
<td>DIT:202</td>
<td>Medical Nutrition Therapy</td>
<td>3</td>
</tr>
<tr>
<td>DIT:204</td>
<td>Seminar: Strategies for Professional Practice</td>
<td>2</td>
</tr>
<tr>
<td>DIT:206</td>
<td>Seminar: Dietetic Practitioner Issues</td>
<td>2</td>
</tr>
<tr>
<td>DIT:207</td>
<td>Quantity Foods</td>
<td>3</td>
</tr>
<tr>
<td>DIT:209</td>
<td>Community Nutrition Practicum</td>
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</tr>
<tr>
<td>DIT:210</td>
<td>Community Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>DIT:225</td>
<td>The Cultural Feast: An Introduction to Food and Society</td>
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</tbody>
</table>

IV. Program Elective 3 credits

(Program Director has list of approved courses.)

Program total . . . . 70-71 credits

Dietetic Technology:
Nutrition Care Option

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley

This program includes a variety of courses in food and nutrition sciences, foodservice systems management, communication and education. Students completing the program are eligible to sit for the national registration exam to become credentialed as a Dietetic Technician, Registered (DTR). Dietetic technicians in the nutrition care area work independently or in teams with registered dieticians in hospitals, HMOs, clinics, nursing homes, retirement centers, hospital health care programs and research facilities helping to treat and prevent disease and administering medical nutrition therapy as an important member of health care teams. WIC programs, public health agencies, company health programs, health clubs, weight management clinics and community wellness programs hire dietetic technicians to develop and teach nutrition classes and educate clients about the connection between food, fitness and health.

I. Career General Education 19-20 credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ENG:101</td>
<td>College Composition I</td>
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<td>COM:101</td>
<td>Oral Communication I</td>
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<td>MTH:0xx</td>
<td>Mathematics Elective</td>
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<tr>
<td>BIO/CHM:xxx</td>
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<td>PSY:200</td>
<td>General Psychology</td>
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<td>XXX:xxx</td>
<td>Missouri State Requirement</td>
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</table>

II. Physical Education Activity 2 credits

III. Area of Concentration 46 credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
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<td>DIT:106</td>
<td>Food Management Practicum</td>
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<td>DIT:115</td>
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<td>DIT:210</td>
<td>Community Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>DIT:225</td>
<td>The Cultural Feast: An Introduction to Food and Society</td>
<td>3</td>
</tr>
</tbody>
</table>
## Digital Media: Fine Art

**CERTIFICATE OF PROFICIENCY**

Meramec

The Digital Media Certificate in Fine Art, Certificate of Proficiency program, is designed to meet the needs of those professionals currently working in the various fields of digital imaging and web page development. These courses will provide returning professional artist and new students the expertise necessary in using the graphic tools made available by advances in technology. Students will learn ways in which traditional methods can be enhanced by computer technology and software. Students in this certificate program will develop skills necessary for expression in the form of digital imaging as it pertains to fine art. The students will be trained in state-of-the-art facilities using the most current software and hardware available.

### Prerequisites:

The following courses must be completed prior to enrolling in the certificate program:

- ART:108 Design II
- ART:110 Drawing II
- ART:112 Figure Drawing II

### Area of Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART:131 Computer Art Studio</td>
<td>3</td>
</tr>
<tr>
<td>ART:275 Photo Imaging I: Photoshop</td>
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<tr>
<td>AT:101 Color Management</td>
<td>3</td>
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<tr>
<td>AT:100 Hardware Configuration and Troubleshooting: Macintosh/Windows</td>
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<tr>
<td>AT:120 Computer Drawing I: Illustrator</td>
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<tr>
<td>AT:108 Computer Painting and Drawing: Corel Painter</td>
<td>3</td>
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<tr>
<td>AT:105 Digital Printing</td>
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</tbody>
</table>

### Electives

Select three credits from the following:

- AT:276 Photo Imaging II: Photoshop
- AT:106 Two Dimensional Computer Animation: Adobe After Effects
- AT:135 (or) IS:135 (or) MCM:135 Communication and Design for the WWW I
- AT:146 3D Modeling I: Surface Modeling
- AT:234 Computer Animation I

### Final Course

- AT:160 Digital Capstone

**Program total . . . . . . 25 credits**

---

## Digital Media: Graphic Design

**CERTIFICATE OF PROFICIENCY**

Meramec

The Digital Media Certificate in Graphic Design, Certificate of Proficiency program, is designed to meet the needs of those professionals currently working in the various fields of digital imaging and web page development. These courses will provide returning professional artist and new students the expertise necessary in using the graphic tools made available by advances in technology. Students will learn ways in which traditional methods can be enhanced by computer technology and software. Students in this certificate program will develop skills necessary for expression in the form of digital imaging as it pertains to graphic design. The students will be trained in state-of-the-art facilities using the most current software and hardware available.

### Prerequisites:

The following courses must be completed prior to enrolling in the certificate program:

- ART:134 Graphic Design II
- ART:165 Photography I
- ART:238 Drawing for Graphics II

### Area of Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART:131 Computer Art Studio</td>
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<tr>
<td>ART:275 Photo Imaging I: Photoshop</td>
<td>3</td>
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<td>AT:101 Color Management</td>
<td>3</td>
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<tr>
<td>AT:100 Hardware Configuration and Troubleshooting: Macintosh/Windows</td>
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<tr>
<td>AT:120 Computer Drawing I: Illustrator</td>
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<tr>
<td>ART:241 Publication Design</td>
<td>3</td>
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<tr>
<td>ART:236 Typography</td>
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</table>

### Electives

Select three credits from the following:

- AT:276 Photo Imaging II: Photoshop
- AT:106 Two Dimensional Computer Animation: Adobe After Effects
- AT:135 (or) IS:135 (or) MCM:135 Communication and Design for the WWW I
- AT:108 Computer Painting and Drawing: Corel Painter

### Final Course

- AT:160 Digital Capstone

**Program total . . . . . . 24 credits**
Digital Media: Photography
CERTIFICATE OF PROFICIENCY

Meramec

The Digital Media Certificate in Photography, Certificate of Proficiency program, is designed to meet the needs of those professionals currently working in the various fields of digital imaging and web page development. These courses will provide returning professional artist and new students the expertise necessary in using the graphic tools made available by advances in technology. Students will learn ways in which traditional methods can be enhanced by computer technology and software. Students in this certificate program will develop skills necessary for expression in the form of digital imaging as it pertains to photography. The students will be trained in state-of-the-art facilities using the most current software and hardware available.

Prerequisites:
The following courses must be completed prior to enrolling in the certificate program:
ART:108  Design II
ART:107  Color Photography

Area of Concentration  19 credits
ART:131  Computer Art Studio  .................................. 3
ART:275  Photo Imaging I, Photoshop  .................. 3
AT:101  Color Management  ........................................ 3
AT:100  Hardware Configuration and Troubleshooting: Macintosh/Windows  ...... 1
AT:276  Photo Imaging II, Photoshop  .................. 3
AT:105  Digital Printing  ........................................ 3
AT:104  Electronic Photo Studio  .............................. 3

Electives  3 credits
Select three credits from the following:
AT:106  Two Dimensional Computer Animation:
            Adobe After Effects  .................................. 3
AT:109  Universal Document Exchange:
            Adobe Acrobat  ........................................ 3
AT:108  Computer Painting and Drawing:
            Corel Painter  ........................................ 3
AT:135 (or) IS:135 (or) MCM:135  
            Communication and Design for the WWW I  .............. 3

Final Course
AT:160  Digital Capstone ........................................ 3

Program total . . . . . . 25 credits

Digital Media: World Wide Web
CERTIFICATE OF PROFICIENCY

Meramec

The Digital Media Certificate in World Wide Web, Certificate of Proficiency program, is designed to meet the needs of those professionals currently working in the various fields of digital imaging and web page development. These courses will provide returning professional artist and new students the expertise necessary in using the graphic tools made available by advances in technology. Students will learn ways in which traditional methods can be enhanced by computer technology and software. Students in this certificate program will develop skills necessary for expression in the form of digital imaging as it pertains to World Wide Web. The students will be trained in state-of-the-art facilities using the most current software and hardware available.

Prerequisites:
The following courses must be completed prior to enrolling in the certificate program:
ART:108  Design II
ART:110  Drawing II
ART:111  Figure Drawing I
ART:134  Graphic Design II
MCM:217  Publications Writing

Area of Concentration  22 credits
ART:131  Computer Art Studio  ......................... 3
ART:275  Photo Imaging I, Photoshop  .................. 3
AT:101  Color Management ........................................ 3
AT:100  Hardware Configuration and Troubleshooting: Macintosh/Windows  ...... 1
AT:120  Computer Drawing I, Illustrator  ................ 3
AT:135 (or) IS:135 (or) MCM:135  
            Communication and Design
            for the WWW I  ........................................ 3
AT:143  Communication and Design
            for the WWW II ......................................... 3
AT:144  WWW Special Topics  ................................. 3

Final Course
AT:160  Digital Capstone ........................................ 3

Program total . . . . . . 25 credits
Early Care and Education

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley, Forest Park and Meramec

The associate in applied science degree is a two-year program of study that directs students to acquire skills in early childhood settings, including preschool programs, teacher assistants in elementary schools or as parent educators working within the community.

Students must earn at least a “C” in certain courses to be eligible for the associate degree. See an academic advisor or the program coordinator for details.

I. Career General Education 18 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG:101</td>
<td>College Composition I</td>
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<tr>
<td>MTH:108</td>
<td>Elementary Applied Mathematics</td>
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<td>Missouri State Requirement</td>
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<td>XXXxxxx</td>
<td>Social Science Elective</td>
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<td>Science Elective</td>
<td>3</td>
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<td>XXXxxxx</td>
<td>Humanities or Communications Elective</td>
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II. Physical Education Activity 2 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ECE:101</td>
<td>Introduction to Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:102</td>
<td>Creative Experiences in Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:103</td>
<td>Language and Literacy in Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:104</td>
<td>Principles of Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:105</td>
<td>Child Development Laboratory</td>
<td>3</td>
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<tr>
<td>ECE:106</td>
<td>Child Nutrition, Health and Safety</td>
<td>3</td>
</tr>
<tr>
<td>ECE:107</td>
<td>Child Growth and Development I</td>
<td>3</td>
</tr>
<tr>
<td>ECE:108</td>
<td>Family and Teacher Interactions</td>
<td>3</td>
</tr>
<tr>
<td>ECE:109</td>
<td>Guiding Young Children</td>
<td>3</td>
</tr>
<tr>
<td>ECE:110</td>
<td>Math and Science in Early Care and Education</td>
<td>3</td>
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<tr>
<td>ECE:111</td>
<td>Movement and Music in Early Care and Education</td>
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<tr>
<td>ECE:112</td>
<td>Early Care and Education Practicum I</td>
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</tr>
<tr>
<td>ECE:113</td>
<td>Child and Society</td>
<td>3</td>
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<tr>
<td>ECE:114</td>
<td>Early Care and Education Practicum II</td>
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III. Area of Concentration 47 credits

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ECE:106</td>
<td>Early Care and Special Education</td>
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<tr>
<td>ECE:107</td>
<td>Infant, Toddler, and Two-year Old Children</td>
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<td>ECE:108</td>
<td>Child Growth and Development I</td>
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<tr>
<td>ECE:109</td>
<td>Management of Early Care and Education Settings</td>
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<td>ECE:110</td>
<td>Activities for Special Individuals</td>
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<tr>
<td>ECE:111</td>
<td>Before and After School Care</td>
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</table>

Program total 65 credits

E-Commerce

CERTIFICATE OF SPECIALIZATION
Florissant Valley, Meramec

This program is in the process of being deactivated. New students are no longer being accepted. Students currently enrolled in this program should see the department chair or an advisor.

IV. Electives 3 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG:101</td>
<td>College Composition I</td>
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<tr>
<td>ENG:102</td>
<td>College Composition II</td>
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<tr>
<td>MTH:108</td>
<td>Elementary Applied Mathematics</td>
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<tr>
<td>MTH:109</td>
<td>or higher</td>
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<tr>
<td>XXXxxxx</td>
<td>Science Elective</td>
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<tr>
<td>XXXxxxx</td>
<td>Missouri State Requirement</td>
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</tr>
<tr>
<td>SOC:101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

Early Care and Education—Child Development Associate Option

ASSOCIATE IN APPLIED SCIENCE DEGREE
Forest Park

This program is competency-based. It provides students with the knowledge and skills to care for children, ages birth through eight, and to communicate effectively with parents and other child care personnel. Students acquire child care proficiency by working part time in a child care setting, through academic instruction in six competency areas and individual study in 16 learning modules. The program requires regular college attendance and requires students to spend substantial amounts of time in direct contact with children in a child care facility.

Persons interested in this program should be responsible, mature and sensitive. They also should be in good physical condition and be able to interact positively with children and adults. They must be able to write with clarity and read and understand numerous readings. They should be prepared to adapt and change and to incorporate new knowledge and methods directly into teaching young children.

Graduates are qualified for positions as parent educators, substitute teachers or teacher-aides in public schools; directors, lead teachers or teacher-assistants in nursery schools, child care centers or residential centers; assistant recreational therapists; or camp/recreation leaders.

I. Career General Education 18-19 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG:101</td>
<td>College Composition I</td>
<td>3</td>
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<tr>
<td>ENG:102</td>
<td>College Composition II</td>
<td>3</td>
</tr>
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<td>MTH:108</td>
<td>Elementary Applied Mathematics</td>
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</tr>
<tr>
<td>SOC:101</td>
<td>Introduction to Sociology</td>
<td>3</td>
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</table>

II. Physical Education Activity 2 credits

III. Area of Concentration 47 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ECE:109</td>
<td>Preschool Equipment and Materials</td>
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<td>ECE:110</td>
<td>Health and Safety in the Preschool</td>
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<td>ECE:111</td>
<td>Self-Concept of the Young Child</td>
<td>3</td>
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<td>ECE:112</td>
<td>Social Development</td>
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<td>ECE:113</td>
<td>Classroom Management</td>
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</tr>
<tr>
<td>ECE:114</td>
<td>Cultural and Ethnic Variety</td>
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<td>ECE:115</td>
<td>Home-School Coordination</td>
<td>2</td>
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<tr>
<td>ECE:116</td>
<td>Administration: Child Care</td>
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</tr>
<tr>
<td>ECE:117</td>
<td>Early Childhood Learning Models</td>
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</table>
ECE:118  Stimulation of Learning .......................... 2
ECE:119  Development of Physical Competence .... 1
ECE:120  Development of Creative Expression ... 2
ECE:121  Play and the Young Child ..................... 2
ECE:122  Individual Differences in the Young Child... 3
ECE:123  Planning and Scheduling in
 Programs for Young Children ....................... 2
ECE:125  Child Growth and Development ........... 3
ECE:209  Capacities/Qualities: 
 Physical Learning Environment .................... 1
ECE:210  Capacities/Qualities: The Program ..... 1
ECE:211  Capacities/Qualities: Individual Child ... 1
ECE:212  Capacities/Qualities: Social Environment .
ECE:213  Capacities/Qualities: Home and Center .. 1
ECE:214  Capacities/Qualities: 
Supplementary Responsibility ...................... 1
ECE:215  Skill Building Workshop ................. 3

Program total ........ 67-68 credits

Early Care and Education
Developmental Disabilities Option

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley and Meramec

This option prepares students to work in preschools, residential centers and other programs having developmentally disabled children.

Students must earn at least a “C” in certain courses to be eligible for the associate degree. See an academic advisor or the program coordinator for details.

I. Career General Education 18 credits

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG:101</td>
<td>College Composition I</td>
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<td>XXXxxx</td>
<td>Humanities/Communications Elective</td>
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<td>Science Elective</td>
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<tr>
<td>XXXxxx</td>
<td>Social Science Elective</td>
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II. Physical Education Activity 2 credits

<table>
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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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III. Area of Concentration 48 credits

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ECE:101</td>
<td>Introduction to Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:102</td>
<td>Creative Experiences in Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:103</td>
<td>Language and Literacy in Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:104</td>
<td>Principles of Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:105</td>
<td>Child Development Laboratory</td>
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</tr>
<tr>
<td>ECE:107</td>
<td>Early Care and Special Education</td>
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<td>ECE:124</td>
<td>Child Nutrition, Health and Safety</td>
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</tr>
<tr>
<td>ECE:125</td>
<td>Child Growth and Development I</td>
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</tr>
<tr>
<td>ECE:126</td>
<td>Child Growth and Development II</td>
<td>3</td>
</tr>
<tr>
<td>ECE:200</td>
<td>Guiding Young Children</td>
<td>3</td>
</tr>
<tr>
<td>ECE:201</td>
<td>Math and Science in Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:202</td>
<td>Movement and Music in Early Care and Education</td>
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</tr>
<tr>
<td>ECE:203</td>
<td>Early Care and Education Practicum I</td>
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<td>ECE:205</td>
<td>Child and Society</td>
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<tr>
<td>ECE:206</td>
<td>Early Care and Education Practicum II</td>
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<tr>
<td>ECE:207</td>
<td>Activities for Special Individuals</td>
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</tbody>
</table>

Program total ........ 68 credits

Early Care and Education
CERTIFICATE OF PROFICIENCY
Florissant Valley and Meramec

This certificate prepares students for entry-level or assistant teacher positions in early childhood programs.

Students who have had experience in early childhood programs or education in a different field may select the courses that are necessary to meet state licensing requirements for administrative positions in early childhood programs.

Students must earn at least a “C” in certain courses to be eligible for the associate degree. See an academic advisor or the program coordinator for details.

I. Courses 18 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ECE:101</td>
<td>Introduction to Early Care and Education</td>
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</tr>
<tr>
<td>ECE:104</td>
<td>Principles of Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:105</td>
<td>Child Development Laboratory</td>
<td>3</td>
</tr>
</tbody>
</table>
| ECE:200 | Guiding Young Children or
 Family and Teacher Interactions | 3 |
| ECE:127 | Child Nutrition, Health and Safety | 3 |
| ECE:125 | Child Growth and Development I | 3 |

II. Electives 6 credits

Select two additional courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Creative Experiences in Early Care and Education</td>
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</tr>
<tr>
<td>ECE:103</td>
<td>Language and Literacy in Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:107</td>
<td>Early Care and Special Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:127</td>
<td>Family and Teacher Interactions</td>
<td>3</td>
</tr>
<tr>
<td>ECE:201</td>
<td>Math and Science in Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:202</td>
<td>Movement and Music in Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:204</td>
<td>Management of Early Care and Education Settings</td>
<td>3</td>
</tr>
<tr>
<td>ECE:208</td>
<td>Before and After School Care</td>
<td>3</td>
</tr>
</tbody>
</table>

Program total ........ 24 credits
Early Care and Education
CERTIFICATE OF SPECIALIZATION
Forest Park

This program is designed for individuals interested in working as teacher aides in child care centers. However, through elective selection, the certificate may also satisfy the child care course requirements for Child Care Center Directors as specified by the State of Missouri regulations. Students are strongly encouraged to enroll in ENG:101 (or its prerequisite course as determined by placement testing) immediately upon entry into this certificate program. Center Directors must take ECE:204.

Students must earn at least a “C” in certain courses to be eligible for the associate degree. See an academic advisor or the program coordinator for details.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE:101 Introduction to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:104 Principles of Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:105 Child Development Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>ECE:125 Child Growth and Development I</td>
<td>3</td>
</tr>
<tr>
<td>ENG:101 College Composition I</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one from the following:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE:102 Creative Experiences in Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:103 Language and Literature in Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:124 Child Nutrition, Health and Safety</td>
<td>3</td>
</tr>
<tr>
<td>ECE:202 Movement and Music in Early Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE:204 Management of Early Care and Education Settings</td>
<td>3</td>
</tr>
</tbody>
</table>

Or other courses upon approval by department.

Program total........18 credits

Electrical/Electronic Engineering Technology
ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley

This program prepares students to function as technical assistants to scientists and engineers. Through classroom work and practical experience in technology laboratories, students learn to prepare and interpret engineering drawings, perform testing procedures and compile technical data in the chosen option.

Persons interested in the program should be mechanically inclined and be able to follow instructions. Prior course work in physics and math is beneficial.

Graduates are qualified for engineering technician positions in industry and research in their option area.

I. Career General Education ........21-22 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG:101 College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG:102 College Composition II (or)</td>
<td>3</td>
</tr>
<tr>
<td>ENG:103 Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>MTH:124 Technical Mathematics I (and)</td>
<td>3</td>
</tr>
<tr>
<td>MTH:134 Technical Mathematics II (or)</td>
<td>3</td>
</tr>
<tr>
<td>MTH:144 Technical Algebra and Trigonometry</td>
<td>5</td>
</tr>
<tr>
<td>MTH:154 Technical Analytical Geometry and Calculus</td>
<td>4</td>
</tr>
<tr>
<td>XXX:xx Missouri State Requirement</td>
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<tr>
<td>XXX:xx Social Science Requirement</td>
<td>3</td>
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</tbody>
</table>

II. Physical Education Activity ..........2 credits

III. Area of Concentration ..........30 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE:131 Engineering Technology Orientation</td>
<td>1</td>
</tr>
<tr>
<td>GE:101 Technical Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>EGR:104 Electronic Drafting</td>
<td>2</td>
</tr>
<tr>
<td>ECE:106 IBM Personal Computer Installation and Repair</td>
<td>1</td>
</tr>
<tr>
<td>EE:130 Electric Circuits I</td>
<td>4</td>
</tr>
<tr>
<td>EE:131 Electric Circuits II</td>
<td>4</td>
</tr>
<tr>
<td>EE:132 Electronic Devices</td>
<td>5</td>
</tr>
<tr>
<td>EE:233 Digital Logic</td>
<td>4</td>
</tr>
<tr>
<td>EE:242 Introduction to Microprocessors</td>
<td>3</td>
</tr>
<tr>
<td>EE:260 Electronic Project Design and Fabrication</td>
<td>3</td>
</tr>
</tbody>
</table>

IV. Electives ..........13-20 credits

Complete one of the options listed below:

Electrical Engineering Technology ..........14-15 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHY:111 College Physics I (or)</td>
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<tr>
<td>CHM:101 Fundamentals of Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>EE:236 PLC/Programmable Logic Controller</td>
<td>3</td>
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<tr>
<td>EE:240 Electrical Machines</td>
<td>4</td>
</tr>
<tr>
<td>EE:241 Transmission and Power Distribution</td>
<td>3</td>
</tr>
</tbody>
</table>

Program total........67-69 credits
Biomedical Engineering Technology 20 credits
BIO:111 Introductory Biology I ...................... 4
BE:150 Biomedical Electrical Safety ................... 2
BE:153 Workplace Learning: Biomedical Engineering Technology .................. 4
BE:251 Biomedical Electronics ........................ 5
BE:254 Biomedical Applications ....................... 5

Program total . . . . . 73-74 credits

Electronic Engineering Technology 15-16 credits
PHY:111 College Physics I (or) ....................... 4
CHM:101 Fundamentals of Chemistry I .............. 5
EE:201 Computer Peripherals ......................... 4
EE:202 Logic and Switching Circuits ................ 4
EE:203 Operating Systems ........................... 3

Program total . . . . . 68-70 credits

Telecommunications Engineering Technology 16-17 credits
PHY:111 College Physics I (or) ....................... 4
CHM:101 Fundamentals of Chemistry I .............. 5
TEL:103 Introduction to Telecommunications ........ 3
TEL:104 Voice Communication ........................ 3
TEL:206 Network Topology ........................... 3
TEL:209 Telecommunication System Operations .... 3

Program total . . . . . 69-71 credits

Workplace Experience: Students may substitute up to six credit hours of appropriate and relevant workplace learning experience for technical courses, and/or electives, included in the program. In order for the workplace learning credit to be counted for the degree requirement, the learning experience must be pre-approved by the department, and the appropriate faculty member must supervise the work.

Electronic Engineering Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley

This program prepares students to function as assistants to professional engineers, scientists and senior technicians in research, development, manufacturing, testing, installation or maintenance of a variety of products. Students acquire skills in preparing and interpreting engineering drawings and sketches; selecting, compiling and using technical information; analyzing and interpreting information obtained from precision measuring and recording instruments; assembling and testing electronic components; and writing reports through class work and practical experience in electronic engineering technology laboratories. This program provides students with a background in electronics rather than power equipment.

Persons interested in this program should be proficient in physics and math. They also should have an interest in building and repairing electrical and mechanical devices.

Graduates are qualified for positions as engineering assistants, laboratory technicians, sales and service representatives and office positions requiring a technical electronic background.

I. Career General Education 35 credits
GE:131 Engineering Technology Orientation .......... 1
ENG:101 College Composition I ..................... 3
ENG:102 College Composition II (or) ............. 3
ENG:103 Report Writing ................................ 3
EGR:104 Electronic Drafting .......................... 2
GE:101 Technical Computer Applications ......... 3
MTH:144 Technical Algebra and Trigonometry ..... 5
MTH:154 Technical Analytical Geometry and Calculus .................. 4

II. Physical Education Activity 2 credits

III. Area of Concentration 32 credits
EE:130 Electric Circuits I ............................ 4
EE:131 Electric Circuits II ............................ 4
EE:132 Electronic Devices ............................ 5
EE:233 Digital Logic ................................... 4
EE:234 Applied Electronics ........................... 5
EE:235 Electronic Communications .................. 4
EE:242 Introduction to Microprocessors .......... 3
EE:260 Electronic Project Design and Fabrication . 3

Program total . . . . . . . 69 credits

Workplace Experience: Students may substitute up to six credit hours of appropriate and relevant workplace learning experience for technical courses, and/or electives, included in the program. In order for the workplace learning credit to be counted for the degree requirement, the learning experience must be pre-approved by the department, and an appropriate faculty member must supervise the work.
Emergency Medical Technology
CERTIFICATE OF PROFICIENCY
Florissant Valley and Forest Park

This program prepares students for positions as emergency medical technicians (EMT). Students learn to perform basic life support and some advanced procedures in emergency situations. EMTs are skilled in patient assessment and recognition of diagnostic signs and symptoms of major injuries and illnesses. They also learn to use ambulance, rescue vehicle and hospital emergency room equipment.

Persons interested in this program should have maturity in dealing with others as well as co-workers. They should have manual dexterity and physical coordination for carrying, lifting, extricating, climbing, hoisting and other activities. They also should be able to give as well as receive written and verbal instructions and have good vision and visual color discrimination for examining patients to determine diagnostic signs requiring immediate treatment.

Graduates are eligible to sit for state and national licensing boards.

Courses | Credits
--- | ---
ENG:100 Career English (or) | 3
ENG:101 College Composition I | 3
ENG:102 College Composition II (or) | 3
ENG:103 Report Writing | 3
BIO:207 Anatomy and Physiology I | 4
BIO:208 Anatomy and Physiology II | 4
XXX:xxx Science or Mathematics Requirement | 3-4
XXX:xxx Social Science Elective | 3
EMT:120 Internship in Emergency Medical Technology | 6
EMT:121 Emergency Care Principles and Techniques | 8

Program total . . . 34-35 credits

Certificate of Specialization
Florissant Valley, Meramec

This program addresses the needs of persons interested in owning a small business as well as persons who desire additional training to enhance ongoing businesses. The courses are designed to be informational in nature, providing students with hands-on experience with new technologies.

Courses | Credits
--- | ---
ACC:100 Applied Accounting (or) | 3
ACC:120 Computer Accounting Applications for Business | 3
BUS:217 Basic Law for Small Business | 3
BUS:101 Small Business Management (or) | 3
BUS:116 Entrepreneurship | 3
BUS:218 Financial Aspects of Small Business | 3
MKT:203 Principles of Marketing | 3
MKT:219 E-Commerce: Strategies (or) | 3
MGT:204 Business Organization and Management | 3

Program total . . . 18 credits

Entrepreneurship
CERTIFICATE OF SPECIALIZATION
Florissant Valley, Meramec

This program addresses the needs of persons interested in owning a small business as well as persons who desire additional training to enhance ongoing businesses. The courses are designed to be informational in nature, providing students with hands-on experience with new technologies.

Courses | Credits
--- | ---
ACC:100 Applied Accounting (or) | 3
ACC:120 Computer Accounting Applications for Business | 3
BUS:217 Basic Law for Small Business | 3
BUS:101 Small Business Management (or) | 3
BUS:116 Entrepreneurship | 3
BUS:218 Financial Aspects of Small Business | 3
MKT:203 Principles of Marketing | 3
MKT:219 E-Commerce: Strategies (or) | 3
MGT:204 Business Organization and Management | 3

Program total . . . 18 credits

Fire Protection Technology
ASSOCIATE IN APPLIED SCIENCE DEGREE
Forest Park

This program is designed to upgrade the skills of persons currently employed in the field. Students receive a thorough knowledge of effective fire fighting techniques and the ability to use equipment appropriate to extinguish all types of fires. They become familiar with inspection techniques, municipal safety codes and ordinances, insurance regulations, alarm systems, hydraulics and structures.

All courses are taught identically on two successive evenings to accommodate rotating schedules of working fire fighters. Required liberal arts courses may be taken day or evening, but are offered on a rotating basis in the evenings only as listed in the long-range schedule available from the department.

Persons interested in this program should be mechanically inclined and have good coordination and vision. Stamina and agility are also important. Fire fighters should have a willingness to serve the public, be capable of exerting maximum effort under discouraging conditions, be persistent and tenacious, be able to work in a team; and to improvise in problem solving.

I. Career General Education  21 credits

Courses | Credits
--- | ---
ENG:101 College Composition I | 3
ENG:103 Report Writing | 3
COM:101 Oral Communication I | 3
MTH:124 Technical Mathematics I | 3
PSI:101 Physical Science Lecture | 3
XXX:xxx Missouri State Requirement | 3
SOC:101 Introduction to Sociology | 3

II. Physical Education Activity  2 credits
III. Area of Concentration  41 credits

<table>
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<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>CHM:114</td>
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<tr>
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<td>FIR:102</td>
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<tr>
<td>IS:103</td>
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<tr>
<td>IS:151</td>
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</table>

Program total 64 credits

CERTIFICATE OF PROFICIENCY
Foremost Park

This program is designed to upgrade the skills of persons currently employed in the field. Students receive a thorough knowledge of safe fire fighting techniques and the ability to use equipment appropriate to extinguish all types of fires. They become familiar with inspection techniques, municipal safety codes and ordinances, insurance regulations, alarm systems, hydraulics and structures.

Courses Credits
<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
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<td>CHM:114</td>
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Program total 33 credits

I. Career General Education 24 credits

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<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>CHM:114</td>
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<td>MTH:124</td>
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<td>PSI:101</td>
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</tr>
<tr>
<td>SOC:101</td>
<td>3</td>
</tr>
<tr>
<td>XXX:xxx</td>
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</tr>
</tbody>
</table>

Program total 36 credits

II. Physical Education Activity 2 credits

III. Area of Concentration 36 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>FIR:208</td>
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<td>FIR:210</td>
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<tr>
<td>SAF:202</td>
<td>3</td>
</tr>
<tr>
<td>SAF:203</td>
<td>3</td>
</tr>
</tbody>
</table>

Program total 65 credits

CERTIFICATE OF PROFICIENCY
Florissant Valley

This program is designed for the individual working in industry or business who needs to gain some specialized knowledge in the field of industrial safety. Safety-related elective courses may be selected based on the individual’s present or anticipated job requirements.

Courses Credits
<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAF:xxx</td>
<td>18</td>
</tr>
<tr>
<td>MTH:124; PSI:101; CHM:114</td>
<td>6</td>
</tr>
<tr>
<td>Electives</td>
<td>9</td>
</tr>
</tbody>
</table>

Program total 33 credits

Fire Protection Technology:
Safety Option

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley

This program is offered for individuals currently working in the safety field in industrial plants, insurance companies or firms selling fire protection equipment. It is also offered for persons interested in entering this area of employment. Courses may be taken as a complete program or as needed according to individual interest. Technical courses are offered in the evening only. Academic courses are offered day and evening.
Funeral Directing

CERTIFICATE OF PROFICIENCY
Forest Park

This program prepares the student for licensure as a funeral director and entry-level employment in a Missouri funeral establishment, as well as other states with similar licensing regulations. Funeral Directing courses are available to students who have been admitted to the Funeral Directing Program and/or have departmental approval. The Funeral Directing curriculum consists of two semesters of courses that are offered in the evening at the Forest Park campus as well as Distance Learning via the College’s Internet Web site. The Certificate focuses solely on funeral directing, with no courses in embalming. It is a nontechnical certificate, geared toward the business and public relations aspects of operating a funeral home.

Funeral directors use counseling skills to assist families in coping with grief, adjusting to new situations, and making appropriate funeral arrangements. The successful funeral director possesses emotional stability, the desire to serve others, and good physical health to withstand the irregular working hours and the obvious stresses of the job. Good grooming habits are essential, as the funeral director must reflect the high standards of care the families will receive at the funeral home. Prior coursework in public speaking, accounting, and business would be helpful for students interested in this program.

This academic program is designed to meet specific state or professional needs. It is not accredited by the American Board of Funeral Service Education. Students graduating from this program are not eligible to take the National Board Examination or any state board examination for which graduation from an ABFSE accredited program is required.

The Funeral Directing program has been approved by the Missouri State Board of Embalmers and Funeral Directors, and it is the only such certificate program offered in this state. In addition, the program fulfills the educational requirement for licensure as a funeral director in Missouri, and graduates are eligible to sit for the state licensing examinations. This also applies to other states with similar licensing regulations.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC:100 Applied Accounting</td>
<td>3</td>
</tr>
<tr>
<td>COM:101 Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>FD:101 Funeral Management/Merchandising</td>
<td>6</td>
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<tr>
<td>FD:102 Funeral Service Psychology</td>
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</tr>
<tr>
<td>FD:103 History of Funeral Service</td>
<td>3</td>
</tr>
<tr>
<td>FD:104 Funeral Service Law</td>
<td>3</td>
</tr>
<tr>
<td>IS:103 Information Systems for Business</td>
<td>3</td>
</tr>
<tr>
<td>SOC:101 Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

Program total . . . . . 27 credits

Funeral Service Education

ASSOCIATE IN APPLIED SCIENCE DEGREE
Forest Park

This program prepares students for entry-level employment in funeral homes. Prior to enrolling in the College, each applicant must meet the pre-matriculation requirements of the state in which the student intends to practice. Students gain practical experience in the various techniques of embalming through the use of modern facilities at local funeral homes as well as in the classroom.

Persons interested in funeral service education should possess emotional stability, the desire to serve others and be in good physical health to withstand the irregular working hours and stresses of the job. Good grooming habits are important.

In most states, graduates are required to work as interns under the supervision of a licensed funeral director or embalmer for a specified period of time. Graduates of the program are qualified for positions as funeral directors and/or embalmers.

The Funeral Service Education program at St. Louis Community College at Forest Park is accredited by the American Board of Funeral Service Education (ABFSE), 3432 Ashland Avenue, Suite U, St. Joseph, Missouri 64506, telephone 816-233-3747. Web: (www.abfse.org). The annual passage rate of first-time takers on the National Board Examination (NBE) for the most recent three-year period for this institution and all ABFSE accredited funeral service education programs is posted on the ABFSE web site (www.abfse.org).

After January 1, 2004, each accredited program in funeral service education must require that each funeral service student take the National Board Exam (NBE) as a requirement for graduation.

I. Career General Education 22 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>BIO:103</td>
<td>Problems in Anatomy</td>
<td>3</td>
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<tr>
<td>BIO:203</td>
<td>General Microbiology</td>
<td>4</td>
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<tr>
<td>COM:101</td>
<td>Oral Communication I</td>
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<tr>
<td>ENG:101</td>
<td>College Composition I</td>
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</tr>
<tr>
<td>ENG:102</td>
<td>College Composition II (or)</td>
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</tr>
<tr>
<td>ENG:103</td>
<td>Report Writing</td>
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<tr>
<td>HST:xxx</td>
<td>Missouri State Requirement</td>
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</tr>
<tr>
<td>SOC:101</td>
<td>Introduction to Sociology</td>
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II. Physical Education Activity 2 credits

III. Area of Concentration 41 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC:100</td>
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<tr>
<td>BUS:101</td>
<td>Small Business Management (or)</td>
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<td>BUS:104</td>
<td>Introduction to Business</td>
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<tr>
<td>FNL:101</td>
<td>Orientation to Funeral Service</td>
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<tr>
<td>FNL:102</td>
<td>Mortuary Law</td>
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<tr>
<td>FNL:103</td>
<td>Embalming Chemistry</td>
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<tr>
<td>FNL:104</td>
<td>Funeral Service Equipment</td>
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<tr>
<td>FNL:106</td>
<td>Dynamics of Grief</td>
<td>3</td>
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<tr>
<td>FNL:200</td>
<td>Restorative Art</td>
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<tr>
<td>FNL:201</td>
<td>Embalming</td>
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<td>FNL:202</td>
<td>Funeral Management</td>
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<td>FNL:205</td>
<td>Funeral Service Seminar</td>
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<td>FNL:206</td>
<td>Embalming Practicum I</td>
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<td>FNL:207</td>
<td>Embalming Practicum II</td>
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<td>FNL:208</td>
<td>Pathology for Funeral Service</td>
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<tr>
<td>IS:103</td>
<td>Information Systems for Business</td>
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</table>

Program total . . . . . 65 credits
Gerontology

CERTIFICATE OF SPECIALIZATION
Forest Park

This program prepares students for entry-level work in geriatrics and other services directed to senior citizens. Students acquire skills in one-on-one relationships, group work and activities for older persons.

Persons interested in this program should be responsible, mature, patient and have a genuine concern and interest in the field of geriatrics. They also should possess effective verbal and written communications skills.

Program total . . . . . 15 credits

Graphic Communications

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley, Forest Park and Meramec

Students gain graphic design fundamentals using basic graphic design materials to learn such skills as lettering, drawing for graphics layout, advertising design, illustration and computer graphics.

Graduates of the graphics communications program will have the creative and conceptual skills necessary to, and be ready for, entry-level employment and beyond in a variety of visual communication settings. Skill areas are applicable to graphic designers, illustrators, computer artists, layout artists, animators, display artists, cartoonists, package designers, production artists and artists working in digital forms of visual communication.

I. Career General Education 18 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>ENG:102</td>
<td>College Composition II (or)</td>
</tr>
<tr>
<td>ENG:103</td>
<td>Report Writing (or)</td>
</tr>
<tr>
<td>MCM:217</td>
<td>Publications Writing (or)</td>
</tr>
<tr>
<td>COM:101</td>
<td>Oral Communication I (or)</td>
</tr>
<tr>
<td>XXXxxxx</td>
<td>Approved Writing Intensive Course</td>
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<td>Missouri State Requirement</td>
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<td>XXXxxxx</td>
<td>Science/Mathematics Requirement</td>
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II. Physical Education Activity 2 credits

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
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<tr>
<td>ART:107</td>
<td>Design I</td>
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<td>ART:108</td>
<td>Design II</td>
</tr>
<tr>
<td>ART:111</td>
<td>Figure Drawing I</td>
</tr>
<tr>
<td>ART:131</td>
<td>Computer Art Studio</td>
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<tr>
<td>ART:133</td>
<td>Graphic Design I</td>
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<tr>
<td>ART:134</td>
<td>Graphic Design II</td>
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<tr>
<td>ART:138</td>
<td>Drawing for Graphics I</td>
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<tr>
<td>ART:245</td>
<td>Portfolio Design and Professional Practices</td>
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III. Area of Concentration 50-52 credits

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ART:243</td>
<td>Figure Illustration (or)</td>
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<tr>
<td>ART:112</td>
<td>Figure Drawing II</td>
</tr>
<tr>
<td>ART:135</td>
<td>Graphic Production I</td>
</tr>
<tr>
<td>ART:238</td>
<td>Drawing for Graphics II</td>
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<tr>
<td>ART:239</td>
<td>Illustration I</td>
</tr>
<tr>
<td>ART:240</td>
<td>Illustration II</td>
</tr>
<tr>
<td>ART:242</td>
<td>Drawing for Graphics III</td>
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<tr>
<td>ART:233</td>
<td>Storyboarding/Animatics</td>
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<td>ART:234</td>
<td>Computer Animation I</td>
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Illustration Option 27-29 credits

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<th>Course</th>
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<tr>
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<td>ART:238</td>
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<td>Illustration I</td>
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<tr>
<td>ART:240</td>
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<td>ART:234</td>
<td>Computer Animation I</td>
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Animation Option 27-29 credits

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<td>ART:238</td>
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<tr>
<td>ART:236</td>
<td>Typography</td>
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<td>ART:233</td>
<td>Graphic Design III</td>
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<tr>
<td>ART:234</td>
<td>Graphic Design IV</td>
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<td>ART:135</td>
<td>Graphic Production I</td>
</tr>
<tr>
<td>ART:235</td>
<td>Graphic Production II</td>
</tr>
<tr>
<td>ART:242</td>
<td>History of Graphic Communications (or)</td>
</tr>
<tr>
<td>ART:246</td>
<td>Advanced Computer Art Applications</td>
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<td>Approved Electives</td>
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Graphic Design Option 27-29 credits

<table>
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<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART:238</td>
<td>Drawing for Graphics II</td>
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<tr>
<td>ART:236</td>
<td>Typography</td>
</tr>
<tr>
<td>ART:233</td>
<td>Graphic Design III</td>
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<tr>
<td>ART:234</td>
<td>Graphic Design IV</td>
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<td>ART:135</td>
<td>Graphic Production I</td>
</tr>
<tr>
<td>ART:235</td>
<td>Graphic Production II</td>
</tr>
<tr>
<td>ART:242</td>
<td>History of Graphic Communications (or)</td>
</tr>
<tr>
<td>ART:246</td>
<td>Advanced Computer Art Applications</td>
</tr>
<tr>
<td>Approved Electives</td>
<td>10-12</td>
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New Media Option 27-29 credits

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART:275</td>
<td>Photo Imaging I: Photoshop</td>
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<tr>
<td>ART:ATxxxx</td>
<td>Photography Elective</td>
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<tr>
<td>AT:135</td>
<td>Communication and Design for the WWW I</td>
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Program total . . . . 70-72 credits
## Health Information Technology

**ASSOCIATE IN APPLIED SCIENCE**

**Forest Park**

The Health Information Technology program provides students with the technical skills and knowledge required to provide reliable and valid information essential to the healthcare industry. Graduates are specialists working with health information systems, managing medical records, and coding information for reimbursement and research. Health information technology professionals work throughout the healthcare industry in a variety of settings. Common job titles include clinical coder, coding manager, clinical data collection and reporting specialist, cancer registrar, data integrity specialist, and reimbursement specialist. This program prepares health information technicians to support health information management in an electronic environment (e-HIM) and adheres to the American Health Information Management Association’s Framework for HIM education.

### I. Career General Education 21 credits

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>College Composition I</td>
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<td>COM:101</td>
<td>Oral Communication I</td>
<td>3</td>
</tr>
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<td>XXX:xxx</td>
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<tr>
<td>MTH:160</td>
<td>College Algebra</td>
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<tr>
<td>BIO:215</td>
<td>Human Body Systems</td>
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<tr>
<td>XXX:xxx</td>
<td>Social Science Elective</td>
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### II. Physical Education Activity 2 credits

<table>
<thead>
<tr>
<th>Course Code</th>
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### III. Area of Concentration 38 credits

<table>
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<tbody>
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<td>HIT:101</td>
<td>Medical Terminology</td>
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<tr>
<td>HIT:102</td>
<td>Health Information Management Technology</td>
<td>4</td>
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<tr>
<td>HIT:103</td>
<td>Healthcare Delivery Systems</td>
<td>2</td>
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<tr>
<td>HIT:104</td>
<td>Basic Principles of Disease</td>
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<td>HIT:105</td>
<td>Pharmacology for Health Information Technology</td>
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<td>HIT:106</td>
<td>Diagnosis Coding Systems I</td>
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<td>HIT:107</td>
<td>Procedure Coding Systems I</td>
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<td>HIT:110</td>
<td>Healthcare Ethical and Legal Issues</td>
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<tr>
<td>HIT:201</td>
<td>Health Insurance Billing and Reimbursement</td>
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<td>HIT:210</td>
<td>Professional Practice Experience</td>
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<tr>
<td>HIT:211</td>
<td>Electronic Health Systems</td>
<td>3</td>
</tr>
<tr>
<td>HIT:213</td>
<td>Quality and Performance Improvement in Healthcare</td>
<td>3</td>
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<tr>
<td>HIT:214</td>
<td>Calculating and Reporting Healthcare Statistics</td>
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<tr>
<td>HIT:291</td>
<td>Workplace Learning; Health Information Technology</td>
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### IV. Information Systems Component 8 credits

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>IS:103</td>
<td>Information Systems for Business</td>
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</tr>
<tr>
<td>IS:136</td>
<td>Internet Fundamentals</td>
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</tr>
<tr>
<td>IS:151</td>
<td>Microcomputer Applications in Business</td>
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</table>

### Program total 69 credits

## Horticulture

**ASSOCIATE IN APPLIED SCIENCE DEGREE**

**Meramec**

Students learn both the science and the art of horticulture through a combination of classroom theory with laboratory practice and on-the-job training. Courses in soils, plant diseases, turfgrass management and cooperative horticulture are integral parts of the program. Students receive their training in the College’s greenhouses, outdoor nursery facilities, laboratories and lath house. Students should enjoy working with plants and observing the growth process.

Graduates may specialize in nursery management, interior landscape design and maintenance, greenhouse management, horticulture retail sales, commercial grounds management and urban forestry. Entry-level jobs are available with state and city park departments, nurseries, landscape contracting firms, golf courses and retail sales.

### I. Career General Education 19 credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ENG:100</td>
<td>Career English (or)</td>
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</tr>
<tr>
<td>ENG:101</td>
<td>College Composition I</td>
<td>3</td>
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<tr>
<td>COM:101</td>
<td>Oral Communication I</td>
<td>3</td>
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<td>CHM:109</td>
<td>Chemistry for Environmental Careers I</td>
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<td>MTH:140</td>
<td>Intermediate Algebra</td>
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<td>General Psychology</td>
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<td>Missouri State Requirement</td>
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### II. Physical Education Activity 2 credits

<table>
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<th>Course Title</th>
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### III. Area of Concentration 39-40 credits

Select 6-7 credits from:

<table>
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<tr>
<td>ACC:110</td>
<td>Financial Accounting</td>
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<td>BLW:101</td>
<td>Business Law I</td>
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<tr>
<td>BUS:101</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT:101</td>
<td>Introduction to Supervision</td>
<td>3</td>
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<td>MKT:104</td>
<td>Principles of Selling</td>
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### Horticulture Core 24 credits

<table>
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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>Introductory Horticulture (or)</td>
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<tr>
<td>BIO:124</td>
<td>General Botany I</td>
<td>4</td>
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<tr>
<td>HRT:102</td>
<td>Soils</td>
<td>3</td>
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<td>HRT:105</td>
<td>Cooperative Horticulture I</td>
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<td>HRT:206</td>
<td>Ornamental Plants – Trees and Vines</td>
<td>3</td>
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<tr>
<td>HRT:207</td>
<td>Ornamental Plants – Shrubs and Evergreens</td>
<td>3</td>
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<tr>
<td>HRT:230</td>
<td>Ornamental Plants – Herbaceous Perennials</td>
<td>3</td>
</tr>
<tr>
<td>HRT:214</td>
<td>Grounds Management</td>
<td>3</td>
</tr>
<tr>
<td>HRT:227</td>
<td>Plant Pest Management</td>
<td>4</td>
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### Horticulture Options 9 credits

Select one option:

**Turfgrass Management**

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<thead>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HRT:201</td>
<td>Turfgrass Management</td>
<td>3</td>
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<tr>
<td>HRT:240</td>
<td>Golf Course Management</td>
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<tr>
<td>HRT:220</td>
<td>Landscape Irrigation</td>
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(or)
Landscape Design
HRT:104 Landscape Design I .......................... 3
HRT:217 Landscape Design II .......................... 3
HRT:218 Landscape Design III .......................... 3
(or)

Plant Production and Marketing
HRT:103 Plant Propagation ............................ 3
HRT:205 Nursery and Garden Center Practices ...... 3
HRT:241 Greenhouse Management ........................ 3
(or)

Landscape Management
HRT:201 Turfgrass Management ........................ 3
HRT:220 Landscape Irrigation .......................... 3
HRT:242 Urban Tree Management ......................... 3

Horticulture Electives 6 Credits
Select six credits from:
HRT:245 Special Applications in Landscape Design .... 3
HRT:235 Annuals and Ornamental Grasses ............... 3
Credits from options ................................. 3-6

Program total ......... 39 Credits

IV. Horticulture Electives 6 credits
HRT:245 Special Applications in Landscape Design .... 3
HRT:235 Annuals and Ornamental Grasses ............... 3
Credits from options ................................. 3-6

Program total ....... 66-67 credits

CERTIFICATE OF PROFICIENCY
Meramec

Horticulture Core 24 credits
HRT:101 Introductory Horticulture (or) ................. 4
BIO:124 General Botany I ............................ 4
HRT:102 Soils .......................................... 3
HRT:105 Cooperative Horticulture ...................... 1
HRT:206 Ornamental Plants – Trees and Vines ......... 3
HRT:207 Ornamental Plants – Shrubs and Evergreens . 3
HRT:230 Ornamental Plants – Herbaceous Perennials . 3
HRT:214 Grounds Management ........................ 3
HRT:227 Plant Pest Management ........................ 4

Horticulture Options 9 credits
Select one option
Turfgrass Management
HRT:201 Turfgrass Management ........................ 3
HRT:240 Golf Course Management ........................ 3
HRT:220 Landscape Irrigation(or) Landscape Design . 3
HRT:104 Landscape Design I .......................... 3
HRT:217 Landscape Design II .......................... 3
HRT:218 Landscape Design III .......................... 3
(or)

Plant Production and Marketing
HRT:103 Plant Propagation ............................ 3
HRT:205 Nursery and Garden Center Practices ...... 3
HRT:241 Greenhouse Management ........................ 3
(or)

Course Credits
BIO:124 General Botany I (or) ......................... 4
HRT:101 Introductory Horticulture ..................... 4
HRT:125 Plant Identification: Trees ..................... 1
HRT:126 Plant Identification: Shrubs and Vines ....... 1
HRT:127 Soil Management ............................. 1
HRT:128 Turfgrass Culture ........................... 1
HRT:129 Propagation Principles and Practices ......... 1
HRT:130 Principles of Landscape Design ............... 1
HRT:132 Plant Pest Identification and Management .... 1
HRT:133 Landscape Management ........................ 1

Program total ......... 12 credits

CERTIFICATE OF SPECIALIZATION
Meramec
Students learn both the science and the art of horticulture through a combination of classroom theory with laboratory practice and on-the-job training. Courses in soils, plant diseases, turf grass management and cooperative horticulture are integral parts of the program. Students receive their training in the College’s greenhouses, outdoor nursery facilities, laboratories and lath house. Students should enjoy working with plants and observing the growth process.

Entry-level jobs are available with state and city parks, departments, nurseries, landscape contracting firms, golf courses and retail sales.
Landscapes and Gardening

CERTIFICATE OF SPECIALIZATION
Meramec

This program is offered at the Missouri Botanical Garden's Kemper Center for Home Gardening and provides training that enables students to enhance their gardening skills. The program provides hands-on instruction in basic horticulture principles to those who plan to manage landscapes. Courses address plant selection and care, weed and pest control, preparation, and use of garden soil, and lawn care.

I. Required Course
   HRT:110 Fundamentals of Horticulture ............. 3

II. Choose 8 credits from the following:
   HRT:111 Selected Topics in Gardening ............. 3
   HRT:112 Plant Identification: Annuals and Perennials .... 3
   HRT:125 Plant Identification: Trees ............. 3
   HRT:126 Plant Identification: Shrubs and Vines ....... 3
   HRT:127 Soil Management ......................... 3
   HRT:128 Turfgrass Culture ......................... 3
   HRT:130 Principles of Landscape Design ............... 3
   HRT:132 Plant Pest Identification and Management ...... 3
   HRT:133 Landscape Management ..................... 3

Program total ........ 9 credits

Hospitality Studies:
Baking and Pastry Arts

ASSOCIATE IN APPLIED SCIENCE DEGREE
Forest Park

The AAS in Hospitality Studies: Baking and Pastry Arts will allow students to gain the necessary theoretical and practical knowledge to become a successful pastry professional. Concepts of baking theory and nutrition; breads, rolls, and bakeries; production pastry techniques; and cake production and decoration will lay the foundation for essential pastry-related skills. Advanced classes in artisan and decorative bread; ice cream and frozen desserts; chocolates and pralines; contemporary plated desserts; and showpieces and confectionary art will allow specialized training in specific areas of concentration for the aspiring pastry chef. The final course, Dessert Buffet Presentation, will give the student a real-world simulation of what to expect upon graduation.

II. Area of Concentration 19 credits
   HRM:134 Introduction to the Hospitality Industry ...... 3
   CUL:101 Safety and Sanitation ....................... 1
   HRM:201 Problems of Hospitality Management ........ 3
   HRM:205 Operational Cost Control .................. 3
   HRM:128 Nutrition ....................................... 3
   ART:107 Design I ........................................ 2

Select at least four credits from:
   ACC: 100 Applied Accounting ................................ 3
   HRM: 112 Purchasing ...................................... 3
   HRM: 250 Foodservice Design and Layout ............ 3
   HRM: 252 Nutrition ......................................... 3
   CUL: 235 Culinary Competition Skills .................. 3
   CUL: 201 Gardening Manager ............................ 3
   CUL: 230 Ice Carving ...................................... 2
   HRM: 212 Bar and Beverage Management ................ 3
   HRM: 141 Workplace Learning I: Hospitality Studies ... 1
   HRM: 221 Workplace Learning II: Hospitality Studies ... 1
   XXX:xxx Foreign Language .................................. 4

Baking and Pastry Arts Courses 30 credits
   BAP: 101 Introduction to Baking Theory and Nutrition ... 7
   BAP: 105 Breads, Rolls, and Bakeries .................. 3
   BAP: 110 Production Pastry Techniques ............... 3
   BAP: 115 Cake Production and Decoration ............. 3
   BAP: 201 Artisan and Decorative Bake .................. 2
   BAP: 205 Ice Cream and Frozen Desserts .............. 2
   BAP: 210 Chocolates and Pralines ..................... 2
   BAP: 215 Contemporary Plated Desserts ............... 2
   BAP: 220 Showpieces and Confectionary Art .......... 2
   BAP: 250 Dessert Buffet Presentation .................. 7

Program total ........ 69 credits

CERTIFICATE OF PROFICIENCY
Forest Park

The Certificate of Proficiency in Hospitality Studies: Baking and Pastry Arts will prepare students for entry level positions in the baking and pastry field. Concepts of baking theory and nutrition; breads, rolls, and bakeries; production pastry techniques; and cake production and decoration will lay the foundation for essential pastry-related skills. Advanced classes in artisan and decorative bread; ice cream and frozen desserts; chocolates and pralines; contemporary plated desserts; and showpieces and confectionary art will allow specialized training in specific areas of concentration for the aspiring pastry chef. The final course, Dessert Buffet Presentation, will give the students a real-world simulation of what to expect upon graduation.

I. Career General Education 18 credits
   ENG:101 College Composition I ....................... 3
   COM:101 Oral Communication I ....................... 3
   MTH:108 Elementary Applied Math .................... 3
   PSY:101 Physical Science Lecture ..................... 3
   PSY:200 General Psychology ........................... 3
   XXXxxx Missouri State Requirement .................. 3

II. Physical Education Activity 2 credits

Courses Credits
   ENG:101 College Composition I ....................... 3
   MTH:108 Elementary Applied Math .................... 3
III. Area of Concentration 13 credits

HRM:134 Introduction to the Hospitality Industry .................. 3
CUL:101 Safety and Sanitation ..................................... 1
HRM:201 Problems of Hospitality Management .................. 3
HRM:205 Operational Cost Control .................................. 3
HRM:112 Purchasing .................................................. 3
HRM:128 Nutrition ................................................... 3

Select at least four credits from:

ACC:100 Applied Accounting ....................................... 3
HRM:250 Foodservice Design and Layout ....................... 3
HRM:202 Hospitality Law ......................................... 3
CUL:235 Culinary Competition Skills ............................ 3
CUL:230 Ice Carving ............................................... 2
HRM:212 Bar and Beverage Management ....................... 3
HRM:141 Workplace Learning I: Hospitality Studies ....... 1
HRM:221 Workplace Learning II: Hospitality Studies ....... 1
XXX:xxx Foreign Language ....................................... 4

Culinary Arts Courses 36 credits

CUL:105 Food Preparation Theory ................................ 3
CUL:110 Food Preparation Practical I ............................ 3
CUL:115 Food Preparation Practical II .......................... 3
BAP:150 Bakeshop Basics for Culinarians ..................... 3
CUL:201 Garde Manger ............................................. 3
CUL:205 Global Cuisine ............................................ 3
CUL:210 Nutritional Cooking ....................................... 3
CUL:215 American Regional Cuisine ......................... 3
CUL:250 Restaurant Operations ................................... 6

Program total ........ 69 credits

Hospitality Studies: Hotel and Restaurant Management

ASSOCIATE IN APPLIED SCIENCE DEGREE Forest Park

The Hotel and Restaurant Management Option prepares students for hospitality management positions. The graduate will be prepared for management positions in the hospitality industry. The program includes courses that offer a solid background in the managerial aspects. This prepares graduates to enter the hospitality industry in supervisory positions.

I. Career General Education 18 credits

ENG:101 College Composition I ................................ 3
COM:101 Oral Communication I ................................ 3
MTH:108 Elementary Applied Math or higher ................ 3
PSY:101 Physical Science Lecture ................................ 3
XXX:xxx Missouri State Requirement ......................... 3
PSY:200 General Psychology .................................... 3

II. Physical Education Activity 2 credits

III. Area of Concentration 19 credits

ACC:100 Applied Accounting ....................................... 3
CUL:105 Food Preparation Theory ................................ 3
CUL:101 Safety and Sanitation ..................................... 1
HRM:134 Introduction to the Hospitality Industry ........... 3
HRM:201 Problems of Hospitality Management ............... 3
HRM:202 Hospitality Law ......................................... 3
HRM:205 Operational Cost Control ................................ 3

Program total ........ 69 credits
**Hotel and Restaurant Management Courses**  
28 credits

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HRM:141</td>
<td>Workplace Learning I: Hospitality Studies</td>
<td>3</td>
</tr>
<tr>
<td>HRM:221</td>
<td>Workplace Learning II: Hospitality Studies</td>
<td>3</td>
</tr>
<tr>
<td>HRM:241</td>
<td>Workplace Learning III: Hospitality Studies</td>
<td>3</td>
</tr>
<tr>
<td>HRM:214</td>
<td>Hospitality Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>HRM:209</td>
<td>Hospitality Sales and Marketing</td>
<td>3</td>
</tr>
<tr>
<td>HRM:210</td>
<td>Guest Services Management</td>
<td>3</td>
</tr>
<tr>
<td>HRM:211</td>
<td>Hotel Facilities Management</td>
<td>3</td>
</tr>
<tr>
<td>IS:123</td>
<td>Introduction to Windows</td>
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Select at least six credits from

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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HRM:112</td>
<td>Purchasing</td>
<td>3</td>
</tr>
<tr>
<td>HRM:250</td>
<td>Foodservice Design and Layout</td>
<td>3</td>
</tr>
<tr>
<td>HRM:212</td>
<td>Bar and Beverage Management</td>
<td>3</td>
</tr>
<tr>
<td>TUR:201</td>
<td>Convention and Meeting Planning</td>
<td>3</td>
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</table>

Select at least six credits from

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HUM:112</td>
<td>Creative Thinking</td>
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<tr>
<td>COM:107</td>
<td>Public Speaking</td>
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<tr>
<td>COM:110</td>
<td>Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>SOC:103</td>
<td>Human Behavior at Work and in Business</td>
<td>3</td>
</tr>
<tr>
<td>IS:151</td>
<td>Microcomputer Applications in Business</td>
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</tbody>
</table>

**Program total . . . . . 67 credits**

**Hospitality Studies:**  
**Hotel Management**

**CERTIFICATE OF PROFICIENCY**
Forest Park

This program prepares students for entry level positions within the hotel industry; Students learn the key areas of a hotel including front office management, guest services, and facility management. Course work would include hospitality law, marketing, safety and sanitation, cost control and supervision.

**General Education**  
9 credits

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ENG:101</td>
<td>College Composition I</td>
<td>3</td>
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<tr>
<td>COM:101</td>
<td>Oral Communication I</td>
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</tr>
<tr>
<td>MTH:108</td>
<td>Elementary Applied Math</td>
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**Area of Concentration**  
30 credits

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<td>ACC:100</td>
<td>Applied Accounting</td>
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<td>CUL:101</td>
<td>Safety and Sanitation</td>
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<tr>
<td>HRM:134</td>
<td>Introduction to the Hospitality Industry</td>
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</tr>
<tr>
<td>HRM:141</td>
<td>Workplace Learning I: Hospitality Studies</td>
<td>3</td>
</tr>
<tr>
<td>HRM:221</td>
<td>Workplace Learning II: Hospitality Studies</td>
<td>3</td>
</tr>
<tr>
<td>HRM:201</td>
<td>Problems of Hospitality Management</td>
<td>3</td>
</tr>
<tr>
<td>HRM:202</td>
<td>Hospitality Law</td>
<td>3</td>
</tr>
<tr>
<td>HRM:205</td>
<td>Operational Cost Control</td>
<td>3</td>
</tr>
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<td>HRM:210</td>
<td>Guest Services Management</td>
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<td>Hospitality Human Resources Management</td>
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<td>HRM:112</td>
<td>Purchasing</td>
<td>3</td>
</tr>
<tr>
<td>HRM:250</td>
<td>Foodservice Design and Layout</td>
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</tr>
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<td>IS:151</td>
<td>Microcomputer Applications in Business</td>
<td>4</td>
</tr>
</tbody>
</table>

**Program total . . . . . 39 credits**
Human Services
ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley, Forest Park and Meramec

This program provides students with a basic social science framework and perspective for pursuing a career in human services. The program also provides currently employed human service workers the opportunity to upgrade their skills and abilities. Students are taught a specific body of theoretical knowledge and practice skills.

They are introduced to human service organizations and resources designed to meet human needs. Students learn to identify various helping strategies and techniques for working with people.

Persons interested in this program should enjoy working with people. They should possess good communications and problem solving skills and have a positive attitude about themselves and others.

Graduates are qualified for positions as alcoholism/drug abuse assistant to counselors, directors of GED (General Education Development) tutoring programs, house parents, nursing home activity therapy assistants, case workers, corrections officers, vocational rehabilitation workers, teacher’s aides for exceptional children and personnel assistants. These positions are available in the areas of social welfare, mental health, juvenile and adult correctional programs, geriatrics, education, counseling and related fields in business, industry and health care.

I. Career General Education 30 credits
ENG:101 College Composition I .................. 3
ENG:102 College Composition II (or) ........... 3
ENG:103 Report Writing .......................... 3
SOC:101 Introduction to Sociology ............. 3
SOC:103 Missouri State Requirement .......... 3
XXX:xxx Humanities Requirements ............. 6
XXX:xxx Science/Mathematics Requirements
   (MTH:100 or above; laboratory science course recommended) ........ 6
PSY:200 General Psychology .................... 3
PSY:205 Human Growth and Development ........ 3

II. Physical Education Activity 2 credits

III. Area of Concentration 24 credits
HMS:100 Introduction to Human Services ........ 3
HMS:101 Human Services Theories and Skills .... 3
HMS:102 Human Services Policy and Politics .... 3
HMS:201 Workplace Learning: Human Services I ... 3
HMS:202 Workplace Learning: Human Services II ... 3
HMS:203 Human Services Practicum Seminar I .... 3
HMS:204 Human Services Practicum Seminar II .... 3
Select one course from .................................. 3
HMS:111 Group Practice in Human Services
SOC:100 Human Relations
SOC:103 Human Behavior at Work and in Business

IV. Electives 8 credits
Recommended electives include courses with prefixes
HMS, SOC, PSY, ECE, CRJ as well as computer, business and personal development courses related to the human services field.

Program total .... 64 credits

Human Services: Corrections Option
ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley

This program prepares students to upgrade or develop new skills as corrections officers in jails, workhouse, halfway houses and other correctional programs and institutions.

Persons interested in this program should have supervisory and leadership skills, a desire to teach or instruct adults or disadvantaged youths and a knowledge and understanding of customs, language patterns and problems of institutionalized populations.

Graduates are qualified for positions as corrections officers, rehabilitation counselors, youth services specialists, bond investigators with probation and parole, alcoholism/drug abuse counselors, group home workers and security officers.

I. Career General Education 27-29 credits
ENG:101 College Composition I .................. 3
ENG:102 College Composition II (or) .......... 3
ENG:103 Report Writing .......................... 3
XXX:xxx Missouri State Requirement .......... 3
SOC:100 Human Relations (or) ................. 3
SOC:103 Human Behavior at Work and in Business .... 3
SOC:101 Introduction to Sociology ............. 3
PSY:200 General Psychology .................... 3
PSY:208 Abnormal Psychology .................. 3
XXX:xxx Science/Mathematics .................. 6-8

II. Physical Education Activity 2 credits

III. Area of Concentration 33 credits
CRJ:122 Introduction to Criminal Justice ........ 3
CRJ:101 American Correctional System .......... 3
CRJ:102 Rehabilitation, Probation and Parole .... 3
CRJ:124 Criminal Law and Procedures .......... 3
CRJ:123 Juvenile Justice ......................... 3
HMS:100 Introduction to Human Services ........ 3
HMS:101 Human Services Theories and Skills .... 3
HMS:201 Workplace Learning: Human Services I ... 3
HMS:202 Workplace Learning: Human Services II ... 3
HMS:203 Human Services Practicum Seminar I .... 3
HMS:204 Human Services Practicum Seminar II .... 3

IV. Electives 3 credits
HMS:205 Crisis Intervention or Elective

Program total .... 65-67 credits

Program total .... 64 credits
CERTIFICATE OF PROFICIENCY
Florissant Valley

This program prepares students to upgrade or develop new skills as corrections officers in jails, workhouses, halfway houses and other correctional programs and institutions.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ:122 Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJ:101 American Correctional System</td>
<td>3</td>
</tr>
<tr>
<td>CRJ:102 Rehabilitation, Probation and Parole</td>
<td>3</td>
</tr>
<tr>
<td>CRJ:124 Criminal Law and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ENG:101 College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HMS:100 Introduction to Human Services</td>
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</tr>
<tr>
<td>HMS:201 Workplace Learning: Human Services I</td>
<td>3</td>
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<tr>
<td>HMS:203 Human Services Practicum Seminar I</td>
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<tr>
<td>PSY:200 General Psychology</td>
<td>3</td>
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<td>XXXxxx Missouri State Requirement</td>
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</table>

Electives 3 credits

Program total 33 credits

III. Area of Concentration 27 credits

<table>
<thead>
<tr>
<th>Courses</th>
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<tr>
<td>HMS:119 Introduction to the Field of Disabilities</td>
<td>3</td>
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<tr>
<td>HMS:120 Team Building: Working with Care Givers (or)</td>
<td>3</td>
</tr>
<tr>
<td>HMS:121 Working with Challenging Behaviors (or)</td>
<td>3</td>
</tr>
<tr>
<td>HMS:122 Health Issues and Persons with Disabilities (or)</td>
<td>3</td>
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<tr>
<td>HMS:118 Aging and Disabilities</td>
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<tr>
<td>HMS:201 Workplace Learning: Human Services I</td>
<td>3</td>
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<tr>
<td>HMS:202 Workplace Learning: Human Services II</td>
<td>3</td>
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<tr>
<td>HMS:203 Human Services Practicum Seminar I</td>
<td>3</td>
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<tr>
<td>HMS:204 Human Services Practicum Seminar II</td>
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IV. Electives 6 credits

<table>
<thead>
<tr>
<th>Courses</th>
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<tbody>
<tr>
<td>HMS:101 Human Services: Theory and Skills</td>
<td>3</td>
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<tr>
<td>HMS:110 Introduction to Gerontology</td>
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<td>HMS:123 Inclusion in the Community</td>
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<td>HMS:205 Crisis Intervention</td>
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<td>HMS:112 Interviewing in the Helping Relationship</td>
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<td>IS:103 Information Systems for Business</td>
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<td>PSY:208 Abnormal Psychology</td>
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<tr>
<td>SOC:100 Human Relations</td>
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</tbody>
</table>

Program total 65-66 credits

Human Services: Disabilities Studies Option

ASSOCIATE IN APPLIED SCIENCE DEGREE
Forest Park

This program provides students with a basic knowledge of persons with disabilities and a perspective of the service delivery model and the field of disabilities. Students entering the program may want to work in entry level positions. Persons already working in the field of disabilities may want to upgrade their already existing skills. Persons with degrees in related fields may want to gain more specialized knowledge in the field.

Persons in this field should enjoy working with people and their challenges. They should possess good communication and problem solving skills and have a positive attitude about themselves and others.

Graduates may expect to work in the areas of special or regular education; supported living; day care centers; leisure and recreation programs; or any other inclusionary community setting.

I. Career General Education 30-31 credits

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<tr>
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<tr>
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<td>ENG:102 College Composition II (or)</td>
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<td>ENG:103 Report Writing</td>
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<td>SOC:101 Introduction to Sociology</td>
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<td>PSY:200 General Psychology</td>
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<tr>
<td>PSY:205 Human Growth and Development</td>
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<td>XXXxxx Humanities Electives</td>
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<tr>
<td>XXXxxx Science/Math Electives (Math 100 or above; lab science course recommended)</td>
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<tr>
<td>XXXxxx Missouri State Requirement</td>
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</tbody>
</table>

II. Physical Education Activity 2 credits

Note: Students who are currently working in the field of developmental disabilities should take the two seminars HMS:203 and HMS:204 instead of HMS:201 and HMS:203.
### Information Reporting

**ASSOCIATE IN APPLIED SCIENCE DEGREE**

**Meramec**

This program prepares the student for entry-level positions in judicial reporting, CART (Communication Access Realtime Translation) or Captioning. The entering student should have keyboarding experience before attempting the skill of machine shorthand. After taking a series of fundamental courses, the student chooses between these options, which prepare the student for the appropriate certification tests upon completion of the program. Judicial reporters work in legal or corporate settings. CART reporters and captioners provide captioning for broadcast or live events. Employment opportunities are excellent in these areas.

#### I. Career General Education 18 credits

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<thead>
<tr>
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<tbody>
<tr>
<td>ENG:101</td>
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<td>COM:101</td>
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<td>XXXxxxx</td>
<td>Social/Behavioral Science Elective</td>
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<td>BUS:103</td>
<td>Business Mathematics</td>
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<td>XXXxxxx</td>
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#### II. Physical Education Activity 2 credits

#### III. Area of Concentration 31 credits

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<td>Information Reporting I</td>
<td>3</td>
</tr>
<tr>
<td>IRT:170</td>
<td>Information Reporting II</td>
<td>3</td>
</tr>
<tr>
<td>IRT:171</td>
<td>Information Reporting III</td>
<td>3</td>
</tr>
<tr>
<td>IRT:172</td>
<td>Information Reporting IV</td>
<td>3</td>
</tr>
<tr>
<td>IRT:138</td>
<td>Introduction to Computer-Aided Transcription</td>
<td>2</td>
</tr>
<tr>
<td>IRT:257</td>
<td>Advanced Computer-Aided Transcription</td>
<td>3</td>
</tr>
<tr>
<td>IRT:142</td>
<td>Editing Legal Documents</td>
<td>3</td>
</tr>
<tr>
<td>IRT:140</td>
<td>Legal Terminology</td>
<td>3</td>
</tr>
<tr>
<td>IS:123</td>
<td>Introduction to Windows</td>
<td>1</td>
</tr>
<tr>
<td>IS:132</td>
<td>Intermediate Windows</td>
<td>1</td>
</tr>
<tr>
<td>IS:136</td>
<td>Internet Fundamentals</td>
<td>1</td>
</tr>
<tr>
<td>IS:205</td>
<td>Medical Terminology</td>
<td>4</td>
</tr>
</tbody>
</table>

**Judicial:** 16 credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>IRT:173</td>
<td>Information Reporting V</td>
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<tr>
<td>IRT:174</td>
<td>Information Reporting VI</td>
<td>3</td>
</tr>
<tr>
<td>IRT:101</td>
<td>Principles of Judicial Reporting I</td>
<td>3</td>
</tr>
<tr>
<td>IRT:201</td>
<td>Principles of Judicial Reporting II</td>
<td>3</td>
</tr>
<tr>
<td>IRT:256</td>
<td>Medical Testimony/Colloquy</td>
<td>3</td>
</tr>
<tr>
<td>IRT:253</td>
<td>Workplace Learning; Judicial Reporting</td>
<td>2</td>
</tr>
</tbody>
</table>

**Program total . . . . . . . 67 credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CART:</td>
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<tr>
<td>IRT:175</td>
<td>CART Reporting I</td>
<td>3</td>
</tr>
<tr>
<td>IRT:252</td>
<td>CART Reporting II</td>
<td>3</td>
</tr>
<tr>
<td>IRT:150</td>
<td>Literary I</td>
<td>3</td>
</tr>
<tr>
<td>IRT:250</td>
<td>Literary II</td>
<td>3</td>
</tr>
<tr>
<td>IRT:251</td>
<td>Literary III</td>
<td>3</td>
</tr>
<tr>
<td>IRT:254</td>
<td>Workplace Learning; CART Reporting</td>
<td>1</td>
</tr>
</tbody>
</table>

**Program total . . . . . . . 67 credits**

### Information Reporting: Broadcast Captioning

**CERTIFICATE OF SPECIALIZATION**

**Meramec**

Broadcast captioning is an outgrowth of the court reporting field and is a highly developed skill that is used to translate spoken communication into visual communication. A stenotype machine is connected to a state-of-the-art computer with special closed-captioning software that allows the writer to caption the spoken word in various TV/news programs, classrooms, conventions, and conferences. A broadcast captioner can assist millions of deaf and hard-of-hearing persons by captioning television and news programs. The program prepares the student to become Certified Broadcast Captioning (CBC) certified. This certificate program is intended for reporters who are coming back to be retrained.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRT:143</td>
<td>Introduction to Captioning</td>
</tr>
<tr>
<td>IRT:202</td>
<td>Broadcast Captioning I</td>
</tr>
<tr>
<td>IRT:203</td>
<td>Broadcast Captioning II</td>
</tr>
<tr>
<td>IRT:251</td>
<td>Literary III</td>
</tr>
</tbody>
</table>

**Program total . . . . . . . 12 credits**

### Information Reporting: Captioning

**CERTIFICATE OF PROFICIENCY**

**Meramec**

This option prepares the student to become Certified Broadcast Captioning (CBC) certified in order to work in various TV/news programs, classrooms, conventions, and conferences.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM:101</td>
<td>Oral Communication I</td>
</tr>
<tr>
<td>IRT:169</td>
<td>Information Reporting I</td>
</tr>
<tr>
<td>IRT:170</td>
<td>Information Reporting II</td>
</tr>
<tr>
<td>IRT:171</td>
<td>Information Reporting III</td>
</tr>
</tbody>
</table>
Information Reporting: Judicial

CERTIFICATE OF PROFICIENCY
Meramec

Judicial reporters utilize stenotype machines to record verbal communication for transcription into an official document. This option prepares the student to become a Certified Court Reporter (CCR) in order to work in the field of judicial reporting, usually in a legal setting.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM:101 Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>IRT:101 Principles of Judicial Reporting I</td>
<td>3</td>
</tr>
<tr>
<td>IRT:169 Information Reporting I</td>
<td>3</td>
</tr>
<tr>
<td>IRT:170 Information Reporting II</td>
<td>3</td>
</tr>
<tr>
<td>IRT:171 Information Reporting III</td>
<td>3</td>
</tr>
<tr>
<td>IRT:172 Information Reporting IV</td>
<td>3</td>
</tr>
<tr>
<td>IRT:173 Information Reporting V</td>
<td>3</td>
</tr>
<tr>
<td>IRT:174 Information Reporting VI</td>
<td>3</td>
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<tr>
<td>IRT:138 Introduction to Computer-Aided Transcription</td>
<td>2</td>
</tr>
<tr>
<td>IRT:140 Legal Terminology</td>
<td>3</td>
</tr>
<tr>
<td>IRT:142 Editing Legal Documents</td>
<td>3</td>
</tr>
<tr>
<td>IRT:253 Workplace Learning: Judicial Reporting</td>
<td>3</td>
</tr>
<tr>
<td>IRT:201 Principles of Judicial Reporting II</td>
<td>3</td>
</tr>
<tr>
<td>IS:132 Intermediate Windows</td>
<td>1</td>
</tr>
<tr>
<td>IS:136 Internet Fundamentals</td>
<td>1</td>
</tr>
<tr>
<td>IS:205 Medical Terminology</td>
<td>4</td>
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<tr>
<td>IRT:256 Medical Testimony/Colloquy</td>
<td>3</td>
</tr>
<tr>
<td>IS:136 Internet Fundamentals</td>
<td>1</td>
</tr>
</tbody>
</table>

Program total . . . . . . 49 credits

Information Reporting: CART

CERTIFICATE OF PROFICIENCY
Meramec

Communication Access Realtime Translation (CART) is the instantaneous translation of the spoken word into English text using a stenotype machine, computer and realtime software, and a means of displaying the text on a computer, TV monitor or large screen. The Americans with Disabilities ACT specifically recognizes CART as an assistive technology which affords "effective communication access." Thus communication access more aptly describes a CART provider’s role and distinguishes CART from realtime reporting in a traditional litigation setting. This option prepares the student to become a Certified CART Provider (CCP).

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM:101 Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>IRT:101 Principles of Judicial Reporting I</td>
<td>3</td>
</tr>
<tr>
<td>IRT:169 Information Reporting I</td>
<td>3</td>
</tr>
<tr>
<td>IRT:253 Workplace Learning: Judicial Reporting</td>
<td>3</td>
</tr>
<tr>
<td>IRT:140 Editing Legal Documents</td>
<td>3</td>
</tr>
<tr>
<td>IRT:142 Legal Terminology</td>
<td>3</td>
</tr>
<tr>
<td>IRT:170 Information Reporting II</td>
<td>3</td>
</tr>
<tr>
<td>IRT:171 Information Reporting III</td>
<td>3</td>
</tr>
<tr>
<td>IRT:172 Information Reporting IV</td>
<td>3</td>
</tr>
<tr>
<td>IRT:257 Advanced Computer-Aided Transcription</td>
<td>3</td>
</tr>
<tr>
<td>IS:123 Introduction to Windows</td>
<td>1</td>
</tr>
<tr>
<td>IS:132 Intermediate Windows</td>
<td>1</td>
</tr>
<tr>
<td>IS:136 Internet Fundamentals</td>
<td>1</td>
</tr>
<tr>
<td>IS:205 Medical Terminology</td>
<td>4</td>
</tr>
<tr>
<td>IRT:256 Medical Testimony/Colloquy</td>
<td>3</td>
</tr>
<tr>
<td>IS:136 Internet Fundamentals</td>
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</tbody>
</table>

Program total . . . . . . 50 credits
Information Systems:
Computer Network Specialist Option

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley, Forest Park and Meramec

This program provides students with both the theoretical and practical knowledge required to perform as entry-level local area networking technicians or administrators. Significant portions of the networking classes involve hands-on lab activity utilizing current computer networking equipment and software. The classes emphasize selection of hardware and software, physical planning, and wide area network design, network optimization, and network management.

I. Career General Education 19 credits
   ENG:101 College Composition I ........................................... 3
   ENG:102 College Composition II (or) .................................... 3
   ENG:103 Report Writing .......................................................... 3
   MTH:160 College Algebra ......................................................... 4
   XXXxxx Natural Science/Mathematics Elective ............................ 3
   XXXxxx Missouri State Requirement ........................................ 3
   XXXxxx Social Science Elective (or) ......................................... 3
   SOC:103 Human Behavior at Work and in Business ............... 3

II. Physical Education Activity 2 credits

III. Area of Concentration 43-45 credits
    BUS:104 Introduction to Business Administration .................. 3
    IS:103 Information Systems for Business ................................. 3
    IS:110 Programming Design and Development ........................ 3
    IS:111 Programming in Basic (or) ......................................... 3
    IS:227 C Programming (or) .................................................. 3
    IS:251 Java Programming .......................................................... 3
    IS:112 Software and Hardware Concepts ................................. 3
    IS:130 Hardware and Software Support ................................. 3
    IS:215 Introduction to Local Area Networks ............................ 3
    IS:217 Network Performance Monitoring ................................. 3
    IS:229 UNIX/Linux ................................................................. 3
    IS:231 Introduction to Data Communications .......................... 3
    IS:235 Network Design and Installation .................................. 3
    IS:236 Network Administration ............................................... 3
    IS:239 Router Administration ................................................. 3

Select 4-6 credit hours from the following list:
    IS:129 HTML ........................................................................... 1
    IS:218 Network Internship ....................................................... 3
    IS:237 Computer System and Network Security ....................... 3
    IS:238 Web Server Implementation ......................................... 3
    IS:254 Advanced Microcomputer Operating Systems .................. 3
    IS:264 Advanced Unix System Administration I ....................... 3
    IS:165 Microcomputer Applications-Microsoft Project ................ 1

Program total ........ 64-66 credits

Information Systems: Microcomputer Support Specialist Option

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley, Forest Park and Meramec

This program provides students with the technical skills necessary to perform application development tasks and to provide support to end users. Students are trained in an environment which emphasizes end-user facilitation of microcomputer resources. The microcomputer application classes are taught in a hands-on environment. Upon completion of this program students are prepared for positions such as user-support specialist or PC help desk specialist.

I. Career General Education 19 credits
   ENG:101 College Composition I .............................................. 3
   ENG:102 College Composition II (or) .................................... 3
   ENG:103 Report Writing .......................................................... 3
   MTH:160 College Algebra ......................................................... 4
   COM:101 Oral Communication I .............................................. 3
   XXXxxx Missouri State Requirement ....................................... 3
   COM:101 Oral Communication I .............................................. 3
   Choose one of the following courses: .................................... 3
   ECO:151 Principles of Macroeconomics .................................. 3
   PSY:200 General Psychology .................................................. 3
   PSY:206 Social Psychology ..................................................... 3
   SOC:101 Introduction to Sociology ......................................... 3
   SOC:103 Human Behavior at Work and Business .................... 3

II. Physical Education Activity 2 credits

III. Area of Concentration 43 credits
    IS:101 Keyboarding ............................................................... 1
    BUS:104 Introduction to Business Administration .................. 3
    IS:103 Information Systems for Business ................................. 3
    IS:110 Program Design and Development ............................... 3
    IS:111 Programming in Basic ................................................. 3
    IS:112 Software and Hardware Concepts ............................... 3
    IS:123 Introduction to Windows ............................................. 1
    IS:124 Windows-Intermediate Topics ..................................... 1
    IS:125 Windows-Advanced Topics ......................................... 1
    IS:130 Hardware and Software Support .................................. 3
    IS:215 Introduction to Local Area Networks ............................ 3
    IS:241 Systems Analysis and Design ...................................... 3
    IS:254 Advanced Microcomputer Operating Systems ................. 3

Choose one of the following 4 credit hour options:
    IS:151 Microcomputer Applications in Business (or) ................. 4
    IS:118 Microcomputer Applications-Database (and) .................. 1
    IS:119 Microcomputer Applications-Word Processing (and) ....... 1
    IS:125 Excel for Windows ..................................................... 2
Choose 8 credits from the following list:

IS:125 Excel for Windows .................................. 2
IS:137 Microcomputer Applications-
    Presentation Software .............................. 1
IS:129 HTML ............................................. 1
IS:202 Information Systems Fieldwork ............. 3
IS:131 Advanced HTML ................................. 2
IS:229 UNIX/Linux ...................................... 3
IS:231 Introduction to Data Communications ...... 3
IS:235 Network Design and Installation ........... 3
IS:237 Computer System and Network Security .... 3

Program total ........ 64 credits

Information Systems: Office Information Coordinator Option

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley, Forest Park and Meramec

This program is designed to prepare students to be proficient in the use of office technology including current computer hardware, operating and application software, and traditional as well as state-of-the-art office equipment such as personal digital assistants, voice recognition technology and scanners. Students in this program will become proficient at using microcomputer office applications and desktop computer systems. In addition to learning to use these skills in the workplace, they will learn to supervise and train others in their use. The courses provide students with both the theoretical and practical knowledge required to perform as productive office professionals.

I. Career General Education 19 credits

ENG:101 College Composition I .......................... 3
COM:101 Oral Communication I ......................... 3
XXX:xxx Natural Science/Mathematics Elective ........ 3
MTH:160 College Algebra ................................ 4
XXX:xxx Missouri State Requirement .................... 3

Choose one of the following courses ................... 3
ECO:151 Principles of Macroeconomics
PSY:200 General Psychology
PSY:206 Introduction to Social Psychology
SOC:101 Introduction to Sociology
SOC:103 Human Behavior at Work and Business

II. Physical Education Activity 2 credits

III. Area of Concentration 44 credits

ACC:100 Applied Accounting ............................. 3
BUS:104 Introduction to Business Administration .... 3
IS:103 Information Systems for Business .............. 3
IS:123 Introduction to Windows ........................ 1
IS:124 Windows—Advanced Topics ...................... 1
IS:132 Windows—Intermediate Topics ................. 1
IS:129 HTML ............................................. 1
IS:130 Hardware and Software Support ............... 3
IS:136 Internet Fundamentals ............................ 1

Program total ........ 65 credits
Information Systems:
Software Developer Option

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley, Forest Park and Meramec

This program provides students with the technical skills and knowledge required to design, write, implement, secure, and maintain business software systems in the enterprise. It teaches the principles of project management, systems analysis and design, and software architecture using current development tools, languages, and environments. Students completing the program are prepared for positions as entry-level software developers or to pursue advanced studies in software design and development.

I. Career General Education 19 credits
   ENGL101 College Composition I ..................... 3
   ENGL102 College Composition II (or') 3
   ENGL103 Report Writing ................................ 3
   MTH160 College Algebra .................................. 3
   XXXxxx Natural Science/Math Elective ................ 3
   XXXxxx Missouri State Requirement ................... 3
   XXXxxx Social Science Elective ........................ 3

II. Physical Education Activity 2 credits

III. Area of Concentration 34 credits
   ACC110 Financial Accounting ......................... 4
   BUS104 Introduction to Business Administration .... 3
   IS107 Introduction to Programming ................. 3
   IS110 Program Design and Development .............. 3
   IS129 Software and Hardware Concepts ............... 3
   IS139 Web Publishing .................................... 3
   IS225 Database Management .............................. 3
   IS229 Unix/Linux ......................................... 3
   IS241 Systems Analysis and Design .................... 3
   IS240 SQL and Database Development ................ 3
   IS262 Advanced Software Development ............... 3

Programming Language Component 6 credits
Students must complete a two-course sequence in the same programming language. Choosing from one of the following options:

Visual Basic Option
   IS246 Visual Basic Programming (and) ............... 3
   IS255 Advanced Visual Basic ........................... 3

C++ Option
   IS256 C++ Programming (and) .......................... 3
   IS275 Advanced C++ Programming ...................... 3

Java Option
   IS251 Java Programming (and) .......................... 3
   IS252 Advanced Java Programming ...................... 3

IS Elective Component 6 credits
Select 6 credits from the following list:
   IS265 Web Scripting Technologies ...................... 3
   IS246 Visual Basic Programming ....................... 3
   IS251 Java Programming ................................. 3
   IS252 Advanced Java Programming ..................... 3
   IS255 Advanced Visual Basic Programming ............ 3
   IS256 C++ Programming ................................. 3
   IS275 Advanced C++ Programming ..................... 3
   IS274 C# Programming .................................. 3
   IS291 Workplace Learning: Information Systems ...... 3

Program total 67 credits

Information Technology: Network Administration

CERTIFICATE OF PROFICIENCY
Florissant Valley, Forest Park, and Meramec

This program will assist computer professionals to update their network and communications technology skill set. These courses provide students with both the theoretical and practical knowledge required to perform as entry-level network technicians or administrators. Students will gain additional skills through practical applications that focus on the day-to-day technology changes experienced by business and industry.

Courses Credits
   IS129 HTML .............................................. 1
   IS130 Hardware and Software Support ................ 3
   IS215 Introduction to Local Area Networks ........... 3
   IS217 Network Performance Monitoring ................. 3
   IS218 Network Internship ................................ 3
   IS229 UNIX/Linux ....................................... 3
   IS231 Introduction to Data Communications .......... 3
   IS235 Network Design and Installation ................. 3
   IS236 Network Administration ........................... 3
   IS237 Computer System and Network Security .......... 3
   IS238 Web Server Implementation ........................ 3

Program total 31 credits
# Interior Design

## ASSOCIATE IN APPLIED SCIENCE DEGREE

**Meramec**

This skill-oriented program emphasizes visual and oral communication skills necessary for the development of functional aesthetic interior space planning and design solutions. Students will learn to solve interior design-related problems by developing free-hand and drafting skills and computer skills as well as oral presentation skills. Students will become familiar with trade, professional and industry resources available both locally and nationally.

Persons interested in this program should have a strong desire to work with people, enjoy functional problem solving and appreciate the impact of design in our environment. Previous drawing, design or drafting courses also are helpful.

Graduates are qualified for entry-level positions in residential and/or commercial interior design and related fields.

Typical positions include draftspersons, design apprentices, design assistants, independent or manufacturer’s representatives, facilities/space planner, retail home furnishing and product sales, and independent interior design consultant.

<table>
<thead>
<tr>
<th>I. Career General Education</th>
<th>18 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG:101 College Composition I</td>
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<tr>
<td>ENG:102 College Composition II (or)</td>
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<tr>
<td>ENG:103 Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>PSY:200 General Psychology</td>
<td>3</td>
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<td>XXX:xxx Missouri State Requirement</td>
<td>3</td>
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<td>XXX:xxx Science/Mathematics Requirement</td>
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<table>
<thead>
<tr>
<th>II. Physical Education Activity</th>
<th>2 credits</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>III. Area of Concentration</th>
<th>43 credits</th>
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<tbody>
<tr>
<td>ART:102 Art History II</td>
<td>3</td>
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<tr>
<td>ART:103 History of Modern Art (or)</td>
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<tr>
<td>ART:110 Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART:107 Design I</td>
<td>2</td>
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<tr>
<td>ART:108 Design II</td>
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<tr>
<td>ART:109 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART:151 Interior Design I</td>
<td>3</td>
</tr>
<tr>
<td>ART:251 Interior Design II</td>
<td>3</td>
</tr>
<tr>
<td>ART:252 Residential Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>ART:253 Commercial Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>ART:131 Computer Art Studio</td>
<td>3</td>
</tr>
<tr>
<td>ART:133 Graphic Design I</td>
<td>3</td>
</tr>
<tr>
<td>AT:152 Lighting Design</td>
<td>3</td>
</tr>
<tr>
<td>AT:153 Interior Decoration</td>
<td>3</td>
</tr>
<tr>
<td>AT:254 Workplace Learning: Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>ART:133 Graphic Design I</td>
<td>3</td>
</tr>
<tr>
<td>ART:207 Design III</td>
<td>3</td>
</tr>
<tr>
<td>ART:209 Drawing III</td>
<td>3</td>
</tr>
<tr>
<td>ART:165 Photography I</td>
<td>3</td>
</tr>
<tr>
<td>ART:131 Computer Art Studio</td>
<td>3</td>
</tr>
<tr>
<td>AT:252 Advanced AutoCAD for Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>AT:251 Computer Aided Kitchen and Bath Design</td>
<td>3</td>
</tr>
<tr>
<td>ART:157 Perspective Drawing and Rendering for Interior Designers</td>
<td>3</td>
</tr>
<tr>
<td>BUS:104 Introduction to Business Administration</td>
<td>2</td>
</tr>
<tr>
<td>COM:101 Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>COM:107 Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>MKT:103 Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKT:104 Principles of Selling</td>
<td>3</td>
</tr>
<tr>
<td>MKT:203 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>SOC:103 Human Behavior in Work and Business</td>
<td>3</td>
</tr>
<tr>
<td>ART:155 Bath Design</td>
<td>3</td>
</tr>
<tr>
<td>ART:156 Advanced Kitchen Design</td>
<td>3</td>
</tr>
</tbody>
</table>

**Program total . . . . . . . . . 66 credits**

## Kitchen and Bath Design

## CERTIFICATE OF PROFICIENCY

**Meramec**

This skill-oriented program emphasizes visual and oral communication skills necessary for the development of functional and aesthetically pleasing residential kitchen and bath design. Students will become familiar with trade, professional and industry resources available both locally and nationally.

Persons interested in this program should have a strong desire to work with people, enjoy functional problem solving and appreciate the impact of design in our environment. Previous drawing, design, drafting or computer courses are also helpful.

Students will become student members of the National Kitchen and Bath Association. At the completion of the program, students will be eligible to sit for the AKBD (Associate Kitchen and Bath Designer) exam. Graduates are qualified for entry level positions in the residential kitchen and bath design field.

### Courses

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC:110 Architectural Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ARC:112 Architectural Design and Production I</td>
<td>3</td>
</tr>
<tr>
<td>ARC:209 Mechanical and Electrical Systems I</td>
<td>3</td>
</tr>
<tr>
<td>ART:151 Interior Design I</td>
<td>3</td>
</tr>
<tr>
<td>ART:155 Bath Design</td>
<td>3</td>
</tr>
<tr>
<td>ART:156 Advanced Kitchen Design</td>
<td>3</td>
</tr>
<tr>
<td>ART:157 Perspective Drawing and Rendering for Interior Designers</td>
<td>2</td>
</tr>
<tr>
<td>ART:158 Workplace Learning: Internship in Kitchen and Bath Design</td>
<td>3</td>
</tr>
<tr>
<td>AT:151 Designer Resources</td>
<td>3</td>
</tr>
<tr>
<td>AT:152 Lighting Design</td>
<td>3</td>
</tr>
<tr>
<td>AT:251 Computer Aided Kitchen and Bath Design</td>
<td>3</td>
</tr>
<tr>
<td>MKT:104 Principles of Selling</td>
<td>3</td>
</tr>
</tbody>
</table>

**Program total . . . . . . . . 35 credits**
Lead Maintenance Mechanic
CERTIFICATE OF SPECIALIZATION
Florissant Valley

This certificate program is designed both for those preparing for entry-level positions and for those already working in the maintenance field. Building upon the skills developed in the Maintenance Mechanic program, this certificate prepares the graduate for a higher level of responsibility in the maintenance field.

Sponsored by City of St. Louis and International Union of Operating Engineers, Local 2.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE:116 Construction Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>MGT:101 Introduction to Supervision</td>
<td>3</td>
</tr>
<tr>
<td>ME:109 Electrical Fundamentals and Maintenance</td>
<td>3</td>
</tr>
</tbody>
</table>

Program total .......... 12 credits

Legal Studies for the Paralegal
ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley and Meramec

This program, designed in cooperation with the Bar Association of Metropolitan St. Louis, prepares students for careers in the paralegal profession. Students develop a basic legal proceedings vocabulary and gain an understanding of Missouri statutes and cases and pretrial and trial proceedings. They study concepts of real and personal property and business organizations and develop skills in interviewing and counseling clients, writing legal resume, analyzing legal problems and drafting/preparing legal documents.

Students may obtain a certificate or an associate degree which requires ten additional courses in business, communications, social science and legal assistant.

Persons interested in this program should have an interest in the law.They should be self-motivated, able to work without supervision and have good oral and written communication skills.

Graduates are qualified for positions as legal assistants in private law firms, corporations, government agencies, or other businesses.

I. Career General Education 33 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG:101 College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG:102 College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HST:100 American Civilization (or)</td>
<td>3</td>
</tr>
<tr>
<td>HST:101 American History I (or)</td>
<td>3</td>
</tr>
<tr>
<td>HST:102 American History II</td>
<td>3</td>
</tr>
<tr>
<td>ECO:140 Introduction to Economics (or)</td>
<td>3</td>
</tr>
<tr>
<td>ECO:151 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>PSC:101 Introduction to American Politics (or)</td>
<td>3</td>
</tr>
<tr>
<td>PSC:205 Constitutional Issues</td>
<td>3</td>
</tr>
<tr>
<td>PSY:200 General Psychology (or)</td>
<td>3</td>
</tr>
<tr>
<td>SOC:101 Introduction to Sociology (or)</td>
<td>3</td>
</tr>
<tr>
<td>SOC:103 Human Behavior at Work and in Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS:103 Business Mathematics (or)</td>
<td>3</td>
</tr>
<tr>
<td>XXX:xxx Science or Math Elective</td>
<td>3</td>
</tr>
<tr>
<td>XXX:xxx Science or Math Elective</td>
<td>3</td>
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</table>

II. Physical Education Activity 2 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BLW:101 Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>XXX:xxx Business Electives</td>
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</table>

III. Area of Concentration 27 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>LGL:101 Introduction to Civil Trial Procedures</td>
<td>3</td>
</tr>
<tr>
<td>LGL:108 Introduction to Law for the Paralegal</td>
<td>3</td>
</tr>
<tr>
<td>LGL:106 Computers and the Law</td>
<td>3</td>
</tr>
<tr>
<td>LGL:217 Legal Research</td>
<td>3</td>
</tr>
<tr>
<td>LGL:218 Legal Writing</td>
<td>3</td>
</tr>
<tr>
<td>LGL:206 Business Organization and Government Regulation</td>
<td>3</td>
</tr>
<tr>
<td>LGL:228 Family Law</td>
<td>3</td>
</tr>
<tr>
<td>LGL:211 Torts</td>
<td>3</td>
</tr>
<tr>
<td>LGL:229 Advanced Computer Utilization</td>
<td>3</td>
</tr>
<tr>
<td>LGL:230 Employment Law</td>
<td>3</td>
</tr>
<tr>
<td>LGL:216 Advanced Civil Trial Procedures</td>
<td>3</td>
</tr>
<tr>
<td>LGL:219 Paralegal Internship</td>
<td>3</td>
</tr>
<tr>
<td>LGL:233 Bankruptcy</td>
<td>3</td>
</tr>
<tr>
<td>LGL:234 Uniform Commercial Code</td>
<td>3</td>
</tr>
<tr>
<td>LGL:232 Contracts</td>
<td>3</td>
</tr>
<tr>
<td>LGL:220 Criminal Law and Procedure for the Paralegal</td>
<td>3</td>
</tr>
<tr>
<td>LGL:221 Advanced On Line - Database Legal Research</td>
<td>3</td>
</tr>
<tr>
<td>LGL:222 Legal Research on the Internet</td>
<td>3</td>
</tr>
<tr>
<td>LGL:231 CD-ROM Legal Research</td>
<td>3</td>
</tr>
<tr>
<td>LGL:223 Evidence</td>
<td>3</td>
</tr>
<tr>
<td>LGL:106 Computers and the Law</td>
<td>3</td>
</tr>
<tr>
<td>LGL:224 Environmental Law</td>
<td>3</td>
</tr>
<tr>
<td>LGL:225 Administrative Law</td>
<td>3</td>
</tr>
<tr>
<td>LGL:226 Law Office Administration</td>
<td>3</td>
</tr>
<tr>
<td>LGL:227 Remedies</td>
<td>3</td>
</tr>
</tbody>
</table>

IV. Elective 3 credits

(Business course recommended but not required)

Program total .......... 65 credits
CERTIFICATE OF PROFICIENCY
Florissant Valley and Meramec

Students may obtain a certificate or an associate degree which requires 10 additional courses in business, communications, social science and legal assistant.

Persons interested in this program should have an interest in the law. They should be self-motivated, able to work without supervision and have good oral and written communication skills.

The certificate is for those individuals seeking a career change or who are currently employed in a law-related field.

I. Required Courses 15 credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGL:104</td>
<td>Introduction to Civil Trial Procedures</td>
<td>3</td>
</tr>
<tr>
<td>LGL:108</td>
<td>Introduction to Law for the Paralegal</td>
<td>3</td>
</tr>
<tr>
<td>LGL:106</td>
<td>Computers and the Law</td>
<td>3</td>
</tr>
<tr>
<td>LGL:217</td>
<td>Legal Research</td>
<td>3</td>
</tr>
<tr>
<td>LGL:218</td>
<td>Legal Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

II. Electives 15 credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGL:202</td>
<td>Wills, Trusts and Probate Administration</td>
<td>3</td>
</tr>
<tr>
<td>LGL:205</td>
<td>Law of Real Property and Real Estate Transactions</td>
<td>3</td>
</tr>
<tr>
<td>LGL:206</td>
<td>Business Organization and Government Regulation</td>
<td>3</td>
</tr>
<tr>
<td>LGL:228</td>
<td>Family Law</td>
<td>3</td>
</tr>
<tr>
<td>LGL:211</td>
<td>Torts</td>
<td>3</td>
</tr>
<tr>
<td>LGL:229</td>
<td>Advanced Computer Utilization</td>
<td>3</td>
</tr>
<tr>
<td>LGL:230</td>
<td>Employment Law</td>
<td>3</td>
</tr>
<tr>
<td>LGL:216</td>
<td>Advanced Civil Trial Procedures</td>
<td>3</td>
</tr>
<tr>
<td>LGL:219</td>
<td>Paralegal Internship</td>
<td>3</td>
</tr>
<tr>
<td>LGL:233</td>
<td>Bankruptcy</td>
<td>1</td>
</tr>
<tr>
<td>LGL:234</td>
<td>Uniform Commercial Code</td>
<td>1</td>
</tr>
<tr>
<td>LGL:232</td>
<td>Contracts</td>
<td>1</td>
</tr>
<tr>
<td>LGL:220</td>
<td>Criminal Law and Procedure for the Paralegal</td>
<td>1</td>
</tr>
<tr>
<td>LGL:221</td>
<td>Advanced Online-Database Legal Research</td>
<td>1</td>
</tr>
<tr>
<td>LGL:231</td>
<td>CD-ROM Legal Research</td>
<td>1</td>
</tr>
<tr>
<td>LGL:222</td>
<td>Legal Research on the Internet</td>
<td>1</td>
</tr>
<tr>
<td>LGL:223</td>
<td>Evidence</td>
<td>1</td>
</tr>
<tr>
<td>LGL:107</td>
<td>Alternative Dispute Resolution</td>
<td>1</td>
</tr>
<tr>
<td>LGL:224</td>
<td>Environmental Law</td>
<td>1</td>
</tr>
<tr>
<td>LGL:225</td>
<td>Administrative Law</td>
<td>1</td>
</tr>
<tr>
<td>LGL:226</td>
<td>Law Office Administration</td>
<td>1</td>
</tr>
<tr>
<td>LGL:227</td>
<td>Remedies</td>
<td>1</td>
</tr>
</tbody>
</table>

Program total . . . . . 30 credits

CERTIFICATE OF SPECIALIZATION
Florissant Valley

This certificate program is designed both for those preparing for entry-level positions and for those already working in the maintenance field. Graduates will be prepared to perform general maintenance duties and to use the tools necessary to repair equipment in existing facilities.

Sponsored by City of St. Louis and International Union of Operating Engineers, Local 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME:101</td>
<td>Welding Technology</td>
<td>3</td>
</tr>
<tr>
<td>ME:108</td>
<td>Principles of Plumbing/Pipefitting</td>
<td>3</td>
</tr>
<tr>
<td>ME:110</td>
<td>HVAC Operator I</td>
<td>3</td>
</tr>
<tr>
<td>ME:151</td>
<td>Manufacturing Processes I</td>
<td>3</td>
</tr>
<tr>
<td>ME:223</td>
<td>Basic Hydraulics I</td>
<td>2</td>
</tr>
</tbody>
</table>

Program total . . . . 14 credits

Management and Supervisory Development

ASSOCIATE IN APPLIED SCIENCE DEGREE
Meramec

This program provides the knowledge and skills necessary for effective supervisory performance. Although the program is designed to enable currently employed persons to further their education and develop leadership qualities, persons seeking the degree to obtain entry-level positions would have a functional academic background that would fit many areas of business.

Persons interested in this program should enjoy working with people and accomplishing objectives. Work experience that heightens students' understanding of functional and interpersonal relationships also is helpful.

Graduates of the program are qualified for first-line and middle management positions in business and industry. Typical positions available to graduates are group leaders, management trainees, first-line supervisors, middle managers, staff specialists, plant supervisors, office managers, data processing coordinators, contract administrators and administrative assistants.

I. Career General Education 27-28 credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG:100</td>
<td>Career English (or)</td>
<td></td>
</tr>
<tr>
<td>ENG:101</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG:103</td>
<td>Report Writing (or)</td>
<td></td>
</tr>
<tr>
<td>ENG:102</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>COM:101</td>
<td>Oral Communication I (or)</td>
<td></td>
</tr>
<tr>
<td>COM:107</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ECO:140</td>
<td>Introduction to Economics (or)</td>
<td></td>
</tr>
<tr>
<td>ECO:151</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MGT:109</td>
<td>Business Organizational Behavior and Dynamics (or)</td>
<td></td>
</tr>
<tr>
<td>SOC:103</td>
<td>Human Behavior at Work and in Business</td>
<td>3</td>
</tr>
<tr>
<td>PSY:200</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>XXX:xxx</td>
<td>Missouri State Requirement</td>
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<tr>
<td>BUS:103</td>
<td>Business Mathematics (or)</td>
<td></td>
</tr>
<tr>
<td>XXX:xxx</td>
<td>Mathematics 100 level or higher</td>
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</tr>
<tr>
<td>XXX:xxx</td>
<td>Science Requirement</td>
<td>3-4</td>
</tr>
</tbody>
</table>
II. Physical Education Activity 2 credits

III. Area of Concentration 27-28 credits

ACC:100 Applied Accounting (or) 3-4
ACC:110 Financial Accounting I 4
BLW:101 Business Law I (or) 3
BLW:201 Legal Environment of Business 3
BUS:104 Introduction to Business Administration 3
IS:103 Information Systems for Business 3
MGT:101 Introduction to Supervision 3
MGT:106 Human Resources Management 3
MGT:201 Case Studies in Supervision 3
MGT:204 Business Organization and Management 3

IV. Electives 9 credits

Select from:
MGT:107 Labor Relations 3
MGT:110 Safety Management 3
MGT:111 Introduction to Traffic and Transportation Management 3
MGT:205 Purchasing Management 3
AOS:220 Business Communications Applications 3
MGT:103 Production Planning and Control 3
MGT:119 Service Operations Management 3

Program total . . . 65-67 credits

IV. Area of Concentration 24-25 credits

ACC:100 Applied Accounting (or) 3
ACC:110 Financial Accounting I 4
BUS:104 Introduction to Business Administration 3
IS:103 Information Systems for Business 3
MGT:101 Introduction to Supervision 3
MGT:231 Production Planning and Inventory Control (or) 3
MGT:119 Service Operations Management 3
MGT:106 Human Resources Management 3
MGT:201 Case Studies in Supervision 3
MGT:204 Business Organization and Management 3

Program total . . . 33-34 credits

CERTIFICATE OF SPECIALIZATION
Forest Park

This program is primarily intended for persons who are currently employed. It provides the knowledge and skills necessary for effective performance in first-level supervisory positions.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG:100 Career English (or)</td>
<td>3</td>
</tr>
<tr>
<td>ENG:101 College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ACC:100 Applied Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUS:104 Introduction to Business Administration</td>
<td>3</td>
</tr>
<tr>
<td>MGT:101 Introduction to Supervision</td>
<td>3</td>
</tr>
<tr>
<td>MGT:106 Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT:201 Case Studies in Supervision</td>
<td>3</td>
</tr>
</tbody>
</table>

Program total . . . 18 credits

CERTIFICATE OF PROFICIENCY
Meramec

This program provides the knowledge and skills necessary for effective supervisory performance. Although the program is designed to enable currently employed persons to further their education and develop leadership qualities, persons seeking the degree to obtain entry-level positions will receive a functional academic background to fit many areas of business.

Persons interested in this program should enjoy working with people and accomplishing objectives. Work experiences that heighten students’ understanding of functional and interpersonal relationships also are helpful.

I. Career General Education 9 credits

ENG:100 Career English (or) 3
ENG:101 College Composition I 3
SOC:103 Human Behavior at Work and in Business (or) 3
MGT:109 Business Organizational Behavior and Dynamics 3
BUS:103 Business Mathematics (or) 3
XXXxxx Mathematics 100 level or higher 3

Program total . . . 18 credits
Manufacturing Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley

This program prepares students for positions as manufacturing technicians who assist manufacturing engineers by translating the general ideas of the engineer into specific, detailed plans and communicating these plans to the machinist and craftsmen. Students learn to measure, analyze and improve upon production elements such as workers, materials and machines.

Persons interested in this field should be mechanically inclined, proficient in algebra and trigonometry and able to work well with others.

Graduates are qualified for wide variety of technical positions in the manufacturing sector, including sales and service. The program provides a mixture of education and training. The program emphasizes the computer aided-drafting and computerized numerical control aspects (CAD/CAM) of manufacturing technology.

I. Career General Education 17-18 credits
   ENG:101 College Composition I .......................... 3
   ENG:103 Report Writing ................................... 3
   MTH:144 Technical Algebra and Trigonometry (or) .... 5
   MTH:124 Technical Mathematics I (and) .............. 3
   MTH:134 Technical Mathematics II ...................... 3
   XXXxxx Missouri State Requirement ................... 3
   XXXxxx Social Science elective ........................ 3

II. Physical Education Activity 2 credits

III. Area of Concentration 47 credits
   EE:101 Technical Electricity (or) ......................... 5
   EE:121 Fundamentals of Digital Electronics (or) ...... 3
   EE:130 Electric Circuits I ................................. 4
   EGR:100 Engineering Drawing ............................ 3
   EGR:140 Computer Aided Drafting and
       Design I (or) ........................................... 3
   EGR:147 Introduction to Engineering Design (or) ...... 3
   EGR:133 Introduction to AutoCAD I ..................... 2
   GE:101 Technical Computer Applications (or) ....... 3
   GE:121 Principles of Engineering ........................ 3
   ME:135 Mechanics-Statics ................................ 3
   ME:140 Introduction to Robotics (or) ................... 3
   ME:121 Computer Integrated Manufacturing .......... 3
   ME:151 Manufacturing Processes ....................... 3
   ME:152 Manufacturing Processes II .................. 3
   ME:241 Numerical Control Programming ................ 3
   ME:242 Mechanics-Dynamics .............................. 3
   ME:243 Strength of Materials ............................ 3
   ME:244 Mechanical Design I (or) ........................ 3
   GE:122 Engineering Design and Development .......... 3
   ME:249 Materials and Metallurgy ........................ 3
   ME:255 Fluid Power ....................................... 3
   XXXxxx Electives ......................................... 3-6

Program total .... 66-67 credits

Workplace Learning Experience: Students may substitute up to six credit hours of appropriate and relevant workplace learning experience for technical courses, and/or electives, included in the program. In order for the workplace learning credit to be counted for the degree requirement, the learning experience must be pre-approved by the department, and an appropriate faculty member must supervise the work.

Mass Communications

ASSOCIATE IN APPLIED SCIENCE DEGREE
Forest Park

This program is designed to prepare students for entry-level positions in the mass communications field. Students learn the fundamentals of journalism, broadcasting and advertising through a combination of basic liberal arts courses and advanced courses in print and broadcasting that emphasize hands-on experience. Students acquire organizational, technical and writing skills and the ability to assess situations and sell themselves accordingly.

Persons interested in this program should have an interest in writing and enjoy communicating with other people.

All students in this program are required to complete an on-the-job internship. Graduates of the program are qualified for positions as newspaper reporters, magazine writers, public relations or advertising specialists or as radio and television writers and producers.

Mass Communications students must be able to type 40 wpm.

I. Career General Education 21-22 credits
   ENG:101 College Composition I .......................... 3
   ENG:102 College Composition II ......................... 3
   XXXxxx Math or Science Electives ...................... 6
   XXXxxx Missouri State Requirement ................... 3
   ECO:140 Introduction to Economics ..................... 3
   XXXxxx Humanities elective ........................... 3-4

II. Physical Education Activity 2 credits

III. Area of Concentration 30 credits
   MCM:110 Introduction to Advertising ................... 3
   MCM:120 Introduction to Broadcasting ................ 3
   MCM:121 Television Production ........................ 3
   MCM:122 Applied Broadcasting ........................ 3
   MCM:123 Broadcast Journalism ......................... 3
   MCM:124 Radio Production ................................ 3
   MCM:134 Filmmaking (or) ................................ 3
   ART:165 Photography I .................................... 3
   MCM:201 Media Internship I ............................ 3

Broadcasting Option
   MCM:121 Television Production ........................ 3
   MCM:122 Applied Broadcasting ........................ 3
   MCM:123 Broadcast Journalism ......................... 3
   MCM:124 Radio Production ................................ 3
   MCM:134 Filmmaking (or) ................................ 3
   ART:165 Photography I .................................... 3
   MCM:201 Media Internship I ............................ 3
Print Option
MCM:111 Journalism II: Editing and Design ............3
MCM:112 Feature Writing ..................................3
MCM:113 Applied Journalism ..............................3
MCM:141 Public Relations (or)
MCM:134 Filmmaking (or)
ART:165 Photography I ....................................3
MCM:201 Media Internship I ..............................3

IV. Electives 8-11 credits
XXX:xxx Electives

Program total ....... 64 credits

Mechanical Engineering Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley

This program provides students with the scientific and engineering knowledge needed to obtain entry-level positions in this field. Students learn the theory and principles of mechanical engineering technology in the development and testing of machinery and equipment under the direction of engineering staff and physical scientists. Through classroom work and practical experience in mechanical engineering laboratories, students learn to perform mechanical testing and reduction and interpretation of data from tests, design and development new equipment or modify existing equipment and prepare or interpret engineering drawings or sketches.

Persons interested in this program should be mechanically inclined, possess analytical skills and have an interest in design. Graduates are qualified for positions as engineering assistants, laboratory technicians, designers, tool designers and plant engineering technicians in the automotive, aerospace, heavy equipment, chemical, electrical, petroleum and food processing industry.

I. Career General Education 25 credits
ENG:100 Career English (or)
ENG:101 College Composition I .........................3
ENG:103 Report Writing (or)
ENG:102 College Composition II ......................3
GE:101 Technical Computer Applications ............3
GE:103 Engineering Technology Orientation ........1
MTH:144 Technical Algebra and Trigonometry .......5
MTH:154 Technical Analytic Geometry and Calculus ....4
XXX:xxx Missouri State Requirement .................3
XXX:xxx Social Science Requirement .................3

II. Physical Education Activity 2 credits

III. Area of Concentration 43 credits
EGR:100 Engineering Drawing .........................3
ME:135 Mechanics-Statics ................................3
ME:151 Manufacturing Processes I ..................3
ME:152 Manufacturing Processes II ..................3
ME:242 Mechanics-Dynamics ...........................3
ME:243 Strength of Materials ..........................3
ME:244 Mechanical Design I ............................3
ME:246 Mechanical Design II ............................3
ME:249 Materials and Metallurgy .......................3
ME:253 Energy Conversion ................................2
ME:254 Electricity and Controls ........................3
PHY:111 College Physics I ...............................4
CHM:101 Fundamentals of Chemistry .................4

Program total ....... 70 credits

Workplace Learning Experience: Students may substitute up to six credit hours of appropriate and relevant workplace learning experience for technical courses, and/or electives, included in the program. In order for the workplace learning credit to be counted for the degree requirement, the learning experience must be pre-approved by the department, and an appropriate faculty member must supervise the work.
Medical Billing and Coding

CERTIFICATE OF PROFICIENCY
Forest Park

This program prepares students for entry-level positions as medical billing specialists, medical coders, claims examiners, healthcare reimbursement specialists and health insurance specialists. Students will learn ICD-9-CM, ICD-10-CM, CPT-4 Surgical and CPT-4 Non-Surgical coding procedures and will prepare for the AAAPC (American Academy of Professional Coders), CDPC (Certified Professional Coder) certification. Students will also gain preparation for the AHIMA (American Health Information Management Association), CCS (Certified Coding Specialist) and CCA (Certified Coding Associate) certifications, and the HRS (Healthcare Reimbursement Specialist) credential offered by the National Electronic Billers Alliance (NEBA). This certificate program provides the foundation to pursue additional study in Health Information Technology.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO:215</td>
<td>Human Body Systems .................. 5</td>
</tr>
<tr>
<td>HIT:101</td>
<td>Medical Terminology .................. 4</td>
</tr>
<tr>
<td>HIT:102</td>
<td>Health Information Management Technology .................. 4</td>
</tr>
<tr>
<td>HIT:103</td>
<td>Healthcare Delivery Systems ............ 2</td>
</tr>
<tr>
<td>HIT:104</td>
<td>Basic Principles of Disease ............ 2</td>
</tr>
<tr>
<td>HIT:105</td>
<td>Pharmacology for Health Information Technology Professionals .......... 1</td>
</tr>
<tr>
<td>HIT:106</td>
<td>Diagnosis Coding Systems I ............. 3</td>
</tr>
<tr>
<td>HIT:107</td>
<td>Procedure Coding Systems I ............. 3</td>
</tr>
<tr>
<td>HIT:201</td>
<td>Health Insurance Billing and Reimbursement ............. 3</td>
</tr>
<tr>
<td>HIT:206</td>
<td>Diagnosis Coding Systems II ............ 3</td>
</tr>
<tr>
<td>HIT:207</td>
<td>Procedure Coding Systems II ............ 3</td>
</tr>
<tr>
<td>HIT:208</td>
<td>Advanced Coding Applications ............ 2</td>
</tr>
<tr>
<td>HIT:210</td>
<td>Professional Practice Experience .......... 2</td>
</tr>
<tr>
<td>IS:103</td>
<td>Information Systems for Business ........ 3</td>
</tr>
<tr>
<td>IS:123</td>
<td>Introduction to Windows ................ 1</td>
</tr>
<tr>
<td>IS:151</td>
<td>Microcomputer Applications in Business ........ 4</td>
</tr>
</tbody>
</table>

Program total ........ 45 credits

Medical Transcription

CERTIFICATE OF PROFICIENCY
Forest Park

This program prepares students for entry-level positions as medical transcriptionists. Graduates can also be considered for positions as medical records clerks, receptionists in health care facilities, and hospital unit secretaries. Employment opportunities are available in private transcription services, hospitals, doctors’ offices, clinics, and other health care facilities. The primary job function of medical transcriptionists is to transcribe dictated medical reports (patient histories, physical examinations, consultation reports, operation reports, discharge summaries) and other clinical diagnostic information.

Students acquire a basic knowledge of medical terminology and human anatomy. Skills in machine transcription, word processing and communications are emphasized.

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
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<td>Introductory Biology I ................ 4</td>
</tr>
<tr>
<td>BIO:215</td>
<td>Human Body Systems ..................... 5</td>
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<tr>
<td>HIT:101</td>
<td>Medical Terminology .................... 4</td>
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<tr>
<td>HIT:102</td>
<td>Health Information Management Technology ................ 4</td>
</tr>
<tr>
<td>HIT:104</td>
<td>Basic Principles of Disease ............ 2</td>
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<tr>
<td>HIT:105</td>
<td>Pharmacology for Health Information Technology Professionals .......... 1</td>
</tr>
<tr>
<td>HIT:109</td>
<td>Medical Transcription I ............... 3</td>
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<td>HIT:209</td>
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<tr>
<td>HIT:210</td>
<td>Professional Practice Experience .......... 2</td>
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<tr>
<td>IS:102</td>
<td>Keyboarding and Formatting ............ 3</td>
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<tr>
<td>IS:103</td>
<td>Information Systems for Business ........ 3</td>
</tr>
<tr>
<td>IS:109</td>
<td>Proofreading and Editing Skills ........ 1</td>
</tr>
<tr>
<td>IS:123</td>
<td>Introduction to Windows ............... 1</td>
</tr>
<tr>
<td>IS:151</td>
<td>Microcomputer Applications in Business ........ 4</td>
</tr>
<tr>
<td>IS:157</td>
<td>Microcomputer Applications-Intermediate Word Processing .......... 1</td>
</tr>
<tr>
<td>IS:161</td>
<td>Microcomputer Applications-Advanced Word Processing .......... 1</td>
</tr>
</tbody>
</table>

Program Total ........ 42 credits
# Microcomputer Applications

**CERTIFICATE OF SPECIALIZATION**
Florissant Valley, Forest Park and Meramec

This certificate is designed for individuals who are interested in learning a range of end-user applications for personal computers, including operating systems, word processing, spreadsheets, and data bases. It prepares the graduate to employ the functions of personal computers that are generally in use in offices today.

## I. Courses  8 credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IS:101</td>
<td>Keyboarding</td>
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<tr>
<td>IS:103</td>
<td>Information Systems for Business</td>
<td>3</td>
</tr>
<tr>
<td>IS:123</td>
<td>Introduction to Windows</td>
<td>1</td>
</tr>
<tr>
<td>IS:124</td>
<td>Windows-Advanced Topics</td>
<td>1</td>
</tr>
<tr>
<td>IS:132</td>
<td>Windows-Intermediate Topics</td>
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</tr>
<tr>
<td>IS:136</td>
<td>Internet Fundamentals</td>
<td>1</td>
</tr>
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</table>

**Applications Electives:**

Choose one of these four-hour options:

- **Option A:**
  - IS:118 Microcomputer Applications-Databases (and) 1
  - IS:119 Microcomputer Applications-Word Processing (and) 1
  - IS:125 Excel for Windows (or) 2 (or)

- **Option B:**
  - IS:151 Microcomputer Applications in Business 4

**Total** 4 credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>IS:241</td>
<td>Systems Analysis and Design (or)</td>
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<tr>
<td>IS:209</td>
<td>Development of End-User Microcomputer Systems</td>
<td>3</td>
</tr>
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</table>

**Total** 3 credits

## II. Electives  3 credits

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IS:126</td>
<td>E-Mail and Information Management</td>
<td>1</td>
</tr>
<tr>
<td>IS:129</td>
<td>HTML</td>
<td>1</td>
</tr>
<tr>
<td>IS:130</td>
<td>Hardware and Software Support</td>
<td>3</td>
</tr>
<tr>
<td>IS:156</td>
<td>Microcomputer Applications-Intermediate Database</td>
<td>1</td>
</tr>
<tr>
<td>IS:157</td>
<td>Microcomputer Applications-Intermediate Word Processing</td>
<td>1</td>
</tr>
<tr>
<td>IS:161</td>
<td>Microcomputer Applications-Advanced Word Processing</td>
<td>1</td>
</tr>
<tr>
<td>IS:254</td>
<td>Advanced Microcomputer Operating Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**Program total** 18 credits

---

# Multimedia

**CERTIFICATE OF PROFICIENCY**
Forest Park

This program is designed to provide instructional training to students or retrain professionals in the high technology multimedia field. The certificate draws expertise from several disciplines: audio/video, graphic design, photography, information systems and mass communications. This certificate can be tailored to students' interests.

## A. Design Classes

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART:107</td>
<td>Design I</td>
<td>2</td>
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<tr>
<td>ART:108</td>
<td>Design II</td>
<td>2</td>
</tr>
<tr>
<td>ART:131</td>
<td>Computer Art Studio</td>
<td>3</td>
</tr>
<tr>
<td>ART:133</td>
<td>Graphic Design I</td>
<td>3</td>
</tr>
<tr>
<td>ART:134</td>
<td>Graphic Design II</td>
<td>3</td>
</tr>
<tr>
<td>AT:233</td>
<td>Storyboarding/Animations</td>
<td>2</td>
</tr>
<tr>
<td>AT:234</td>
<td>Computer Animation I</td>
<td>3</td>
</tr>
<tr>
<td>ART:236</td>
<td>Typography</td>
<td>2</td>
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<tr>
<td>ART:241</td>
<td>Publication Design</td>
<td>3</td>
</tr>
<tr>
<td>AT:248</td>
<td>Audio/Visual Multi-Image Presentations</td>
<td>3</td>
</tr>
<tr>
<td>ART:274</td>
<td>Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>AT:247</td>
<td>Broadcast Graphics</td>
<td>2</td>
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<tr>
<td>MCM:135</td>
<td>Communications and Design for the WWW I</td>
<td>1</td>
</tr>
<tr>
<td>MCM:212</td>
<td>Specialized Publication Production</td>
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</table>

This course is also offered as AT:135 and IS:135.

## B. Writing Classes

<table>
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<tr>
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<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MCM:110</td>
<td>Journalism I: Writing and Reporting</td>
<td>3</td>
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<tr>
<td>MCM:112</td>
<td>Feature Writing</td>
<td>3</td>
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<tr>
<td>MCM:123</td>
<td>Broadcast Journalism</td>
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<tr>
<td>MCM:125</td>
<td>Scriptwriting for TV and Film</td>
<td>3</td>
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<tr>
<td>MCM:140</td>
<td>Introduction to Advertising</td>
<td>3</td>
</tr>
<tr>
<td>MCM:141</td>
<td>Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>MCM:217</td>
<td>Publications Writing</td>
<td>3</td>
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</table>

## C. Media Presentation Classes

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MCM:114</td>
<td>Photojournalism</td>
<td>3</td>
</tr>
<tr>
<td>MCM:121</td>
<td>Television Production</td>
<td>3</td>
</tr>
<tr>
<td>MCM:122</td>
<td>Applied Broadcasting</td>
<td>3</td>
</tr>
<tr>
<td>MCM:124</td>
<td>Radio Production</td>
<td>3</td>
</tr>
<tr>
<td>MCM:219</td>
<td>Multimedia Applications</td>
<td>1-3</td>
</tr>
<tr>
<td>MCM:126</td>
<td>Video Production-Field</td>
<td>3</td>
</tr>
<tr>
<td>MCM:127</td>
<td>Video Production-Studio</td>
<td>3</td>
</tr>
<tr>
<td>MCM:201</td>
<td>Media Internship I</td>
<td>3</td>
</tr>
<tr>
<td>MCM:213</td>
<td>Advanced Video Production</td>
<td>3</td>
</tr>
<tr>
<td>AT:275</td>
<td>Introduction to Digital Imaging</td>
<td>3</td>
</tr>
<tr>
<td>AT:276</td>
<td>Advanced Digital Imaging-3D</td>
<td>3</td>
</tr>
</tbody>
</table>
D. Information Systems Classes
   IS:251 Java Programming  .................3
   IS:250 Scripting for Internet with Perl  ....3
   IS:129 HTML  ............................1
   IS:131 Advanced HTML  ..................2

Completion Course  4 credits
   MCM:137 Multimedia Production  ...........4

Program total  .... 21 credits

Nursing

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley, Forest Park and Meramec

This program prepares students to become registered nurses. Students learn to provide direct care for clients that is based on the nursing process. Students acquire knowledge and technical skills necessary for effective communication with clients and families. They learn management, organizational and delegation skills necessary to provide competent care to a group of clients. Health care teaching is emphasized as a critical aspect of the communication process.

The didactic and clinical components of the curriculum are interrelated to provide a strong background for the student in attaining the objectives of the programs and in becoming a competent practitioner. Experience is provided in a variety of agencies including hospitals, nursing homes, clinics and home health care settings.

The nursing program on each campus is approved by the Missouri State Board of Nursing and accredited by the National League for Nursing Accrediting Commission.

Persons considering a career in nursing should have an interest in the health sciences and in working closely with people. In addition, they should be able to meet the academic demands of a program that requires a commitment of time, energy and motivation to learn.

Admission to the program is contingent on meeting the established minimum criteria as defined in the Nursing Program Handbook. Applicants also are required to complete a health history and immunization record. Applicants selected for the program are required to have a physical examination.

Graduates are eligible to apply to write the National Council Licensure Examination for Registered Nurses.

(An individual who has been convicted of a felony may not be licensed to practice as a registered nurse in the state of Missouri.)

I. Career General Education  30 credits
   ENG:100 Career English (or)  ...............3
   ENG:101 College Composition I  ............3
   ENG:102 College Composition II (or)  ....3
   ENG:103 Report Writing (or)  ........................
   Literature Elective  .............................3
   PSY:200 General Psychology  .................3
   PSY:205 Human Growth and Development  ...3
   SOC:101 Introduction to Sociology  ............3
   XXX:xxx Missouri State Requirement  .........3
   BIO:203 General Microbiology  ..................4
   BIO:207 Human Anatomy and Physiology I  ...4
   BIO:208 Human Anatomy and Physiology II  ..4

II. Physical Education Activity  2 credits

III. Area of Concentration  36 credits
   NUR:101 Fundamentals of Nursing  .............5
   NUR:102 Nursing Laboratory Practicum I  ....1
   NUR:105 Nursing Laboratory Practicum II  ...1
   NUR:108 Nursing of Adults and Children I  ...8
   NUR:201 Nursing of Adults and Children II  ..9
   NUR:203 Contemporary Nursing  .................1
   NUR:205 Nursing of Adults and Children III  ..8
   NUR:204 Management Skills in Nursing  .......3

Program total  .... 68 credits

Occupational Therapy Assistant

ASSOCIATE IN APPLIED SCIENCE DEGREE
Meramec

This program prepares students for positions as occupational therapy assistants who work under the supervision of registered occupational therapists. Through courses in the structure and function of the human body, psychology and occupational therapy principles and techniques, in addition to clinical experience, students learn skills in interviewing, assessing, and treatment planning and implementation.

The Occupational Therapy Assistant Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA’s phone number is (301) 652-AOTA. Graduates of the program will be able to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination.
I. Career General Education  29 credits
   ENG:100  Career English (or)  3
   ENG:101  College Composition I  3
   COM:101  Oral Communication I  3
   PSY:200  General Psychology  3
   PSY:205  Human Growth and Development  3
   SOC:201  Aspects of Aging  3
   XXXxxx  Missouri State Requirement  3
   BIO:207  Anatomy and Physiology I  4
   BIO:208  Anatomy and Physiology II  4
   BIO:209  Kinesiology  3

II. Physical Education Activity  2 credits

III. Area of Concentration  36 credits
   OTA:101  Fundamentals of Occupational Therapy Assistant I  3
   OTA:102  Fundamentals of Occupational Therapy Assistant II  4
   OTA:103  Adaptive Activities I  2
   OTA:104  Adaptive Activities II  2
   OTA:203  Fundamentals of Occupational Therapy Assistant III  4
   OTA:204  Fundamentals of Occupational Therapy Assistant IV  4
   OTA:207  Health and Disease  4
   OTA:208  Adaptive Living Skills  2
   OTA:213  OTA Practicum I  4
   OTA:214  OTA Practicum II  4
   OTA:215  Health Occupations Seminar  2
   OTA:216  Level II Field-Work Seminar  1

   Program total  67 credits

Oracle Developer

CERTIFICATE OF PROFICIENCY
Florissant Valley, Forest Park and Meramec

This certificate is designed for individuals who are interested in developing skills to create and manage an Oracle database. It will empower the student with the tools, knowledge, and practical experience needed to design, develop, program, implement and administer an Oracle database. Graduates will be qualified for the high demand positions of developer, analyst, administrator or programmer in the Oracle environment.

Core Courses  9 credits
   IS:225  Database Management  3
   IS:257  Advanced Database Design  3
   IS:246  Visual Basic Programming (or)  3
   IS:227  C Programming (or)  3
   IS:251  Java Programming  3

Oracle Focus  18 credits
   IS:133  Introduction to SQL  3
   IS:270  Oracle PL/SQL  3
   IS:272  Oracle Database Administration  3
   IS:271  Oracle User Interface Design  3
   IS:273  Oracle Design and Implementation  3
   IS:262  Advanced Software Development  3

Electives (select one course)  3 credits
   IS:259  Introduction to JavaScript
   IS:255  Advanced Visual Basic Programming
   IS:256  C++ Programming
   IS:250  Scripting for the Internet with Perl

Program total  30 credits

Paramedic Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley and Meramec

This program prepares students for positions as emergency medical technicians-paramedics. Paramedics are skilled in patient assessment and recognition of diagnostic signs and symptoms of major injuries and illnesses. They learn to use ambulance, rescue vehicle and hospital emergency room equipment to provide high-level emergency medical care and stabilize emergency patients. Paramedics also are trained to provide advanced life support to include fluid and drug therapy, as well as the performance of some essential emergency surgical techniques under the written or oral orders of licensed physicians.

Persons interested in this program should have maturity in dealing with others as well as co-workers. They should have good manual dexterity and physical coordination for carrying, lifting, extricating, climbing, hoisting, etc. In addition, they should be able to give as well as receive written and oral directions and instruction and have good vision and visual color discrimination in examination of patients for determining diagnostic signs requiring immediate treatment.

Graduates are eligible to sit for state and national licensing boards. Positions are available with ambulance services, fire departments, hospitals, emergency communications centers and industrial medical and safety departments.

I. Career General Education  28-29 credits
   ENG:101  College Composition I (or)  3
   ENG:100  Career English  3
   ENG:102  College Composition II (or)  3
   ENG:103  Report Writing  3
   XXXxxx  Missouri State Requirement  3
   XXXxxx  Social Science Requirement  3
   BIO:207  Anatomy and Physiology I  4
   BIO:208  Anatomy and Physiology II  4
   BIO:203  General Microbiology  4
   CHM:101  Fundamentals of Chemistry (or)  4
   CHM:105  General Chemistry  5
II. Physical Education Activity 2 credits

III. Area of Concentration 38 credits

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PAR:201</td>
<td>Principles of Paramedic Technology I</td>
<td>8</td>
</tr>
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<td>PAR:202</td>
<td>Principles of Paramedic Technology II</td>
<td>8</td>
</tr>
<tr>
<td>PAR:226</td>
<td>Principles of Paramedic Technology III</td>
<td>3</td>
</tr>
<tr>
<td>PAR:227</td>
<td>Principles of Paramedic Technology IV</td>
<td>4</td>
</tr>
<tr>
<td>PAR:203</td>
<td>Pharmacology for Paramedics</td>
<td>3</td>
</tr>
<tr>
<td>PAR:211</td>
<td>Paramedic Laboratory I</td>
<td>1</td>
</tr>
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<td>PAR:212</td>
<td>Paramedic Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>PAR:221</td>
<td>Paramedic Clinical I</td>
<td>1</td>
</tr>
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<td>PAR:222</td>
<td>Paramedic Clinical II</td>
<td>2</td>
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<td>PAR:228</td>
<td>Paramedic Clinical III</td>
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<td>PAR:223</td>
<td>Paramedic Internship I</td>
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<tr>
<td>PAR:224</td>
<td>Paramedic Internship II</td>
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<tr>
<td>PAR:225</td>
<td>Paramedic Internship III</td>
<td>4</td>
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</table>

Program total . . . . 68-69 credits

Physical Therapist Assistant

ASSOCIATE IN APPLIED SCIENCE DEGREE

Meramec

This program prepares students for positions as physical therapist assistants who work under the direction and supervision of the physical therapist. Students take general education courses, related science courses, and introductory PTA courses in the first year. During the second year of the program, students enroll in physical therapy didactic courses and clinical courses. Students acquire knowledge and technical skills necessary to help people of all ages regain their ability to move and perform functional activities in their daily lives after illness or trauma. Care provided by the PTA may include teaching patients exercises for mobility, strength, and coordination; training for activities such as walking with an artificial limb, using crutches, walkers, braces; helping patients learn to manage or relieve pain; and use physical modalities and electrotherapy.

Persons interested in this program should be comfortable working with people of all age groups in close one-to-one contact. They should enjoy physical activity and be patient and empathetic when instructing others. In addition, they should be able to meet the academic demands of a program that requires a commitment of time, energy, and motivation to learn.

Admission to the program is contingent on meeting established minimum criteria as defined in the Physical Therapist Assistant Handbook and available through the academic advising office. Students are also required to complete a health history, immunization record, physical exam, drug test, and criminal background check.

The Physical Therapist Assistant Program is accredited by the Commission on Accreditation in Physical Therapy Education. Graduates of the program will be able to sit for the national licensure examination administered by the Federation of State Boards of Physical Therapy. Licensure is required in Missouri and most other states.

I. Career General Education 29 credits

<table>
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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<td>ENG:101</td>
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<td>COM:101</td>
<td>Oral Communication I</td>
<td>3</td>
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<tr>
<td>PSY:200</td>
<td>General Psychology</td>
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<tr>
<td>PSY:205</td>
<td>Human Growth and Development (or)</td>
<td>3</td>
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<td>PSY:203</td>
<td>Child Psychology</td>
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<td>SOC:201</td>
<td>Aspects of Aging</td>
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<td>Missouri State Requirement</td>
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<td>BIO:207</td>
<td>Anatomy and Physiology I</td>
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<td>BIO:208</td>
<td>Anatomy and Physiology II</td>
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<tr>
<td>BIO:209</td>
<td>Kinesiology</td>
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II. Physical Education Activity 2 credits

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<tr>
<td>CLT:106</td>
<td>Phlebotomy Essentials</td>
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<tr>
<td>CLT:107</td>
<td>Phlebotomy Practicum</td>
<td>6</td>
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</tbody>
</table>

Program total . . . . 11 credits

Phlebotomy

CERTIFICATE OF SPECIALIZATION

Forest Park

This program prepares students for entry-level positions as phlebotomists. Through practical experience at clinical affiliates, students learn to draw blood using various techniques in venipuncture and microcollection and gain experience in other specimen collection, transport, recording and reporting of patient data.

Persons interested in this program should have an interest in the health sciences and be comfortable working with people in close one-to-one relationships. They should be patient and tactful in their interactions with others.

<table>
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<td>CLT:107</td>
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Program total . . . . 11 credits
III. Area of Concentration 37 credits

- PTA:100 Introduction to Physical Therapist Assistant. 2
- PTA:104 Clinical Experience I. 2
- PTA:105 Fundamentals of Physical Therapist Assistant. 4
- PTA:208 Health Occupation Seminar. 2
- PTA:211 Physical Agents. 3
- PTA:212 Therapeutic Exercise and Rehabilitation Concepts I. 7
- PTA:213 Therapeutic Exercise and Rehabilitation Concepts II. 2
- PTA:214 Data Collection and Intervention Techniques for the PTA. 4
- PTA:215 Medical Conditions in Rehabilitation. 3
- PTA:216 Clinical Education IIA. 4
- PTA:217 Clinical Education IIB. 4

Program total ........ 68 credits

**Plastics Technology**

**ASSOCIATE IN APPLIED SCIENCE DEGREE**

*Florissant Valley*

The AAS degree Plastics Technology program is designed to prepare graduates for careers as processing technicians in the plastics industry. Graduates will be qualified for positions requiring setting up and operating plastics processing equipment, troubleshooting processing problems, production line management, technical service, safety, and support. The curriculum is designed to provide education in applied mathematics, chemistry, fundamentals of the chemical and physical properties of plastics materials and their processing characteristics, quality control, electronic, pneumatic, and hydraulic control systems, and technical communications. Students will receive extensive "hands-on" experience. They will gain an understanding of how the various mechanical, hydraulic, and electrical systems of processing machinery interact to form a plastic product. The curriculum will include all of the major processing methods but will emphasize injection molding.

**I. Career General Education** 19 credits

- ENG:100 Career English (or) 3
- ENG:101 College Composition I. 3
- ENG:103 Report Writing (or) 3
- ENG:102 College Composition II. 3
- MTH:108 Elementary Applied Mathematics. 3
- CHM:101 Fundamentals of Chemistry. 4
- XXXxxxx Missouri State Requirement. 3
- XXXxxxx Social Science Elective. 3

**II. Physical Education Activity** 2 credits

**III. Area of Concentration** 19 credits

- PLA:100 Introduction to Plastics Technology. 4
- PLA:150 Plastics Materials, Testing and Handling. 4
- PLA:200 Plastics Machine Operations I. 4
- PLA:250 Plastics Machine Operations II. 4
- PLA:290 Workplace Learning: Plastics Technology. 3

**IV. Technical Electives** 25 credits

- GE:131 Engineering Technology Orientation. 1
- GE:132 Technology Applications. 4
- QC:104 Principles and Application of Quality. 3
- ME:133 Production Control. 3
- ME:138 Mechanical Measurements. 3
- ME:109 Electrical Fundamentals and Maintenance. 3
- ME:151 Manufacturing Process I. 3
- ME:211 Programmable Logic Controllers. 3
- ME:223 Basic Hydraulics I. 2

Program total ........ 65 credits

**CERTIFICATE OF SPECIALIZATION**

*Florissant Valley*

<table>
<thead>
<tr>
<th>Courses</th>
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<tbody>
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<td>PLA:100 Introduction to Plastics Technology</td>
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<tr>
<td>PLA:150 Plastics Materials, Testing and Handling</td>
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<tr>
<td>PLA:200 Plastics Machine Operations I</td>
<td>4</td>
</tr>
<tr>
<td>PLA:250 Plastics Machine Operations II</td>
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</tbody>
</table>

Program total ........ 16 credits

**Plumbing Design Engineering Technology**

**ASSOCIATE IN APPLIED SCIENCE DEGREE**

*Florissant Valley*

This program is designed to train students interested in entering plumbing design and to upgrade the skills of persons currently employed in this area. Students acquire design capability in a specific element of engineering through classroom work and laboratory work. They are trained in the hydraulics of gravity flow and pressure flow, storm water control, pneumatics, pump characteristics, heat transfer, chemistry, fire suppression, building structures, and report writing.

Persons interested in this program should be mechanically inclined and possess analytical skills.

Graduates are qualified for positions in consulting engineering, architectural engineering, and design-build contract offices.

Plumbing Design Engineering Technology is primarily an evening program. Plumbing Design I, Plumbing Design II, Plumbing Design III, Fire Systems Design, Basic Fire Protection and Alarm Systems are only offered at night. All other courses are offered both day and evening.

**I. Career General Education** 21 credits

- ENG:101 College Composition I. 3
- ENG:103 Report Writing. 3
- MTH:144 Technical Algebra and Trigonometry. 5
- MTH:154 Technical Analytical Geometry and Calculus. 4
- XXXxxxx Missouri State Requirement. 3
- XXXxxxx Social Science Elective. 3

**II. Physical Education Activity** 2 credits

**III. Area of Concentration** 19 credits

- PLA:100 Introduction to Plastics Technology. 4
- PLA:150 Plastics Materials, Testing and Handling. 4
- PLA:200 Plastics Machine Operations I. 4
- PLA:250 Plastics Machine Operations II. 4
- PLA:290 Workplace Learning: Plastics Technology. 3
III. Area of Concentration  

<table>
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<tbody>
<tr>
<td>EE:101</td>
<td>Technical Electricity</td>
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<td>EGR:100</td>
<td>Engineering Drawing</td>
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<td>EGR:110</td>
<td>Descriptive Geometry</td>
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<tr>
<td>FIR:110</td>
<td>Basic Fire Protection and Alarm Systems</td>
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<tr>
<td>GE:101</td>
<td>Technical Computer Applications</td>
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<td>ME:104</td>
<td>Plumbing Design I</td>
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<td>ME:226</td>
<td>Air Conditioning and Heating</td>
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<td>ME:243</td>
<td>Strength of Materials</td>
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<td>ME:247</td>
<td>Energy Conversion</td>
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<tr>
<td>ME:255</td>
<td>Fluid Power</td>
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Program total . . . . 64 credits

Polysomnography Technology

CERTIFICATE OF SPECIALIZATION

Forest Park

This program is in the process of being deactivated. New students are no longer being accepted. Students currently enrolled in this program should see the department chair or an advisor.

Quality Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE

Florissant Valley

Quality control requires the application of scientific and engineering knowledge combined with technical skills in the support of quality engineering activities. Students receive a broad technical background and learn the theory and principles of quality and quality-related activities through classroom work and practical assignments. Quality costing, inspection planning, statistical quality control and quality assurance are among the topics covered.

Persons interested in this program should be mechanically inclined and possess analytical and problem solving skills.

Graduates are qualified as quality technicians, machine inspectors, instrument technicians, quality auditors and quality control analyists in all major industries.

I. Career General Education  

<table>
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<tr>
<th>Course</th>
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<tr>
<td>CHM:101</td>
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<td>EGR:100</td>
<td>Engineering Drawing</td>
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<td>Engineering Technology Orientation</td>
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II. Physical Education Activity  

2 credits

III. Area of Concentration  

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<tr>
<td>ME:138</td>
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<td>Materials and Metallurgy</td>
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<td>QC:100</td>
<td>Introduction to Quality Control</td>
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<td>QC:102</td>
<td>Quality Cost Analysis</td>
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<td>Non-Destructive Testing</td>
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<td>Quality Assurance</td>
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<td>QC:202</td>
<td>Inspection Methods</td>
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<td>QC:204</td>
<td>Reliability and Failure Analysis</td>
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<td>QC:206</td>
<td>Statistical Quality Control I</td>
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Program total . . . . 17 credits
IV. Electives 6 credits

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<tr>
<td>QC:211</td>
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<tr>
<td>ME:151</td>
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</table>

Program total 69 credits

Workplace Learning Experience: Students may substitute up to six credit hours of GE:290 Workplace Learning: General Engineering through appropriate and relevant workplace experience for technical courses, included in the program above. In order for the workplace credit to be counted for the degree requirement, workplace experience must be pre-approved by the department, and the work must be supervised by an appropriate faculty member.

CERTIFICATE OF PROFICIENCY

Florissant Valley

This certificate provides the student with a general background in technical methods and measurements associated with quality control. It qualifies the student for entry-level positions in quality where an understanding of quality techniques combined with a comprehension of math and computer applications.

Courses Credits

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<td>ENG:100</td>
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Program total 18 credits

Radiologic Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE

Forest Park

This program prepares students for positions as radiographers (X-ray technologists). Students must attend full-time and take courses in radiographic procedures and related subjects. In addition, they receive approximately 2000 hours of clinical education in the campus laboratory and clinical education centers. Students learn to use complex X-ray and darkroom equipment designed to record images which aid radiologists in diagnosing and treating various health problems.

Persons interested in this program should be comfortable working with people of all age groups in close one-to-one relationships. They should be patient and tactful in their interactions with others and have an interest in health sciences. Students must meet technical standards of the program before admission. See admission material.

Graduates are eligible to make application for the certification examination administered by the American Registry of Radiologic Technologists. Positions are available in hospital radiology departments, clinics and private physicians' offices. Students enrolled in this program should like and have a personal commitment to working with sick patients.

Prerequisite: Students must be accepted into the Radiologic Technology Program or obtain the program director's permission before they can take any professional radiology course.

I. Career General Education 23-24 credits

<table>
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II. Physical Education Activity 2 credits

III. Area of Concentration 55 credits

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CERTIFICATE OF SPECIALIZATION

Florissant Valley

This certificate provides the student with a general background in technical methods and measurements associated with quality control. It qualifies the student for entry-level positions in quality where an understanding of quality techniques combined with a comprehension of math and computer applications.
Real Estate

ASSOCIATE IN APPLIED SCIENCE DEGREE
Meramec

This program provides increased technical competency in real estate sales, appraisal, and management. Students gain the knowledge and skills necessary for handling residential real estate transactions and real estate property appraisal procedures and requirements. In addition, limited knowledge and skills in commercial property transactions, fundamental knowledge and skills in operating a real estate broker business and real estate property management skills also are taught. This program prepares individuals to sit for the Missouri Real Estate Sales and Brokers License Examinations. It also provides additional education for those currently employed in the real estate industry.

Persons interested in the program should have a proficiency in business mathematics. Interpersonal and communication skills are important in this field.

Graduates of this program are qualified for positions as real estate salespersons, real estate brokers, real estate appraisers, and real estate property managers.

I. Career General Education 24-26 credits
  ENG:100 Career English (or)
  ENG:101 College Composition I ..................... 3
  ENG:102 College Composition II (or)
  ENG:103 Report Writing, ......................... 3
  COM:101 Oral Communication I ...................... 3
  ECO:140 Introduction to Economics (or)
  ECO:151 Principles of Macroeconomics ............. 3
  PSY:200 General Psychology ..................... 3
  XXXxxxx Mathematics 100 level or higher
  (or BUS:103) .................................. 3-4
  XXXxxxx Physical Science ...................... 3-4

II. Physical Education Activity 2 credits

III. Area of Concentration 32-33 credits
  BUS:104 Introduction to Business Administration .... 3
  ACC:100 Applied Accounting (or)
  ACC:110 Financial Accounting I .................. 3-4
  MKT:203 Principles of Marketing (or)
  MKT:104 Principles of Selling ..................... 3
  REL:100 Real Estate Sales Procedures .............. 4
  REL:102 Property Appraisal I: Residential ......... 3
  REL:202 Property Appraisal II: Income Producing .... 3
  REL:104 Real Estate Law .......................... 3
  REL:204 Real Estate Finance .................... 3
  REL:205 Real Estate Property Management ........ 3
  REL:208 Real Estate Broker Procedures ............ 4

IV. Electives 6 credits

Three (3) credits must be from a business area e.g, accounting, business administration, economics, information systems.

Program total .... 79-80 credits

CERTIFICATE OF SPECIALIZATION
Florissant Valley and Meramec

For students seeking a career in the Real Estate Appraisal industry. These courses will prepare the student to sit for the state examination for license. They will also provide the class hours needed for certification and to improve their effectiveness in their field.

Courses Credits
REL:100 Real Estate Sales Procedures .................. 4
REL:102 Property Appraisal I: Residential .......... 3
REL:104 Real Estate Law ................................ 3
REL:208 Real Estate Broker Procedures ............ 4

Program total .... 64-67 credits

Real Estate Appraisal

CERTIFICATE OF PROFICIENCY
Florissant Valley and Meramec

This program is designed to provide technical competency in real estate sales and appraisal. The course of study will prepare individuals to sit for the Missouri Real Estate Sales and Brokers License Examination.

Courses Credits
REL:100 Real Estate Sales Procedures .................. 4
REL:102 Property Appraisal I: Residential .......... 3
REL:105 Residential Appraisal II: Market Data Analysis ................. 3
REL:202 Property Appraisal II: Income Producing .... 3
REL:209 Income Appraisal II .......................... 3

Choose one course from the following: .................. 3
REL:104 Real Estate Law
REL:210 Real Estate Investment Analysis
REL:204 Real Estate Finance

Program total .... 14 credits
Respiratory Therapy

ASSOCIATE IN APPLIED SCIENCE DEGREE
Forest Park

This program prepares students for positions as respiratory therapists. Students learn to administer treatment(s) or conduct tests on persons with lung and heart ailments, as ordered by a patient’s physician. The program includes natural sciences, humanities, and respiratory therapy courses, in addition to clinical practice at area health facilities.

Persons interested in the program should be team-oriented, compassionate individuals who derive satisfaction from helping others in time of crisis. They also should be able to tolerate moderate physical activity, long hours of standing, and be able to work effectively under stress.

Graduates are eligible to challenge the entry-level (CRT), and advance practitioner’s (RRT) examinations offered through the National Board for Respiratory Care. Employment is available through hospitals, clinics, home care agencies, education, and Respiratory Physics.

I. Career General Education 32-33 credits
   ENG:101 College Composition I ................. 3
   ENG:102 College Composition II .................. 3
   MTH:124 Technical Mathematics I or higher .... 3-4
   CHM:101 Fundamentals of Chemistry I .......... 5
   BIO:203 General Microbiology .................... 4
   BIO:207 Anatomy and Physiology I ............... 4
   BIO:208 Anatomy and Physiology II ............... 4
   XXXxxxx Missouri State Requirement .............. 3
   PSY:200 General Psychology ........................ 3

II. Physical Education Activity 2 credits

III. Area of Concentration 44 credits
   RTH:120 Introduction to Respiratory Care and Respiratory Physics .............. 5
   RTH:121 Orientation to the Hospital .......... 2
   RTH:125 Airway Management ....................... 3
   RTH:126 Introduction to Mechanical Ventilation .... 3
   RTH:127 Respiratory Pharmacology ............... 2
   RTH:128 Arterial Blood Gases ...................... 2
   RTH:131 Pediatric Respiratory Care ................. 3
   RTH:140 Respiratory Care Clinical I .......... 1
   RTH:146 Clinical Level II.......................... 3
   RTH:220 Pulmonary Pathophysiology ............... 3
   RTH:221 Critical Care Monitoring ................. 2
   RTH:222 Cardiopulmonary Physiology ............... 2
   RTH:223 Mechanical Ventilation: A Clinical Approach ....................... 4
   RTH:225 Pulmonary Function Testing ............... 3
   RTH:228 NBRC Review ................................ 2
   RTH:240 Respiratory Care Clinical III ............... 2
   RTH:245 Respiratory Care Clinical IV ............... 2

Program total .... 78-79 credits

Robotic Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE
Florissant Valley

This program prepares students for positions in electromechanics (another name for robotics), robotics and automation fields. Students take courses similar to those in engineering but with a less demanding level of math and more emphasis on the use of industrial equipment. The programs provides a mixture of education and training. Persons interested in this program should be mechanically inclined, self-staters who can work without constant supervision.

Graduates are qualified for a variety of technical positions within the automotive, aerospace, heavy equipment, chemical, electrical, petroleum and food processing industries that utilize computer process control and computer integrated manufacturing (including robots).

I. Career General Education 20 credits
   ENG:101 College Composition I ................. 3
   ENG:103 Report Writing ................................ 3
   MTH:144 Technical Algebra and Trigonometry ..... 5
   ME:135 Mechanics-Statistics ....................... 3
   XXXxxxx Missouri State Requirement .............. 3
   XXXxxxx Social Science Elective ................... 3

II. Physical Education Activity 2 credits

III. Area of Concentration 45 credits
   EE:101 Technical Electricity ....................... 5
   EE:233 Digital Logic .................................. 4
   EE:242 Introduction to Microprocessors .......... 3
   EE:244 Microprocessor Applications ............... 3
   EGR:100 Engineering Drawing ....................... 3
   EGR:140 Computer Aided Drafting and Design ..... 3
   GE:101 Technical Computer Applications .......... 3
   ME:140 Introduction to Robotics ................... 3
   ME:151 Manufacturing Processes I ................. 3
   ME:210 Robot Subsystems and Components .......... 3
   ME:211 Programmable Logic Controllers .......... 3
   ME:242 Mechanics-Dynamics ....................... 3
   ME:243 Strength of Materials ....................... 3
   ME:255 Fluid Power .................................. 3

Program total .... 67 credits

Workplace Experience: Students may substitute up to six credit hours of appropriate and relevant co-op experience for technical courses, and/or elective, included in the program above. In order for the co-op credit to be counted for the degree requirement, co-op experience must be pre-approved by the department and the work must be supervised by an appropriate faculty member.
## Sales

**ASSOCIATE IN APPLIED SCIENCE DEGREE**  
**Florissant Valley and Meramec**  

This program prepares students for sales positions in organizations which market industrial, technical and consumer goods and services. Students will learn to apply practical techniques or selling in a range of situations, act as intermediaries between customers and suppliers, and comprehend the complex interrelationship between the salesperson and the other components of a business.

Graduates are qualified for positions as sales trainees for small and medium sized manufacturers, wholesalers and retailers. Sales trainees are responsible for servicing existing customers, prospecting and qualifying new prospects, creating and making sales presentations, closing sales, performing post-sale service and acting as field market research resources for customer needs.

### I. Career General Education  30-31 credits

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### II. Physical Education Activity  2 credits

### III. Area of Concentration  28 credits

<table>
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<td>IS: 137</td>
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<tr>
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<tr>
<td>MGT:204</td>
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<td>MKT:203</td>
<td>3</td>
</tr>
<tr>
<td>XXXxxxx</td>
<td>3</td>
</tr>
</tbody>
</table>

### IV. Electives  3-4 credits

Program total . . . . . . 64 credits

---

## CERTIFICATE OF SPECIALIZATION

### Florissant Valley and Meramec

This certificate program is designed for persons who want to receive some fundamental knowledge in sales, business, and communications. Persons interested in entering the sales field and those currently employed in sales will benefit from the knowledge and skills received in the coursework provided in this certificate program.

### Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG:101</td>
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<tr>
<td>COM:101</td>
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<tr>
<td>COM:104</td>
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<td>IS: 125</td>
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<tr>
<td>MKT:203</td>
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</tbody>
</table>

Program total . . . . . . 18 credits

---

## Skilled Trades Industrial Apprenticeship Training: Carpenter

### ASSOCIATE IN APPLIED SCIENCE DEGREE

**Florissant Valley**

Career general education requirements are comparable to other STLCC technically oriented AAS programs. The carpenter's apprenticeship courses must be transferred in as a block and are only accepted after the student receives his/her journeyman's license. Proof of receipt of the journeyman's license is required. The directed electives were jointly chosen by college and Carpenter's Training School faculty members.

### I. Career General Education  22 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG:101</td>
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<tr>
<td>ENG:102</td>
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<tr>
<td>ENG:103</td>
<td>3</td>
</tr>
<tr>
<td>MTH:124</td>
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</tr>
<tr>
<td>PSI:124</td>
<td>4</td>
</tr>
<tr>
<td>IS:103</td>
<td>3</td>
</tr>
<tr>
<td>XXXxxxx</td>
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</tr>
</tbody>
</table>

Choose one of the following:  3 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ECO:151</td>
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</tr>
<tr>
<td>PSY:200</td>
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</tr>
<tr>
<td>PSY:206</td>
<td>3</td>
</tr>
<tr>
<td>SOC:101</td>
<td>3</td>
</tr>
<tr>
<td>SOC:103</td>
<td>3</td>
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</tbody>
</table>

### II. Physical Education Activity  2 credits

Program total . . . . . . 64 credits
III. Area of Concentration  40 credits
Completion of Apprenticeship Requirements
Including Receipt of Journeyman’s License ..........34

Six credits from the following list:
CE:108  Construction Methods  ...............3
CE:115  Construction Materials and Methods  ....3
CE:131  Construction Estimating  ............3
CE:132  Construction Scheduling  ............3
CE:235  Construction Office Practice  .......3
CE:240  Surveying I  ....................3
ME:101  Welding Technology  ...............3
SKT:100  Basic Rigging  ........................3

Program total ...... 64 credits

Skilled Trades Industrial Apprenticeship Training: Electrician

CERTIFICATE OF PROFICIENCY
Florissant Valley
This program provides industrial technical education and training for the skilled trade classification of electrician apprentice.

Courses  Credits
MTH:124  Technical Mathematics I  ........3
MTH:134  Technical Mathematics II  .......3
EE:130  Electric Circuits I  ................4
EE:131  Electric Circuits II  .................4
EE:132  Electronic Devices  ................5
EE:211  Technical Power Transmission-Distribution 3
EE:233  Digital Logic  ......................4
EE:242  Introduction to Microprocessors ....3
EGR:104  Electronic Drafting  ...............2
ME:140  Introduction to Robotics  .........3
ME:211  Programmable Logic Controllers (or) 3
EE:236  PLC/Programmable Logic Controller 3

Program total ...... 36 credits

Skilled Trades Industrial Training: Plumbing and Pipefitting

CERTIFICATE OF PROFICIENCY
Florissant Valley
This program provides industrial technical education and training for the skilled trade classifications of plumbing and pipefitting apprentice. (Plumbing apprentices install and repair drainage waste and vent pipes for water supply systems. Pipefitting apprentices install mechanical systems and process systems requiring piping or tubing.)

Courses  Credits
MTH:124  Technical Mathematics I  ........3
MTH:134  Technical Mathematics II  .......3
EGR:050  Fundamentals of Drafting  .......3
ME:103  Mechanical Maintenance  ..........3
ME:104  Plumbing Design I  ................3
ME:105  Plumbing Design II  ...............3
ME:106  Plumbing Design III  ..............3
ME:108  Principles of Plumbing and Pipefitting 3
ME:151  Manufacturing Processes I  ........3
ME:255  Fluid Power  ........................3
CE:116  Construction Blueprint Reading  ....3
ARC:209  Mechanical and Electrical Systems 3
CHM:114  Industrial Chemistry  .............3

Program total ...... 39 credits
Skilled Trades Industrial Training:
Tool and Die

CERTIFICATE OF PROFICIENCY
Florissant Valley

This program provides industrial technical education and training for the skilled trade classifications of tool and die apprentice. (Tool and die apprentices are machinists performing any type of machine work required for parts and equipment installation and repair. They design, manufacture, and install specialized tooling, jigs and fixtures required for various manufacturing and assembly operations.)

Courses Credits
MTH:124 Technical Mathematics I 3
MTH:134 Technical Mathematics II 3
EGR:100 Engineering Drawing 3
ME:101 Welding Technology 3
ME:140 Introduction to Robotics 3
ME:151 Manufacturing Processes I 3
ME:152 Manufacturing Processes II 3
ME:225 Fixture Design 3
ME:255 Fluid Power 3
ME:249 Materials and Metallurgy 3

Program total . . . . 30 credits

Skilled Trades Industrial Training:
Welder Repair

CERTIFICATE OF PROFICIENCY
Florissant Valley

This program provides industrial technical education and training for the skilled trade classification of welding equipment repairer apprentice. (Welder repair apprentices troubleshoot, repair, and maintain welding robots utilized in automated manufacturing systems.)

Courses Credits
MTH:124 Technical Mathematics I 3
MTH:134 Technical Mathematics II 3
EGR:104 Electronic Drafting 2
EE:130 Electric Circuits I 4
EE:131 Electric Circuits II 4
EE:132 Electronic Devices 5
EE:233 Digital Logic 4
EE:242 Introduction to Microprocessors 3
ME:140 Introduction to Robotics 3
ME:255 Fluid Power 3
ME:211 Programmable Logic Controllers (or)
EE:236 PLC/Programmable Logic Controller 3

Program total . . . . 37 credits

Skilled Trades Industrial Training

CERTIFICATE OF SPECIALIZATION
Florissant Valley

This program provides industrial technical education and training associated with a variety of skilled trades.

MTH:030 Elementary Algebra 3
MTH:124 Technical Mathematics I 3

Dependent on the skilled trade classification an additional 6 to 12 credit hours of technical courses are required for the particular Certificate of Specialization. The program advisor must select these courses.

Choice of Skilled Trades Classifications and Emphasis Areas:
- Boiler Operator
- Carpenter
- Electrician
- Engineer - Steam
- Layout - Metal and Wood
- Mechanic - Gas and Electric Jitney
- Millwright
- Pipefitter/Plumber
- Repairer - Welder Equipment
- Sheet Metal Worker
- Waste Treatment Plant Operator

Program total . . . . 12-18 credits

Supply Chain Management

ASSOCIATE IN APPLIED SCIENCE DEGREE
Meramec

This program provides students with the knowledge, skills and abilities required for a career in material management. Students learn to manage people, products, machinery and equipment to control the flow of material from its source to its destination point in business, service and government organizations.

Graduates of the program are qualified for positions as buyers, store supervisors, material handling supervisors, tool room supervisors, stock chasers, transportation coordinators, inventory analysts, senior material planners, quality assurance managers, communications coordinators and production control schedulers.

I. Career General Education 26-27 credits

ENG:101 College Composition I 3
ENG:102 College Composition II 3
COM:101 Oral Communication I 3
MTH:160 College Algebra or higher 4
ECO:151 Principles of Macroeconomics 3
GEG:106 U.S. and World Geography 3
CHM:105 General Chemistry I (or) 5
PHY:111 College Physics 4
XXX:xx Missouri State Requirement 3

II. Physical Education Activity 2 credits
III. Area of Concentration 42 credits

ACC:110 Financial Accounting I ......................... 4
IS:118 Microcomputer Applications-Databases .... 1
IS:119 Microcomputer Applications-
Word Processing ........................................ 1
IS:125 Excel for Windows .................. 2
IS:137 Microcomputer Applications-
Presentation Software .................. 1
BUS:201 Elementary Statistics .................. 3
BUS:104 Introduction to Business Administration ... 3
MGT:204 Business Organization and Management ... 3
MGT:130 Introduction to Supply Chain Management .. 3
MGT:230 Logistics Operations .................. 3
MGT:231 Production Planning and Inventory Control .. 3
MGT:205 Purchasing Management .................. 3
MGT:110 Safety Management .................. 3
MGT:232 Transportation Logistics Management ... 3
MGT:239 Advanced Supply Chain Management .. 3
MGT:120 Managerial Leadership .................. 3

Program total .... 70-71 credits

Surgical Technology

CERTIFICATE OF PROFICIENCY

Forest Park

This program prepares students for entry-level positions as surgical technicians. Students learn aseptic technique, instrumentation, surgical procedures and patient care through classroom, laboratory practice and at a clinical affiliate. Students learn to assist the surgeon by passing instruments and sutures, holding retractors and cutting sutures.

Persons interested in this program should be able to work well with others in a team environment. They should have good manual dexterity, enjoy the operating room situation, and function effectively under intense and stressful situations.

Graduates are qualified to take the National Certifying Examination offered by the Liaison Council on Certification through the Association of Surgical Technologists.

Prerequisites

The following courses must be completed prior to applying for the program.

MTH:030 Elementary Algebra
BIO:203 General Microbiology
BIO:207 Anatomy and Physiology I

Courses Credits

BIO:208 Anatomy and Physiology II .................. 4
ENG:101 College Composition I .................. 3
PSY:200 General Psychology (or)
SOC:101 Introduction to Sociology .................. 3
ST:104 Pharmacology for Surgical Technologists .. 2
ST:105 Fundamentals of Surgical Technology .... 4
ST:108 Introduction to Surgical Technology .... 6
ST:109 Principles of Operating Room
Communication .................. 2
ST:110 Surgical Procedures I .................. 4
ST:111 Surgical Technology Clinical I .............. 8
ST:210 Surgical Procedures II .................. 2
ST:211 Surgical Technology Clinical II .............. 4

Program total .... 42 credits
Technical/Business Communication
CERTIFICATE OF PROFICIENCY
Florissant Valley, Forest Park and Meramec

This program is designed to provide practical communications skills and experience to those who have trained or are training in another field, but who desire a higher level of communications skills. Students learn to create written and oral messages through a variety of media. Through courses in composition, communications and art, students acquire skills in locating, gathering and organizing information from printed, electronic and other media and in designing and using graphic aids. Students learn to present information in correct form, standard format and an understandable style.

Persons interested in the program should possess career skills in a clerical, managerial, financial, governmental, health services or technical area. They should have an interest in language and communication. Prior course work or experience in word processing, photography, engineering or technical illustration also is helpful.

Courses

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG:100 Career English (or)</td>
<td>3</td>
</tr>
<tr>
<td>ENG:101 College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG:103 Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENG:219 Advanced Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>COM:101 Oral Communication I</td>
<td>3</td>
</tr>
<tr>
<td>COM:108 Business/Technical Presentation</td>
<td>3</td>
</tr>
</tbody>
</table>

Select three courses from following: 9
- MCM:110 Journalism I: Writing and Reporting
- MCM:111 Journalism II: Editing and Design
- MCM:112 Feature Writing
- MCM:140 Introduction to Advertising
- MCM:142 Applied Advertising
- COM:103 Small Group Communication
- COM:105 Interview Process
- COM:110 Organizational Communication

Select two courses from following: 6
- ART:165 Photography I
- ART:107 Design I (and)
- ART:108 Design II (or)
- ART:133 Graphic Design I (and)
- ART:134 Graphic Design II
- Foreign language (French, German, Italian, Japanese, or Spanish)

Program total . . . . 30 credits

Telecommunications
Engineering Technology: Basic Electronics
CERTIFICATE OF PROFICIENCY
Florissant Valley

This program offers basic courses in the fundamentals of electricity, electronics, computers and telecommunications to support entry-level positions in the telecommunications industry.

Courses

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GE:131 Engineering Technology Orientation</td>
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<tr>
<td>EE:110 Technical Electric Circuits I</td>
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</tr>
<tr>
<td>EE:111 Technical Electric Circuits II</td>
<td>4</td>
</tr>
<tr>
<td>EE:112 Technical Electronics I</td>
<td>5</td>
</tr>
<tr>
<td>EE:230 Analog and Digital Electronics</td>
<td>3</td>
</tr>
<tr>
<td>EE:106 IBM Personal Computer Installation and Repair</td>
<td>1</td>
</tr>
<tr>
<td>TEL:103 Introduction to Telecommunications</td>
<td>3</td>
</tr>
</tbody>
</table>

Program total . . . . 21 credits

Travel and Tourism
ASSOCIATE IN APPLIED SCIENCE DEGREE
Forest Park

The Travel and Tourism program prepares students with the knowledge, technical skills, and work habits required for a variety of entry-level positions with career ladder advancement opportunities.

General education courses in composition, communications, science, mathematics, social science, and accounting along with courses in geography, hospitality management, hospitality law, hospitality sales and marketing, airline reservations, cruise and tour arrangements, convention and meeting planning, and international travel, gives the student a strong foundation as they enter into this vast global industry.

Persons interested in the program should have an ability to effectively communicate with others. They should be able to work with computer automation and reference materials, while providing accurate information and assistance to the traveling public. Students should possess keyboarding skills and computer navigation knowledge, along with a very positive, friendly, customer-oriented attitude when functioning in an active work environment.

Graduates of the program can pursue positions with retail travel agencies, wholesale tour operators, Internet travel entities, group incentive businesses, corporate travel firms, meeting and event planning organizations, airlines, cruise lines, car rental services, hotels, destination management companies, and convention and visitors’ bureaus.

I. Career General Education 18 credits

<table>
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<tr>
<th>Courses</th>
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<tbody>
<tr>
<td>ENG:101 College Composition I</td>
<td>3</td>
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<tr>
<td>COM:101 Oral Communication I</td>
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<tr>
<td>MTH:108 Elementary Applied Math</td>
<td>3</td>
</tr>
<tr>
<td>PSY:200 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>XXXxxxx Missouri State Requirement</td>
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<tr>
<td>XXXxxxx Science Elective</td>
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</table>
II. Physical Education Activity 2 credits

III. Core Courses 37 credits

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>ACC:100</td>
<td>Applied Accounting</td>
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<tr>
<td>HRM:134</td>
<td>Introduction to the Hospitality Industry</td>
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<tr>
<td>TUR:104</td>
<td>Travel and Tourism Foundations I</td>
<td>6</td>
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<td>TUR:105</td>
<td>Travel and Tourism Foundations II</td>
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<td>TUR:106</td>
<td>Domestic and International Geography</td>
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<td>HRM:201</td>
<td>Problems of Hospitality Management</td>
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<td>HRM:209</td>
<td>Hospitality Sales and Marketing</td>
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<td>TUR:230</td>
<td>International Travel and World Issues</td>
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<tr>
<td>TUR:236</td>
<td>Workplace Learning; Travel and Tourism</td>
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Electives 9 credits

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<td>XXX:xxxx</td>
<td>Conversational Foreign Language</td>
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<tr>
<td>IS:151</td>
<td>Microcomputer Applications In Business</td>
<td>4</td>
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<tr>
<td>HRM:202</td>
<td>Hospitality Law</td>
<td>3</td>
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<tr>
<td>TUR:223</td>
<td>Selling Leisure Cruises and Tours</td>
<td>3</td>
</tr>
<tr>
<td>TUR:201</td>
<td>Convention and Meeting Planning</td>
<td>3</td>
</tr>
<tr>
<td>TUR:235</td>
<td>Certified Travel Associate (CTA)</td>
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<tr>
<td></td>
<td>Prep Course and Test</td>
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</table>

Program total 66 credits

Travel and Tourism Foundations

CERTIFICATE OF SPECIALIZATION

Forest Park

This program is designed for students seeking entry-level positions in the field of travel and tourism. The curriculum is intended as a one-semester program covering travel industry terms, definitions, codes, industry segments, geographic mapping, and live computer automation on the Sabre Global Distribution System and Internet.

Persons interested in this program should possess keyboarding and computer navigation abilities, along with developed interpersonal and organizational skills.

Graduates are eligible to pursue entry-level employment opportunities with travel agencies, tour companies, airlines, car rental firms, meeting and event planning businesses, incentive travel organizations, and Internet travel entities.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TUR:104</td>
<td>Travel and Tourism Foundations I</td>
<td>6</td>
</tr>
<tr>
<td>TUR:105</td>
<td>Travel and Tourism Foundations II</td>
<td>10</td>
</tr>
</tbody>
</table>

Program total 16 credits

Voice/Data Communications Analyst

CERTIFICATE OF SPECIALIZATION

Forest Park, Meramec

This program is designed to provide a foundation in the concepts of managing a voice/data communications network. Students will develop an understanding of the different techniques used to transport voice or data to various locations and learn the part each of the hardware or software components in a system contributes to overall network functioning. The basic principles of designing or evaluating a network also are covered.

Persons interested in this program should be familiar with college-level algebra and enjoy dealing with abstract symbolic-oriented problems.

Graduates of the program are qualified for positions as voice/data communications analysts and designers.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tr>
<td>IS:231</td>
<td>Introduction to Data Communications</td>
<td>3</td>
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<tr>
<td>IS:232</td>
<td>Introduction to Telecommunications</td>
<td>3</td>
</tr>
<tr>
<td>IS:233</td>
<td>Components of Voice/Data Communications</td>
<td>3</td>
</tr>
<tr>
<td>IS:234</td>
<td>Data/Voice Traffic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>IS:215</td>
<td>Introduction to Local Area Networks</td>
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</table>

Elective: 3 credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IS:217</td>
<td>Network Performance Monitoring</td>
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<tr>
<td>IS:235</td>
<td>Network Design and Installation</td>
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</tr>
<tr>
<td>IS:237</td>
<td>Computer System and Network Security</td>
<td></td>
</tr>
<tr>
<td>IS:227</td>
<td>C Programming</td>
<td></td>
</tr>
<tr>
<td>IS:229</td>
<td>UNIX/Linux</td>
<td></td>
</tr>
</tbody>
</table>

Program total 18 credits
Web Development

CERTIFICATE OF SPECIALIZATION
Florissant Valley, Forest Park, Meramec

This Certificate of Specialization is designed for students seeking skills to qualify for positions as Web Developers. The certificate was developed to include topics that will build the programming and database skills a Web Developer needs in order to build and maintain a corporation’s Web site. Emphasis is placed upon object-oriented languages that are prevalently used for the Internet and intranets. The courses provide students with both the theoretical and technical knowledge and practical hands-on experience to be successful in the high demand Web Developer occupation.

Courses | Credits
--- | ---
IS:139 Web Publishing | 3
IS:259 Introduction to JavaScript | 3
IS:257 Advanced Database Design | 3
IS:262 Advanced Software Development | 3

Select one of the focuses for six credit hours:

**Focus: Small Business**
IS:141 Graphics for the Web | 3

and one of the following courses:
MKT:101 Advertising Theory
MKT:104 Principles of Selling
MKT:203 Principles of Marketing
MCM:140 Introduction to Advertising
MCM:142 Applied Advertising | 3

**Focus: Corporate IS Professional**
IS:261 Object-Oriented Program Design | 3

and one of the following courses:
IS251 Java Programming
IS:260 Visual C++ Application Development
IS:255 Advanced Visual Basic Programming | 3

Program total | 18 credits
## Key to Abbreviations and Page References

The letters in the course descriptions indicate subject areas. The abbreviations, subject areas and page numbers are as follows:

<table>
<thead>
<tr>
<th>Course Abbreviation</th>
<th>Subject Area</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>Accounting</td>
<td>103</td>
</tr>
<tr>
<td>ANT</td>
<td>Anthropology</td>
<td>103</td>
</tr>
<tr>
<td>ARA</td>
<td>Arabic</td>
<td>104</td>
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<td>ARC</td>
<td>Architectural Technology</td>
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<tr>
<td>ART/AT</td>
<td>Art</td>
<td>105</td>
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<tr>
<td>AUT</td>
<td>Automotive Technology</td>
<td>112</td>
</tr>
<tr>
<td>BAP</td>
<td>Baking and Pastry Arts</td>
<td>113</td>
</tr>
<tr>
<td>BIO</td>
<td>Biology</td>
<td>113</td>
</tr>
<tr>
<td>BE</td>
<td>Biomedical Engineering Technology</td>
<td>115</td>
</tr>
<tr>
<td>BIC</td>
<td>Building Inspection Technology</td>
<td>115</td>
</tr>
<tr>
<td>BUS</td>
<td>Business Administration</td>
<td>116</td>
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<tr>
<td>BLW</td>
<td>Business Law</td>
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<td>CHM</td>
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<td>Chinese</td>
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<td>CE</td>
<td>Civil Engineering Technology</td>
<td>118</td>
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<td>CLT</td>
<td>Clinical Laboratory Technology</td>
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<td>COL</td>
<td>College Orientation</td>
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<tr>
<td>COM</td>
<td>Communications</td>
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<tr>
<td>CRJ</td>
<td>Criminal Justice</td>
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<td>Culinary Arts</td>
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<td>Deaf Communication Studies</td>
<td>122</td>
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<tr>
<td>DA</td>
<td>Dental Assisting</td>
<td>123</td>
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<tr>
<td>DHY</td>
<td>Dental Hygiene</td>
<td>124</td>
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<tr>
<td>DMS</td>
<td>Diagnostic Medical Sonography</td>
<td>126</td>
</tr>
<tr>
<td>DIE</td>
<td>Diesel Technology</td>
<td>127</td>
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<tr>
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<td>Dietetic Technology</td>
<td>128</td>
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<tr>
<td>ECE</td>
<td>Early Care and Education</td>
<td>129</td>
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<tr>
<td>ECO</td>
<td>Economics</td>
<td>131</td>
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<td>EDU</td>
<td>Education</td>
<td>131</td>
</tr>
<tr>
<td>EE</td>
<td>Electrical/Electronic Engineering Technology</td>
<td>132</td>
</tr>
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<td>EMT</td>
<td>Emergency Medical Technology</td>
<td>133</td>
</tr>
<tr>
<td>EGR</td>
<td>Engineering Graphics</td>
<td>133</td>
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<tr>
<td>ESC</td>
<td>Engineering Science</td>
<td>134</td>
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<td>135</td>
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<td>138</td>
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<tr>
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<td>Fire Protection Technology</td>
<td>138</td>
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<tr>
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<td>138</td>
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<tr>
<td>FD</td>
<td>Funeral Directing</td>
<td>139</td>
</tr>
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<td>FNL</td>
<td>Funeral Service Education</td>
<td>139</td>
</tr>
<tr>
<td>GE</td>
<td>General Engineering</td>
<td>139</td>
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<td>Geography</td>
<td>140</td>
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<td>Horticulture</td>
<td>143</td>
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<tr>
<td>HRM</td>
<td>Hospitality, Restaurant Management</td>
<td>144</td>
</tr>
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<td>HMS</td>
<td>Human Services</td>
<td>145</td>
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<td>Information Technology</td>
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<td>154</td>
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<td>Nursing</td>
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<td>Occupational Therapy Assistant</td>
<td>163</td>
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<td>Paramedic Technology</td>
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<td>Physical Therapist Assistant</td>
<td>168</td>
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<td>WMS</td>
<td>Womens Studies</td>
<td>177</td>
</tr>
</tbody>
</table>
Course Descriptions

ABOUT THIS SECTION

The course descriptions for St. Louis Community College includes descriptions of all credit courses offered at the Florissant Valley, Forest Park, Meramec and Wildwood campuses as well as other off-campus locations during the academic year. The courses listed herein are current as of February, 2008. For descriptions of courses approved after this date, consult a campus course schedule.

All of the courses listed in this section are not offered every semester. Information on where and when these courses are available may be found in each semester’s course schedule. Contact the campus Admissions office for more information.

COURSE LEVELS

The course numbering system uses an abbreviation to identify subject matter area and a three-digit number to identify course level. Course levels are defined as follows:

001-079  Developmental courses
080-099  Special problems developmental credit courses
100-199  Beginning level credit courses
200-299  Advanced level credit courses
500-599  Special problems credit courses
600-699  Special problems credit courses
700-799  Non-credit continuing education courses

Example
DA:103  CLINICAL PRACTICE
DA indicates the subject area of Dental Assisting. The number 103 indicates that the course is on the beginning level.

READING PROFICIENCY PREREQUISITE

Many of the courses in this catalog include a prerequisite of “Reading Proficiency.” This means that before a student can enroll in one of these courses, he or she must demonstrate the ability to read at the college level. This ability will give the student a much better chance to pass the course, since many courses require a certain amount of reading, whether it be a textbook, journal articles, or reports from many sources.

The student can meet the Reading Proficiency prerequisite by scoring at least 77 on the Accuplacer reading placement test, given as part of the admission process. Students who present an ACT composite score of at least 21 or an SAT verbal score of at least 500 meet the prerequisite. Students with a college reading course with a grade of at least “C” or who have earned a college degree (associate or baccalaureate) also meet the prerequisite. In addition, transfer students who present evidence of a grade of at least “C” in a three-hour college course numbered 100 or higher will be considered to have met the prerequisite. This applies also to students with dual credit courses taken in high school.

Students who do not meet this prerequisite in any of these ways must enroll for RDG:030, Introduction to College Reading. A grade of “C” or higher in this course meets the Reading Proficiency requirement. Students who are not native speakers of English can meet this prerequisite with at least a “C” in ENG:070, Academic English for NonNative Speakers III.

COURSE HOURS

Unless otherwise noted in the course description, the credit hours shown represent the number of lecture hours per week over a 15-week semester that the student will spend in class for a given course.
ACCOUNTING

ACC:100 APPLIED ACCOUNTING 3
An introductory course in the principles of accounting with emphasis on practice in bookkeeping techniques, designed to familiarize career students with the basic accounting system and the knowledge of keeping records. Prerequisite: Reading Proficiency.

ACC:110 FINANCIAL ACCOUNTING I 4
The emphasis of this course is on the measurement and presentation of financial data. The course focuses on preparation and use of corporate financial statements consistent with General Accepted Accounting Principles. Prerequisite: ACC:100 or one year of high school accounting or department approval, and Reading Proficiency.

ACC:111 FINANCIAL ACCOUNTING II 3
Reinforces ACC:110 Financial Accounting topics on reporting corporate long-term liabilities, intercompany investments and the Statement of Cash Flows. Introduces Managerial Accounting with coverage of cost accounting systems, cost-volume-profit analysis, capital budgeting and other current managerial accounting topics. Prerequisite: ACC:110 with grade of "C" or better or department approval and Reading Proficiency.

ACC:114 MANAGERIAL ACCOUNTING 3
Emphasis is on evaluation and utilization of accounting data for the purpose of planning and controlling operations. Topics include financial statement analysis, methods of cost allocation, budgeting, standard costs, direct costing, and cost-volume-profit analysis. Prerequisite: ACC:110 with grade of "C" or better or department approval and Reading Proficiency.

ACC:120 COMPUTER ACCOUNTING APPLICATIONS FOR BUSINESS 3
This survey course introduces various commercial accounting software in a hands-on environment. Topics covered include general ledger, receivables, payables, inventory, payroll, and importing and exporting accounting data to other software. The course provides an introduction to accounting applications of spreadsheet and presentation software and the Internet. No previous computer experience is necessary. Prerequisite: ACC:100 and/or ACC:110 and/or Departmental approval and Reading Proficiency.

ACC:122 COMPUTER ACCOUNTING APPLICATIONS - SPREADSHEETS 3
This course covers accounting applications using spreadsheet software as a tool in solving accounting problems and presenting and analyzing accounting data. Topics include using spreadsheet software to prepare accounting reports such as the income statement, balance sheet, statement of cash flow, and special purpose accounting reports for decision making. Financial reports are analyzed using spreadsheet software. In addition, auditing a worksheet and graphical analysis of accounting information is performed using the charting feature of spreadsheet software. Prerequisite: ACC:110 or Departmental approval and Reading Proficiency.

ACC:124 COMPUTER ACCOUNTING APPLICATIONS - DATABASES 3
This course covers how to build a database for accounts receivable, accounts payable, inventory, fixed assets and payroll. Prerequisite: ACC:110 or Departmental approval and Reading Proficiency.

ACC:203 COST ACCOUNTING 3
A study of the general principles of cost accounting with emphasis on process and job order cost accounting; methods of collection, preparation and interpretation of data, as well as preparation of reports and reports. Prerequisite: ACC:111 or ACC:114 and Reading Proficiency.

ACC:204 INCOME TAX ACCOUNTING 3
A study of federal tax accounting; emphasis is placed on the procedure required to comply with the tax laws and to make the required tax returns. Income tax, social security and payroll tax accounting is included. Prerequisite: Reading Proficiency.

ACC:206 AUDITING 3
This course teaches the procedures of examination of financial statements by external and internal auditors. Topics include: auditing standards, development of working papers and reports, and development of sampling and original records examination. Prerequisites: ACC:208 and ACC:209 and Reading Proficiency.

ACC:208 INTERMEDIATE ACCOUNTING I 3
Study of financial accounting theory relating to asset, liability and owner's equity accounts, including methods of valuation and the related effects on financial statements. Prerequisite: ACC:111 or ACC:114 and a grade of "C" or better or departmental approval and Reading Proficiency.

ACC:209 INTERMEDIATE ACCOUNTING II 3
A further study of financial accounting theory. Topics will include intangible assets, current and long-term liabilities, equity, earnings per share, and investments. Prerequisite: ACC:208 and a grade of "C" or better or departmental approval and Reading Proficiency.

ACC:211 CURRENT TOPICS IN ACCOUNTING 3
Study of selected topics or current topics in Accounting. This course will provide an opportunity to explore various current issues in greater detail. Prerequisite: ACC:110 or departmental approval and Reading Proficiency.

ACC:212 NONPROFIT ACCOUNTING 3
The course addresses the principles, concepts and processes involved in the accounting treatment for nonprofit entities. Organizations discussed will include state and local governments, the federal government, college and universities, hospitals and health organizations, and other voluntary health and welfare organizations. Prerequisite: ACC:110 or Departmental approval and Reading Proficiency.

ACC:213 SURVEY OF BUSINESS TAXES 3
This is a survey course of Business Taxes. Topics include federal taxation of income, state taxation of income, state capital base taxes, state sales and use tax, federal and state employment related taxes and property taxes. Prerequisites: ACC:110 or Departmental approval and Reading Proficiency.

ACC:214 BUSINESS TAXES: RESEARCH AND PLANNING 3
This course concentrates on advanced business tax issues for partnerships, corporations, and S-corporations. Topics include tax planning, tax practice considerations, and tax research. Prerequisite: ACC:213 or departmental approval and Reading Proficiency.

ACC:291 ACCOUNTING INTERNSHIP 3
An Accounting Internship allows students to apply skills learned in the classroom, learn new skills, and explore career opportunities while supervised by an employer and a faculty member. Working as an intern for 120 hours under the supervision of an accounting professional, the student will have the opportunity to participate in the accounting functions of an accounting firm, accounting department, or other business unit. Prerequisites: Approval of Department Chair or Program Coordinator and Reading Proficiency.

ACC:292 ACCOUNTING INTERNSHIP II 3
This is a survey course of Business Taxes. Topics include federal taxation of income, state taxation of income, state capital base taxes, state sales and use tax, federal and state employment related taxes and property taxes. Prerequisites: ACC:110 or Department approval and Reading Proficiency.

ACC:293 ACCOUNTING INTERNSHIP III 3
This is an additional internship opportunity for accounting students to apply skills learned in the classroom, learn new skills, and explore career opportunities while supervised by an employer and a faculty member. Working as an intern for 120 hours under the supervision of an accounting professional, the student will have the opportunity to participate in the accounting functions of an accounting firm, accounting department, or other business unit. Prerequisite: Approval of Department Chair or Program Coordinator and Reading Proficiency.

ANTHR:101 INTRODUCTION TO PHYSICAL ANTHROPOLOGY AND ARCHAEOLOGY 3
This course is designed to present the principles, theories, data and methods used by anthropologists and archaeologists in their attempts to study human evolutionary development. Generally speaking, three broad topics are covered: the mechanisms of evolution, human prehistory, and the fossil evidence of Homo Sapiens and ancestral forms. Prerequisite: Reading Proficiency.
ANT:102 INTRODUCTION TO CULTURAL ANTHROPOLOGY 3
In this course, students are introduced to the great diversity of human cultures. Economic, social, political and religious systems are compared, including such topics as the nature of culture, cultural ecology, magic and witchcraft, disease and curing, sex roles, and rites of passage. Problems resulting when traditional societies confront industrial societies or industrialization are discussed. Prerequisite: Reading Proficiency.

ANT:103 CULTURAL VARIATIONS 3
This course focuses on culture as a prime determinant of human behavior. To understand how culture "works" helps us to understand better the people who live in that culture. The basic concepts of culture are presented including adaptation to the environment, language and communication, social stratification, values and attitudes, customs and habits, and social change. Economics, politics, religion and social systems are compared and evaluated with special application to living, visiting, and doing business in another culture. Prerequisite: Reading Proficiency.

ANT:104 FIELD STUDY IN ARCHAEOLOGY 3 - 6
This course is designed to introduce students to field methods in archaeology and to the methods of recording, storing, analyzing, and reporting archaeological findings. Experience is gained through participation in a field project. Prerequisite: Reading Proficiency.

ANT:105 FOUNDATIONS OF ARCHAEOLOGY 3
A basic introduction to archaeology as an interpretive discipline. Why and how do archaeologists determine how old things are and which ancient cultures they belong to? How do they reconstruct the religions, economy, and politics of ancient civilizations? Using cases from ancient cultures around the world, this course will answer these and many other questions about the study of archaeology. Prerequisite: Reading Proficiency.

ANT:201 NORTH AMERICAN ARCHAEOLOGY 3
This course is an introductory survey of the prehistory of North America, covering the ten thousand years of New World cultural development from the original entry of man through the entrance of Europeans. Attention will be focused on the development of civilization in Mesoamerica and in the Eastern U.S., the Midwest and the Southwest. Laboratory sessions and field excavation techniques will be introduced in actual situations. Prerequisite: Reading Proficiency.

ANT:202 ETHNOGRAPHY, NORTH AMERICAN INDIANS 3
This course presents an introduction to the beliefs, customs and social organization of the Indians of North America. The course will deal with the Indians as they were before Columbus, their life ways, world views, and religion, economic patterns and technology, patterns of family life, warfare and confrontations with Europeans. Prerequisite: Reading Proficiency.

ANT:203 BIBLICAL ARCHAEOLOGY 3
Archaeological discoveries and their relationship to the historical, cultural and religious traditions of the Old and New Testaments. Included will be Sodom and Gomorrah, Exodus, Conquest, Dead Sea Scrolls, and the Early Church. Prerequisite: Reading Proficiency.

ANT:204 ARCHAEOLOGY OF MISSOURI 3
An introduction to the prehistoric cultures of Missouri and adjacent areas from 20,000 BC to the coming of the Europeans. Examines the development of prehistoric cultures in Missouri from small bands of hunters to agricultural city builders. Prerequisite: Reading Proficiency.

ANT:205 CULTURAL CONTEXT OF EARLY CHRISTIANITY 3
The study of Roman culture, Jewish culture, and the Jesus Movement analyzing their material culture (tombs, temples, art, coins) and non-material culture (kinship system, political organization, economic system). Artifacts, architecture, and written records are our primary sources. Prerequisite: Reading Proficiency.

ANT:206 THE INCAN, AZTEC, AND MAYAN CULTURES 3
A survey of the cultural evolution of Meso America and Andean South America, from the early hunters to the high civilizations. This course will conclude with the sixteenth century Spanish conquest of these civilizations. Prerequisite: Reading Proficiency.

ANT:207 ANCIENT CIVILIZATION OF THE OLD WORLD 3
A survey of the earliest complex societies in the Old World during the Neolithic and Bronze Ages. Emphasis will be focused on the cultures in Mesopotamia, Egypt, India, and China. Prerequisite: Reading Proficiency.

ARABIC

ARA:101 MODERN ARABIC I 4
This is a practical, beginning course in speaking and understanding modern Arabic. It is designed for persons who want to learn some Arabic, who want to travel to an Arabic-speaking country, or who have previous limited experience in Arabic. Attention is given to proper pronunciation, to practicing the words and basic structures most frequently in daily conversation and to learning the social conventions and Arabic culture necessary for interpersonal communication with native speakers of contemporary Arabic. Prerequisite: Reading Proficiency.

ARA:102 MODERN ARABIC II 4
Modern Arabic II is a continuation of Modern Arabic I. Students complete the basic elements of Arabic grammar, increase their vocabulary and gain added facility in speaking and reading Arabic. Prerequisite: ARA:101 or the permission of the instructor and Reading Proficiency.

ARA:104 SPECIAL READINGS IN ARABIC 4
This class is a continuation of Modern Arabic II and will focus on vocabulary acquisition and improving fluency of reading and understanding of Modern Standard Arabic, the formal language of the Arab people. This class will also introduce new grammatical structures and review those previously learned. Content of readings may vary from semester to semester. This class may be repeated for credit when topic is varied. Prerequisites: ARA:101 and ARA:102 or the permission of the instructor and Reading Proficiency.

ARCHITECTURAL TECHNOLOGY

ARC:110 ARCHITECTURAL GRAPHICS 3
Foundation course in which quality drafting in the areas of line weight and quality, lettering, dimensioning, notes is taught. Drafting procedures such as orthographics, axonometrics, perspective, shade and shadow, topography, entourage rendering are introduced. Care and use of drafting and print tools and media are considered. (Approximate cost of supply kit - $50). Additional lab hours required. Prerequisite: Reading Proficiency.

ARC:112 ARCHITECTURAL DESIGN AND PRODUCTION I 3
A small project is designed and detailed. Topics covered include: design method, design presentation techniques, construction details, and construction document set production. Verbal and graphic communication of ideas is developed. A portfolio of student work is begun. Additional lab hours required. Prerequisite: ARC:110 with a grade of "C" or better and Reading Proficiency.

ARC:114 ARCHITECTURAL HISTORY AND THEORY 3
Course presents a survey of the history of shelter, monuments, other building types, towns and cities, and site design in relation to current architectural trends. Forces which shape the built-environment are studied. Tours of area sites or buildings may be included. Prerequisite: Reading Proficiency.

ARC:115 ARCHITECTURAL RENDERING AND PRESENTATION 3
Students gain experience in color and pattern rendering and presentation drawing technology. A variety of media and concepts is explored. Finished projects can be included in the architectural portfolio. Additional hours required. Prerequisite: Reading Proficiency.

ARC:123 INTRODUCTION TO COMPUTER-AIDED ARCHITECTURAL DRAFTING 3
Students learn to operate hardware and software generally in use in the architectural profession. A basic introduction to the systems will be presented. Hands-on use of the equipment will be emphasized. Prerequisite: Reading Proficiency.

ARC:124 INTRODUCTION TO BUILDING INFORMATION MODELING 3
This is a hands-on introduction to the use of building information modeling (BIM) software for architecture. Instruction will focus on how both graphic and non-graphic architectural information for a building is produced through the creation of a single project database represented in a 3D model. Prerequisite: Reading Proficiency.
ARC:209 MECHANICAL AND ELECTRICAL SYSTEMS I 3
An introduction to the physics and practical design aspects of plumbing systems, and the systems and building form and fabric affecting the heat loss and gain and internal comfort of buildings. Prerequisite: MTH:124 or MTH:140 and Reading Proficiency.

ARC:211 ARCHITECTURAL DESIGN AND PRODUCTION II 3
A small commercial project is designed and detailed. Topics covered include design method, design presentation techniques, construction details and construction document production. Verbal and graphic communication of ideas is continued. Students continue to develop a portfolio. Additional lab hours required. Prerequisites: ARC:112 with grade of "C" or better and ARC:123, and Reading Proficiency.

ARC:219 PROFESSIONAL ARCHITECTURAL PRACTICE 2
This course explores issues related to the functions of the architectural office: business practices and development, professional conduct and liability, project management, contract management, and marketing. Prerequisite: Reading Proficiency.

ARC:220 ARCHITECTURAL DESIGN AND PRODUCTION III 3
Students will work on commercial/institutional projects designed to reinforce skills in building design, architectural rendering, and construction document production. The student portfolio is completed. Additional lab hours required. Prerequisites: ARC:114, ARC:115, and ARC:211 with grades of "C" or better and Reading Proficiency.

ARC:222 SITE PLANNING AND LANDSCAPE DRAFTING 3
This course provides an introduction to the art of arranging the external environment to support human behavior. The student will learn skills used in architecture, engineering, landscape architecture and city planning. Principles of plane surveying as related to site planning are also studied. Drafting skills are studied with emphasis on site plans and techniques of landscape drafting. Additional hours required. Prerequisite: ARC:110 and Reading Proficiency.

ARC:223 INTERMEDIATE COMPUTER-AIDED ARCHITECTURAL DRAFTING 3
This course will deal with architectural office applications of computer-aided drafting involving orthographics, axonometrics, topography, 3-D modeling, walkthroughs, and rendering. Prerequisite: ARC:112 and ARC:123 or permission of department, or professional experience and Reading Proficiency.

ARC:224 ADVANCED COMPUTER-AIDED DRAFTING 3
This course focuses on the management aspects of computer-aided drafting. Topics include drawing file management, screen, table and button menu creation and an introduction into LISP Language. Menu customizing is a major topic of this course. Prerequisite: ARC:223 or permission of department and Reading Proficiency.

ARC:227 ARCHITECTURAL ESTIMATING 3
Course will deal with the preparation of architectural estimates on contemporary construction projects. The student will learn to analyze existing conditions, estimate quantities and costs, prepare quantity take offs, and determine square/linear footage, areas. Prerequisites: ARC:112 or Departmental Approval. Reading Proficiency.

ARC:228 ARCHITECTURAL COMPUTER RENDERING, MODELING, AND ANIMATION 3
This course provides an introduction to the use of computers in digital modeling and rendering for architecture. The student will gain experience in the use of 3-D image editing, and CADD software to produce 3-D models and 2-D renderings of architectural projects. Prerequisites: ARC:123 or departmental approval and Reading Proficiency.

ARC:229 ARCHITECTURAL SPECIFICATIONS, MATERIALS, AND METHODS 3
This course explores the process of selecting building materials, and introduces the Project Manual as an essential element of the Contract Documents. The student will learn how to research, evaluate, select and specify appropriate products for a variety of architectural projects. Prerequisite: Reading Proficiency.

ART:100 ART APPRECIATION 3
This course is intended to stimulate the student's visual, emotional and intellectual awareness of an artistic heritage and to acquaint the individual with the work of the great masters of the art world, both past and present. For non-art majors. Prerequisite: Reading Proficiency.

ART:101 ART HISTORY I 3
A survey of art from the prehistoric to medieval period. Prerequisite: Reading Proficiency.

ART:102 ART HISTORY II 3
Continuation of ART:101 covering the medieval period to modern art. Prerequisite: Reading Proficiency.

ART:103 HISTORY OF MODERN ART 3
A survey of modern art beginning with the late 19th century and proceeding through the work of contemporary artists. Recurrent themes from the following periods will be examined: impressionism, post-impressionism, art nouveau, cubism, expressionism, dada, surrealism, abstract expressionism, pop and new realism. Prerequisite: Reading Proficiency.

ART:104 MAJOR BLACK ARTISTS 3
This course examines the work and influence of select artists of African descent in the 19th and 20th centuries. This course will concentrate on the cultural, social, and political influences that these artists exhibited in their particular regions. Special attention will be given to the overall place of Black Art in the study of Art History. Prerequisite: Reading Proficiency.

ART:105 INTRODUCTION TO ART 3
An introduction to basic design, drawing and painting in a studio-type learning situation. This course is for non-art majors. Additional studio hours required. Prerequisite: Reading Proficiency.

ART:107 DESIGN I 2
Emphasis on principles and elements of design through a series of assigned problems. Additional studio hours required. Prerequisite: Reading Proficiency.

ART:108 DESIGN II 2
The use of color, exploring various color theories and the historical application through a series of problems. Additional studio hours required. Prerequisite: ART:107 and Reading Proficiency.

ART:109 DRAWING I 3
This is a beginning course in fundamentals of drawing that includes an introduction to drawing principles, construction, proportion, form, value, perspective, composition, tools and media. Perception, visual awareness, sensitivity, attitude and judgment are all stressed. Additional studio hours required. Prerequisite: Reading Proficiency.

ART:110 DRAWING II 3
A continuation of ART:109, the fundamentals and principles of drawing, with more emphasis on organizational concepts and a variety of media. Additional studio hours required. Prerequisite: ART:109 and Reading Proficiency.

ART:111 FIGURE DRAWING I 3
Introduction to drawing from the human figure, analysis of structure, proportion and basic forms. Additional studio hours required. Prerequisite: Reading Proficiency.

ART:112 FIGURE DRAWING II 3
Continuation of ART:111. Emphasizes the use of various drawing media. Analysis of the structure of the human figure through anatomy. Additional studio hours required. Prerequisite: ART:111 and Reading Proficiency.

ART:113 CERAMICS I 3
A study of the basic principles of ceramics and ceramic sculpture with emphasis on hand-built techniques. As the student progresses, there will be study on the kick wheel. Additional studio hours required. Prerequisite: Reading Proficiency.

ART:114 PAINTING I 3
An introduction to oil painting from still-life objects, with emphasis on technique and the effective use of color. Composition and drawing will be stressed as they relate to painting. Additional studio hours required. Prerequisite: ART:109 and Reading Proficiency.
ART:115 PRINTMAKING I 3
This is an introductory course in traditional and contemporary printmaking. The student will be exposed to a variety of printmaking media from a selection of monotypes, linoleum blocks, wood blocks, collagraphs, dry points, etchings, and solvent transfers. Additional studio hours required. Prerequisite: Reading Proficiency.

ART:116 SCULPTURE I 3
A course based on individual development stressing the elements of sculpture: form, space, light, movement, texture, proportion in relation to the basic methods associated with the sculpture field. Additional studio hours required. Prerequisite: Reading Proficiency.

ART:131 COMPUTER ART STUDIO 3
Computer Art Studio introduces students to the most common graphic software programs. Students will learn to navigate through the operating system and will gain basic experience with drawing, photo-imaging and page-layout applications. Additional lab hours required. Prerequisite: Reading Proficiency.

ART:133 GRAPHIC DESIGN I 3
This course is an introduction to graphic design with an emphasis on its history and its place in the advertising world. It will cover basic layout processes, typography, and the use of materials required in the field. Issues such as client needs, concept development, and ethical considerations will also be covered. Additional studio hours required. Prerequisite: Reading Proficiency.

ART:134 GRAPHIC DESIGN II 3
Students in this course will further explore the area of graphic design with an emphasis on various layout formats, the creative use of typography, and the historic aspects of graphic design. Concept origination and development are also addressed. The use of computers as a design tool will be employed. Additional studio hours required. Prerequisites: ART:131 and ART:133 with grades of "C" or better, ART:107, and Reading Proficiency.

ART:135 GRAPHIC PRODUCTION I 2
Students in this class will study the history of printing and the basics of how the various commercial printing processes work. The major emphasis will be on understanding mechanical art procedures, the selection of printing papers, and the development of dialog with printing suppliers. The proper use and preparation of art for spot color, multicolor and process color printing, and pre-press file preparation will be stressed. Binding and finishing techniques as well as layout and design concepts will be discussed in relation to the finished printed product. Additional studio hours required. Prerequisites: ART:131 and ART:133 with grades of "C" or better and Reading Proficiency.

ART:138 DRAWING FOR GRAPHICS I 2
This drawing course fulfills the specific needs of graphic design students. It emphasizes the study of composition and design as they apply to the solution of graphic design and illustration problems. Additional studio hours required. Prerequisite: Reading Proficiency.

ART:151 INTERIOR DESIGN I 3
An introduction to interior space planning through the use of scaled floor plans and elevations. Emphasis is placed on the design and selection of furnishings, textiles, accessories, and other interior components. Additional studio hours required. Prerequisite: Prior or concurrent enrollment in ARC:110 and Reading Proficiency.

ART:152 TEXTILES 3
A study of fabric selection, care and performance based on the characteristics of textile fibers, processing, color application, and finishes. Prerequisite: Reading Proficiency.

ART:153 HISTORY OF CULTURAL ENVIRONMENTS I 3
The history of furniture styles, decorative arts, and architecture from Mesopotamia to French Empire will be taught. The emphasis is on materials, techniques, and aesthetics that make environments unique within their historical cultural environments. There will be slides with the lectures. A notebook of styles will be required. Prerequisite: Reading Proficiency.

ART:154 COMPUTER AIDED INTERIOR DESIGN 3
This course is an introduction to hardware and software used in the practice of interior design. AutoCAD will be used to create scaled drawings, specifications and programming documents. Additional lab hours required. Prerequisite: Prior or concurrent enrollment in ARC:110 and Reading Proficiency.

ART:155 BATH DESIGN 3
This course is designed so that students can learn the special requirements necessary to design safe and functional bathrooms utilizing the standards established by the National Kitchen and Bath Association. Students develop comprehensive projects solving bathroom design problems. Prerequisites: ART:151 and Prior or concurrent enrollment in ARC:110 and Reading Proficiency.

ART:156 ADVANCED KITCHEN DESIGN 3
This course applies design principles and presentation standards in the planning and designing of efficient kitchen layouts. Following National Kitchen and Bath Association standards, students will understand "hands-on" experience of designing kitchen layouts and materials. Additional studio hours required. Prerequisites: ARC:110 and ART:151 and prior or concurrent enrollment in ARC:112 and Reading Proficiency.

ART:157 PERSPECTIVE DRAWING AND RENDERING FOR INTERIOR DESIGNERS 2
Students gain experience in perspective drawing for interior spaces. A variety of media is explored in color and pattern rendering. Finished projects can be included in the student's portfolio. Additional studio hours required. Prerequisite: Reading Proficiency.

ART:158 WORKPLACE LEARNING: INTERNSHIP IN KITCHEN AND BATH DESIGN 3
This experiential course provides the student the opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Students will observe and participate in functions of the kitchen and bath industry in order to enhance their preparation for entering the kitchen and bath design field. Minimum of 160 hours in the workplace throughput the term. Prerequisites: ART:155 and ART:156 and Reading Proficiency.

ART:165 PHOTOGRAPHY I 3
An introduction to the medium of black and white photography, encompassing control of the craft and the meaning of the image. Students should have a camera with full aperture and shutter speed controls. Additional studio hours required. Prerequisite: Reading Proficiency.

ART:166 PHOTOGRAPHY II 3
An advanced study of photographic methods, composition, and darkroom techniques. Students must have access to a camera, preferably a 35 mm. Additional studio hours required. Prerequisite: ART:165 and Reading Proficiency.

ART:167 COLOR PHOTOGRAPHY 3
Theory of color, materials of color photography, and techniques of color printing. A portfolio of color prints will be produced by the student. Additional studio hours required. Prerequisite: ART:165 and Reading Proficiency.

ART:168 HISTORY OF PHOTOGRAPHY 3
An introduction to the understanding of photography through the study of significant historical events, pioneers, techniques, equipment, and aesthetic trends that have influenced and modulated this art form. Prerequisite: Reading Proficiency.

ART:169 VISUAL LANGUAGE 3
Perception and photography will be the central concern of this course, beginning with the ways in which we gather information from visual, particularly photographic, images and use of visual elements to form mental constructs. While the implications are vital to visual communicators, this exploration would be valuable to anyone with a desire to further their critical perception. Students will examine publications, film, photographs and television as forces affecting twentieth century thought. Prerequisite: Reading Proficiency.

ART:172 DIGITAL PHOTOGRAPHY 3
This course is an introduction to digital photography. Students will learn digital camera basics, including the mechanics of the camera and printing with the computer. Students will follow guided exercises and projects to produce a portfolio of prints using digital printers. No darkroom work is included in this course. Students must provide their own digital cameras. Additional studio hours required. Prerequisites: Reading Proficiency.
ART:185 ART FOR CHILDREN 3
The course will acquaint the student with art media and methods appropriate for children. The student will develop projects to promote the child's appreciation of art and to integrate art into the total curriculum. (Same course as EDU:120.) Additional studio hours required. Prerequisite: Reading Proficiency.

ART:204 PHOTOGRAPHY III 3
This course is a continuation of the exploration of the photographic process and techniques begun in Photography I and Photography II with a greater emphasis being placed on the creative process and the individual's perception and understanding of the elusive nature of images. Additional studio hours required. Prerequisites: ART:165 and ART:166 and Reading Proficiency.

ART:207 DESIGN III 2
An introduction to 3-D work, exploring the spatial qualities of mass, shape, volume. Additional studio hours required. Prerequisite: ART:108 and Reading Proficiency.

ART:208 DESIGN IV 2
Advanced problems in various aspects of design. Additional studio hours required. Prerequisite: ART:207 and Reading Proficiency.

ART:209 DRAWING III 3
Emphasis is placed on methods of achieving compositional unity in drawing. Balance, variety, rhythm, and repetition, some of the factors responsible for unified structure in drawing, will be examined on an advanced level. Additional studio hours required. Prerequisite: ART:110 and Reading Proficiency.

ART:210 ADVANCED DRAWING 3
Research in drawing problems that will deal primarily with concept, media, style and composition. The human figure, still-life objects and surroundings will be used as topical sources. Prerequisites: ART:209 and ART:211 and Reading Proficiency.

ART:211 FIGURE DRAWING III 3
Advanced figure drawing from the model. Additional studio hours required. Prerequisite: ART:112 and Reading Proficiency.

ART:213 CERAMICS II 3
A study of the techniques of wheel-thrown ceramics and extensive experimentation with glazes and oxides. Additional studio hours required. Prerequisite: ART:113 and Reading Proficiency.

ART:214 PAINTING II 3
A continuation of ART:114 with emphasis on composition and color. Knowledge will be developed for future individual study. Additional studio hours required. Prerequisite: ART:114 and Reading Proficiency.

ART:215 PRINTMAKING II 3
A continuation of ART:115. In addition to continued exploration of media covered in Printmaking I, this course introduces students to additional printmaking techniques, from a selection of lithography, silk screen, photo-mechanical methods, chine colle' and mixed media. Additional studio hours required. Prerequisite: ART:115 and Reading Proficiency.

ART:216 SCULPTURE II 3
A continuation of the study of the elements of sculpture, stressing the more creative approach in terms of new methods and materials. Emphasis will be on the human and natural forms as a basis for academic and subjective analysis. Additional studio hours required. Prerequisite: ART:116 and Reading Proficiency.

ART:221 PAGE LAYOUT: QUARK/INDESIGN 3
This course is designed to provide students with an advanced exploration and understanding of the QuarkXPress and Adobe InDesign digital page design and layout software programs. Principles of page layout design and the graphic synthesis of typographic elements will be studied with these programs on an advanced level. Additional lab hours required. Prerequisites: ART:131 and ART:134 and Reading Proficiency.

ART:224 PACKAGE DESIGN 2
This course explores the concepts, techniques and concerns of graphic design as applied to package design and presentation display. Students will produce three-dimensional packaging solutions. Issues covered will include the functions of effective package design, special production processes and the creation of three-dimensional package mock-ups. Additional studio hours required. Prerequisites: ART:131 and ART:233 and Reading Proficiency.

ART:228 WORKPLACE LEARNING: PHOTOGRAPHY 3
This experiential course provides the student the opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Students will observe and participate in the functions of the business to enhance their preparation for entering the field. Minimum of 150 hours in the workplace throughout the term. Prerequisites: ART:166, ART:167, departmental approval. Reading Proficiency.

ART:233 GRAPHIC DESIGN III 3
This class will continue to examine the subject of graphic design with the emphasis upon the "hands-on" approach to finding creative solutions to complex visual communications problems. A professional approach to the discipline will be stressed. Additional studio hours required. Prerequisites: ART:108 and ART:134 with grades of "C" or better, prior or concurrent enrollment in ART:138 with a grade of "C" or better, and Reading Proficiency.

ART:234 GRAPHIC DESIGN IV 3
This course is an advanced exploration of graphic design, with the emphasis upon creative problem solving and the use of professional practices. Students will learn to solve complex visual communication problems such as logo design, package design, point of purchase and publication design. Additional studio hours required. Prerequisites: ART:135 and ART:233 with grades of "C" or better and Reading Proficiency.

ART:235 GRAPHIC PRODUCTION II 2
This course is a continuation of Graphic Production I but with a greater emphasis on the proper preparation of electronic pre-press files for spot-color, multi-color and process-color print production. Students will execute print projects using the computer to create pre-press files for print production. They will also examine many advanced printing techniques, multiple page document preparation and the proper methods for sending files to printers. Additional studio hours required. Prerequisites: ART:134 and ART:135 with grades of "C" or better and Reading Proficiency.

ART:236 TYPOGRAPHY 2
This course will stress the refined use of typography as a design and communication tool. Students will study the history and classifications of letterforms and employ this knowledge base in the creation of various typographical designs and presentations. Typical projects may range from letter and alphabet design to the use of typographical forms as the feature design elements in graphic designs or page layouts. Additional studio hours required. Prerequisites: ART:131 and ART:133 with grades of "C" or better and Reading Proficiency.

ART:238 DRAWING FOR GRAPHICS II 2
Students will build upon the principles covered in Drawing for Graphics I as they learn about additional techniques and materials necessary to explore drawing solutions to graphic design problems typically encountered in this field. Additional studio hours required. Prerequisite: ART:138 with a grade of "C" or better and Reading Proficiency.

ART:239 ILLUSTRATION I 3
This course is a comprehensive exposure to the methods and theories of illustrative drawing and painting as it is used in reproduction. A special emphasis will be placed on its application to advertising and publication design. Additional studio hours required. Prerequisites: ART:131 and ART:138 with grades of "C" or better, or concurrent enrollment in same, and Reading Proficiency.

ART:240 ILLUSTRATION II 3
This class exposes students to an experimental approach to illustrative drawing and painting with a strong emphasis on the creative use of materials and design principles. The use of computer drawing and painting programs may be stressed. Additional studio hours required. Prerequisite: ART:239 with grade of "C" or better and Reading Proficiency.

ART:241 PUBLICATION DESIGN 3
This course will introduce the student to the computer software used in the development of page design and layout. Emphasis will be placed on the production of basic business publications including newsletters, fliers, brochures, etc. General principles of page layout design will be studied including the placement of text, illustrations and logotypes and the important synthesis of these typographic elements. Additional lab hours required. Prerequisite: ART:131 and ART:133 with a "C" or better, or permission of program coordinator, and Reading Proficiency.
ART:242 DRAWING FOR GRAPHICS III
Students in this class will build upon the principles covered in Drawing for Graphics II and will learn techniques and materials required to explore drawing solutions using the human figure to fulfill critical needs in the illustration profession. Additional studio hours required. Prerequisite: ART:238 and Reading Proficiency.

ART:243 FIGURE ILLUSTRATION
Students in this class will learn to draw the human figure emphasizing the purpose or function needed for advertising or publishing assignments. Analysis will be made of the ideal human figure through structure, anatomy, expression, and its placement in an environment. Additional studio hours required. Prerequisite: ART:111 and Reading Proficiency.

ART:245 PORTFOLIO DESIGN AND PROFESSIONAL PRACTICES
This course will discuss the opportunities and procedures in the various fields of graphic design, illustration and advertising design. Students will be guided in the preparation of a portfolio of their work, in the development of a resume and related documents, and will learn practical interviewing techniques. The intent will be to prepare students to enter the art field with a confident and professional attitude. Additional studio hours required. Prerequisite: Permission of Program Coordinator and Reading Proficiency.

ART:251 INTERIOR DESIGN II
Problem analysis and design solutions for residential and commercial interiors focusing on user needs, specification procedures, and formal presentation techniques. Additional studio hours required. Prerequisites: ART:151 and prior or concurrent enrollment in ARC:112 and Reading Proficiency.

ART:252 RESIDENTIAL INTERIOR DESIGN
An in-depth study of residential design emphasizing the relationship of designer and client from initial consultation through the design process to the final execution of the contracted agreement. Additional studio hours required. Prerequisite: ART:251 and Reading Proficiency.

ART:253 COMMERCIAL INTERIOR DESIGN
Advanced study and application of the problem solving approach to design as it relates to commercial interiors with emphasis on business procedures and resources. Additional studio hours required. Prerequisite: ART:251 and Reading Proficiency.

ART:254 HISTORY OF CULTURAL ENVIRONMENTS II
This course is a continuation of the history of furniture, decorative arts, and architectural elements from Tudor England to current times. The emphasis is on materials, techniques, and aesthetics that make environments unique within their historical cultural environments. There will be slides with the lectures. A notebook of styles will be required. Prerequisite: ART:153 and Reading Proficiency.

ART:265 ARTIFICIAL LIGHT PHOTOGRAPHY
Introduction to basic theories of illumination as applied to a variety of subject compositions. Use of the view camera with Polaroid film, negative and reversal films; production of professional quality prints. Prerequisite: ART:165 and Reading Proficiency.

ART:266 BLACK AND WHITE PRINTING LAB
Guided study of black and white printing techniques geared to individual student needs and interests. Competence and excellence in traditional techniques of “straight” photography are stressed, with extension into refinement and alternatives. Suggested co-requisite for students in Photography I who are interested in gaining greater accomplishment in one semester. Also open to students in other photography classes and those who have a basic knowledge of darkroom processes and would like further practice and direction. Additional studio hours required. Prerequisite: ART:165 and Reading Proficiency.

ART:267 CONTEMPORARY CONCEPTS IN PHOTOGRAPHY
A seminar class focusing on current issues and ideas about photography. Students will actually practice the most recent trends through assignments, augmented by visits to galleries, lectures, and demonstrations. Reading, writing and discussion of latest concepts will be central to the course. Additional studio hours may be required. Prerequisite: ART:165 or ART:168 and Reading Proficiency.

ART:268 LARGE FORMAT PHOTOGRAPHY
An introduction to view camera techniques as it is used indoors and outdoors. Hand held light meters will be required, their use explained and practiced. Use of view camera controls, handling of 4x5” sheet film, printing from large format negatives, the making of fine quality prints and appropriate print presentation will be emphasized. Additional studio hour required. Prerequisite: ART:165 or departmental approval and Reading Proficiency.

ART:269 FIELD PHOTOGRAPHY
The unique emphasis of this course is on photographing subject matter found in nature. Trips to areas of high photographic interest will provide students the opportunity to explore and visually portray elements of natural environments. Macro and telephoto lenses would be particularly useful but not required. By calling the course "Field Photography" rather than "Nature Photography," the attention is placed less upon subject matter than upon concern that the students learn to adapt to and photograph new situations. Prerequisite: ART:165 or departmental approval and Reading Proficiency.

ART:270 FIGURE FASHION PHOTOGRAPHY
Students will set up, light and photograph models in the studio. Control of lighting composition, props, different films and other materials will be included. Additional assignments will involve photographing models in a variety of situations outdoors and other locations. Evaluation of final photographs will encourage the development of professional standards. Additional studio hours required. Prerequisite: ART:166 and Reading Proficiency.

ART:271 PORTRAIT PHOTOGRAPHY
Using both view cameras and small format 35 mm cameras, students will make portraits of people. Both natural and artificial studio lights will be used. Close-ups, environmental portraits, and group portraits will be covered. In class, students will use view cameras in a studio setting. Outside assignments will be done with students’ own cameras. Black and white and color materials may be used. Work will include processing of roll and sheet films, the making of quality prints and methods of print presentation. Students should have their own hand-held light meters and strobels for off-camera use. Additional studio hours required. Prerequisite: ART:165 and ART:168 and Reading Proficiency.

ART:272 DOCUMENTARY PHOTOGRAPHY
A study of photography as it dramatizes issues and their implications. The methods of approach used by documentary photographers will be discussed. Students will view their work and consider the possible impact of it on society. Students will use their cameras to study issues in their own environments. Finished photographs will be exhibited in appropriate relation to the topics with which they are concerned. Additional studio hours required. Prerequisite: ART:165 and Reading Proficiency.

ART:273 ARCHITECTURAL PHOTOGRAPHY
The subject matter of this photography class will be cityscapes, buildings of all types, interiors and exteriors. View cameras will be used in class. Class will meet on campus as well as travel to various locations in the city to photograph. Use of view camera operations to control perspective will be emphasized. Assignments outside of class will be done with students’ own cameras. A moderately wide angle lens (28mm-35mm focal length on 35mm camera) would be useful but is not required. Students need their own light meters. Black and white materials will be used. Work will include processing of roll and sheet films, the making of fine quality prints and appropriate print presentation. Additional studio hours required. Prerequisites: ART:165 and ART:168 and Reading Proficiency.

ART:274 PRESENTATION GRAPHICS
This course addresses the creation of presentation-quality charts, graphs, graphics and typographic designs and the use of vector-based computer art programs. Emphasis is on learning to use computer tools and developing skills which are necessary for effective communication through the creative use of layout and color, typographic and graphic imagery. Additional hours required. Prerequisites: ART:131, ART:165, ART:238, ART:240, or with permission of instructor. Reading Proficiency.

ART:275 PHOTO IMAGING I: PHOTOSHOP
This course is an investigation of processing of continuous tone image files. Software tools and adjustment controls will be learned. Students will investigate scanning, color and tonal management, image repair and compositing, and printing. A portfolio of prints will be created emphasizing the individual expressiveness of the student. Additional lab hours required. Prerequisite: ART:131, ART:167 (may be taken concurrently), or demonstration of proficiency by exam and Reading Proficiency.
ART:280  FINAL CUT  3
Students will produce professional quality video content using Macintosh Final Cut non-linear editing software. Students will create digital video content and process projects through the software. Clips will be edited; sound, transitions and titles will be added. Students will conceive, photograph, edit and complete a short movie. Additional lab hours required. Prerequisites: ART:275 and Reading Proficiency.

ART:281  PROFESSIONAL PREPARATION  3
Opportunities in various fields of photography and business procedures will be discussed. Students will prepare a portfolio in the form of prints, slides and possible video tape format. Students will be guided in the preparation of resumes and practice interviewing techniques. Emphasis will be on orienting students to enter the field with a confident and professional attitude. Additional studio hours required. Prerequisite: ART:165 and Reading Proficiency.

AT:100  HARDWARE CONFIGURATION AND TROUBLESHOOTING: MACINTOSH/WINDOWS  1
This course will address setting up the computer and connecting peripheral devices such as cameras, scanners and printers; partitioning the hard drive, adding RAM, installing software and virus protection, and troubleshooting simple problems. Advanced topics include networking and using a server. Additional lab hours may be required. Corequisites: ART:131. Prerequisite: Reading Proficiency.

AT:101  COLOR MANAGEMENT  3
This course investigates the use of dedicated software to analyze and color calibrate the computer monitor with related peripheral devices such as cameras, scanners, printers and film recorders. Students will learn the principles of color management, and how to create color signatures or profiles for each device and to integrate the system for color accuracy and consistency. Additional lab hour required. Prerequisite: ART:275 and Reading Proficiency.

AT:104  ELECTRONIC PHOTO STUDIO  3
Investigates electronic (filmless) photography, both in the studio and on location, and high resolution scanning of traditional film media. Current camera technologies are considered. Students will examine the advantages of either direct capture or scanning original film. Students will be required to demonstrate proficiency and understanding in the application of the equipment by completing assigned projects. Additional lab hour required. Prerequisite: ART:275, ART:167 and Reading Proficiency.

AT:105  DIGITAL PRINTING  3
This course is a survey of digital printing possibilities. Methodologies for converting electronic files to printed media are investigated. Varieties of printing technologies are evaluated for appearance, color fidelity, resolution, saturation and permanence. Where applicable to the process examined, variations in media (paper, canvas or films) will be tested. Additional lab hours required. Prerequisite: ART:275, ART:165 and Reading Proficiency.

AT:106  TWO DIMENSIONAL COMPUTER ANIMATION: ADOBE AFTER EFFECTS  3
This course will instruct students in the use of digital still and motion images combined with sound and special effects to create animated, multimedia sequences. Additional lab hours required. Prerequisite: ART:275 and Reading Proficiency.

AT:108  COMPUTER PAINTING AND DRAWING: COREL PAINTER  3
Students will utilize a variety of computer drawing software programs to create life drawings utilizing digitizing tablets. Assignments will include still life as well as the human figure. The techniques of using the pressure sensitive drawing tablet will be investigated to allow the creation of expressive line, mass and shading. A portfolio of drawings in both color and monochrome will be submitted at the conclusion of the course. Additional lab hours required. Prerequisites: ART:131 with a grade of "C" or better, ART:109 and Reading Proficiency.

AT:109  UNIVERSAL DOCUMENT EXCHANGE: ADOBE ACROBAT  3
Students will create documents that can be exchanged in multiple software and web applications, while preserving fonts, colors, images, layouts and all original formats. Students will explore linking and logic tree structure for the production of interactive computer based training as well as interactive business communication and collaboration. Additional lab hours required. Prerequisite: ART:131 and Reading Proficiency.

AT:120  COMPUTER DRAWING I: ILLUSTRATOR  3
This course is an investigation of vector imaging software used for the creation of drawings, typography and logotypes. Tools, palettes and menus will be learned, and methods of creating original expressive works will be developed. Students will investigate scanning reflective art, tracing, creating shapes, line control, color fills, and printing. Additional lab hours required. Prerequisite: ART:109 and ART:131 with grades of "C" or better, and Reading Proficiency.

AT:121  WATERCOLOR I  3
A foundation course covering basic watercolor techniques and materials including washes, wet-into-wet, glazing, shading, color mixing and layering. Course will emphasize development of skills, diverse approaches and an individual style. Through the study of both contemporary and traditional watercolors, students will become familiar with the amazing potential of this medium. Class will paint a variety of subjects including still lifes and nature. Additional studio hours required. Prerequisite: Reading Proficiency.

AT:124  BOOKMAKING  3
Students will learn about the history and aesthetics of books, and will explore (through hands-on studio production) bookmaking and binding techniques. Form, concept, craft, problem-solving ability, creative experimentation, and historical knowledge will all be stressed. Additional lab hours required. Prerequisite: AT:120 with a grade of "C" or better and Reading Proficiency.

AT:130  COMPUTER DRAWING II: ILLUSTRATOR  3
This course will refine the basic understanding of vector imaging, and incorporate specialized functions for use in professional design. Students will perform advanced work using vector imaging software that will explore techniques which will speed production and enhance the functionality of the vector application. Technical issues related to design, print and publication, charts and plans will be addressed. Additional lab hours required. Prerequisite: AT:120 with a grade of "C" or better and Reading Proficiency.

AT:131  AIRBRUSH I  2
A comprehensive study of the airbrush and its specialized uses. Illustrations, technical rendering, and advertising design projects will be demonstrated through airbrush technique. Additional studio hours may be required. Prerequisite: Reading Proficiency.

AT:135  COMMUNICATION AND DESIGN FOR THE WWW I  3
Students will learn to use the elements of graphic design to produce Web pages that effectively deliver art and information for business/organizational communications. Additional lab hours required. Prerequisite: ART:133 and ART:131 or ART:227 and Reading Proficiency.

AT:143  COMMUNICATION AND DESIGN FOR THE WWW II  3
Expand Web site interactivity. This course explores methods of refining basic Web site creation and incorporating sophisticated techniques such as cascading style sheets, animation and sound plug-ins, and addressing browser differences. Additional lab hours required. Prerequisite: MCM:135 or AT:135 or IS:135 and Reading Proficiency.

AT:144  WWW SPECIAL TOPICS  3
This course specializes in advanced enhancements to World Wide Web design. Students will learn to encode properties that make the web site more dynamic and interactive. Students will use the latest software to enhance web pages with interactive and animation techniques. Additional lab hours required. Prerequisite: MCM:135 or AT:135 or IS:135 and Reading Proficiency.

AT:146  3D MODELING I: SURFACE MODELING  3
This course focuses on the development of three-dimensional models for use in multimedia, industrial design, and character development. Creation of 3D objects and spatial environments will be studied, in addition to photorealistic rendering, texture mapping and lighting techniques. Additional lab hours required. Prerequisites: MCM:127 or AT:154 and Reading Proficiency. Either course may be taken concurrently.

AT:151  DESIGNER RESOURCES  3
This course is to familiarize the student or professional with industry and trade resources available for the design of interior spaces. It will include lectures by suppliers relating to flooring, lighting, wallcoverings, furniture, window and ceiling treatment, fabric, architectural fixtures and accessories. Prerequisite: Reading Proficiency.
**AT:152 LIGHTING DESIGN** 3
This is a lecture/studio course where students will learn methods of successful lighting design and applications of lighting details to working drawings for residential and commercial environments. Students will learn specifications and how to write a lighting schedule. Additional studio hours required. Prerequisite: Reading Proficiency.

**AT:153 INTERIOR DECORATION** 3
A study of our heritage in homes, housing choices today, and the design of today's home interiors. The principles and elements of design will be applied to the selection of color, fabric, furniture and accessories used to create functional and aesthetic interiors. Prerequisite: Reading Proficiency.

**AT:154 CAMERA AND LIGHTING TECHNIQUES FOR 3-D DESIGN** 3
This course increases students' awareness and skills in designing lighting configurations for 3D software projects. Students will study lighting behavior under actual studio conditions. The results of studio observation will be translated to the lighting controls in 3D Design software. Additional studio hours required. Prerequisite: ART:275, ART:165 and Reading Proficiency.

**AT:160 DIGITAL CAPSTONE** 3
The student will enroll in the Capstone Course as the culmination of their capstone program. This course will allow the student to explore a thesis project which will demonstrate the skills and creativity fostered in each discipline. Capstone courses will include students from all areas of specialization. Additional lab hours required. Prerequisites: Digital Photography Option - AT: 104 and AT: 105. Graphic Design Option - AT:120, ART:241, ART:236. World Wide Web Option - AT: 144. Fine Art Option - AT: 108, AT: 120, AT: 105. 3D Design and Animation Option - AT: 236. Reading Proficiency for all options.

**AT:175 VIDEO ART I** 3
An investigation into video art as a personal expressive media for the individual artist, including work with computers, sound equipment, photography, and other tools used in the contemporary art world. Students will have the opportunity to investigate these technologies as they combine through various media to make artistic statements based on personal content, techniques associated with this popular genre. V

**AT:201 MIXED MEDIA** 3
An introduction to mixed media (assemble) art; the complementary component for design, drawing and figure drawing. An incorporation of all aspects of picture-making with an emphasis on experimentation, process and concepts with paint integration in the visual arts. Additional lab hours required. Prerequisites: ART:107 and ART:239 or permission of instructor and Reading Proficiency.

**AT:204 COMIC BOOK ILLUSTRATION I** 3
Students interested in Comic Book Illustration learn the basics and techniques associated with this popular genre. Various materials and techniques will be explored to produce formatted comic strips. Additional studio hours required. Prerequisites: ART:138 and Reading Proficiency.

**AT:205 DIMENSIONAL ILLUSTRATION I** 3
Students interested in illustration will go beyond usual two-dimensional art methods to create dimensional art. Various material and techniques will be explored to introduce unique three-dimensional sculpture-based art methods to students. Additional studio hours required. Prerequisites: ART:138 and Reading Proficiency.

**AT:206 3D MINIATURE STUDIO SET DESIGN** 3
Students interested in creating 3D Miniature Studio Sets will learn the basics of designing and constructing miniature sets for various entertainment venues and other related uses. The student will utilize skills learned in Drawing for Graphics and Illustration classes to execute imaginative sets. Additional studio hours required. Prerequisites: ART:138 and Reading Proficiency.

**AT:207 DIGITAL ILLUSTRATION I** 3
Digital Illustration I is a comprehensive exposure to the methods and theories of creating illustrations using the computer as the final medium. A special emphasis will be placed on creative processes and using computer graphic software to produce illustrations for portfolio presentation. Additional lab hours required. Prerequisites: ART:131 and Reading Proficiency.

**AT:208 FANTASY ILLUSTRATION I** 3
Students interested in Illustration will learn the basics and techniques of this popular genre used on book and gaming covers. The student will utilize skills learned in drawing for graphics and illustration to create imaginative and creative illustrations. Additional studio hours required. Prerequisites: ART:138 and Reading Proficiency.

**AT:210 DRAWING PROBLEMS** 3
This course focuses on drawing problems of an advanced nature. It will stress the continued development of individual ideas in ART:210. Additional lab hours required. Prerequisite: ART:210 and Reading Proficiency.

**AT:212 SPECIAL TOPICS IN PHOTOGRAPHY** 3
This course will offer the students a variety of topics on a rotating semester basis that are not included in the current elective curriculum from bookmaking to Polaroid transfer and emulsion lifts, to medium format photography, to photographic lighting. Additional studio hours required. Prerequisites: ART:165 and ART:166 and Reading Proficiency.

**AT:213 ADVANCED CERAMICS** 3
A self-directed learning experience for students. Course work may include throwing, glaze formulation, hand-building and kiln firing. Additional studio hours required. Prerequisite: ART:213 and Reading Proficiency.

**AT:215 ADVANCED PRINTMAKING** 3
A continuation of ART:115 and ART:215. Students will pursue a more individual course of instruction and portfolio development in the printmaking media. The student will choose from media taught in ART:115 and ART:215 to develop a portfolio of professional prints. Additional studio hours required. Prerequisite: ART:215 or permission of coordinator and Reading Proficiency.

**AT:219 FIGURE SCULPTURE** 3
An intensive exposure to creating figurative sculpture. Students will build basic armatures for both portraits and figures and work in clay from the model. Basic methods of plaster casting (waste molds) may be offered as an option at the end of the semester. Additional studio hours required. Prerequisites: ART:111 and Reading Proficiency.

**AT:221 WATERCOLOR II** 3
An expansion and application of the basic watercolor techniques from the foundation course AT:121 through a series of paintings. Course will emphasize color theory, composition and development of an individual style along with study of master watercolorists both past and present. Students will paint a variety of subjects including still lifes, landscape and the human figure. Development of individual response and fluency of technique will be emphasized. Additional studio hours required. Prerequisite: AT: 121 or permission of coordinator and Reading Proficiency.

**AT:225 WATERCOLOR III** 3
An expansion of AT:221. The self-motivated student will work on advanced watercolor techniques in specific assignments and in self-directed paintings. Course will emphasize advanced color theory and development of content, subject matter, personal style and the ability to self-critique, with significant input from the instructor. Additional studio hours required. Prerequisite: AT: 221 or permission of coordinator and Reading Proficiency.

**AT:226 WATERCOLOR IV** 3
An expansion of AT:225. The advanced and self-motivated student will work on specific assignments and on self-directed paintings with significant input from the instructor. Emphasis will be on using the watercolor medium to create sophisticated compositions, a thematic body of work and a personal style. Additional studio hours required. Prerequisite: AT: 225 or permission of coordinator and Reading Proficiency.

**AT:227 3-D STUDIO** 3
This course provides students with the opportunity to pursue extended study in 3-dimensional studio disciplines. Additional studio hours required. Prerequisites: AT:213 or ART:216 and Reading Proficiency.

**AT:228 FIGURE PAINTING** 3
Drawing and painting from observation of the model in a variety of media. Emphasis will be placed on understanding the inherent structural and formal problems involved with depicting the human figure in its environment. Additional studio hours required. Prerequisite: ART:112 with a grade of ‘C’ or better and Reading Proficiency.
This course will develop the painting and perceptual skills of students. The course is taught with an emphasis on individual study. Additional studio hours required. Prerequisite: ART:214 and Reading Proficiency.

This course is a continuation of AT:219 and will more intensely explore methods for creating figurative sculpture. Students will continue to work from models, increasing their understanding of structural anatomy and how it relates to surface forms. Additional studio hours required. Prerequisites: AT:219 and Reading Proficiency.

A continuation of AT:131. Additional studio hours required. Prerequisite: AT:131 and Reading Proficiency.

This course is an introduction to pre-production planning for special effects and animation as applied to multimedia, interactive media, video and film. The focus of the class will be communicating the drama of movement and special effects through effective design and pacing. Course topics include story telling, storyboarding formats and flowcharts, along with sound track and script interpretation. Additional lab hours required. Prerequisite: ART:131, ART:238 with grades of "C" or better and Reading Proficiency.

This course is an introduction to 3D computer animation. Students will learn basic computer animation techniques. By producing short animation segments, students will learn animation fundamentals such as: keyframing, lighting, camera work, texturing, sequencing, rendering, and post-production. Additional lab hours required. Prerequisites: ART:243 and ART:138 with grades of "C" or better and Reading Proficiency.

A continuation of 3D Animation I. Students further their skills in 3D Animation II by studying new techniques such as: 3D camera tracking, advanced keyframing, photo realistic rendering, advanced post production, and an introduction to character animation. Additional lab hours required. Prerequisite: AT: 234 and Reading Proficiency.

Advanced 3D design and animation techniques with software specifically designed for motion picture quality output. The course covers modeling, lighting, texture mapping, path and basic animation and rendering. Produce a model and an animation sequence by the end of the course. Additional lab hours required. Prerequisite: AT: 235 and Reading Proficiency.

This is a continuation of AT:230, Figure Sculpture II. As students gain experience through advanced projects, emphasis will shift from acquiring foundation skills in three-dimensional figurative sculpture to concept development and individual direction. Additional studio hours required. Prerequisites: AT:230 and Reading Proficiency.

This is a survey course on the history of Graphic Communications. This course will begin with the development of language and will trace the evolution of word and image throughout history using the works of designers and illustrators that have influenced the continuing development of the discipline. Prerequisite: Reading Proficiency.

This course is for individuals who wish to further explore the use of computer graphics as they can be applied to the advertising and business communication industries. Considerable latitude will be given as to areas of concentration, but all studies will stress the creative possibilities of the medium. Additional lab hours required. Prerequisite: ART:131 with a grade of "C" or better and Reading Proficiency.

This course is an introduction to commercial broadcast design and techniques. Students will explore methods of combining computer generated type and art with live video images for advertising, editorial, and informational purposes. The class also includes an introduction to 3-dimensional video animation programs. Additional lab hours required. Prerequisites: ART:238, ART:240, ART:165 and ART:131 or permission of instructor and Reading Proficiency.

This course introduces students to animated presentations which combine music and narration with photography, video, and computer art. Students will work with scripts, storyboards, soundtracks, computer graphics and photographic/photographic images to develop projects for multi-image slide shows and video presentations in the fields of advertising, motivation, education and entertainment. Additional lab hours required. Prerequisite: ART:240, ART:238, ART:165 and ART:131 or permission of instructor and Reading Proficiency.

Utilizing 3-D design software, the students will learn to layout, design and specify residential kitchens and baths. They will create 2-D and 3-D visual presentations and renderings of kitchens and bath interiors. Some computer knowledge or industry based knowledge of kitchen and bath design is recommended. Prerequisite: ART:151 and Reading Proficiency.

This course will reinforce AutoCAD use by designing on the computer. The students will integrate auxiliary software, do basic perspectives and color plotting of representation, and will learn vendor type add-on software. The students will use the Internet for research and drawing transmission. Prerequisite: ART:154 and Reading Proficiency.

This experiential course provides the student the opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Students will observe and participate in the functions of the interior design industry to enhance their preparation for entering the field. Minimum 150 hours in the workplace throughout the term. Prerequisites: Satisfactory completion of the first year of program. Departmental Approval. Reading Proficiency.

Advanced instruction in the theory of color, materials of color photography, and techniques of color printing. Students will work with transparencies and color reversal materials and explore large format color processes. A portfolio of color prints will be created by the student. Additional studio hours required. Prerequisites: ART:167 and Reading Proficiency.

A continued investigation into video art as a personal expressive media for the individual artist, including work with computers, sound, equipment, photography, and other tools used in the contemporary art world. Students will have the opportunity to investigate these technologies as they combine the various media to make artistic statements based on personal concerns and aesthetic decisions. This course is specifically for the fine artist who wishes to use "low end" and/or "consumer" equipment as a creative media. Emphasis is on relatively complex projects and collaborative ventures, and further developing an individual style of personal expression with these strategies and technologies. Additional lab hours required. Prerequisites: ART:175 or permission of instructor and Reading Proficiency.

This course explores intermediate methods of working with continuous tone images in an efficient manner. Topics include refinements in tonal and color adjustment tools, masking tools, typography tools, color modes, sharpening procedures, and compositing techniques. A portfolio of color images will be produced by the end of the course emphasizing the individual expressiveness of the student. Additional studio hours required. Prerequisites: ART:275, ART:108 (may be taken concurrently) and Reading Proficiency.

This course explores advanced methods of working with continuous tone images. In addition to a general review of the image processing software, topics include such subjects as incorporating color management into the workflow, predictive evaluation of numeric density readings, and a survey of printing device parameters. A portfolio of color images will be produced by the end of the course emphasizing the individual expressiveness of the student. Additional lab hours required. Prerequisites: ART: 276 and Reading Proficiency.

This is an introduction to processes which use light sensitive materials other than silver bromide paper to produce imagery. Working from photographic negatives, students will have the opportunity to produce prints using the following methods: Van Dyke Brown printing, Cyanotype, Kwik-print and Photoreduction printing. Additional studio hours may be required. Prerequisites: ART:165 or departmental approval and Reading Proficiency.
AUT:150 AUTOMOTIVE FUEL AND INDUCTION SYSTEMS 3
This course is a study of fuel and induction systems which includes gasoline fuel delivery systems, and diesel engines. Diagnosis and repair techniques as well as basics of the control systems will be covered. Corequisite: AUT:151

AUT:151 AUTOMOTIVE ENGINE OPERATION 3
This course will be concerned with theory, design and repair procedures of the automotive engine including valves and lower engine service. Additional lab hours required.

AUT:156 AUTOMOTIVE ELECTRICITY 3
This course is a study of the fundamentals of automotive electricity, magnetism, induction, and the use of wiring diagrams. This course also includes operating principles, diagnosis and repair of starting systems, charging systems, ignition systems, batteries, lighting and accessory circuits. Additional lab hours required.

AUT:158 CHARTS, DIAGRAMS AND HANDBOOK USAGE 2
This course teaches the use of handbooks, with emphasis upon interpreting specifications and automotive charts and diagrams.

AUT:163 WORKPLACE LEARNING I: FORD ASSET PROGRAM 7
This experiential course provides the student the opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field. Minimum of 350 hours in the workplace throughout the term. Prerequisites: AUT:156, AUT:168.

AUT:164 WORKPLACE LEARNING II: FORD ASSET PROGRAM 7
This experiential course provides the student an additional opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field. Minimum of 350 hours in the workplace throughout the term. Prerequisites: AUT:163, AUT:167, AUT:169.

AUT:165 WORKPLACE LEARNING III: FORD ASSET PROGRAM 7
This experiential course provides the student an additional opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field. Minimum of 350 hours in the workplace throughout the term. Prerequisites: AUT:164, AUT:150, AUT:151.

AUT:166 WORKPLACE LEARNING IV: FORD ASSET PROGRAM 7
This experiential course provides the student an additional opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field. Minimum of 350 hours in the workplace throughout the term. Prerequisites: AUT:165, AUT:258, AUT:259.

AUT:167 AUTOMOTIVE ELECTRONICS 3
This course deals with advanced electrical systems including basics of electronic engine control systems, electronic functions, electronic system diagnosis and repair. Additional lab hours may be required. Prerequisites: AUT:156.

AUT:168 SUSPENSION AND STEERING I 3
This course will be concerned with the design principles, diagnosis and repair of the front and rear suspension systems including front-end alignment, 4-wheel alignment, manual and power steering assemblies and related components to include gears and linkages, as well as tire and wheel balance. Additional lab hours required.

AUT:169 SUSPENSION AND STEERING II 3
Continuation of AUT:168 including the design, principles of operation, diagnosis and repair of the following components: conventional brake systems, anti-lock brake systems, electronic steering and ride control systems. Attention is given to live car diagnosis and repair procedures related to frame, suspension, steering, and brake components. Additional lab hours required. Prerequisite: AUT:168.

AUT:170 INTRODUCTION TO DEALERSHIP SERVICE 2
This course will introduce the students to electronic service information and software used in the service department as well as warranty procedures and service labor time standards. Emphasis will also be placed on safety procedures and MSDS sheets. Additional lab hours required. Corequisites: AUT:156, AUT:163, AUT:168. Prerequisite: Only open to students currently enrolled in the Ford ASSET Program.

AUT:256 AUTOMOTIVE POWERTRAINS 3

AUT:257 AIR CONDITIONING AND AUXILIARY SYSTEMS 3
This course emphasizes theory, operation and design of power accessories, restraint systems and air conditioning, to include proper techniques of dispensing, recovery and recycling of R-12 and R134a refrigerants. NOTE: Students will be required to be certified in the recovering and recycling of R12 refrigerants in accordance with EPA standards. Additional costs will be required. Corequisite: AUT:273. Prerequisites: AUT:259, AUT:167.

AUT:258 MANUAL DRIVETRAINS 3
Theory of operation and service procedures of drive lines, constant velocity joints, manual transmissions and transaxles, differentials and clutches. Prerequisites: AUT:167, AUT:169; concurrent with AUT:259.

AUT:259 EMISSIONS AND DRIVEABILITY DIAGNOSIS 3
This course emphasizes proper diagnostic procedures and use of proper test equipment such as oscilloscopes, exhaust analyzers, meters, and Powertrain Control test equipment. Additional lab hours required. Prerequisites: AUT:150 and AUT:167; concurrent with AUT:258.

AUT:271 DIAGNOSTIC EQUIPMENT AND EMISSIONS 3
Students will learn proper diagnosis and troubleshooting procedures and related test equipment including oscilloscopes, infra-red exhaust analyzers, meters, gauges and diagnostic lane exposure. Additional lab hours required. Prerequisites: AUT:150, AUT:167 and AUT:169.

AUT:272 ACCESORIES, CONTROLS AND AIR CONDITIONING 3
This course emphasizes theory, operation and design of power windows, power seats, speed controls, vacuum systems, other accessories, and air conditioning. Additional lab hours may be required. Prerequisites: AUT:271, AUT:281 and AUT:291.

AUT:273 AUTOMATIC TRANSMISSIONS AND TRANSMISSIONS 3
This course emphasizes the operations, theory, design and repair procedures of automatic transmissions and transaxles. Additional lab hours required. Prerequisites: AUT:150, AUT:167 and AUT:169.
AUT:281  AUTOMOTIVE FIELD WORK I  5
This is an advanced course with practical application on customer's vehicles, involving student work on the diagnosis, testing, and repair of vehicles. Students have the responsibility of all shop functions. Emphasis of lab work will include five of the ASE service specialty areas. Additional lab hours required. Prerequisites: AUT:150, and AUT:169; concurrent with AUT:273, AUT:271, AUT:291.

AUT:282  AUTOMOTIVE FIELD WORK II  5
Continuation of AUT:281. Emphasis of lab work will include all eight ASE service specialty areas. Additional lab hours required. Prerequisites: AUT:273, AUT:271, AUT:281, and concurrent with AUT:292.

AUT:291  AUTOMOTIVE SERVICE MANAGEMENT  2
This is a Service Advisor training course complete with necessary management practices enabling a student to understand the set-up of the automotive service department. The studies include customer relations, repair order writing, and economics of shop operations. Additional hours required.

BAKING AND Pastry ARTS

BAP:101  INTRODUCTION TO BAKING THEORY AND NUTRITION  4
This course introduces the principles of food science and nutrition as they apply to baking and pastry arts. Scientific method is used to explore pastry ingredients and their function in product preparation and storage. Emphasis will be placed on formulation, ingredients, and sensory evaluations. Additional hours required. Prerequisites: CUL:101, Reading Proficiency or concurrent enrollment in RDC:030.

BAP:105  Breads, Rolls, and Bakeries  3
This course introduces the techniques in preparation of assorted breads: quick breads, doughnuts, yeast-raised, laminated, and enriched doughs for the bakeshop as well as cookies, pies, and basic bakery staples. The use of baking equipment, scaling and shaping techniques, inventory control, baker’s mathematics, and sanitation are covered. Additional hours required. Prerequisites: Grade of “C” or better in BAP:101 and Reading Proficiency.

BAP:110  PRODUCTION PaSTRY TECHNIQUES  3
This course is designed to give the student fundamental working knowledge of traditional and contemporary methods of producing puff pastry, pate a choux, creams, custards, tarts, and mousses. Fundamentals of production and finishing techniques are introduced. Additional hours required. Prerequisites: Grade of “C” or better in BAP:105, and Reading Proficiency.

BAP:115  CAKE PRODUCTION AND DECORATION  3
This course is designed to expose students to the proper procedure for producing traditional and contemporary cakes. Emphasis will be placed on mixing methods of batters, fillings, and icings. Decoration of cakes including piping techniques, writing with chocolate, and proper use of a pastry bag will be taught. Additional hours required. Prerequisites: Grade of “C” or better in BAP:110 and Reading Proficiency.

BAP:150  BAKESHOP BASICS FOR CULINARY ARTS  3
This course is an introduction to the fundamentals of baking and pastry utilized in the culinary industry. Theories of baking science, mathematics, and production techniques will be learned. Principles and procedures for producing basic breads, custards, mousses, pastries, and bakeries are covered. Additional hours required. Prerequisites: Grades of “C” or better in CUL:101 and CUL:105, and Reading Proficiency.

BAP:201  ARTISAN AND DECORATIVE BREAD  2
This course will cover various styles of producing artisan and decorative bread. Techniques of production utilizing varied fermentation processes will be utilized. Elements of showpieces and decorative breads will be produced in class yielding attractive displays. Fundamentals of Baking Mathematics will play a key role in everyday production activities. Additional hours required. Prerequisites: Grade of “C” or better in BAP:105, and Reading Proficiency.

BAP:205  ICE CREAM AND FROZEN DESSERTS  2
This course introduces students to the diversity of production techniques of frozen desserts and novelties. Fundamentals including balancing formulations, controlling texture, and development of flavor profiles will be taught. Production of classical and modern frozen desserts will be paramount. Consumer marketing and evaluation will occur. Additional hours required. Prerequisites: Grade of “C” or better in BAP:115, and Reading Proficiency.

BAP:210  CHOCOLATES AND PRALINES  2
During this course, students will learn and utilize proper tempering techniques of chocolate. Hand-dipped and molded candies and pralines will be produced utilizing various methods. Variations of chocolates, fillings, manufacturing techniques, and decorations will be utilized in daily activities. Cocoa-based coloring and texturing mediums will be introduced and used. Additional hours required. Prerequisites: Grade of “C” or better in BAP:115, and Reading Proficiency.

BAP:215  CONTEMPORARY PLATED DESSERTS  2
This course focuses on the preparation and presentation of advanced American-regional and International plated desserts. Contemporary versions of traditional desserts will be created utilizing several styles of plate presentation. Advanced flavor development and menu planning will be introduced. Additional hours required. Prerequisites: Grades of “C” or better in BAP:205 and BAP:210, and Reading Proficiency.

BAP:220  SHOWPIECES AND CONFECTIONARY ART  2
This course allows students to design, plan, and prepare showpieces used for display and centerpiece purposes. Artistic design, drawing, and creation of two- and three-dimensional centerpieces will be the emphasis of the course. Utilization of chocolate, sugar and pastillage to create a variety of ornamental showpieces will be taught. Additional hours required. Prerequisites: ART:107, grade of “C” or better in BAP:210, and Reading Proficiency.

BAP:250  DESSERT BUFFET PRESENTATION  7
This course requires students to use both technical knowledge and managerial ability to organize and complete a commercial simulation of a dessert buffet operation. Theory and application of menu development, physical set-up, dessert production, presentation, and service will be utilized. Additional hours required. Prerequisites: This course will be taken in the semester the student is graduating. All previous laboratory classes and Hospitality-related lecture courses should be completed first. Program Coordinator or Department Chair approval, and Reading Proficiency.

BIOLOGY

BIO:003  BRIDGES TO BIOLOGY  1
Bridges to Biology is a non-transferable, preliminary course which prepares students for Introductory Biology. This course gives students experience in applying information management and study skills necessary for success in laboratory and coursework in the natural sciences. Additional hours required.

BIO:102  CLINICAL PHYSIOLOGY  3
An orientation to the human body, cell structure and function, histology of body cells, and the relationship of body systems to the overall health of the individual. Includes an introduction to the anatomy and physiology of selected organ systems. Additional lab hours required. Prerequisite: BIO:111 and Reading Proficiency.

BIO:103  PROBLEMS IN ANATOMY  3
A course dealing with the anatomy of the human body; study of the structure of cells, tissues, organs, and systems with emphasis on those subjects important to emballing. Additional lab hours required. Prerequisites: BIO:111 and Reading Proficiency.

BIO:104  BASIC LABORATORY METHODS  3
This course introduces basic laboratory skills in preparation for Biotechnology I. Topics and techniques include safety, sterile technique, laboratory math, quality systems, documentation, collection of data, metrology, filtration, centrifugation, bioseparations, computer data handling, telecommunications and the internet, solution and media prep, and other appropriate laboratory methods. Additional lab hours required. Prerequisites: Prior or concurrent enrollment in CHM:101 Fundamentals of Chemistry, OR high school chemistry within the past 3 years with a grade of ‘A’ or ‘B’, and Reading Proficiency.

BIO:105  TOPICS IN EVOLUTION  3
This is an introductory course emphasizing both evolutionary mechanisms and evolutionary history. Areas of interest will include evolution as a process, the development of biological diversity, reconstructing past evolutionary events, and the evolution of major groups, including humans. Prerequisite: Reading Proficiency.

BIO:106  HUMAN HEREDITY 4
This course will introduce students to basic concepts in human heredity. Areas of emphasis will include DNA structure and function, modes of inheritance, population genetics, and the genetics of immunity and cancer. In addition, current genetic technologies such as genetic engineering, gene therapy, and reproductive technologies will also be covered. Additional lab hours required. Prerequisite: Reading Proficiency.

BIO:110  GENERAL ZOOLOGY 4
A survey of the animal kingdom with emphasis on the anatomy, physiology, ecology and evolution of the major invertebrate and vertebrate groups. Additional lab hours required. Prerequisite: Reading Proficiency.

BIO:111  INTRODUCTORY BIOLOGY I 4
A consideration of the principles of biology, with emphasis on the molecular approach to the structure and function of living organisms. For liberal arts students and majors in physical education, therapy, nursing, and other allied health areas. (Credit is not allowed for both BIO:111 and BIO:140). Additional lab hours required. Prerequisite: Reading Proficiency.

BIO:113  MODERN ASPECTS OF BIOLOGY (LECTURE) 3
A consideration of the principles of biology as they relate to socially relevant issues in nutrition, reproduction, sexuality, heredity, and disease. Prerequisite: Reading Proficiency.

BIO:117  CONSERVATION AND ECOLOGY (LECTURE) 3
This course is designed to focus attention on the forces at work in nature. The interrelationships of living things to their environment and to each other are discussed and in particular man's impact on these relationships. Man's use and abuse of renewable and non-renewable natural resources is also considered. Prerequisite: Reading Proficiency.

BIO:119  FIELD BOTANY 3
A natural history of plants using a wide variety of Missouri habitats. Topics will include lower plants, flowering plants (including trees and shrubs), edible and poisonous plants and man's impact on Missouri forests and other communities. Techniques for collection, preservation and identification will be covered. Prerequisite: Reading Proficiency.

BIO:120  FIELD ZOOLOGY 3
A natural history of animals using a wide variety of Missouri habitats. Topics will include insects and other invertebrates, fish, amphibians, reptiles, birds, mammals, conservation and the history of wildlife populations in Missouri. Techniques for collection, preservation or live maintenance and identification will be covered. Not intended for Biology majors. Prerequisite: Reading Proficiency.

BIO:122  HUMAN SEXUALITY 3
Human sexuality includes not only the biological component of male and female sexuality but also attitudes, values and feelings about one's own gender and sex role. Consequently, in dealing with sex as a natural biological function, the expression of which is a dimension of psychosocial behavior, the sexual development and/or differentiation of men and women from conception to maturity will be stressed. Same course as PSY:125. Prerequisite: Reading Proficiency.

BIO:123  ANIMAL BEHAVIOR 3
Animal behavior is an introductory course in invertebrate and vertebrate animal behavior. Emphasis will be placed on biological clocks, migrational patterns, reproductive strategies, hormones that drive behavior, social behavior, and the role of genetics and evolution in determining behavior. Prerequisite: Reading Proficiency.

BIO:124  GENERAL BOTANY I 4
Students will be introduced to the biological aspects of plant life, including cell structure and function, anatomy, morphology, physiology and taxonomy. (Same course as HRT:101). Additional lab hours required. Prerequisite: Reading Proficiency.

BIO:140  PRINCIPLES OF BIOLOGY I 4
Quantitatively oriented for pre-medicine, pre-dentistry, pharmacy, biology and other science majors. A consideration of the principles of biology, with emphasis on the molecular approach to the structure and function of living organisms. (Credit is not allowed for both BIO:111 and BIO:140). Additional lab hours required. Prerequisites: CHM:105 and Reading Proficiency.

BIO:141  PRINCIPLES OF BIOLOGY II 4
A continuation of BIO:140 with emphasis on selected topics in biology covering population genetics, evolution, survey of living plants and animals, ecology and conservation of natural resources. (Credit is not allowed for both BIO:112 and BIO:141). Additional lab hours required. Prerequisites: BIO:140 and Reading Proficiency.

BIO:144  MARINE BIOLOGY 3
This course introduces students to marine organisms and ecosystems. The interplay of organisms and their environment and other aspects of marine ecology are stressed. Prerequisite: Reading Proficiency.

BIO:145  FIELD EXPERIENCE IN MARINE BIOLOGY 1-2
This course consists of field experiences in marine biology either in Florida or Caribbean destination. Students learn field techniques for collecting and studying a variety of marine organisms. Emphasis is placed on ecology and identification of marine organisms. The course is only offered in conjunction with or following BIO:144 Marine Biology (the prerequisite course). This course may be taken for 1 hour credit (1 week field experience) or 2 credit hours (2 week field experience). Prerequisites: BIO:144 with grade of "C" or better and Reading Proficiency.

BIO:146  DESERT ECOLOGY 3
This course is designed to acquaint the student with the special geologic and climatic conditions necessary for the creation of a desert. It will familiarize students with the unique adaptations of plants and animals to the desert environments in various parts of the world. Emphasis will be placed on characterizing and comparing the four North American Desert ecosystems. Prerequisite: Reading Proficiency.

BIO:148  OZARK ECOLOGY 3
This course introduces students to one of the most biologically diverse ecosystems in the Midwest. It will focus on the interaction of plants and animals with unique Ozark natural communities such as oak-hickory forests, glades, bluffs, caves, springs, and streams. Management and land use practices affecting this ecosystem will be reviewed. An optional 1-2 week field experience course (BIO:149) is available to students who successfully complete this lecture course. Prerequisite: Reading Proficiency.

BIO:149  FIELD EXPERIENCE IN OZARK ECOLOGY 1-2
This course focuses on first-hand field experience in the Ozark mountains and valleys. Emphasis will be placed upon field identification of plants and animals associated with the diverse Ozark natural communities and these organisms' adaptations to these ecosystems. This field experience may be taken for 1 or 2 credit hours depending upon the length of the field trip (1 or 2 weeks). Prerequisites: BIO:148 with grade of "C" or better or approval of instructor and Reading Proficiency.

BIO:151  BIOLOGY OF HUMAN HEALTH AND DISEASE 3
This course examines human health and disease from a biological perspective. We will explore the evolution of microbes and human disease. This course will also look at the influences that regular exercise, diet, and genetic factors have on everyday good health. The mechanisms, manifestations, and prevention of common diseases, such as heart disease and cancer, will also be stressed. Prerequisite: Reading Proficiency.

BIO:152  QUANTITATIVE METHODS IN BIOTECHNOLOGY 2
This course is designed to instruct students in the common calculations encountered in a cellular-molecular research setting. Prerequisites: MTH:140 and (CHM:101 or CHM:105). Reading Proficiency.

BIO:203  GENERAL MICROBIOLOGY I 4
Introduction to microbes with emphasis on morphology, culture techniques and biochemical activities of bacteria, viruses and fungi. A consideration of human disease producing organisms with regard to their infection and resistance. Additional lab hours required. Prerequisites: (1) BIO:111 with grade of "C" or better; or (2) one year of high school biology and chemistry (with labs) within previous five years of registration date; or (3) permission of the Department Chairperson of Biology; Reading Proficiency.

BIO:207  ANATOMY AND PHYSIOLOGY I 4
A study of the organization of cells into tissues, organs, and organ systems, with special in-depth study of the integumentary, skeletal, muscular, nervous and endocrine system, and the sensory receptors. Additional lab hours required. Prerequisites: (1) BIO:111 with grade of "C" or better; or (2) one year of high school biology and chemistry (with labs) within previous five years of registration date; or (3) permission of the Department Chairperson of Biology; Reading Proficiency.

BIO:208  ANATOMY AND PHYSIOLOGY II 4
A continuation of BIO:207 with consideration given to the integrating functions of the cardiovascular, digestive, respiratory, urogenital and reproductive and endocrine systems. Additional lab hours required. Prerequisites: BIO:207 and Reading Proficiency.
BIO:209 KINESIOLOGY 3
Kinesiology is the study of human movement. It involves applying the anatomy of the musculo-skeletal system to functional movement as a basis to understanding of exercise. Additional lab hours required. Prerequisites: BIO:207 and Reading Proficiency.

BIO:215 HUMAN BODY SYSTEMS 5
This course is an introduction to the organization and integration of the body's systems. The course progresses from the organization of cells into tissues, organs, and organ systems, to an in-depth study of the physiology, diseases, and other abnormal conditions of the body. Additional hours required. Prerequisites: BIO:111 with a C or better, or approval of department chair and Reading Proficiency.

BIO:218 MICROBIOLOGY FOR BIOTECHNOLOGY 4
A course for biotechnology majors providing a detailed exposure to structure, metabolism, genetics and growth characteristics of microbes and viruses as well as the role they play in disease, ecological and industrial applications. The structure and function of the immune system will also be covered. Additional lab hours required. Prerequisites: BIO:140 and CHM:105. Reading Proficiency.

BIO:219 BIOTECHNOLOGY I 5
This course introduces basic biotechnology skills in preparation for Biotechnology II. Topics and techniques may include safety, cGMP, agarose gel electrophoresis, plasmid construction, ELISA, PAGE, PCAR, mammalian cell culture, rapid plant genotyping and other molecular research techniques. Additional laboratory hours required. Prerequisites: BIO:104 with a "C" or better, BIO:140, GE:101. Reading Proficiency.

BIO:220 BIOTECHNOLOGY II 5
A project-oriented course applying the fundamental DNA and protein manipulation techniques used in biotechnology/biotechnology research laboratories in academia and industry. Additional lab hours required. Prerequisites: BIO:219 or consent of the instructor and Reading Proficiency.

BIO:221 WORKPLACE LEARNING: BIOTECHNOLOGY 3
This workplace-based course provides the student the opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Students will observe and participate in the functions of the industry to enhance their preparation for entering the field. Minimum of 50 hours per credit hour in the workplace throughout the term. Additional hours required. Prerequisites: Prior or concurrent enrollment in BIO:220 and Reading Proficiency.

BIO:222 SPECIALIZED TOPICS IN BIOTECHNOLOGY 5
This laboratory course will consist of current techniques employed in biotechnology. Topics can include, but are not limited to, specialized techniques from biomedical, environmental, agricultural, pharmaceutical, microbiological, biocomputing, and/or biotechnological aspects of biotechnology. Guest faculty from biotechnology industry and research will be employed as co-teachers. Additional lab hours required. Prerequisites: Prior or concurrent enrollment in BIO:219 or consent of the instructor and Reading Proficiency.

BIO:223 RESEARCH TECHNIQUES IN BIOLOGY 1-3
Students will participate in research projects that can include introduction to HPLC, cell culture, histology techniques, or research in molecular ecology or molecular genetics. Exposure to data processing, data analysis, poster or manuscript preparation and presentation may also be included. Contact the instructor for current research project information. Prerequisites: MTH:140, CHM:101, BIO:111 or BIO:140. Reading Proficiency.

BIO:224 INTRODUCTION TO BIOINFORMATICS 2
This course provides the Biotechnology undergraduate major with an understanding and preliminary working knowledge of the concepts, methods and tools used in Bioinformatics. Prerequisites: BIO:219 or consent of the instructor, and Reading Proficiency.

BIO:225 GENETICS 5
This course for life science majors reviews the fundamental principles of inheritance, including classical genetic theory, as well as recent advances in the molecular basis of heredity. Additional hours required. Prerequisites: BIO:140 and CHM:105 and Reading Proficiency.

BIOMEDICAL ENGINEERING TECHNOLOGY

BE:150 BIOMEDICAL ELECTRICAL SAFETY 2
A study of physical and physiological factors involved in medical safety, how standards have been derived, the methods and practices of preventive maintenance and safety, and the role of the BMET in a hospital situation. Prerequisites: Previous or concurrent enrollment in EE:131 and BIO:102 and Reading Proficiency.

BE:153 WORKPLACE LEARNING: BIOMEDICAL ENGINEERING TECHNOLOGY 4
This workplace-based course provides the student the opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Students will observe and participate in the functions of the industry to enhance their preparation for entering the field. Minimum of 50 hours per credit hour in the workplace throughout the term. Prerequisites: BE:150, BIO:102, and EE:132 and Reading Proficiency.

BE:251 BIOMEDICAL ELECTRONICS 5
A continuation of EE:132 with emphasis on biomedical electronics circuits and systems such as OPAMP, Logic circuits, basic medical electronics systems. Additional lab hours required. Prerequisites: EE:132 and Reading Proficiency.

BE:254 BIOMEDICAL APPLICATIONS 5
This course develops competencies, including maintenance, troubleshooting and repair, with such basic hospital equipment as transducers, amplifiers, processors, display modules, and respiratory and radiography instruments. Additional lab hours required. Prerequisites: BE:251 and Reading Proficiency.

BUILDING INSPECTION TECHNOLOGY

BIC:101 BASIC BUILDING INSPECTION TECHNIQUES 3
This course offers the student an introduction to the general principles of building inspection. It includes current techniques of field inspections with emphasis on wood, steel frames, modern masonry and concrete design as employed in construction of buildings. Prerequisite: Reading Proficiency.

BIC:102 HOUSING INSPECTIONS AND PROGRAMS 3
A course covering housing codes and housing inspection techniques. The need for the implementation of housing programs and their impact on the community is included. Prerequisite: Reading Proficiency.

BIC:103 BUILDING CODES AND ORDINANCES 3
This course offers a detailed study of national, state, and local ordinances geared to public safety, land use controls, and building codes. It will include a detailed summary of use philosophy and development of the latest edition of BOCA Building Codes. Prerequisite: Reading Proficiency.

BIC:104 HOUSING INSPECTION PROBLEMS 3
Housing evaluation skills as taught in this course shall cover: space requirements, sanitation requirements, comfort requirements, electrical requirements, maintenance standards, and environmental needs. The course should prepare persons for the task of evaluating existing residential housing. This preparation shall consist of teaching: 1) requisite skills in detecting deficiencies; 2) know-how in correcting deficiencies; 3) systematic procedures for documentation and control of housing inspections. Prerequisite: Reading Proficiency.

BIC:200 PLUMBING AND MECHANICAL INSPECTION 4
An introduction to the theory of residential and commercial, industrial and institutional details of plumbing systems, safety principles, heating, cooling and ventilation, layouts and code inspection problems. Prerequisites: MTH:124 and PSI:101 and Reading Proficiency.

BIC:201 ELECTRICAL INSPECTION 2
Electrical inspection of buildings, residential, commercial, institutional, and industrial, based on the National Electrical Code, including electrical wiring procedures and layouts. Prerequisites: MTH:124 and PSI:101 and Reading Proficiency.

BIC:202 ADMINISTRATION OF BUILDING REGULATIONS 3
This course offers an introduction to the effective administration of building and zoning regulations. Particular attention will be given to the major methods and procedures for the enforcement of building codes and ordinances. Procedures for the building department operations will also be discussed. Prerequisites: BIC:101 and BIC:103 and Reading Proficiency.
BIC:203  PLAN REVIEW I (NON-STRUCTURAL)  3
This course provides the student with an understanding of building plans for
residential, commercial, industrial and institutional building as related to
the requirements of various codes and the zoning ordinances. Solutions to
problems will be taught through the study of specific situations, employing
an authentic set of plans. The student is taught to identify the problems on
the plan and then to solve them by correct application of plan review.
Prerequisites: FIR:210 and BIC:103 and Reading Proficiency.

BIC:204  PLAN REVIEW II (STRUCTURAL)  3
This course provides the student with an understanding of building plans
with emphasis on structural elements of building design. The student will
be instructed in review and calculations of loads and sizing of structural
elements of a building, including footings, foundations, beams and
columns, walls, roofs, and floors. Prerequisites: BIC:203 and ME:243 and
Reading Proficiency.

BIC:205  SOILS, GRADING AND WASTE WATER CONTROL  3
This course offers the student the technical information necessary for the
inspection of construction sites. It includes site investigations, soil analysis,
soil mechanics, geology, grading, drainage, and retaining wall design and
inspection. Prerequisite: MTH:124 and Reading Proficiency.

BUSINESS ADMINISTRATION

BUS:101  SMALL BUSINESS MANAGEMENT  3
A comprehensive survey course which deals with the theoretical and
practical aspects of starting and operating a small business. Each major
function of business (accounting, production, marketing) is discussed with
particular reference to small business. Students taking this course are
normally not encouraged to enroll subsequently in BUS:104 due to
similarity of course content. Prerequisite: Reading Proficiency.

BUS:103  BUSINESS MATHEMATICS  3
This course includes a review of basic arithmetic: fractions, decimals,
ratios, non-decimal numbering systems, and graphical representation of
numbers. It also covers fundamental problems involving interest, mark-ups,
commissions, payroll, taxes, depreciation, consumer credit, insurance and
security transactions. Students will analyze simple financial statements,
discounts, volume/profit relationships, and banking records. Prerequisite:
Reading Proficiency.

BUS:104  INTRODUCTION TO BUSINESS ADMINISTRATION  3
A survey course, designed to give the student a general knowledge of the
modern business world and the environment within which it exists and an
awareness of the principles of the major functions in managing a business,
such as finance, personnel, production, and marketing. Prerequisite:
Reading Proficiency.

BUS:115  PRINCIPLES OF BANKING  2
This course provides a broad perspective of the banking industry. As the
foundation for further offerings in the Banking and Finance program,
Principles of Banking touches on nearly every aspect of bank functions.
Included is a comprehensive introduction to banking in today's economy.
Discussions on specific topics are presented in an easily accessible form.
The language and documents of banking, check processing, teller
functions, deposit function, trust services, bank bookkeeping, and bank
loans and investments are some primary topics. The course ends with a
discussion of the bank's role in the community. Prerequisite: Reading Proficiency.

BUS:116  ENTREPRENEURSHIP  3
This comprehensive course deals with the theoretical and practical aspects
of the student entering business for him/herself. Covers opportunities,
evaluations, operations, and expansion of entrepreneurial situations.
Prerequisite: Reading Proficiency.

BUS:201  ELEMENTARY STATISTICS  3
This course introduces the student to the basic principles and methods of
statistical measurement and statistical inference. Descriptive statistical
corcepts include data organization and presentation, measures of location
dispersion, probability theory and distributions. Applications of statistical
inference include random sampling techniques and sampling
distributions, interval estimation, hypothesis testing for large and small
samples, ANOVA, correlation, regression analysis, and nonparametric
testing. Prerequisites: MTH:160 or MTH:160A or MTH:160B or
MTH:160C, and Reading Proficiency.

BUS:202  STATISTICAL ANALYSIS  3
This course introduces the student to statistical concepts and techniques
used by management in the decision-making process. Descriptive statistics
includes the display and summary of data, discrete and continuous
probability distributions and random variables. Inferential statistics includes
parametric and nonparametric tests of significance, correlation and
regression analysis, confidence intervals, and analysis of the variance.
Forecasting tools include time series analysis and the derivation and use of
index numbers. Prerequisites: MTH:177 and Reading Proficiency.

BUS:216  ANALYZING FINANCIAL STATEMENTS  3
Designed for the banker involved in the interpretation and evaluation of
financial reports of business. Provides basic skills of financial analysis to
the prospective bank lender/credit analyst together with comprehensive
case studies. Prerequisite: ACC:110 and Reading Proficiency.

BUS:217  BASIC LAW FOR SMALL BUSINESS  3
This course is designed to address the legal environment of small business.
Students explore the legal aspects of today's small business by studying
several topics, including the legal forms of ownership, contracts, agency
law, property law, trade laws that affect small business, intellectual property
law, internet law, consumer rights, and the legal context of human resource
management. Additional focus areas include retaining legal counsel, Small
Claims Court, protecting one's firm against lawsuits, risk management, and
ethics in the small business workplace. Course format may include lecture,
discussion, individual and team projects, reports, presentations, and
examinations. Prerequisite: Reading Proficiency.

BUS:218  FINANCIAL ASPECTS OF SMALL BUSINESS  3
Students will be introduced to financial tools and topics relevant to small
business owners and managers. This course is a step by step approach to
managing a small firm's finances. The student will experience an
applications-based approach to learning about financial forecasting, cash
flow management, accounting statements, ratio analysis, inventory
management, credit and collections, asset management, and other related
topics. Students will prepare case analyses using word-processing and
spread sheet software. An important course project will be preparing and
presenting a financial plan. Prerequisite: ACC:100 or ACC:120, or
Departmental approval and Reading Proficiency.

BUS:250  WORKPLACE LEARNING: | 3
BUSINESS AND ECONOMICS

This experiential course provides the student the opportunity to apply
theory and skills learned in the classroom, learn new skills, and explore
career possibilities while supervised by a professional in the field and a
faculty member. Students will observe and participate in the functions of
the business to enhance their preparation for entering the field. Minimum
50 hours per credit hour in the workplace throughout the term. Prerequisite:
Departmental approval and Reading Proficiency.

BUSINESS LAW

BLW:101  BUSINESS LAW I  3
A survey course which considers an introduction to the judicial system, as
well as principles of law in the following areas: legal ethics, constitutional
law contracts, torts, products, liability, intellectual property and business
crime. Prerequisite: Reading Proficiency.

BLW:102  BUSINESS LAW II  3
A survey course which considers principles of law in the following areas:
Agency, partnership, corporations, other business organizations, negotiable
instruments, real property, personal property, decedent's estates and
bankruptcy. Prerequisite: Reading Proficiency.

BLW:103  PERSONAL LAW  3
An overview of common legal issues and questions with which everyone
living in our society has to deal. Students will learn about the legal
implications of transactions such as getting a job, buying or leasing a car,
buying a house, renting an apartment, obtaining a loan, making contracts,
buying insurance, getting married and divorced, having children, and filing
lawsuits as well as being sued. Prerequisite: Reading Proficiency.

BLW:201  LEGAL ENVIRONMENT OF BUSINESS  3
This course covers an introduction to law and the judicial system, business
organizations, contracts, torts, property, agency or administrative law,
antitrust, labor-management, international and other topics such as law
related to energy, health, safety and the environment. Prerequisites:
ECO:152 and ACC:110 and Reading Proficiency.
BLV:216 LAW AND BANKING: APPLICATIONS 2
Laws relating to secured loans, letters of credit and the bank collection
process, including check losses and the legal issues related to processing
checks. Material on secured transactions summarizes laws related to
collateral, perfection and default. Case studies illustrate legal points related
to banking practices. Prerequisite: Reading Proficiency.

CHM:101 FUNDAMENTALS OF CHEMISTRY I 5
Provides fundamental concepts and symbolism of chemistry with
applications to everyday life for students not planning to major in science.
Laboratory work presents opportunity to use laboratory equipment and
further illustrations of lecture material. Prerequisite: MTH:007 or MTH:030
with grades of “C” or better or MTH:140 on the math placement test and
Reading Proficiency.

CHM:102 FUNDAMENTALS OF CHEMISTRY II 4
Continuation of CHM:101. Topics covered are of particular interest to
students in respiratory therapy, nursing, and health-related areas in general.
Additional lab hours required. Prerequisite: CHM:101 or CHM:105 with a
grade of “C” or better and Reading Proficiency.

CHM:105 GENERAL CHEMISTRY I 5
Designed for science and science-related majors. Topics include formulas
and equations, stoichiometry, atomic and molecular structure, properties of
gases, liquids, and solids, thermochemistry, and solutions. Additional lab
hours required. Prerequisites: MTH:140 (or at least one and a half years of
high school algebra) and either CHM:101 or one year of high school
chemistry or physics and Reading Proficiency.

CHM:106 GENERAL CHEMISTRY II 5
Topics include kinetics, thermodynamics, electrochemistry, equilibrium,
some descriptive chemistry, and laboratory work in qualitative and
quantitative analysis. Additional lab hours required. Prerequisite: CHM:105
and (MTH:160 or MTH:160A or MTH:160B or MTH:160C) with grades of
“C” or better and Reading Proficiency.

CHM:109 CHEMISTRY FOR ENVIRONMENTAL CAREERS I 4
Basic principles, terminology, theories, calculations and laboratory
operations in chemistry for environmental careers. Additional lab hours
required. Prerequisite: Reading Proficiency.

CHM:114 INDUSTRIAL CHEMISTRY 3
This is a non-laboratory lecture and demonstration course covering
elementary chemistry with emphasis on potentially dangerous chemicals in
fires and in other industrial situations. The course is not intended for
chemistry or engineering majors. Prerequisite: Reading Proficiency.

CHM:116 CHEMISTRY FOR BIOSCIENCE I 5
This course is intended to give students enrolling in the Life Science
programs the necessary background in chemical theory, basic laboratory
procedures and techniques, as well as chemical instrumentation. Additional
lab hours required. Prerequisite: CHM:101 and Reading Proficiency.

CHM:117 CHEMISTRY FOR BIOSCIENCE II 5
This course is a continuation of chemistry for bioscience I which is
intended to give students enrolling in the Life Science programs the
necessary background in chemical theory, basic laboratory procedures and
techniques, as well as chemical instrumentation. Additional lab hours
required. Prerequisite: CHM:116 and Reading Proficiency.

CHM:121 CHEMICAL TECHNOLOGY I 5
The specific purpose of this course is to provide part of two years of training
for a career as a chemical technician. An inorganic chemistry review will
be provided with the following topics covered: statistical analysis, physical
properties, and gravimetric analysis. Corequisite: GE:101. Additional lab
hours required. Prerequisites: CHM:101 and MTH:140 and Reading Proficiency.

CHM:122 CHEMICAL TECHNOLOGY II 5
The specific purpose of this course is to provide part of two years of training
for a career as a chemical technician. Topics covered in lecture and lab are:
titrimetric, volumetric, and spectrophotometric analysis (UV, visible, atomic
absorption). Additional hours required. Prerequisite: CHM:121 and Reading Proficiency.

CHM:201 QUANTITATIVE ANALYSIS I 4
An introduction to gravimetric, volumetric, and photometric methods of
analysis. Students gain experience in the handling of analytical precipitates,
titrations, using acid-base and oxidation-reduction reactions, and some
laboratory instruments. Additional lab hours required. Prerequisite:
CHM:106 with a grade of “C” or better and Reading Proficiency.

CHM:202 QUANTITATIVE ANALYSIS II 4
An advanced course in modern analytical methods, both chemical and
physical, with emphasis on the effective use of instruments. Additional lab
hours required. Prerequisite: CHM:201 with a grade of “C” or better and
Reading Proficiency.

CHM:206 ORGANIC CHEMISTRY LECTURE I 3
An introductory course in the theory of Organic Chemistry, stressing
reaction types and mechanisms. Prerequisite: CHM:106 with a grade of “C”
or better and Reading Proficiency.

CHM:207 ORGANIC CHEMISTRY LECTURE II 3
Continuation of CHM:206 including relevant new topics such as polymers
and biochemicals. Prerequisite: CHM:206 with a grade of “C” or better and
Reading Proficiency.

CHM:210 ORGANIC CHEMISTRY LAB I 2
An introduction to the laboratory work in Organic Chemistry. Emphasis is
on techniques generally employed, including some instrumentation.
Additional lab hours required. Prerequisite: CHM:106 with a grade of “C”
or better and Reading Proficiency.

CHM:211 ORGANIC CHEMISTRY LAB II 2
A continuation of CHM:210. Practice, which will emphasize
instrumentation and synthetic work, including multi-step syntheses and
analytical work. Additional lab hours required. Prerequisite: CHM:210 and
Reading Proficiency.

CHM:212 BIO-ORGANIC AND ANALYTICAL CHEMISTRY 4
An introduction to analytical chemistry, organic chemistry and biochemistry.
Laboratory work is primarily quantitative analysis. Primarily
intended for students interested in the clinical laboratory technology program.
Primarily for students in pre-medicine or planning to major in chemistry.
Prerequisites: CHM:101 or CHM:105 and Reading Proficiency.

CHM:213 CHEMICAL TECHNOLOGY SEMINAR 2
Present basic electricity and electronic theory, techniques, and hardware
to chemical technology students who have no previous formal training in this
area. Manual skills (soldering, wire splicing, minor electrical repairs,
troubleshooting) will be emphasized. This course presents a practical
exposure to simple electronic schematic interpretations, location of test
points, component identification. Some elementary breadboarding using
commercially available training kits will be presented. The use of various
volt/ohm meters and test equipment will be introduced. Real and simulated
electrical/electronic troubleshooting situations will be presented using actual
analytical chemistry instrumentation. Prerequisite: Concurrent enrollment
in CHM:221 or permission from instructor and Reading Proficiency.

CHM:214 ADVANCED CHEMICAL TECHNOLOGY SEMINAR 2
Emphasis on specialized laboratory techniques and procedures in advances
in analytical chemistry instrumentation. An introduction to chemical
literature searches both manually and by computer will be presented using
both in-house and external consultants and facilities. This course will
explore the opportunities and profession of chemical technicians.
Specialized resources, advances, and professionals will be presented in
seminar format. Specialized topics (ethics, chemical waste disposal and
separations) will be included. Prerequisite: concurrent enrollment
in CHM:222 or permission from the instructor and Reading Proficiency.

CHM:221 CHEMICAL TECHNOLOGY III 5
The specific purpose of this course is to provide part of two years of training
for a career as a chemical technician. Organic chemistry theory is
introduced with laboratory work focusing on organic separation and
synthesis techniques. Infrared spectrophotometric analysis of a variety of
samples complements the laboratory work. Additional hours required.
Prerequisite: CHM:122 and Reading Proficiency.

CHM:222 CHEMICAL TECHNOLOGY IV 5
The specific purpose of this course is to provide part of two years of training
for a career as a chemical technician. Organic chemistry theory is
continued with nuclear magnetic resonance spectrophotometric analysis
complementing the laboratory work. Gas chromatographic techniques are
covered for both qualitative and quantitative analysis. Additional hours
required. Prerequisite: CHM:221 and Reading Proficiency.
CHEM:231 CHEMICAL TECHNOLOGY V 5
The specific purpose of this course is to provide part of two years of training for a career as a chemical technologist. Organic chemistry theory and lab practice is introduced complemented with mass spectrophotometric analysis. High pressure liquid chromatographic techniques for both qualitative and quantitative analysis are covered. Additional hours required. Prerequisite: CHEM:222 and Reading Proficiency.

CHEM:232 CHEMICAL TECHNOLOGY VI 5
The specific purpose of this course is to provide part of two years of training for a career as a chemical technologist. Biochemical theory is introduced with laboratory work focusing on biochemical separation and purification techniques. Electrophoretic analysis of a variety of samples complements the laboratory work. Additional hours required. Prerequisite: CHEM:231 and Reading Proficiency.

CHINESE

CHI:101 ELEMENTARY CHINESE I 4
A practical, beginning course in speaking and understanding modern spoken Chinese. It is designed for persons who want to learn some Chinese, who want to travel to China, or who have previous limited experience in Chinese. Attention is given to proper pronunciation, to practicing the words and basic structures used most frequently in daily conversation and to learning the social conventions and Chinese culture necessary for interpersonal communication with native speakers of modern Chinese. Reading Proficiency.

CHI:102 ELEMENTARY CHINESE II 4
Continuation of CHI:101. Concentration will be placed on vocabulary acquisition and the oral use of the language. Prerequisite: CHI:101 and Reading Proficiency.

CIVIL ENGINEERING TECHNOLOGY

CE:103 STRUCTURAL DRAFTING 3
Classification of drawings and standard conventions employed. Reading of architectural drawings and how they relate to structural drawings. Structural drawing of steel structures and reinforced concrete structures. Prerequisite: Reading Proficiency.

CE:104 CIVIL DRAFTING 3
Relationship of points, lines, and planes in space; techniques of map drafting including site plans; plan and profile drawings as they apply to highways, sewers, and open channels; cross sections and how they are plotted from field notes. Additional lab hours required. Prerequisite: EGR:100 or departmental approval. Reading Proficiency.

CE:108 CONSTRUCTION METHODS 3
This course covers many of the principles, materials, and methods used in light construction. Topics include building codes, construction standards and specializations, wood and wood products, concrete, masonry, glass, plastics, aluminum products, bituminous products, gypsum products, asbestos cement products, construction methods systems, foundation systems, slabs-on-ground, floor/ceiling systems, wood framed floors, wall systems, masonry walls, roof/ceiling systems, stucco, and terrazzo. Prerequisite: Reading Proficiency.

CE:110 CONSTRUCTION MATERIALS AND METHODS 3
This course covers many of the principles, materials, and methods used in light construction. Topics include building codes, construction standards and specifications, wood and wood products, concrete, masonry, glass, plastics, aluminum products, bituminous products, gypsum products, construction systems, foundation systems, slabs-on-ground, floor/ceiling, stucco, and terrazzo. Prerequisite: Reading Proficiency.

CE:116 CONSTRUCTION BLUEPRINT READING 3
The interpretation of construction working drawings and specifications for residential and commercial building projects. Architectural, structural, and utility drawings will be covered. Prerequisite: Reading Proficiency.

CE:117 STATICS AND STRENGTH OF MATERIALS 3
This course deals with the fundamental principles of structural design. Topics include the analysis of structures to determine internal and external forces and the design of members and connections based on allowable bending, tension, compression and shearing stresses. The graphical analysis of statics problems is included. Students considering careers as architects or engineers should enroll in this course, rather than in Structures for Technicians. Additional lab hours required. Prerequisite: MTH:124 or equivalent and Reading Proficiency.

CE:130 INTRODUCTION TO CONSTRUCTION 3
An introductory course providing an overview of the total construction process including city and regional planning, construction management, contracting, labor and management relations, the design process, estimating and bidding, scheduling and purchasing, construction, and equipment. Prerequisite: Reading Proficiency.

CE:131 CONSTRUCTION ESTIMATING 3
The total estimating and bidding process. Topics will include: bid form contracts, specifications, overhead, unit costs, quantity surveys, subcontract bids, pricing, checking and alternates. Students should be able to read construction drawing prior to enrolling in this course. Prerequisites: CE:116 and Reading Proficiency.

CE:132 CONSTRUCTION SCHEDULING 3
Construction scheduling methods to include bar graphs and Critical Path Method with emphasis on manual and computerized design, calculations, and interpretation using both arrow and precedence diagramming. Prerequisites: 1 year Algebra and Reading Proficiency.

CE:230 CONSTRUCTION MATERIALS AND TESTING 3
The properties and standard tests used in construction on soils, aggregates, bituminous products, and concrete. Additional lab hours required. Prerequisite: Concurrent with ME: 243 and Reading Proficiency.

CE:233 HYDRAULICS 3
The hydrological cycle as it affects the storm runoff process. Calculation of surface runoff quantities. Basic fluid mechanics including pressures, Bernoulli’s theorem and fluid flow. Flow in pipes and open channel flow general procedures for design of storm water, sewage, or water supply systems. Prerequisites: MTH:144 and Reading Proficiency.

CE:234 STRUCTURAL ANALYSIS 3
Applications of loads and their transmission through structures; stability and determinacy; shear and moment in beam/column structures; analysis of trusses; influence diagrams; deflection of beams. Prerequisites: Concurrent with ME: 243 and Reading Proficiency.

CE:235 CONSTRUCTION OFFICE PRACTICE 3
The interactive role of organizations in the construction process; the structure of alternative construction delivery systems, such as general contractor, construction manager, and design-build contractor; specification and building codes; cost control reporting systems for construction. Prerequisite: Reading Proficiency.

CE:236 REINFORCED CONCRETE DESIGN 3
Design and investigation of reinforced concrete beams, columns, slabs, and footings using the Strength Method in accordance with the 1977 ACI Building Code. Prerequisites: ME: 243 and Reading Proficiency.

CE:237 STRUCTURAL STEEL DESIGN 3
Investigation and design of structural steel beams, columns, tension members, welded and bolted connections. Prerequisites: ME: 243 and Reading Proficiency.

CE:238 ENVIRONMENTAL SYSTEMS 3
The general characteristics of environmental systems that includes water supply, waste water treatment, air pollution, solid waste management, and hazardous waste disposal. Prerequisite: Reading Proficiency.

CE:240 SURVEYING I 3
This introductory course in land surveying will explore the theory, history and practice of plane surveying. It includes the use and care of transits, levels, and tapes, as well as their more modern counterparts. The emphasis of the course is placed on laboratory problems including but not limited to: area measurements, elevation determinations, angle collection methods, traverse calculations, and topographic map compilation. Office and field methods are covered. Additional hours required. Prerequisites: MTH:134 or MTH:144 or MTH:170 or MTH:185. Reading Proficiency.

CE:241 STRUCTURAL SYSTEMS I 4
This course applies the principles of statics and strength of materials to the analysis and design of wood, structural steel and reinforced concrete structures. Topics include beams, columns, connections, floors and footings. Additional lab hours required. Prerequisites: CE:117 and Reading Proficiency.
CE:243  INTRODUCTION TO ENVIRONMENTAL ENGINEERING  3
This course provides an overview of environmental engineering principles as they pertain to water resources, water pollution, air pollution and solid/hazardous wastes. Initially, the focus is on population, energy, ecology, meteorology and human impacts to establish the underlying concepts that are important to the study of environmental engineering. Subsequently, the focus shifts to water resources and supply as well as pollution from water, air, and wastes. Treatment and environmental problems are presented in a quantitative manner. The course is quantitative in nature and relies on a background of chemistry, physics and mathematics. Prerequisite: Reading Proficiency.

CE:244  INTRODUCTION TO GIS  3
An integrated approach to Geographic Information Systems (GIS) mapping with a basic non-technical introduction to Global Positioning Systems (GPS). Information will be provided on GIS mapping techniques, differential GPS (DGPS), use of coordinate systems (both local & global), standard map projections, GPS receiver technology, GIS mapping software, as well as other state-of-the-art techniques and capabilities. The lecture class will provide mostly theoretical information in both of the technologies. The lab will provide practical experience in collecting GPS data as well as experience in integrating the data into a final GIS data base.
Additional lab hours required. Prerequisites: CE: 240 or Department Approval and Reading Proficiency.

CE:245  INTRODUCTION TO GLOBAL POSITIONING SYSTEMS (GPS)  2
A classroom introduction to the surveying application of the Global Positioning Systems (GPS); their theory, theory of operation, terminology, positioning techniques, standards; a comparison of the United States GPS and the Russian GLONASS and how they combine into the worldwide Global Navigation Satellite System (GNSS). Prerequisites: CE: 240 or Department Approval and Reading Proficiency.

CE:246  GPS APPLICATION LAB  1
The lab is an application based series of exercises and supplemental information provided in class which will further enhance the formal texts and the concurrent lecture CE: 245. Work may occur outside or inside depending upon the present needs of the course. Students may be required to work in adverse conditions including, but not limited to: darkness, cold, rain, etc. Additional lab hours required. Prerequisites: CE: 116 or Department Approval and concurrent with CE: 245 and Reading Proficiency.

CE:247  LEGAL ASPECTS OF BOUNDARY SURVEYING  3
Topics covered will include legal principles of surveying, Missouri survey law, legal principles of boundaries, property, monumentation, legal descriptions, deed interpretations, and legal aspects of surveying and professional liability. Prerequisites: CE: 240 or Department Approval and Reading Proficiency.

CE:248  FUNDAMENTALS OF LAND SURVEYING  3
This course includes essential elements necessary in the initiation and follow through of any property survey; evidence of ownership, historical information in the subdivision of public lands, methods of measurements, description of property and legal requirements for recording. Prerequisites: CE: 240 or Department Approval and Reading Proficiency.

CE:250  SURVEYING II  3
This is an intermediate course in land surveying techniques applicable to the office and field practices. It explores the theory, history and practice of route surveying, including the use of simple horizontal curves, vertical curves, spirals, super-elevations and earth-work computations as applied to highway and railroad surveying. Additional introductory topics may include but are not limited to: photogrammetry, astronomy and GIS. Additional hours required. Prerequisites: CE:240 and Reading Proficiency.

CLINICAL LABORATORY TECHNOLOGY

CLT:100  ORIENTATION TO THE MEDICAL LAB  1
Orientation to the profession of medical technology, its functions, specialties and responsibilities. The philosophy and ethics of the practice of medical technology are considered and interpersonal relationship of technologist to medical staff, laboratory staff, patient and other departments. Medical terminology will be stressed as well. Prerequisites: Admission to program and Reading Proficiency.

CLT:101  MEDICAL MICROBIOLOGY  3
Theory and principles of micro-organisms and human disease. Growth requirement of micro-organisms with consideration of media, biochemical reactions, susceptibility testing will be studied. Application of theory will be practiced in laboratory sessions. Additional lab hours required. Prerequisites: Admission to program and Reading Proficiency.

CLT:102  ROUTINE ANALYSIS  2
Theory and principles including basic physiology of the kidney and study of the body fluids such as urine, gastric contents, bile, pleural fluid. The techniques and theoretical bases of urine testing and normal and abnormal finding. Practical application will be taught. Prerequisite: Reading Proficiency. 1 lecture, 1 lab hour.

CLT:103  HEMATOLOGY  3
Theory and principles of physiology of blood forming organs, blood cell maturation, blood dyscrasia, techniques of staining, counting and differentiating cell morphology. Also, the theory and principles of the mechanism of coagulation with analysis of the various factors. Prerequisites: CLT:100 or CLT:101 and Reading Proficiency. 2 lecture, 1 lab hour per week.

CLT:104  PATHOGENIC BACTERIOLOGY I  4
The study of micro-organisms with emphasis on the bacteria in diseases of man. The isolation, identification, biochemical reactions, growth requirements, susceptibility testing will be considered. Theory and practical application will include lecture, demonstration, laboratory practice, slides, films and examinations. Additional lab hours required. Prerequisites: CLT:101 and Reading Proficiency.

CLT:105  BASIC MEDICAL LABORATORY SKILLS  4
Practice of basic skills common to most clinical laboratories with emphasis on 'doing' rather than principles of laboratory testing. Skills such as staining, phlebotomy, pipetting, use of the microscope, practice of diagnostic procedures will be stressed. Prerequisites: CLT:100, CLT:101, CLT:102, CLT:103, CLT:104 and Reading Proficiency.

CLT:106  PHLEBOTOMY ESSENTIALS (BLOOD DRAWING)  5
This course is designed to provide the students with knowledge, skill, and techniques necessary to perform as a phlebotomist in the clinical setting. The student will learn basic anatomy pertinent to blood collection as well as communication skills, specimen processing and related interdisciplinary tasks. Additional lab hours required. Prerequisites: IS:101 or IS:102 recommended. Reading Proficiency.

CLT:107  PHLEBOTOMY PRACTICUM  6
This course is designed to provide the student with a practical experience of various blood drawing techniques in the clinical setting. The students will spend an assigned number of weeks practicing skills and techniques learned in CLT:106. Additional hours required. Prerequisites: CLT:106 and Reading Proficiency.

CLT:200  PATHOGENIC BACTERIOLOGY II  4
The role of micro-organisms in diseases of man with emphasis on differential culture methods is presented, also consideration of media, biochemical reactions, sensitivity and growth requirements. Included is bacteria rickettsia, viruses, mycology and parastology. Theory principles and practical application will include such methodology as lecture, demonstration, laboratory practice, slides, films and examinations. Additional lab hours required. Prerequisites: CLT:101 or CLT:104 or CLT:105 and Reading Proficiency.

CLT:201  CLINICAL CHEMISTRY I  5
Stresses theory and principles of quantitative and qualitative analysis of body fluids such as blood, urine and spinal fluid as well as feces, calculi and other material. Information about physiology will be included to increase understanding of need for testing. Instrumentation and quality control will be taught. Prerequisites: CHM:101, CHM:212, CLT:105 and Reading Proficiency.

CLT:202  CLINICAL PRACTICE I  4
Practical experience is attained in one of the clinical affiliated laboratories. The students rotate through each of the major departments of the clinical (medical) laboratory and are closely supervised by bench technologists and faculty. Rotation and practical experience is gained in microbiology, clinical chemistry, blood bank, hematology, urology, serology and immunology departments. Prerequisites: CLT:105 and Reading Proficiency.
COL:010 COLLEGE ORIENTATION AND STUDY SKILLS
This course is designed to facilitate a successful college experience for the 1st year student taking developmental courses. Students will be introduced to the processes and purposes of higher education. Students will develop college-level study skills and will learn about college resources to assist them in their personal and academic adjustment to college life.

COL:020 COLLEGE ORIENTATION FOR 1ST SEMESTER GATEWAY TO COLLEGE STUDENTS
This course is designed to facilitate a successful college experience for first semester Gateway to College students. Students will be assisted in the personal, academic, and social adjustments needed for college success. Learning styles, stress management, identification of personal strengths and weaknesses in learning, managing time, and the integration of school, work, and family are emphasized. Credit will not be given for this course if COL:020 and/or COL:100 and/or COL:507 is also taken. Concurrent enrollment in the Gateway to College program is required. Prerequisite: Approval from the Gateway to College staff. Reading Proficiency.

COM:010 ORAL COMMUNICATION I
This is the basic, transfer course in speech communication. The course offers opportunity to explore effective one-to-one, small group communication, and large group oral communication process. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

COM:020 ORAL COMMUNICATION II
This course focuses on interpersonal communication skills. The techniques used in this class will include videotaping, class discussion, one-on-one encounters and group interaction. Interpersonal theory will be examined to give the student a comprehensive approach to communication. Prerequisite: Reading Proficiency.

COM:021 SMALL GROUP COMMUNICATION
A study of the principles and concepts of small group communication. Students are encouraged to develop and improve their skills for business management, education, community activities and interpersonal communication. Prerequisite: Reading Proficiency.

COM:022 ORAL COMMUNICATION III
This course applies the principles of persuasion as they apply to relationships, jobs, and mass media. Students are given the opportunity to analyze and create persuasive messages. The course focuses on the skills necessary to become a more effective sender and receiver of persuasive communication. Prerequisite: Reading Proficiency.

COM:023 INTERVIEW PROCESS
This course will provide students with an understanding of the interview process, the principles involved, types of interview questions and their uses, and interview structures. Prerequisite: Reading Proficiency.

COM:024 BUSINESS/TECHNICAL PRESENTATION
This course is designed to provide students with practical experience and application of communication skills and techniques in business and technical situations. By taking this course, students should be better prepared for the practical demands on their skills to achieve in business and technical areas. Prerequisite: Reading Proficiency.

COM:025 ORGANIZATIONAL COMMUNICATION
This course examines the communication systems and behaviors within organizations. Students should develop systematic improvement of communication skills, as employer and/or employee. Prerequisite: Reading Proficiency.

COM:026 VOICE AND ARTICULATION
Principles and practice of improving voice, articulation, pronunciation, foreign and regional dialects. Primary emphasis on individual speech improvement. Frequent use of audio-video tape for self evaluation. Prerequisite: Reading Proficiency.

COM:027 ORAL INTERPRETATION OF LITERATURE
This course focuses upon effective oral communication of literature. Course goals include increasing appreciation and understanding of literature through performance and the development of an expressive and responsive communication style. Video/audio tape used for self-analysis. Prerequisite: Reading Proficiency.

COM:028 GENDER COMMUNICATION
This course is aimed at understanding and improving how men and women communicate. Self-disclosure practices, nonverbal symbols and language style will be explored. The images of men and women in society and the media will be discussed. Students will develop strategies to improve communication behaviors. Prerequisite: Reading Proficiency.

COM:029 COMMUNICATION BETWEEN CULTURES
This course introduces the topic of Intercultural Communication, including the communication process, perception, verbal/nonverbal symbols, beliefs, values, world view, norms, identity, and social institutions. Barriers such as stereotyping, language, and culture shock are examined as well as case studies, cultural research, relationships, and communication skills. Prerequisite: Reading Proficiency.

COM:030 INTERPERSONAL COMMUNICATION
This course will take a theoretical case study examination of interpersonal communication. Relational issues as they pertain to communication will be examined in depth. These issues will include: conflict, stages of relationships, power, assertiveness, message analysis, and self-awareness. Prerequisite: Reading Proficiency.

CRJ:101 AMERICAN CORRECTIONAL SYSTEM
A study of the correctional process from law enforcement through the administration of justice, probation, parole, prisons and correctional institutions. A study of the history and philosophy of corrections. Prerequisite: Reading Proficiency.

CRJ:102 REHABILITATION, PAROLE, AND PROBATION
Analysis and evaluation of the concept and practices of rehabilitation in contemporary corrections; discussion of correctional institutions and the various field services. Development, organization, operation and result of systems of probation and parole. Prerequisite: CRJ:101 and Reading Proficiency.
CRJ:111 RULES OF CRIMINAL EVIDENCE  3
The study of basic rules of evidence applicable to the investigation of criminal activities and other related police duties. Emphasis is placed on the question of admissibility of evidence and the practical application of procedural and substantive guarantees. Prerequisite: Reading Proficiency.

CRJ:122 INTRODUCTION TO CRIMINAL JUSTICE  3
The history and philosophy of the system of criminal justice in America, identifying the various sub-systems; role expectations, and their interrelationships; theories of crime, punishment and rehabilitation. Prerequisite: Reading Proficiency.

CRJ:123 JUVENILE JUSTICE  3
The organization, functions and jurisdiction of juvenile agencies; the detention of juveniles and the processing of neglected and abused children. The intent, application, and procedures of the Missouri Juvenile Code; juvenile case disposition, rights of juveniles, crime prevention methods and reporting procedures. Prerequisite: Reading Proficiency.

CRJ:124 CRIMINAL LAW AND PROCEDURES  3
An introduction to the study of criminal, common, and statutory law within the context of enforcement. Prerequisite: Reading Proficiency.

CRJ:206 MANAGEMENT OF HUMAN CONFLICTS  3
Explores the areas of potential conflict that can occur between members of the criminal justice community and various ethnic, racial, and regional subcultures. The root causes of the potential conflicts in both criminal justice organizations and occupational subcultures will be investigated. Issues of prejudice and discriminatory practices, both real and perceived, will be discussed as factors contributing to conflict. Proactive and reactive intervention techniques will be addressed in order to learn how to keep potential conflict from becoming actual conflicts. Prerequisite: Reading Proficiency.

CRJ:207 POLICE SUPERVISION  3
A comprehensive overview of police personnel, recruiting, selection, training, promotion, personnel development, discipline, control, communication, labor relation issues, and current problems and theories facing the first line police manager. Emphasis is placed on both individual and organizational development. Prerequisite: Reading Proficiency.

CRJ:208 CORRECTIONAL POLICIES AND PROCEDURES  3
The study of policies, procedures and supervision in the field of Corrections. Prerequisite: CRJ:101, CRJ:102, or consent of department and Reading Proficiency.

CRJ:209 CRIMINAL JUSTICE PRACTICUM  3
A field work experience in Criminal Justice organizations. Students are expected to commit themselves to 120 hours of work experience during the semester. Prerequisite: Corrections Option--CRJ:122, CRJ:101, and CRJ:102. Law Enforcement Option--CRJ:122, CRJ:124, and CRJ:111. Concurrent enrollment in Criminal Justice Practicum Seminar (CRJ:211). Reading Proficiency.

CRJ:211 CRIMINAL JUSTICE PRACTICUM SEMINAR  3

CRJ:212 CRIMINAL INVESTIGATION  3
The study of the criminal act and its investigation, including specific crimes against persons and property. The process of fact-gathering and problem of legally admissible proof will be considered. Prerequisite: Reading Proficiency.

CULINARY ARTS

CUL:101 SAFETY AND SANITATION  1
This course will lecture on the cause of food borne illness, actions to prevent illness, personal hygiene of employees, and review laws for consumer protection. Methodology of dishwashing systems, proper utilization of materials, accident prevention, and development of a safety program will be paramount. Additional hours required.

CUL:105 FOOD PREPARATION THEORY  3
The student will gain familiarization with tools, equipment, kitchen organization, recipe conversions, and professionalism. The student will receive theory in the preparations of stocks, soups, sauces, classical vegetable cuts, and basic cooking principles for meat, poultry, seafood, sandwiches, hors d’oeuvre, garde' manger, beverages and an introduction to baking principles. Corequisite: CUL:101 and HRM:134. Prerequisites: Reading Proficiency or concurrent enrollment in RDG:030.

CUL:110 FOOD PREPARATION PRACTICAL  3
The student will master competencies for tools and equipment, kitchen organization, converting and following recipes, applying safety and sanitation, vegetable cuts (American Culinary Federation competition cuts), stocks, soups, sauces, basic cooking methods, and introduction to meat, and poultry preparation. Additional hours required. Prerequisites: Grades of ‘C’ or better in CUL:101 and CUL:105, and Reading Proficiency.

CUL:115 FOOD PREPARATION PRACTICAL II  3
The student will master competencies for the basic cooking principles for meat, poultry, seafood, sandwiches, hors d’oeuvre, garde’ manger, beverages, and intermediate baking techniques. Additional hours required. Prerequisites: Grade of ‘C’ or better in CUL:110 and Reading Proficiency.

CUL:210 GARDE MANGER  3
Instruction in Garde Manger work including sandwiches, vegetable carving, canapes, hors d’oeuvres, aspic, chaud froid, ice carving, and buffet presentation by lab instructor. Additional hours required. Prerequisites: Grades of ‘C’ or better in BAP:150 and CUL:115, and Reading Proficiency.

CUL:205 GLOBAL CUISINE  3
The course explores various international cuisines. The student will gain not only the hands-on-training, but the history and development of foods in those regions. Also, the impact on American cuisine such as fusion cooking will be examined. Additional hours required. Prerequisites: Grades of ‘C’ or better in CUL:115 and BAP:150, and Reading Proficiency.

CUL:210 NUTRITIONAL COOKING  3
This course is a study of nutritional cooking. We know that a healthy diet is based on eating a wide variety of high quality foods that provide balanced nutrition. This course is designed to acquaint foodservice professionals with the knowledge and skills to do so. Additional hours required. Prerequisites: Grades of ‘C’ or better in CUL:115 and BAP:150, and Reading Proficiency.

CUL:215 AMERICAN REGIONAL CUISINE  3
The American Regional Cuisine course documents the history and culture that led to the development of American Regional Cuisine and identifies the vast and wide variety of foods indigenous to our country. The recipes, specialized skills, and procedures presented in the course are authentic and unique to each region. Additional hours required. Prerequisites: Grade of ‘C’ or better in CUL:115 and BAP:150, and Reading Proficiency.

CUL:230 ICE CARVING  2
In this course, the student will learn the process of making Ice Sculptures. The student will learn the process of making ice, the tools used, and safety. The student will gain the experience of transforming a transparent, fragile, cold and wet block of ice into something ‘alive’. Additional hours required. Prerequisites: Grade of ‘C’ or better in CUL:201, and Reading Proficiency.

CUL:235 CULINARY COMPETITION SKILLS  3
The student will expand skills that were taught in Garde Manger and Baking. This course will focus on competition techniques in accordance to the American Culinary Federation guidelines. Additional hours required. Prerequisites: Grade of ‘C’ or better in CUL:201 and BAP:150, and Reading Proficiency.

CUL:250 RESTAURANT OPERATIONS  6
The course will be operational in nature by requiring the student to use both technical knowledge and managerial ability to organize and complete a commercial simulation of a one meal operation. The application of theory will be used and tested in the lab setting. Additional hours required. Prerequisites: Department Chair Approval, and Reading Proficiency.
DEAF COMMUNICATION STUDIES

DCS:001 CONVERSATIONAL SIGN II 3
This course is designed for anyone interested in taking only one or two courses to converse with a deaf friend, colleague, fellow student, etc. Students will learn fingerspelling, approximately 1000 words organized into conversational themes or topics. This is not a preliminary course to the Deaf Communication Studies program.

DCS:104 AMERICAN SIGN LANGUAGE I 5
This course is for students planning to pursue sign language studies in depth. Intensive exposure is given to ASL, allowing development of beginning level communication skills used with Deaf persons. Comprehension of target language is emphasized. ASL linguistic and cultural features are presented in the context of learning experiences. Prerequisite: Reading Proficiency.

DCS:105 AMERICAN SIGN LANGUAGE II 5
Intensive exposure is given to ASL, allowing continued development of intermediate level communication skills utilized in interaction by Deaf persons. Emphasis is given to comprehension and production skills. Linguistic and cultural features are presented in the context of language learning experiences. Prerequisites: DCS:104 with grade of "C" or better, or permission of department. Reading Proficiency.

DCS:106 AMERICAN SIGN LANGUAGE III 5
Continued exposure to ASL allowing greater development of expressive and receptive ASL communication skills. Linguistic and cultural features are presented in the context of language learning experiences. Prerequisites: DCS:105 with a grade of "C" or better, and departmental permission. Reading Proficiency.

DCS:107 FINGERSPELLING 3
This course develops expressive and receptive fingerspelling skills based on word and phrase recognition principles. Because a manual alphabet is used by deaf people, it is essential to develop communication skills in ASL and PSE. Prerequisites: DCS:104 and Reading Proficiency.

DCS:108 ORIENTATION TO INTERPRETING 3
An overview of interpreting as an occupation. Topics include interpersonal skills, professional ethics, parameters of responsibility of the paraprofessional, examination of community resources, and legal ramifications. Prerequisites: DCS:106, DCS:109 with a grade of "C" or better and Reading Proficiency.

DCS:109 ETYMOLOGY FOR INTERPRETERS 3
This course is designed to instruct students in the fundamentals of language building, to interpret and translate English idioms in the correct meaning, and to identify the variation of: verb versatility, multiple meanings, multiple signs, and contextual clues. Concentrated attention in given to English and sign vocabulary development. The student will learn discourse and comparative analysis techniques. Corequisite: DCS:106. Prerequisites: DCS:105 and ENG:101 with grades of "C" or better and Reading Proficiency.

DCS:110 DEAF THEATRE STUDIES 3
This course will address the special considerations of sign language performance. Emphasis placed on developing theatrical sign and mime skills. Lectures, field trips included. Open to hearing and deaf. Prerequisites: DCS:104 with a grade of "C" or better or permission of department and Reading Proficiency.

DCS:111 THEORY OF AMERICAN SIGN LANGUAGE 3
A course to examine the structural and grammatical principles of ASL. An introductory study of the linguistic and semiotic problems of equivalency in English and American Sign Language will be studied. By incorporating linguistic information into the text analysis process, quality interpretation of English and ASL will result. Prerequisites: Prior or concurrent enrollment in DCS:104 with a grade of "C" or better. Reading Proficiency.

DCS:115 INTRODUCTION TO DEAF COMMUNICATION STUDIES 3
This course surveys the aspects of deafness by familiarizing students with the physiology of the ear, causes and types of hearing losses, social and psychological aspects of deafness, national and community organizations (i.e. NAD, RID), and history of deaf education. Prerequisite: Reading Proficiency.

DCS:116 AMERICAN SIGN LANGUAGE SEMANTICS 3
This course is designed to expand student's knowledge, recognition, and understanding of American Sign Language semantics and semantic units. Focus will be on interpreting and translating ASL idiomatic expressions into equivalent English meaning and usage; developing a recognition of cultural variations of sentence types, time, pronominalization, subjects and objects, classifiers, locatives, pluralization and temporal and distributional aspects. Emphasis will be on cross-cultural influences on language usage and thought. Prerequisites: DCS:104 and DCS:115 with grades of "C" or better and Reading Proficiency.

DCS:117 SIGN THEATRE 3
This class will explore and mount a small theatre of deaf production. Theatrical sign and mime skills will be utilized. All students will be involved in developing the ASL translation of a script, building sets and props and performing. The show will perform for elementary school children on Fridays during class time. Prerequisites: DCS:106 and DCS:110 with grades of "C" or better and Reading Proficiency.

DCS:118 SIGN SEMINAR 3
This course is designed to provide increased interactive opportunities for students to continue development of their knowledge of vocabulary and grammatical features of ASL. Instructional approaches include discussion, expansion and explanation in the target language. In addition, the course focuses on colloquialisms, varying registers and socially restricted vocabulary in numerous contexts. Prerequisites: DCS:105 with a grade of "C" or better and Reading Proficiency.

DCS:119 THEORY OF AMERICAN SIGN LANGUAGE LAB 1
This course is designed to reinforce concepts taught in DCS:111 (Theory of American Sign Language) within individualized and small group settings. Additional hours required. Corequisite: DCS:111. Prerequisite: Reading Proficiency.

DCS:120 FINGERSPELLING LAB 1
This course is designed to reinforce concepts taught in DCS:107 (Fingerspelling) within individualized and small group settings. Additional hours required. Corequisite: DCS:107. Prerequisite: Reading Proficiency.

DCS:206 CONSECUTIVE INTERPRETING 3
Introduces basic skills necessary for an individual to interpret ASL to English or English to ASL. The course is built around a sequencing of drills and incorporates video and deaf signs. The Code of Ethics will be reinforced in context. Prerequisites: DCS:106 and DCS:109 with grades of "C" or better, or permission of department and Reading Proficiency.

DCS:207 SIMULTANEOUS INTERPRETING 3
Introduces basic skills necessary to simultaneously transcribe Contact/PSE to English or English to Contact/PSE. The course is built around sequencing of drills and incorporates video and deaf signs. The Code of Ethics will be reinforced in context. Prerequisites: DCS:106 and DCS:109 with grades of "C" or better, or permission of department and Reading Proficiency.

DCS:208 DCS PRACTICUM 3
Introductory field experience involving observation, interpreting/translating, and interacting totaling 100 hours during the semester. Lecture portion will discuss problems encountered, development of a professional log and portfolio. Prerequisites: DCS:206, DCS:207 and DCS:218 with grades of "C" or better and Reading Proficiency.

DCS:209 INTERPRETING/TRANSLITERATING LAB 1
Designed to reinforce concepts discussed in DCS:206/207 within individualized and small group settings. Concurrent enrollment in DCS:206 or DCS:207. Additional lab hours required. Prerequisite: Reading Proficiency.

DCS:210 SIGN TO VOICE INTERPRETING 3
The purpose of this course is to provide the student an opportunity to build skills in interpreting and transliterating into spoken English from ASL and various contact varieties. Prerequisites: DCS:206 and DCS:207 and COM:111 with grades of "C" or better and Reading Proficiency.

DCS:211 SPECIALIZED INTERPRETING 3
Various interpreting settings are explored, including educational, legal, medical, mental health, religious, platform, rehabilitation, and performing arts. The course also develops understanding of additional types of communication techniques, such as interpreting for those who are deaf-blind, oral or exhibit minimal language skills. Prerequisites: DCS:105 and COM:111 with grades of "C" or better and Reading Proficiency.
DCS:212  DEAF HISTORY AND CULTURE  3
This course helps students understand historical values and traditions within the culture of Deaf people. Traditions include use of humor, success stories and behaviors of empowerment. Values include the importance of clubs, perspectives on education of Deaf children, interpreter services and the preservation of ASL. Prerequisites: DCS:211 with a grade of “C” or better or approval of department chair, Reading Proficiency.

DCS:213  PROFESSIONAL ISSUES AND ETHICS  3
This course will explore the current role of the interpreter as a professional. Topics will include, but not be limited to, the art of cross-cultural mediation, ethical standards, application of interpreting theories, resume development and business practices. This course will prepare students for the practicum experience. Prerequisites: DCS:216, DCS:217, and DCS:211 with grades of “C” or better and Reading Proficiency.

DCS:214  INTERACTIVE INTERPRETING  3
This skill development course will provide students with the opportunity to practice skills associated with interactive interpreting situations. Students will use both consecutive and simultaneous interpreting methods. Interactive interpreting refers to the process of initiating an interpretation both manual and verbal during a variety of interview and one-on-one situations (mental health, medical, employment, educational and business). Students will begin working with isolated cognitive subtasks (critical listening, analyzing the information, constructing the interpretation and generating the interpretation) of interpretation and work to integrate component skills to perform an interactive interpretation. Prerequisites: DCS:210, DCS:216, DCS:217 with grades of “C” or better and Reading Proficiency.

DCS:215  INTERPRETER SEMINAR  2
This course is designed to provide increased interactive opportunities for students to continue the development of their knowledge of the interpreting process. Instructional approaches include discussion, expansion, and explanation of interpreting and transliterating. In addition, the course focuses on cross-cultural mediation and discourse analysis. Prerequisites: DCS:206 and DCS:207 with grades of “C” or better and Reading Proficiency.

DCS:216  EDUCATIONAL INTERPRETING - CLASSROOM APPLICATIONS  3
This course is designed to focus on the principles of interpreting within the framework of an educational system. Procedures and strategies for effective communication in the educational setting are discussed. The role of the educational interpreter to facilitate communication between Deaf individuals and their peers, educational instructors, staff and students is stressed. Also emphasized is the interpreter as a member of the educational team. Prerequisites: DCS:206 and DCS:207 with grades of “C” or better and Reading Proficiency. 3 lecture hours weekly.

DCS:217  TRANSLATION APPLICATIONS OF ASL  3
This is a skill development course based on English written text analysis and American Sign Language equivalent meaning and appropriate interpretation with conceptual accuracy. Students will engage in the analysis, discussion and translation of ASL and English texts from one language into the other. Student demonstration of translations will be used to discuss meaning of message and degrees of equivалency. The discourse style of American English and Sign Language usage will be analyzed to distinguish the patterns of low and high context usage, linguistic structure and cultural differences. Prerequisites: DCS:216 with a grade of “C” or better or concurrent enrollment in DCS:216 and Reading Proficiency.

DCS:218  PRE-PRACTICUM  3
This course will prepare students to enter the practicum experience. Topics will include: professional organizations, certification, contextual factors, market analysis, time management, business management, consumer attitudes and minority accommodations. Prerequisites: DCS:206 and DCS:207 with grades of “C” or better and Reading Proficiency.

DENTAL ASSISTING

DA:143  CHAIRSIDE ASSISTING: OPERATIVE DENTISTRY  2
This course provides the basic principles and theory of common restorative dental procedures. Emphasis is placed on instrumentation and materials preparation and use, and the assistant’s role in chairside restorative procedures. Corequisite: DA:164. Prerequisites: DA: 144 and DA: 151, current enrollment in Dental Assisting Program and Reading Proficiency. 2 lecture hours.

DA:144  PRECLINICAL PRACTICE  1
This preclinical course gives the student an opportunity to apply knowledge and practice basic dental assisting skills and clinical support functions in the laboratory setting. Additional lab hours required. Corequisites: DA:149, DA:150, DA:151, DA:159. Prerequisite: Current enrollment in the Dental Assisting Program and Reading Proficiency.

DA:149  DENTAL TERMINOLOGY  1
An introduction to the structure and function of teeth and oral cavity components. Additional topics include dental charting and restorative terms. Prerequisite: Current enrollment in Dental Assisting Program and Reading Proficiency. 1 lecture hour.

DA:150  INFECTIO CONTROL IN DENTISTRY  1
This course will cover the process of disease transmission, methods and agents for sterilization and disinfection, universal precautions, and means of protection for the dental team and patient. Corequisite: DA:144. Prerequisite: Current enrollment in Dental Assisting Program and Reading Proficiency. 1 lecture hour.

DA:151  FUNDAMENTALS OF CHAIRSIDE ASSISTING  2
This course introduces the student to patient and treatment room preparation, data collection, four-handled dentistry techniques common to all dental procedures, and recognition and management of medical emergencies. Corequisite: DA:144. Prerequisite: Current enrollment in Dental Assisting Program and Reading Proficiency. 2 lecture hours.

DA:157  DENTAL RADIOLOGY  2
This course will cover radiation production, safety and protection, exposure and processing procedures, and quality assessment of radiographs. Lab emphasis placed on developing proficiency in intraoral exposure techniques. Additional lab hours required. Corequisite: DA:164. Prerequisites: Current enrollment in Dental Assisting Program and Reading Proficiency.

DA:159  DENTAL OFFICE PROCEDURES  1
An introduction to procedures associated with the business aspects of the dental office that include scheduling appointments, telephone and written correspondence, and records management. Corequisite: DA:144. Prerequisites: Current enrollment in the Dental Assisting Program and Reading Proficiency. 1 lecture hour.

DA:161  DENTAL ASSISTING PRACTICUM  2
This course introduces the student to the dental office and provides an opportunity for the application of basic dental assisting skills and clinical support functions. Additional hours required. Prerequisites: DA: 144, DA: 164, and current enrollment in the Dental Assisting Program and Reading Proficiency.

DA:162  DENTAL SYSTEMS MANAGEMENT  1
An introduction to the use and application of dental office computer software for data entry and records management. The student will learn how to use dental software and will explore its utilization potential in the modern dental office. Prerequisites: DA: 159 and current enrollment in the Dental Assisting Program and Reading Proficiency. 1 lecture hour.

DA:164  CLINICAL APPLICATIONS  2
Theoretical knowledge is applied in the clinical lab setting. Emphasis is on developing skill in assisted with restorative procedures and manipulating dental materials. Additional lab hours required. Corequisites: DA:143, DA:157, DA:165. Prerequisites: DA: 144, current enrollment in Dental Assisting Program and Reading Proficiency.

DA:165  DENTAL MATERIALS  1
This course presents the basic physical properties and technical aspects of materials used in restorative and laboratory procedures with emphasis on restorative materials, dental cements, gypsum products, and impression materials. Prerequisites: Current enrollment in the Dental Assisting Program and Reading Proficiency. 1 lecture.

DA:166  DENTAL LAB PROCEDURES  1
This course is a continued study of dental materials, focusing on those materials used in the fabrication of appliances and prostheses. Lab sessions give the student an opportunity to develop skill in manipulation of material and use of lab equipment. Additional lab hours required. Corequisite: DA:174. Prerequisites: DA: 164, DA: 165, current enrollment in the Dental Assisting Program and Reading Proficiency.
DA:167  DENTAL RADIOLOGY II  1
A study of the principles of extraoral radiography, variations in intraoral radiographic procedures, physical properties and biological effects of radiation, and the appearance of normal anatomical structures and pathological conditions. Corequisite: DA:174. Prerequisites: DA:157, current enrollment in the Dental Assisting Program and Reading Proficiency. 1 lecture hour.

DA:168  INTEGRATED DENTAL SCIENCES  2
A study of basic anatomy and physiology with emphasis on structures of the head, neck, and oral cavity. Dental anatomy, oral embryology and histology, oral patholgy, and pharmacology are also covered in this course. Prerequisites: DA: 149, current enrollment in the Dental Assisting Program and Reading Proficiency. 2 lecture hours.

DA:169  PREVENTIVE DENTAL HEALTH  2
A study of the principles of preventive dentistry in terms of oral health maintenance and nutrition. This course emphasizes the dental assistant's role in dental health teaching, patient motivation, and preventive intraoral procedures. Corequisite: DA:174. Prerequisites: Current enrollment in the Dental Assisting Program and Reading Proficiency. 2 lecture hours.

DA:172  DENTAL PRACTICE MANAGEMENT  1
A study of principles and procedures related to the daily operation and management of the dental office. Additional topics include resume preparation and interviewing skills, discussion of legal and ethical issues, and interpersonal work relations. Prerequisites: DA: 159, DA: 162, current enrollment in the Dental Assisting Program and Reading Proficiency. 1 lecture hour.

DA:173  CHAIRSIDE ASSISTING: DENTAL SPECIALTIES  2
This course covers the scope and function of the dental specialties, as well as terminology, instrumentation, and treatment procedures unique to each specialty. Emphasis is placed on the assistant's role in chairside procedures and patient teaching. Corequisite: DA:174. Prerequisites: DA: 151, DA: 161, current enrollment in the Dental Assisting Program and Reading Proficiency. 2 lecture hours.

DA:174  CLINICAL APPLICATIONS II  2

DA:175  DENTAL ASSISTING PRACTICUM II  2
A continuation of practical experience in the general or specialty dental office. The student will acquire new skills and increase proficiency in four handed dentistry techniques, lab procedures, and clinical support functions. Additional hours required. Corequisite: DA:174. Prerequisite: DA: 161, current enrollment in Dental Assisting Program and Reading Proficiency.

DA:176  DENTAL ASSISTING PRACTICUM III  2
The student will assume the role and responsibilities of the dental assistant as an integral member of the dental team during this final phase of clinical experience. Emphasis is placed on the application of theoretical knowledge and practical skills in performing advanced dental assisting procedures and clinical support functions. Additional hours required. Corequisite: DA:174. Prerequisites: DA:161, DA:175, current enrollment in Dental Assisting Program and Reading Proficiency.

DA:201  EXPANDED FUNCTIONS I  1
Techniques and concepts of restorative and preventive expanded function procedures delegated to dental assistants in the state of Missouri as specified in the rules and regulations set forth in the Missouri Dental Practice Act. Procedures include placing restorations and dressings, sizing stainless steel crowns, and use of the air polisher. Additional lab hours required. Prerequisites: Current enrollment in the Dental Assisting Program or departmental approval, and Reading Proficiency.

DA:202  EXPANDED FUNCTIONS II  1
Techniques and concepts of prosthodontic expanded function procedures delegated to dental assistants in the state of Missouri as specified in the rules and regulations set forth in the Missouri Dental Practice Act. Procedures include: placing retraction cord, making impressions for fixed and removable prostheses, extra-oral adjustment of prostheses, cementation of permanent appliances or prostheses, and placement of temporary soft liners. Additional lab hours required. Prerequisites: Current enrollment in the Dental Assisting Program or departmental approval. Reading Proficiency.

DA:203  EXPANDED FUNCTIONS III  1
Techniques and concepts of orthodontic expanded function procedures delegated to dental assistants in the state of Missouri as specified in the rules and regulations set forth in the Missouri Dental Practice Act. Procedures include: preliminary bending of archwires, placement and cementation of bands and brackets, removal of orthodontic bands and brackets, palliative care of orthodontic emergencies. Additional lab hours required. Prerequisites: Current enrollment in the Dental Assisting Program or departmental approval. Reading Proficiency.

DENTAL HYGIENE

DHY:120  CONCEPTS OF PRE-ClinICAL DENTAL HYGIENE I  3
Development of basic foundations for competent delivery of preventive, therapeutic and educational dental hygiene services to the public. Establish a solid knowledge base for assessment, planning, implementation and evaluation of patient care. Theory and practical aspects of prevention of disease transmission and pre-treatment patient evaluation are emphasized. Basic instrumentation design and technique for use are covered in depth. Additional lab hours required. Prerequisites: Current enrollment in the Dental Hygiene program, CPR health care provider level and Reading Proficiency.

DHY:121  CLINICAL APPLICATIONS LAB I  1
Application of introductory clinical assessment techniques. Theory and application of pit and fissure sealants. Proper positioning for the patient, operator, and dental unit for rendering effective patient treatment. Additional lab hours required. Prerequisites: Current enrollment in the Dental Hygiene program, CPR health care provider level and Reading Proficiency.

DHY:125  PERIODONTICS I  2
A study of the healthy periodontium and an introduction to gingival conditions and diseases. Acquired soft and hard deposits as well as the microbiology of periodontal diseases are covered in depth. Methods of basic oral physiotherapy are introduced. Prerequisites: Current enrollment in the Dental Hygiene program and Reading Proficiency.

DHY:126  DENTAL RADIOLOGY I  2
A study of the production and effects of radiation. Emphasis is given to the effects of variations in exposure control factors, personnel and patient safety measures, and dental radiographic film and film processing. Anatomical landmarks, and their radiographic presentation are introduced. Techniques for placing, positioning, exposing, processing and mounting intraoral radiographs are covered in depth. Additional lab hours required. Prerequisites: Current enrollment in the Dental Hygiene program and Reading Proficiency.

DHY:127  ORAL ANATOMY  3
Introductory study of the teeth, as well as intraradial and periadial structures. Anatomical features of the teeth and oral cavity are covered in depth. Processes and techniques for constructing dental chartings and dentition findings documentation are detailed. The dental caries process is introduced. Rationales and techniques for the use of pit and fissure sealants, as a supportive primary preventive procedure, are presented. Prerequisites: Current enrollment in the Dental Hygiene program and Reading Proficiency.

DHY:128  BIOMEDICAL SCIENCES FOR THE DENTAL HYGIENIST  2
This course is designed to acquaint the dental hygiene student with the basic concepts of pathophysiology. It will deal with selected conditions of the cardiovascular, respiratory, immune, nervous and endocrine systems. Emphasis is on the relationship between these conditions and potential actions and treatment modifications in the dental health care setting. Prerequisites: Current enrollment in the Dental Hygiene program. BIO:207, BIO:208, CHM:101 and Reading Proficiency.
DHY:129 DENTAL-MEDICAL EMERGENCIES 1
Survey of detects/medical problems that have dental management implications and/or possible medical emergency sequence. Prompt, accurate and ethical emergency prevention, preparation and management techniques are detailed with related legal implications. Prerequisites: Current enrollment in the Dental Hygiene program and Reading Proficiency. 1 lecture hour per week.

DHY:130 CONCEPTS OF CLINICAL DENTAL HYGIENE II 3
Techniques for the assessment of medical status and dental conditions as a basis for the dental hygiene diagnosis, and learning theory as a basis for patient education, are covered. Fluoride, as an individual and a community primary preventive measure, is emphasized. Extrinsic stain removal principles are included. Prerequisites: Current enrollment in the Dental Hygiene program, CPR health care provider level, DHY:120, DHY:121 and Reading Proficiency.

DHY:131 CLINICAL APPLICATIONS LAB II 1
Application of clinical assessment techniques and caries preventive agents, and instrument care and maintenance. Theory and application of periodontal probe instrumentation, and prostheses and appliances care and maintenance. Additional lab hours required. Prerequisites: Current enrollment in the Dental Hygiene program, CPR health care provider level, DHY:120, DHY:121 and Reading Proficiency.

DHY:132 CLINICAL DENTAL HYGIENE II 4
Patient contact is established and coordinates with application of the theories, principles, and responsibilities related to dental hygiene practice at the student's current level of knowledge. Additional lab hours required. Prerequisites: Current enrollment in the Dental Hygiene program, CPR health care provider level, DHY:120, DHY:121 and Reading Proficiency.

DHY:136 DENTAL NUTRITION AND BIOCHEMISTRY 3
This course is designed to acquaint the student with the concepts of biochemistry and cell metabolism, especially those which are required for a clear understanding of nutrition. Major topics of the course include energy balance and the chemistry, digestion, and metabolism of proteins, carbohydrates and fats. Emphasis is on the importance and function of nutrients for health and disease prevention and the relation of nutrition and oral health. Prerequisites: Current enrollment in the Dental Hygiene program, BIO:207, BIO:208, CHM:101 and Reading Proficiency.

DHY:137 ANATOMY AND EMBRYOLOGY OF THE HEAD AND NECK 2
This course covers the gross morphology and embryology of the structures of the head and neck. Lectures in embryology emphasize development of the face and oral structures. Lectures on gross morphology emphasize the cranial nerves (especially the trigeminal and facial), the muscles of mastication and facial expression, and the blood and lymphatic vessels of the head and neck. Prerequisites: Current enrollment in the Dental Hygiene program, BIO:207, BIO:208 and Reading Proficiency.

DHY:138 GENERAL AND ORAL PATHOLOGY 2
An introduction to general pathology with emphasis on oral pathosis. Oral diseases and oral manifestations of systemic diseases are studied in depth. Prerequisites: Current enrollment in the Dental Hygiene program, DHY:127 and Reading Proficiency.

DHY:142 CLINICAL DENTAL HYGIENE SUMMER 2
Students continue to apply the learned theories, principles and responsibilities related to the field of dental hygiene practice in the dental hygiene clinic. Additional lab hours required. Prerequisites: Current enrollment in the Dental Hygiene program, CPR health care provider level. DHY:132, DHY:130, DHY:131 and Reading Proficiency.

DHY:215 PAIN CONTROL 2
Theory and clinical applications of pain control interventions appropriate for use within the context of dental hygiene care delivery. The psychology, physiology, and pharmacology of pain control are covered, with emphasis on the prevention, recognition and management of adverse reactions. Interventions within the legal scope of dental hygiene practice in Missouri are the focus of this course. Additional lab hours required. Prerequisites: Current enrollment in the Dental Hygiene program, CPR health care provider level, DHY:137 and Reading Proficiency.

DHY:220 CONCEPTS OF CLINICAL DENTAL HYGIENE III 2
Introduction of additional clinical dental hygiene procedures including advanced periodontal instrumentation and skills to further develop the assessment and implementation of the dental hygiene diagnosis and treatment plan. Theories and principles for the use of power scalers, air polishes, pulp vitality testers, endodontic models, tooth bleaching, and tray fabrication and use of the intraoral camera are covered. Research assignments for review of the current literature will continue. Prerequisites: Current enrollment in the Dental Hygiene program. DHY:142, DHY:215, ENG:101 and Reading Proficiency.

DHY:221 CLINICAL APPLICATIONS LAB III 1
Application of clinical dental hygiene concepts learned in Clinical Dental Hygiene III. Additional lab hours required. Prerequisites: Current enrollment in the Dental Hygiene program, CPR health care provider level, DHY:142, DHY:215 and Reading Proficiency.

DHY:222 CLINICAL DENTAL HYGIENE III 4
Students continue to apply the learned theories, principles and responsibilities related to the field of dental hygiene practice in the dental hygiene clinic and at community dental health facilities. Additional dental hygiene modalities will be implemented into patient treatment care. Additional lab hours required. Prerequisites: Current enrollment in the Dental Hygiene program, CPR health care provider level, DHY:142, DHY:215, COM:101 and Reading Proficiency.

DHY:223 COMMUNITY PUBLIC HEALTH 2
This course is designed to provide a study of the history, economics, and management of the public health organization, its delivery, and supportive services. Included are the assessment and control of dental disease through dental personnel roles in schools, industry, civic, and public organizations. Emphasis is placed on examinations of the principles of public health, epidemiological methods of investigation, the US health care system, basic concepts in research and biostatistics and community based program planning. Introduction to techniques for evaluating dental/dental hygiene literature is established. Prerequisites: Current enrollment in the Dental Hygiene program, ENG:101, COM:101 and Reading Proficiency.

DHY:225 PERIODONTICS II 2
Advanced study of the periodontium in disease. Periodontitis, and its various presentations, is covered in depth, with emphasis on assessment methods and dental hygiene interventions. Basic surgical concepts are introduced. Prerequisites: Current enrollment in the Dental Hygiene program, DHY:125, DHY:138, BIO:203, ENG:101 and Reading Proficiency.

DHY:226 DENTAL RADIOLOGY II 1
Advanced study of supplemental dental radiographic techniques and procedures used in contemporary dental practices and facilities. Emphasis is given to extraoral and digital radiography techniques. Supplemental procedures for edentulous and pediatric dental patients are presented. Additional lab hours required. Prerequisites: Current enrollment in the Dental Hygiene program, DHY:126 and Reading Proficiency.

DHY:228 DENTAL PHARMACOLOGY 2
A study of pharmaceutical classifications, properties and effects. Emphasis is given to the systemic effects of drugs and their dental implications in the management of various medical conditions. Prerequisites: Current enrollment in the Dental Hygiene program, BIO:203 and Reading Proficiency.

DHY:230 TRANSITION INTO PROFESSIONAL DENTAL HYGIENE PRACTICE 2
Dental hygiene care for cancer patients, dental implants and suspected cases of child abuse are introduced. The health care provider-patient legal relationship and state rules and regulations for the practice of dentistry and dental hygiene are emphasized. Employment-seeking skills are covered. This course includes a community service practicum learning component. Additional hours required. Prerequisites: Current enrollment in the Dental Hygiene program, DHY:220, DHY:221, DHY:222 and Reading Proficiency.

DHY:232 CLINICAL DENTAL HYGIENE IV 4
Patient care continues and coordinates with the application of the theories, principles, and responsibilities related to dental hygiene practice in the dental clinic and at off-campus community rotation sites. Students will also complete a community service practicum field experience as a component of this course. Additional lab hours required. Prerequisites: Current enrollment in the Dental Hygiene program, CPR health care provider level, DHY:220, DHY:221, DHY:222 and Reading Proficiency.
DIAGNOSTIC MEDICAL SONOGRAPHY

DMS:101 CLINICAL FOUNDATIONS OF ULTRASOUND 2
Topics covered in this course include general pathology and pathophysiology, ultrasound terminology, clinical laboratory tests and diagnostic procedures, patient interview and examination techniques, chart and referral evaluation and embryology. Prerequisites: Current enrollment in the Diagnostic Medical Sonography program or permission of the Program Director and Reading Proficiency.

DMS:102 MEDICAL ETHICS AND PROFESSIONAL ISSUES 2
This course will examine a number of topics including principles of psychological support, professional interaction skills, multicultural diversity, professional codes of conduct and scopes of practice, pertinent legal principles, administrative procedures and trends in healthcare systems. Prerequisites: Current enrollment in the program or permission of the Program Director and Reading Proficiency.

DMS:103 ULTRASOUND PHYSICS AND INSTRUMENTATION I 2
Topics covered in this course include basic physical principles of ultrasound, Doppler principles and ultrasound equipment controls. Emphasis will be placed on control manipulation and parameters required for optimum sonographic examinations. Prerequisite: Current enrollment in the Diagnostic Medical Sonography program or permission of the Program Director and Reading Proficiency.

DMS:104 ULTRASOUND PHYSICS AND INSTRUMENTATION II 3
Topics in the course include transducer parameters, principles of ultrasound instruments and modes of operation, principles of Doppler techniques, methods of Doppler flow analysis and acoustical artifacts. Prerequisites: Current enrollment in the Diagnostic Medical Sonography program or permission of the Program Director and Reading Proficiency.

DMS:105 MEDICAL SONOGRAPHY I 3
This course will present normal sectional anatomy and patterns for the most common examinations within abdominal and OB/GYN sonography. An introduction to clinical applications will include the pathophysiologic basis, clinical signs and symptoms and typical sonographic patterns related to the most common abnormalities encountered in the clinical environment. Prerequisites: Current enrollment in the Medical Sonography learning concentration, Diagnostic Medical Sonography program or permission of the Program Director and Reading Proficiency.

DMS:106 MEDICAL SONOGRAPHY SCANNING TECHNIQUES I 1
Laboratory demonstration and student performance of standard protocols for the most common abdominal, obstetrical and gynecologic sonographic examinations, with emphasis on normal anatomy and pattern recognition. Additional lab hours required. Prerequisite: Current enrollment in the Medical Sonography learning concentration or permission of the Program Director and Reading Proficiency.

DMS:107 MEDICAL SONOGRAPHY PRACTICUM I 2
Observation and initial scanning experience of abdominal, obstetrical and gynecologic sonographic examinations. Additional hours required. Prerequisite: Current enrollment in the Medical Diagnostic Sonography program or permission of the Program Director and Reading Proficiency.

DMS:108 MEDICAL SONOGRAPHY II 3
Further study of the clinical applications of abdominal, obstetric and gynecologic sonography. Lecture topics include the pathologic basis, clinical signs and symptoms, related diagnostic procedures and typical sonographic patterns of common and rare conditions and abnormalities encountered in the clinical setting. Prerequisites: DMS:105 or permission of the Program Director and Reading Proficiency.

DMS:109 MEDICAL SONOGRAPHY SCANNING TECHNIQUES II 1
Laboratory demonstration and student performance of standard protocols for superficial structures and less common procedures within abdominal and OB/GYN sonography, with emphasis on normal anatomy and pattern recognition. Additional lab hours required. Prerequisites: DMS:106 or permission of the Program Director and Reading Proficiency.

DMS:110 MEDICAL SONOGRAPHY CLINICAL APPLICATIONS I 2
Review of abnormal abdominal sonographic examinations in order to further develop the critical thinking skills required to correlate the clinical history, clinical signs and symptoms and results of other diagnostic tests with the results of the sonographic examination. Prerequisites: DMS:105 or permission of the Program Director and Reading Proficiency.

DMS:111 MEDICAL SONOGRAPHY PRACTICUM II 3
Clinical performance of abdominal, obstetric and gynecologic sonographic examinations under the supervision of experienced sonographers. Additional hours required. Prerequisites: DMS:107 or permission of the Program Director and Reading Proficiency.

DMS:112 CARDIAC SONOGRAPHY I 3
This course will present normal sectional anatomy, hemodynamics, patient assessment and diagnostic testing related to cardiac sonography. An introduction to clinical applications will include the pathophysiologic basis, clinical signs and symptoms and typical findings related to the most common types of adult cardiac disease. Prerequisite: Current enrollment in the Cardiac learning concentration, Diagnostic Medical Sonography program or permission of the Program Director and Reading Proficiency.

DMS:113 CARDIAC SONOGRAPHY SCANNING TECHNIQUES I 1
Laboratory demonstration and student performance of standard protocols for transthoracic adult cardiac sonographic examinations, with emphasis on normal 2-D, M-Mode and Doppler pattern recognition. Additional lab hours required. Prerequisites: Current enrollment in the Cardiac learning concentration or permission of the Program Director and Reading Proficiency.

DMS:114 CARDIAC SONOGRAPHY PRACTICUM I 2
Observation and initial scanning experience of transthoracic adult cardiac sonographic examinations. Additional hours required. Prerequisite: Current enrollment in the Cardiac Sonography learning concentration, Diagnostic Medical Sonography Program or permission of the Program Director and Reading Proficiency.

DMS:115 CARDIAC SONOGRAPHY II 3
Presentation of the clinical applications of cardiac sonography including the pathophysiologic basis, clinical signs and symptoms and typical findings related to acquired and congenital adult cardiac disease. Prerequisites: DMS:112 or permission of the Program Director and Reading Proficiency.

DMS:116 CARDIAC SONOGRAPHY SCANNING TECHNIQUES II 1
Laboratory demonstration and performance of pulsed and continuous wave Doppler examinations and less common protocols in cardiac sonography including stress echo and the use of contrast agents. Additional lab hours required. Prerequisites: DMS:113 or permission of the Program Director and Reading Proficiency.

DMS:117 CARDIAC SONOGRAPHY CLINICAL APPLICATIONS I 2
Review of abnormal cardiac sonographic examinations in order to further develop the critical thinking skills required to correlate the clinical history, clinical signs and symptoms and results of other diagnostic tests with the results of the sonographic examination. Prerequisites: DMS:112 or permission of the Program Director and Reading Proficiency.

DMS:118 CARDIAC SONOGRAPHY PRACTICUM II 3
Clinical performance of transthoracic adult cardiac sonographic examinations under the supervision of experienced sonographers. Additional hours required. Prerequisites: DMS:114 or permission of the Program Director and Reading Proficiency.

DMS:119 VASCULAR TECHNOLOGY I 3
This course will present normal sectional anatomy, hemodynamics, patient assessment and diagnostic testing related to Vascular Technology. An introduction to clinical applications will include the pathophysiologic basis, clinical signs and symptoms and typical findings related to the most common vascular examinations. Prerequisites: Current enrollment in the Vascular Technology learning concentration or permission of the Program Director and Reading Proficiency.
DMS:120 VASCULAR TECHNOLOGY PRACTICUM I
Laboratory demonstration and student performance of standard protocols for the most common venous and arterial examinations, with emphasis on recognition of normal gray scale and Doppler patterns. Additional lab hours required. Prerequisites: Current enrollment in the Vascular Technology training concentration or permission of the Program Director and Reading Proficiency.

DMS:121 VASCULAR TECHNOLOGY PRACTICUM II
Observation and initial scanning experience of arterial and venous vascular examinations. Additional hours required. Prerequisites: Current enrollment in the Vascular Technology learning concentration or permission of the Program Director and Reading Proficiency.

DMS:122 VASCULAR TECHNOLOGY II
Further study of the clinical applications of Vascular Technology including the pathophysiologic basis, clinical signs and symptoms, related diagnostic procedures and typical findings of common and rare conditions of the carotid and lower extremity vascular systems. Prerequisites: DMS:119 or permission of the Program Director and Reading Proficiency.

DMS:123 VASCULAR TECHNOLOGY PRACTICUM III
Laboratory demonstration and performance of standard protocols for both common and rare examinations, including transcranial and peripheral Doppler, vein mapping and the upper extremity venous and arterial examinations. Additional lab hours required. Prerequisites: DMS:120 or permission of the Program Director and Reading Proficiency.

DMS:124 VASCULAR TECHNOLOGY CLINICAL APPLICATIONS I
Review of abnormal vascular examinations of the carotid and lower extremities in order to further develop critical thinking skills required to correlate the clinical history, clinical signs and symptoms and results of other diagnostic tests with the results of the sonographic examination. Prerequisites: DMS:119 or permission of the Program Director and Reading Proficiency.

DMS:125 VASCULAR TECHNOLOGY PRACTICUM IV
Clinical performance of vascular procedures under the supervision of an experienced Vascular Technologist. Additional hours required. Prerequisites: DMS:121 or permission of the Program Director and Reading Proficiency.

DMS:201 ULTRASOUND PHYSICS AND INSTRUMENTATION III
Topics in this course include quality assurance procedures, biological effects, 3-D ultrasound applications and a general review in preparation for the certification examinations in physics and instrumentation. Prerequisites: DMS:104 or permission of the Program Director and Reading Proficiency.

DMS:202 MEDICAL SONOGRAPHY III
A study of the clinical applications of superficial structures, including the pathophysiologic basis, clinical signs and symptoms, related diagnostic tests and typical sonographic patterns of common and rare conditions encountered in the clinical setting. Additional hours required. Prerequisites: DMS:108 or permission of the Program Director and Reading Proficiency.

DMS:203 MEDICAL SONOGRAPHY PRACTICUM III
A continuation of clinical experience achievement of minimal competency in the most common examinations. Additional hours required. Prerequisites: DMS:111 or permission of the Program Director and Reading Proficiency.

DMS:204 MEDICAL SONOGRAPHY IV
This course will present normal sectional anatomy and patterns, and the clinical applications for neonatal neurosonography and the pediatric abdomen and pelvis. The remainder of the course will consist of review in preparation for the certification examinations in Abdomen and OB/GYN sonography. Prerequisites: DMS:202 or permission of the Program Director and Reading Proficiency.

DMS:205 MEDICAL SONOGRAPHY CLINICAL APPLICATIONS II
A further review of less common sonographic examinations in order to further develop the critical thinking skills required to correlate the clinical history, clinical signs and symptoms and results of other diagnostic tests with the results of the sonographic examination. Prerequisites: DMS:110 or permission of the Program Director and Reading Proficiency.

DMS:206 MEDICAL SONOGRAPHY PRACTICUM IV
Students will complete all clinical competency requirements for the specialties of abdomen, OB/GYN and superficial structures. Additional hours required. Prerequisites: DMS:203 or permission of the Program Director and Reading Proficiency.

DMS:207 CARDIAC SONOGRAPHY III
Further study of the clinical applications of cardiac sonography including pediatric applications and other advanced and/or rare imaging techniques. Additional hours required. Prerequisites: DMS:115 or permission of the Program Director and Reading Proficiency.

DMS:208 CARDIAC SONOGRAPHY PRACTICUM III
A continuation of clinical experience with achievement of minimal competency in the most common types of examinations. Additional hours required. Prerequisites: DMS:118 or permission of the Program Director and Reading Proficiency.

DMS:209 CARDIAC SONOGRAPHY IV
Further study of the clinical applications of cardiac sonography, including fetal echocardiography. The remainder of the course will consist of review in preparation for the certification examination in cardiac sonography. Prerequisites: DMS:207 or permission of the Program Director and Reading Proficiency.

DMS:210 CARDIAC SONOGRAPHY CLINICAL APPLICATIONS II
A further review of more rare and abnormal cardiac sonographic examinations in order to further develop the critical thinking skills required to correlate the clinical history, clinical signs and symptoms and the results of other diagnostic tests with the results of the sonographic examination. Prerequisites: DMS:117 or permission of the Program Director and Reading Proficiency.

DMS:211 CARDIAC SONOGRAPHY PRACTICUM IV
Students will complete all clinical competency requirements for adult cardiac sonography. Additional hours required. Prerequisites: DMS:208 or permission of the Program Director and Reading Proficiency.

DMS:212 VASCULAR TECHNOLOGY III
Further study of the clinical applications of vascular technology including abdominal Doppler applications and other advanced and/or rare examinations. Additional hours required. Prerequisites: DMS:122 or permission of the Program Director and Reading Proficiency.

DMS:213 VASCULAR TECHNOLOGY PRACTICUM III
A continuation of clinical experience with achievement of minimal competency in the most common vascular examinations. Additional hours required. Prerequisites: DMS:125 or permission of the Program Director and Reading Proficiency.

DMS:214 VASCULAR TECHNOLOGY IV
Topics in this course will include therapeutic interventions, intraoperative monitoring and the use of ultrasound contrast agents. The remainder of the course will consist of review in preparation for the certification examinations in Vascular Technology. Prerequisites: DMS:212 or permission of the Program Director and Reading Proficiency.

DMS:215 VASCULAR TECHNOLOGY CLINICAL APPLICATIONS II
Review of abnormal vascular examinations of the cerebrovascular system, upper and lower extremity, and the abdomen in order to further develop the critical thinking skills required to correlate the clinical history, clinical signs and symptoms and the results of other diagnostic tests with the results of the sonographic examination. Prerequisites: DMS:124 and Reading Proficiency.

DMS:216 VASCULAR TECHNOLOGY PRACTICUM IV
Students will complete all clinical competency requirements for the specialty of Vascular Technology. Additional hours required. Prerequisites: DMS:213 and Reading Proficiency.

DIE:101 DIESEL ENGINE OPERATION AND REPAIR
This course examines through practical application the theories of operation, construction, maintenance, disassembly, and assembly of the diesel engine and its supporting systems; including lubrication system, cooling system, and engine brakes. Additional lab hours required. Prerequisite: Reading Proficiency.
DIE:102 MEDIUM/HEAVY TRUCK SUSPENSION AND STEERING  3
This course examines through practical application the types of suspension and steering systems found on medium and heavy trucks. Emphasis will be in areas of manual steering gears and columns, power steering gears, suspension system components, wheel alignment diagnosis, and wheel and tire diagnosis and repair. Additional lab hours required. Prerequisite: Reading Proficiency.

DIE:103 MEDIUM/HEAVY TRUCK ELECTRICITY  3
This course examines through practical application the theories of basic electricity and the diagnostic equipment used to perform general electrical system diagnosis of medium and heavy truck batteries, starting systems, charging systems, and lighting systems. Additional lab hours required. Prerequisite: Reading Proficiency.

DIE:202 MEDIUM/HEAVY TRUCK SUSPENSION AND STEERING  3
Continuation of DIE:202. Additional lab hours required. Prerequisite: DIE:202 and Reading Proficiency.

DIE:204 SERVICE AND PARTS MANAGEMENT  3
This course will introduce the student to current management practices of parts and service departments in modern truck repair shops. Shop tools, equipment, and safety will also be emphasized. Prerequisite: Reading Proficiency.

DIE:205 CO-OP WORK EXPERIENCE II - DIESEL TECHNOLOGY  3
Continuation of DIE:204. Additional lab hours required. Prerequisites: DIE:204 and Reading Proficiency.

DIE:206 MEDIUM/HEAVY TRUCK DRIVETRAINS  3
This course examines through practical application the types of manual and automatic transmission drivetrains found on medium and heavy trucks. To include: clutches, drive shaft and universal joints, and drive axles. Additional lab hours required. Prerequisite: Reading Proficiency.
**EARLY CARE AND EDUCATION**

**ECE:101 INTRODUCTION TO EARLY CARE AND EDUCATION**
An overview of early childhood programs and curricula, history, trends, and career opportunities are introduced. Quality characteristics of the environment and the role of the professional are examined. Five clock hours (minimum) of observation of children in various settings is required. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

**ECE:102 CREATIVE EXPERIENCES IN EARLY CARE AND EDUCATION**
This course introduces the expressive philosophy of creativity. Students explore materials and tools useful in creative expression across the curriculum. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

**ECE:103 LANGUAGE AND LITERACY IN EARLY CARE AND EDUCATION**
Students examine quality literature appropriate for children from infancy through age eight. Appropriate literacy experiences of reading, writing, and language are practiced. Students also examine methods of presentation and the creation of literature-based settings. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

**ECE:104 PRINCIPLES OF EARLY CARE AND EDUCATION**
This course focuses on the methodology for establishing developmentally appropriate care and education for young children. Topics include designing appropriate physical environments, play development and facilitation, tailoring curriculum planning toward individual needs and interests of children, and classroom management styles. Prerequisites: ECE:101 and ECE:125 with grades of "C" or better and Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

**ECE:105 CHILD DEVELOPMENT LABORATORY**
Students will actively participate in the daily operation of a quality early care and education setting for 6 hours each week, plus additional seminar meetings. A qualified supervisor will guide students through selecting, planning, and organizing curriculum in developmentally appropriate ways. Students will be involved in writing and implementing experiences for children as well as reflecting on their own practice. Prerequisites: ECE:104 (or concurrent enrollment) and ECE:101 and ECE:125 all with minimum grades of "C" and Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

**ECE:107 EARLY CARE AND SPECIAL EDUCATION**
Students will be introduced to the field of early care and special education with a focus on intervention and the role of the teacher. The course includes screening, assessment, and working with families. Five clock hours (minimum) of observation and field study is required. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

**ECE:108 INFANT, TODDLER AND TWO-YEAR-OLD CHILDREN**
This course is a study of the development of infants, toddlers, and two-year-olds. It includes current theories of development and a variety of caregiving practices for both the early care practitioner and parent. Students will observe and participate in an infant, toddler, or two-year-old setting a minimum of 10 hours during the semester. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

**ECE:109 PRESCHOOL EQUIPMENT AND MATERIALS**
A survey course dealing with the elements of the preschool classroom and the outdoor play area for the preschool child. Includes the relationship between program goals and the choice and arrangement of materials. Prerequisite: Reading Proficiency.

**ECE:110 HEALTH AND SAFETY IN THE PRESCHOOL**
Designed for persons responsible for the health and safety of preschool children, the course deals with physical safety, symptoms of illness, and first aid. Prerequisite: Reading Proficiency.

**ECE:111 SELF CONCEPT OF THE YOUNG CHILD**
A course dealing with the development of a child’s identity as it relates to sex, family, and ethnic group. The equivalent of seven hours each week. Prerequisite: Reading Proficiency.
ECE:112  SOCIAL DEVELOPMENT  3
Students will learn to provide an atmosphere to help children enjoy playing and working and will develop skills in diagnosing and dealing with problems children have in group situations. Prerequisite: Reading Proficiency.

ECE:113  CLASSROOM MANAGEMENT  3
Students will study their own experiences in an attempt to experience group dynamics and group interaction as they work with young children. Methods include case studies, videotaping, group sharing and conversations with experienced practitioners. Prerequisite: Reading Proficiency.

ECE:114  CULTURAL AND ETHNIC VARIETY  2
A course designed to help care-givers develop sensitivity to the needs of persons and the expression of these needs as they relate to race and ethnic origin. Course deals with the challenges and opportunities offered by cultural and ethnic variety in a child care facility. Prerequisite: Reading Proficiency.

ECE:115  HOME-SCHOOL COORDINATION  2
The importance of the family in a child’s life and the ways in which the school and family should work together for the child’s development are covered. Prerequisite: Reading Proficiency.

ECE:116  ADMINISTRATION: CHILD CARE  3
The operation of a child care facility including staff relations, budgeting, ordering, planning and evaluation of center operation. Prerequisite: Reading Proficiency.

ECE:117  EARLY CHILDHOOD LEARNING MODELS  2
A study of how children learn, including theories and the formulating and programming of learning objectives. Prerequisite: Reading Proficiency.

ECE:118  STIMULATION OF LEARNING  2
A course dealing with the stimulation of observation, experimentation, and problem solving in the young child. Material geared toward curriculum concepts and curriculum building for preschool programs. Prerequisite: Reading Proficiency.

ECE:119  DEVELOPMENT OF PHYSICAL COMPETENCE  1
The means of helping children discover their own bodies, develop coordination and controlling and using their bodies is covered. Prerequisite: Reading Proficiency.

ECE:120  DEVELOPMENT OF CREATIVE EXPRESSION  2
Developing creative expression in the young child through such activities as music, art and dance. Prerequisite: Reading Proficiency.

ECE:121  PLAY AND THE YOUNG CHILD  2
The value of children’s play, particularly as a learning opportunity, is covered in this course. Prerequisite: Reading Proficiency.

ECE:122  INDIVIDUAL DIFFERENCES IN THE YOUNG CHILD  3
Through observation and case study, students will learn about individual differences in children, identifying learning styles and special needs and developing tasks for children to master. Prerequisite: Reading Proficiency.

ECE:123  PLANNING AND SCHEDULING IN PROGRAMS FOR YOUNG CHILDREN  2
Scheduling to meet the needs of children is a major focus in this course. Students will learn how their scheduling can be tempered by weather, energy levels, attention span and other variables. Prerequisite: Reading Proficiency.

ECE:124  CHILD NUTRITION, HEALTH AND SAFETY  3
This course will focus on health, nutrition and safety issues in early care and education. Topics will include nutrition and nutrition education, menu planning, indoor and outdoor safety, childhood diseases and injuries and appropriate health and hygiene practices for caregivers, as well as for children. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

ECE:125  CHILD GROWTH AND DEVELOPMENT I  3
Students will study human development from conception to age eight, including physical and motor, cognitive, language, social and emotional development. There is an emphasis on the interrelationship of growth and behavior in young children. Eight clock hours (minimum) of observation is required. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

ECE:126  CHILD GROWTH AND DEVELOPMENT II  3
The student will study human development from age eight throughout the life span. An examination of children’s behavior, typical and atypical issues facing adolescents, adults, and older adults will occur. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

ECE:127  FAMILY AND TEACHER INTERACTIONS  3
Students will examine strategies and develop skills in effective communication with individual parents and families. Reflections on the contemporary American family, developing partnerships, utilizing community resources, parent education meetings, and home visiting will be included. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

ECE:200  GUIDING YOUNG CHILDREN  3
A practical study of child guidance literature that includes normative development, theory, and strategies for guiding children’s behavior at home and in diverse settings. Observation and field study of children from infancy through age eight will be the foundation of this course. A minimum of eight clock hours of observation will be required. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

ECE:201  MATH AND SCIENCE IN EARLY CARE AND EDUCATION  3
Students will design and implement developmentally appropriate experiences that enhance math and science concepts for children birth to age eight. Various cognitive theories and stages of development are integrated throughout the course. Topics include implementation strategies, sensory awareness, problem solving, thinking and questioning skills, exploration and discovery learning. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

ECE:202  MOVEMENT AND MUSIC IN EARLY CARE AND EDUCATION  3
The student will explore movement and music as it relates to the development and interests of young children. Students will prepare appropriate experiences in gross motor, fine motor, perceptual motor and auditory perception, targeted toward young children in diverse populations and settings. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

ECE:203  EARLY CARE AND EDUCATION PRACTICUM I  3
The student will continue practice in developmentally appropriate lesson planning, leading individual and group experiences, utilizing observation and reflection techniques, and demonstrating the ability to guide young children in positive ways. The student will participate in an early childhood setting for 9 hours each week, with additional seminar meetings. Prerequisites: ECE:104 and ECE:105 with minimum grades of “C” and Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

ECE:204  MANAGEMENT OF EARLY CARE AND EDUCATION SETTINGS  3
This course focuses on the organizational and managerial structure of various center and home-based settings. Topics include licensing and accreditation standards, spatial design, fiscal responsibilities, employment procedures, staff development, marketing, and the planning and evaluation of center operations. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

ECE:205  CHILD AND SOCIETY  3
This course is an introduction to the sociology of child development, emphasizing the role of the family, school, and community in the socialization process. The effect of culture and political forces upon the delivery of appropriate early care and education is discussed, as well as available community resources for a diverse society. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

ECE:206  EARLY CARE AND EDUCATION PRACTICUM II  3
The student will demonstrate the ability to execute all teaching and caregiving aspects of the assigned early childhood setting. Planning, implementation, developmentally appropriate guidance methods, as well as professional job searching preparation is included. The student will participate in an early childhood setting for nine hours each week, with additional seminar meetings. Prerequisite: ECE:203 with a minimum grade of “C” and Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

ECE:207  ACTIVITIES FOR SPECIAL INDIVIDUALS  3
Covers practical techniques for working with exceptional individuals including task analysis and behavior modification. Experience with screening instruments and charting behavior as part of developing and implementing individualized programs will be emphasized. Prerequisites: ECE:107 and Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.
ECE:208  BEFORE AND AFTER SCHOOL CARE  3
This course focuses upon the development expectations and unique needs of the five through twelve-year-old in before and after school settings and summer programs. Legal issues, community resources, personnel relationships, nutrition and health concerns, communication with families, administrative procedures, and curriculum are discussed. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

ECE:209  CAPACITIES/QUALITIES: PHYSICAL LEARNING ENVIRONMENT  1
Review of Competency I. Relating to the set-up of a safe and healthy learning environment for young children. Prerequisite: Reading Proficiency.

ECE:210  CAPACITIES/QUALITIES: THE PROGRAM  1
Review of Competency II. Relating to the advancement of physical and intellectual competency of young children. Prerequisite: Reading Proficiency.

ECE:211  CAPACITIES/QUALITIES: INDIVIDUAL CHILD  1
Review of Competency III. Relating to building the individual strength and positive self-control of the children. Prerequisite: Reading Proficiency.

ECE:212  CAPACITIES/QUALITIES: SOCIAL ENVIRONMENT  1
Review of Competency IV. Relating to organizing and sustaining the functioning of children and adults in group learning situation. Prerequisite: Reading Proficiency.

ECE:213  CAPACITIES/QUALITIES: HOME AND CENTER  1
Review of Competency V. Bringing about coordination of child-rearing practices in the home and in the center. Prerequisite: Reading Proficiency.

ECE:214  CAPACITIES/QUALITIES: SUPPLEMENTARY RESPONSIBILITY  1
Review of Competency VI. On carrying out supplementary responsibilities related to children's program. Prerequisite: Reading Proficiency.

ECE:215  SKILL BUILDING WORKSHOP  3
Working in groups, students will study in-depth, special interest areas (motor development, creative activities, language development). Prerequisite: Reading Proficiency.

ECONOMICS

ECO:103  ECONOMICS OF THE BLACK EXPERIENCE  3
This course examines the economic forces that effect African-Americans and other people of African descent. Some of the topics included are: slavery, discrimination, labor markets, education, affirmative action, and Pan-African issues. Prerequisite: Reading Proficiency.

ECO:140  INTRODUCTION TO ECONOMICS  3
A study of basic economic concepts, institutions, and policies, (both macro and micro) necessary for a general understanding of the economy. Normally, Business Administration students and other students who need a six-hour undergraduate sequence in Economics, should take ECO:151 and ECO:152 instead of ECO:140. Prerequisite: Reading Proficiency.

ECO:151  PRINCIPLES OF MACROECONOMICS  3
This course presents an introductory description and analysis of economics from a national perspective. Included are the basic concepts relating to supply, demand, income, taxation, exports, imports, money and banking, consumption, savings and investment. The course applies these concepts and their inter-relationships to such problems as the general level of economic activity, employment and unemployment, inflation, monetary and fiscal policies, and economic growth and development. Prerequisite: Reading Proficiency.

ECO:152  PRINCIPLES OF MICROECONOMICS  3
Principles of Microeconomics is an introductory course that describes and analyzes the behavior of households and business firms in the economy. The course includes, among others, the following topics: analysis of the demand and supply of goods and services; price and output determination in competitive and noncompetitive markets; the cost of production of goods and services; determination of the level of rents, wages, interest rates, and profits; international trade and comparative advantage. Prerequisite: Reading Proficiency.

ECO:215  MONEY AND BANKING  3
This course presents the basic economic principles most closely related to the subject of money and banking in a context of topics of interest to present and prospective bank management. The emphasis is on the practical application of the economics of money and banking for the individual bank. Subjects covered include structure of the commercial banking system; the nature and functions of money; banks and the money supply; cash assets and liquidity management; bank investments; loans, earnings and capital; the Federal Reserve System and its policies and operations; Treasury Department operations; and the changing international monetary system. Prerequisite: ECO:151 and Reading Proficiency.

EDUCATION

EDU:101  LITERACY TUTORING  1-3
This course will introduce the college student to tutoring techniques and provide tutoring experiences. The student participates in 10 hours of tutoring training prior to placement. The student will apply what was learned during 30-90 hours of tutoring. The student will be observed tutoring and will participate in three reflective meetings. This course is an elective in teacher education and is not required for teacher certification. Prerequisite: PSY:200 and Reading Proficiency.

EDU:120  ART FOR CHILDREN  3
The course will acquaint the student with art media and methods appropriate for children. The student will develop projects to promote the child’s appreciation of art and to integrate art into the total curriculum. (Same course as ART:185.) Prerequisite: Reading Proficiency.

EDU:129  MUSIC FOR THE CLASSROOM TEACHER  3
Designed for elementary education students without regard to previous musical training. Students are prepared to use music functionally and developmentally in the elementary classroom through singing, through playing the piano and informal instruments, and through responding to music rhythmically. Creative aspects and values of music are emphasized and materials are studied in relation to their future uses in the classroom. (Same course as MUS:129.) Prerequisite: Reading Proficiency.

EDU:210  TEACHING PROFESSION WITH FIELD EXPERIENCE  3
This course provides students an opportunity to observe teaching and learning for 30 hours or more in P-12 classrooms. Students are introduced to the requirements for teacher preparation and certification. Students will examine characteristics of effective teaching. The course is designed to assist students in determining if a career in teaching is an appropriate goal. Prerequisites: ENG:101 and Reading Proficiency.

EDU:211  FOUNDATIONS OF EDUCATION  3
This course is designed to examine the historical, philosophical, sociological, political, economic, and legal foundations of American public education. Students will explore the nature of school environments, design and organization of school curricula, and characteristics of effective schools and instruction in grades P-12. Educational structures, practices, and projections for the future will be studied. Prerequisites: ENG:101 and Reading Proficiency.

EDU:216  TEACHER EDUCATION PORTFOLIO DEVELOPMENT  1
Students complete a Mid-Preparation Portfolio containing documents that demonstrate their mastery of the competencies required for entry into an undergraduate teacher preparation program and detailed in the Missouri Standards for Teacher Education Programs (MOSTEP). Prerequisites: EDU:218, EDU:220, EDU:211, and prior or concurrent enrollment in EDU:217. Reading Proficiency.

EDU:218  TECHNOLOGY FOR TEACHERS  3
In this course students will learn how to integrate instructional technology into the P-12 classroom. Students will study a variety of software programs, presentation technology, and telecommunication tools. The focus will also be on social, ethical, legal, and human issues surrounding the use of technology. Prerequisites: ENG:101 and Reading Proficiency.

EDU:219  EDUCATION OF EXCEPTIONAL LEARNERS  3
This survey course is an introduction to exceptional learners and their education in grades P-12. Students will attain knowledge, skills, and dispositions that will enable them to work effectively with exceptional learners in general education or special education. Prerequisites: EDU:217 or EDU:227 and Reading Proficiency.
EDU:226 CHILDREN’S LITERATURE 3
This course will familiarize students with examples of good children’s books, for children from infancy to adolescence. It will also help students develop the ability to evaluate a book, analyze its appeal, and present it effectively. (Same course as ENG:226.) Prerequisite: Reading Proficiency.

EDU:227 EDUCATIONAL PSYCHOLOGY 3
This course is designed to help students apply psychological principles for teaching, learning, assessment and other educational practices in P-12 classrooms. It will focus on the learner and the learning process, teacher characteristics, and classroom processes that increase student motivation. Student diversity and appropriate instructional strategies for students with special needs will also be introduced. Prerequisites: EDU:210 and PSY:203 or PSY:205 or PSY:214. Reading Proficiency.

ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY

EE:101 TECHNICAL ELECTRICITY 5
This course will cover basic DC and AC circuits, Ohm’s Law, Kirchoff’s Law and related network theorems. This class will also cover the principles of semiconductor devices, their theory and application in electronic, computer and telecommunications systems. Additional lab hours required. Prerequisites: MTH:124 or MTH:140 or MTH:144 or above and Reading Proficiency.

EE:106 IBM PERSONAL COMPUTER INSTALLATION AND REPAIR 1
This course will help you learn how to install and repair the popular IBM series of personal computers. Connection and setup of monitors, printers, hard disks, and memory will be covered. Some previous electronics or computer experience is recommended but not required. Prerequisite: Reading Proficiency.

EE:107 ADVANCED TROUBLESHOOTING AND COMMUNICATIONS 1
This course will cover in depth the hardware, software and peripheral equipment and miscellaneous accessories involved in computer interaction and possible problems that can develop and how to systemically eliminate the problems. This course will also emphasize diagnostic and analysis of simultaneous problems in computers. Additional hours required. Prerequisite: EE: 106 and Reading Proficiency.

EE:108 WORKPLACE LEARNING: PC TECHNICIAN 1-6
This workplace-based course provides the student the opportunity to apply theory and skill learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Students will observe and participate in the functions of the industry to enhance their preparation for entering the field. Minimum of 50 hours per credit hour in the workplace throughout the term. Prerequisites: EE:106, EE:107. Departmental Approval. Reading Proficiency.

EE:109 PERSONAL COMPUTER CONFIGURATION 1
This course is designed to teach the student to configure the IBM-compatible personal computer for optimum performance. Emphasis will be placed on the interaction between peripheral equipment and applications. Prior experience with personal computers and DOS is highly recommended. Additional hours required. Prerequisite: EE: 106 and Reading Proficiency.

EE:110 TECHNICAL ELECTRIC CIRCUITS I 4
This combination classroom and laboratory course is a study of the basics of electricity and electrical circuits. It includes such fundamentals as static electricity, resistance, Ohm’s Law, Kirchoff’s Laws, power, series and parallel circuits, voltage dividers, magnetism and electromagnetic induction as well as an introduction to generators. Additional lab hours required. Prerequisite: concurrent enrollment in MTH:124 and Reading Proficiency.

EE:111 TECHNICAL ELECTRIC CIRCUITS II 4
This course is the continuation of EE:110. The basic meter types as to construction and operation are first studied. The concepts of alternating current as to frequency, period, amplitude wave length, phase relationship, maximum instantaneous, average and peak values are then considered. Inductance, capacitance and reactance are then studied from simple parallel or series circuits to complex circuits. Transformers, power and resources are also included. Additional lab hours required. Prerequisites: EE: 110 and Reading Proficiency.

EE:112 TECHNICAL ELECTRONICS I 5
The basic principles of electronics will be introduced in this course. Semiconductor theory with emphasis on diodes and transistors. The diode and bipolar devices will be studied in their applications to rectifiers, small signal amplifiers and power amplifiers. Additional lab hours required. Prerequisites: Concurrent enrollment in EE: 110 and EE: 111 and Reading Proficiency.

EE:114 PERSONAL COMPUTER COMMUNICATIONS 1
This course focuses on computer connectivity to the electronic information systems. The course will highlight on the hardware, software and service providers end of this technology. Prior experience with personal computers is recommended. Additional hours required. Prerequisite: Reading Proficiency.

EE:121 FUNDAMENTALS OF DIGITAL ELECTRONICS 3
This course is an introduction to Digital Electronics. Students will learn basic lab safety, electron theory, Ohm’s and Kirchoff’s Laws, logic, number systems, binary addition and Boolean Expression applications. Students will design, construct, troubleshoot and evaluate design problems, and will present oral reports of their results. Students will also study PLDs, Flip-Flops, microprocessors, and shift registers and encoders. Prerequisites: GE:121 or Department Approval.

EE:130 ELECTRIC CIRCUITS I 4
This course begins with the basic physical and electrical units and proceeds to network theorems. Emphasis is on analysis and understanding of circuits. Laboratory experiments parallel classroom work. Additional lab hours required. Prerequisite: Previous or concurrent enrollment in MTH:144 and Reading Proficiency.

EE:131 ELECTRIC CIRCUITS II 4
A continuation of EE: 130, it begins with single phase alternating voltages and currents and proceeds through non-sinusoidal voltages and currents to polyphase circuits. Additional lab hours required. Prerequisite: EE: 130 and MTH:144 and Reading Proficiency.

EE:132 ELECTRONIC DEVICES 5
Theory and characteristics of most of the electronic devices used in industry. Basic practical circuits will be presented to reinforce the theory. Additional lab hours required. Prerequisite: Previous or concurrent enrollment in EE: 131 and Reading Proficiency.

EE:201 COMPUTER PERIPHERALS 4
A study of the principal peripheral devices used with computers to produce digital operating systems. The devices studied will be dynamic and static rams, led displays, keyboards, memory disks, modems, printers and analog to digital and digital to analog conversions. Additional lab hours required. Prerequisites: EE: 233 and EE: 242 and Reading Proficiency.

EE:202 LOGIC AND SWITCHING CIRCUITS 4
A study of the production and analysis of nonsinusoidal waveforms and how they are applied to digital systems. Topics covered will consist of transistor switching circuits, pulse shaping networks multivibrators, timing circuits, and counters. Additional lab hours required. Prerequisites: EE: 131 and EE: 132 and Reading Proficiency.

EE:203 OPERATING SYSTEMS 3
This course consists of a study of the relations between microprocessors, bus structures, interfacing procedures, input output networks, digital communication systems, and programming languages. This information should provide the student with a knowledge of how digital subsystems are combined to form operating systems. Prerequisites: EE: 233 and EE: 242 and Reading Proficiency.

EE:207 INDUSTRIAL INSTRUMENTATION 3
This course covers the use and function of various electronic instruments used in industry. Topics include measurement errors, analog meters, oscilloscopes, signal generators, transducers, noise, and digital instrument. Additional lab hours required. Prerequisite: EE:112 and Reading Proficiency.

EE:208 TECHNICAL ELECTRONICS II 5
A continuation of EE: 112 with emphasis on Field effect transistors and their circuits. A study of frequency effects. Integrated circuits and op amps. Negative and positive feedback. Frequency domain analysis. Additional lab hours required. Prerequisite: EE: 112 and Reading...
EE:211  TECHNICAL POWER TRANSMISSION-
DISTRIBUTION  3
Considers basic wiring fundamentals, applications of series and parallel
circuits, purpose of electrical testing instruments, feeder and branch circuit
protection, fuse and circuit breaker protection, grounding practices and
lightning protection; outline various types of power generating plants,
hydro, steam, nuclear, and their purposes; defines transmission and
distribution circuits and their functions of bringing electrical energy from
generating plants to customers. Prerequisite: EE: 111 and Reading Proficiency.

EE:230  ANALOG AND DIGITAL ELECTRONICS  3
A study of the operational amplifier as a scanner and integrator. The
"bootstrap method" of analog computer patching. Digital fundamentals
include number systems, Boolean algebra, logic circuits, memory devices,
binary elements and input/output devices. Additional lab hours required.
Prerequisite: PHY:115 and Reading Proficiency.

EE:233  DIGITAL LOGIC  4
Digital computer fundamentals from the systems and circuit approach and
an introduction to the basic theory of analog computers. Additional lab
hours required. Prerequisites: EE:112 or EE: 132 or EE: 101 and MTH:124
and Reading Proficiency.

EE:234  APPLIED ELECTRONICS  5
The conversion of electrical energy from AC to DC, types of amplifiers and
techniques of analyzing them, audio input/output devices. Additional lab
hours required. Prerequisites: EE: 132 and Reading Proficiency.

EE:235  ELECTRONIC COMMUNICATIONS  4
The fundamental theory and application of communications circuits and
devices. The study of radar fundamentals, transmission lines, and
electromagnetic interference will be included. Additional lab hours required.
Prerequisites: EE: 234 or BE: 251 and Reading Proficiency.

EE:236  PLC/PROGRAMMABLE LOGIC CONTROLLER  3
This course presents the fundamentals of ladder logic (formerly relay logic)
used in modern industrial controllers. Basic elements such as timers,
counters, and sequencers are studied, as well as traditional methods of
applying them to machine control. Students will program and perform
laboratory experiments with programmable logic controllers, using the
Allen Bradley SLC 500 family and the Micrologic series, with an
introduction to control logic. Additional lab hours required. Prerequisites:
GE:101 or EE: 233 or ME: 140 or departmental approval and Reading Proficiency.

EE:240  ELECTRICAL MACHINES  4
Direct current and alternating current motors and generators construction
and characteristics are studied, as well as the associated starting and control
circuitry. The laboratory experiments will deal with related classroom work.
Additional lab hours required. Prerequisite: EE: 131 and Reading Proficiency.

EE:241  TRANSMISSION AND DISTRIBUTION OF POWER  3
This course is a general study of the sources of energy, types of generating
stations, their comparative merits, transmission and distribution systems.
Topics on transmission and distribution include types of construction,
terminal facilities, equipment and protection against failures. Over-all system
behavior, stability and industrial utilization of electrical energy are included.
Attention is also given to the consideration of electric utility economics.
Prerequisites: EE: 131 and Reading Proficiency.

EE:242  INTRODUCTION TO MICROPROCESSORS  3
This course will focus on the structure of a microcomputer input/output
central processor and control units, memory programming techniques,
logic circuits and arithmetic operations. Additional lab hours required.
Prerequisite: GE: 101 and EE: 233, or departmental approval. Reading Proficiency.

EE:244  MICROPROCESSOR APPLICATIONS  3
A continuation of EE:242, emphasizing real-world applications of
microprocessors and problems encountered during interfacing to external
devices. Software subroutines required to drive external devices will be
introduced. Prerequisites: EE: 242 and Reading Proficiency.

EE:260  ELECTRONIC PROJECT DESIGN
AND FABRICATION  3
This course provides techniques in safety precautions, use of laboratory
equipment and component familiarization. Students receive experience in
soldering techniques, chassis fabrication such as bending, drilling and
punching, wiring, harnessing, and general shop practice. This course also
provides the student with specialized training in printed circuit board
layout and production procedures. Students are required to select a project
which must be assembled on PCB, tested for proper operation, and
mounted in an appropriate housing. Students must submit the completed
project with documentation of the fabrication procedures for final grade
assignment. Additional lab hours required. Prerequisites: EE: 132 or EE: 208
and EGR: 104 and Reading Proficiency.

EMERGENCY MEDICAL TECHNOLOGY

EMT:120  EMT INTERNSHIP  6
An intermediate, transition course designed to solidify and reinforce the
knowledge and skills gained in EMT:121 while introducing paramedic
topics. Classroom topics include in-depth medical terminology,
introduction to paramedic procedures, and situational review of both
hypothetical and real situations encountered in ambulance field work. In
addition, students are required to practice EMT skills in assigned pre-
hospital settings for an average of approximately twelve (12) hours a week
in order to satisfy State requirements for admission to Paramedic programs.
Additional hours required. Prerequisite: EMT:121 and Reading Proficiency.

EMT:121  EMERGENCY CARE, PRINCIPLES,
AND TECHNIQUES  8
This course meets all the current requirements for Missouri State EMT-Basic
licensure. It includes the assessment and care of the sick and injured,
pediatric and geriatric emergencies, childbirth, defibrillation, lifting and
moving of patients, hazardous material situations and the use of adjunctive
EMS equipment. Prerequisites: American Heart Association
Cardiopulmonary Resuscitation (CPR) for Health Care Providers, and
Reading Proficiency.

ENGINEERING GRAPHICS

EGR:050  FUNDAMENTALS OF DRAFTING  3
First course in drafting for persons with little or no previous drafting
coursework. Practice of using drafting tools, board skills, good line work,
lettering, geometric construction, accurate layout of multiview and pictorial
drawings and basic dimensioning will be emphasized. Additional lab hours
required.

EGR:100  ENGINEERING DRAWING  3
This course uses a combination of instruments and CAD systems for making
drawings. The course includes use of instruments, lettering, geometrical
constructions, technical sketching, principles of orthographic projection,
pictorial drawing, descriptive geometry, sectional views and conventions,
auxiliary views and dimensioning. Additional lab hours required.
Prerequisites: EGR:050, previous drafting work, or permission of
Department and Reading Proficiency.

EGR:104  ELECTRONIC DRAFTING  2
Review of basic drafting with emphasis on technical sketching and
lettering. Topics include schematic diagrams, block diagrams, electronic
symbols, etched circuit layout, wiring diagrams, mechanical and electronic
detail and assembly drawings. Additional lab hours required. Prerequisite:
Reading Proficiency.

EGR:110  DESCRIPTIVE GEOMETRY  3
An advanced drafting course for developing graphic problem skills in
applications of architectural, civil, and mechanical technology. Emphasis
on logical sequences in theory of reference planes, points, lines and planes
in space, intersections of lines and planes, angles between lines and planes
and curved surfaces in space. Additional lab hours required. Prerequisites:
EGR:100 and Reading Proficiency.
EGR:133  INTRODUCTION TO AUTOCAD I  2

EGR:135  CADD MANAGEMENT  2
CADD system setup and management. Hard disk setup and management, file storage management, system customization, archiving, drawing translation between versions. Standardization of layering, naming, numbering and plotting conventions, networking. Prerequisites: EGR:133 and Reading Proficiency.

EGR:139  3-D AUTOCAD WITH AUTO SHADE  2
3-D drawing concepts using AutoCAD Version 10, generation of objects using true 3 dimensional database. User coordinate system, X,Y,Z coordinate system and x,y,z point filters. Extensive practice with various 3-D surfaces. Use of viewport and view commands to select viewing angle or perspective view. Settings lights, camera, and scenes to generate shaded images and movies. Prerequisites: EGR:133 and Reading Proficiency.

EGR:140  COMPUTER AIDED DRAFTING AND DESIGN I  3
This course provides the student with knowledge and implementation of skills used in Computer Aided Drafting. Computer drawings will include geometric constructions, multiple views, sectional views, and dimensioning. Computer operations will include editing, filing and retrieving drawings to produce an industrial quality drawing using a plotter. Additional lab hours required. Prerequisites: EGR:100 and GE: 101 or departmental approval and Reading Proficiency.

EGR:141  INTRODUCTION TO AUTOCAD II  2
Continuation of Introduction to AutoCAD 1. DOS for AutoCAD, Blocks, attributes, symbol libraries, bill of material extraction, screen and tablet menus, digitizing drawings, slides and slide shows, introduction to LISP language. Prerequisites: EGR:133 and Reading Proficiency.

EGR:143  INTRODUCTION TO MICROSTATION II  2
The student will learn to use Microstation drawing software to set up drawings; control the levels, colors and linetypes; place and modify elements and patterns; dimension; plot; and link drawing files. The student should possess basic knowledge of technical drawing. Prerequisite: Reading Proficiency.

EGR:144  MICROSTATION II  2
This course is a continuation of Introduction to Microstation building on the fundamentals with more advanced drawing techniques. 3-D drawing will also be included. Adapting the Microstation software will be studied in simple menu customization and user commands. Prerequisites: EGR:143 and Reading Proficiency.

EGR:145  COMPUTER SOLIDS MODELING  2
Students will learn to design and model objects using three dimensional solids modeling computer software. Extrusion, revolution, and sweeping are examples of techniques that will be studied. Students will model individual parts and assemblies of parts. The projection of working drawings and shaded pictorials will also be completed. Additional hours required. Prerequisite: Reading Proficiency.

EGR:147  INTRODUCTION TO ENGINEERING DESIGN  3
This course is an introduction to the elements of Engineering Design. Students will learn the history of design, design process, sketching and visualization, geometric relationships, and modeling. Elements of manufacturing, design, testing, and mass production will be studied. Students will learn presentation techniques and develop a portfolio.

EGR:148  SOLID MODELING WITH UNIGRAPHICS  2
This course teaches the use of 3-D modeling using the Unigraphics CAD package. Students will productively develop solid models, detail drawings and product assemblies. The class introduces assembly modeling in the context of a real-life scenario that includes parts modeled by the student as well as existing part models. Prerequisite: Reading Proficiency.

EGR:149  SOLID MODELING WITH UNIGRAPHICS II  2
Topics covered in this course will include 2-D and 3-D drawing concepts, customizing menus, creating macros, symbol libraries, bill of material extraction, creating production drawings, modeling and shading. Assigned labs will include an extended project and portfolio development. Prerequisites: EGR:141 or EGR:140 or EGR:144 and Reading Proficiency.

EGR:256  SOLID MODELING WITH CATIA  2
This course is designed for students with 3-D modeling experience to learn the use of 3-D solid modeling using the CATIA CAD package. The student will productively develop solid models, detail drawings and product assemblies. Additional hours required. Prerequisite: Reading Proficiency.

EGR:257  UNIGRAPHICS FOR PART DESIGN  2
This course will focus on creating Unigraphics 3-D parametric models that capture design intent. Students will learn the concepts used to make geometry and models associative. Some of these concepts include creating parametric sketches, building assemblies, creating mating conditions and inter-part modeling to link geometry across part files. Additional hours required. Prerequisites: EGR:148 and Reading Proficiency.

ENGINEERING SCIENCE

ESC:100  ENGINEERING COMPUTER APPLICATIONS AND DESIGN  3
This course provides the student with basic skills in the use of Computer Aided Drafting (CAD), word-processing, spreadsheets, and computer math software. Students will be divided into teams to solve an engineering related design problem. They will need to conceptualize and build their project/product, and prepare and present a report. They will utilize the computer and applications software they have learned in the class as a tool in preparation and presentation of their report. Prerequisites: MTH:140 or higher. Reading Proficiency.

ESC:101  SCIENTIFIC COMPUTER PROGRAMMING  3
This course emphasizes instruction in computer programming language to solve engineering problems. Instruction will include such topics as: study of digital computer systems, programming techniques, program structure, coding, execution, debugging and verification of programs. Computer laboratory exercises will be conducted to analyze, interpret and synthesize engineering data. Prerequisites: MTH:160 (A, B or C) or higher, and Reading Proficiency.

ESC:200  ENGINEERING CIRCUITS I  4
This is a problem-solving course that develops analytical skills important for all engineering disciplines as well as fundamental circuit theory for electrical engineers. The course covers circuit elements and the fundamental laws governing their behavior, network theorems, and analysis techniques, including transient responses. Circuit simulation using computer models and practical circuit testing are included in the laboratory work. Additional lab hours required. Prerequisites: PHY:122 and ESC:201.

ESC:201  ENGINEERING CIRCUITS II  4
This is a problem solving course that develops analytical skills important for all engineering disciplines as well as fundamental circuit theory for electrical engineers. The course covers sinusoidal AC circuit analysis (including AC power and three-phase systems, mutual inductance and transformers, complex frequency, and filters). The primary focus of this course is on phasors and frequency-domain responses. Laboratory work will include circuit simulation using computer models, as well as practical limitations of these models. Additional lab hours required. Prerequisites: ESC:200 and Reading Proficiency.

ESC:202  THERMAL ANALYSIS  3
Basic principles of thermodynamics and heat transfer. First and second laws of thermodynamics and application to engineering systems. Fundamentals of heat transfer by conduction, convection and radiation with applications. Prerequisites: MTH:230 and PHY:223 and Reading Proficiency.

ESC:203  ENGINEERING MECHANICS I  3
Application of the principles of mechanics to the solution of engineering problems involving particles and systems in equilibrium. Topics include force systems in equilibrium, centers of gravity, friction, moments of inertia. Where appropriate, vector analysis is used. Prerequisites: PHY:122 and Reading Proficiency.

ESC:204  ENGINEERING MECHANICS II  3
Application of the principles of mechanics to the solution of engineering problems involving particle and rigid body motion. Topics include linear, curvilinear relative motion, energy, impulse, and momentum. Where appropriate, vector methods are used. Prerequisites: ESC:203 and Reading Proficiency.
ENGLISH

ENG:001 THE SENTENCE
This course will help students master the fundamentals of sentence writing and punctuation. It is a skill-building course.

ENG:002 SPANNING
This course will point out to the student specific spelling problems as well as provide the student with the means to eliminate such spelling problems.

ENG:003 SENTENCE COMBINING
Using a selected sequence of sentence building exercises, this course will help students develop a feel for both sentence structure and paragraph organization. It is a "skill-building" course, whose main purpose is to help students hear the stylistic options available to them and to help them see patterns of development, both in sentences and paragraphs.

ENG:004 GRAMMAR REVIEW
This course will provide instruction for students who need extensive help with writing problems which may include punctuation, capitalization, usage, sentence construction, coherence and organization.

ENG:005 WRITING IMPROVEMENT
Students work individually on writing style, documentation, and other problems of advanced expository writing.

ENG:006 WRITING EFFECTIVE PARAGRAPHS
This course will help students who have already mastered the writing of sentences to learn about writing longer forms. Beginning with the writing of good topic sentences, it will proceed to consider such issues as paragraph development, unity and coherence. Thus, it will provide an additional valuable support for students who intend to write essays, business letters, stories and other longer prose forms.

ENG:007 BUSINESS WRITING REVIEW
This course will provide instruction in business writing formats: e-mails, letters, memos, and/or reports.

ENG:013 ESL: ACADEMIC ENGLISH PREP
This course is designed for non-native English speakers who need to improve basic language skills before beginning the ESL Academic English sequence. Students will work individually with the assistance of the designated ESL support staff. Prerequisite: Michigan test and writing sample.

ENG:014 ESL: ACADEMIC LISTENING COMPREHENSION
This course is designed to help non-native English speakers increase their ability in listening comprehension. Students will work individually with the assistance of the designated ESL support staff.

ENG:015 ESL: VOCABULARY DEVELOPMENT FOR NON-NATIVE SPEAKERS
This course is designed to help non-native English speakers increase their knowledge of English vocabulary, especially idioms and general academic vocabulary. Students will work individually with the assistance of the designated ESL support staff.

ENG:016 ESL: GRAMMAR REVIEW FOR NON-NATIVE ENGLISH SPEAKERS
This course provides practice for non-native English speakers who need supplementary instruction in English grammar. Students will apply grammar rules through writing and editing activities. Students will work individually with the assistance of the designated ESL support staff. Prerequisites: ENG:051 and/or ENG:061.

ENG:017 ESL: WRITING SKILLS
This course is designed for students who need to demonstrate improved skills in Academic English outcomes before proceeding to the next level. Students will work individually with the assistance of the designated ESL support staff. Prerequisites: ENG:050, ENG:060, or ENG:070 and recommendation of instructor.

ENG:020 DEVELOPMENTAL ENGLISH
This course provides comprehensive review and intensive drill in the fundamentals of English sentences and paragraphs. Near the end of the semester, students will be counseled concerning their progress and what additional work they may need to accomplish their particular writing goals. Prerequisite: Previous or concurrent enrollment in appropriate reading course.

ENG:022 DEVELOPMENTAL ENGLISH LAB
This course offers the students practice in identifying parts of the sentence, correcting sentence structure, punctuation, and agreement. Prerequisite: Recommendation of the Department.

ENG:030 INTRODUCTION TO COLLEGE WRITING
This course is designed primarily to help prepare students for successful work in College Composition I, though it may benefit anyone desiring to improve basic grammar and writing skills. The course focuses on fundamental writing problems through extensive work in the construction of sentences, paragraphs, and short essays. Previous or concurrent enrollment in a developmental reading course is encouraged. Near the end of the semester, students will be counseled concerning their progress and what additional work they may need to accomplish their particular writing goals. Prerequisite: ENG:020 with grade of "C" or better, or recommendation of Department.

ENG:032 INTRODUCTION TO COLLEGE WRITING LAB
Students study a series of grammatical elements in order to eliminate structural and grammatical mistakes in their writing. Topics include sentence patterns, punctuation, and sentence combining.

ENG:050 ACADEMIC ENGLISH FOR NON-NATIVE SPEAKERS I
This course is designed for non-native English speakers who wish to develop English language skills necessary for success in college courses. Instruction in the course will promote overall English language proficiency, with an intensive focus on reading and writing. Additional hours in lab or with an ESL tutor may be required. Prerequisite: Recommendation of ESL staff.

ENG:051 ENGLISH GRAMMAR FOR NON-NATIVE SPEAKERS I
This course provides non-native English speakers with a review of basic English grammar rules, with attention given to form, meaning, and use. Students will apply rules through speaking and writing activities. Prerequisite: Recommendation of ESL staff.

ENG:053 LISTENING AND NOTE-TAKING FOR NON-NATIVE SPEAKERS
This course is designed for non-native speakers who are new to the higher education system in the USA. Students will develop all language skills, with a focus on listening and note-taking skills, vocabulary, and lecture and discussion structure and content. Prerequisite: Recommendation of ESL staff.

ENG:060 ACADEMIC ENGLISH FOR NON-NATIVE SPEAKERS II
This course is designed for non-native English speakers who have demonstrated general fluency in reading and writing English, and need to develop clarity in using English for academic purposes. Instruction in the course will focus on reading and writing responses to texts. Additional hours in lab or with ESL tutor may be recommended. Prerequisites: ENG:050 and ENG:051 with grades of "C" or better.
ENG:061  ENGLISH GRAMMAR FOR NON-NATIVE SPEAKERS II  3
This course provides non-native English speakers with an intensive review of basic English grammar, with emphasis on application of rules to academic reading and writing tasks. Prerequisite: ENG:050 and ENG:051 with grades of "C" or better.

ENG:062  SPOKEN COMMUNICATION AND PRONUNCIATION FOR NON-NATIVE SPEAKERS  3
This course is designed for non-native English speakers who wish to improve their comprehensibility in communicating in English. The course will provide practice in stress, rhythm, and intonation patterns, and in troublesome consonant and vowel sounds. Prerequisite: Recommendation of ESL staff.

ENG:070  ACADEMIC ENGLISH FOR NON-NATIVE SPEAKERS III  3
This course is designed to facilitate non-native English speakers’ performance in college-level courses which require moderate to heavy amounts of reading, writing, and note-taking. Students recommended to take ENG:070 will have achieved the reading and writing performance outcomes of ENG:050 and ENG:060, but still need to improve grammatical and lexical accuracy in a variety of writing tasks. Reading and writing assignments will be linked to assignments in content areas. Prerequisite: ENG:060 and ENG:061 with grades of "C" or better, and ENG:053.

ENG:100  CAREER ENGLISH  3
Emphasis on career-related writing skills; study and practice in the principles of organization and development of ideas; methods of using reference material, general and professional; presenting oral and written reports; writing and precis. Assignments use material from career areas. Prerequisite: Satisfactory score on placement test and Reading Proficiency.

ENG:101  COLLEGE COMPOSITION I  3
This course is designed to meet the writing needs of a wide variety of students in the following ways: 1) prepares students who will continue in college to write acceptable college-level expository essays, 2) provides career students with a strong base for technical and business writing, 3) familiarizes all students with the kinds of writing skills that will be valuable in their everyday experience, 4) provides students with some awareness of the way language functions and affects their lives. To help reach these goals, the course will focus on the elements of clear writing, well-organized expository essays, the necessary critical thinking that must always precede expository writing, analytical reading, and, when necessary, a review of the principles of grammar. Prerequisite: ENG:030 with a grade of "C" or better, or recommendation of Department and Reading Proficiency or concurrent enrollment in RDC: 030.

ENG:102  COLLEGE COMPOSITION II  3
This is a course in longer units of composition including the documented research paper, argumentation, and criticism. Prerequisite: ENG:100 or ENG:101 with a grade of "C" or better or departmental approval and Reading Proficiency.

ENG:103  REPORT WRITING  3
This course offers instruction in the kinds of writing required in fields such as business, technology, and health science. Students plan, write, and revise letters, memos, reports, abstracts, and other forms of practical writing. Emphasis is given to writing for particular audiences to solve "real world" writing problems. Prerequisite: ENG:100 or ENG:101 with a grade of "C" or better or departmental approval and Reading Proficiency.

ENG:104  HONORS COLLEGE COMPOSITION I  3
This course is designed for students who have demonstrated above average ability. It covers the same subject matter as ENG:101, but offers a more challenging and a more rewarding experience for the students recommended for this course. Prerequisite: Permission of Honors Coordinator and Reading Proficiency.

ENG:105  HONORS COLLEGE COMPOSITION II  3
This course is designed for students who have demonstrated above average ability in ENG:101. It covers the same subject matter as ENG:102, that is, argumentative writing, critical analysis, and research papers. But ENG:105 offers a more challenging and a more rewarding experience for the students recommended for this course. Prerequisite: ENG:101 or ENG:104 with a grade of "C" or better and permission of Honors Coordinator. Reading Proficiency.

ENG:110  CREATIVE WRITING  3
This is a workshop for beginning and experienced writers. It is designed to encourage and guide students interested in writing poetry, fiction, and drama. Students will be required to produce a certain number of manuscripts, depending upon the form in which they are writing, and to read occasional brief selections. Prerequisite: Reading Proficiency.

ENG:114  WRITING PLAYS AND FILMSCRIPS  3
This course is designed for the student who has already experimented with several types of creative writing and who wishes special work in a single area. A workshop format will be used with emphasis on the discussion of student work in class. Some lectures will be given, involving the various facets of the writer's role from planning to publication. Prerequisite: Reading Proficiency.

ENG:201  INTRODUCTION TO FICTION  3
The enjoyment, appreciation, and understanding of American, European, African, and Oriental fiction are the goals of this course. The class will explore imagery, symbol and style, as well as other elements of fiction in short stories and novels. Prerequisite: Reading Proficiency.

ENG:202  INTRODUCTION TO POETRY AND PLAYS  3
This course focuses on the pleasures of poetry and drama. By reading, analysis, discussions and student projects, the student should gain a familiarity with the statements and craft of a selection of American, European, African and Oriental poems and plays. Prerequisite: Reading Proficiency.

ENG:203  AMERICAN LITERATURE  3
American Literature will provide the students with an opportunity to confront a significant part of their literary heritage. This course examines the broad social and ethnic diversity of American writers; it shows how Americans live now and how they used to live. It covers a broad range of subject matter and literary types. It concentrates on appreciation. Also, it pays some attention to the ways in which the works experienced relate to our historical and cultural values. Prerequisite: Reading Proficiency.

ENG:204  AMERICAN LITERATURE BEFORE 1865  3
Presenting the literature written prior to 1865 in the United States, this course covers pre-colonial, colonial, revolutionary and national literature through the Civil War. The course includes writers such as Bradford, Bradstreet, Cooper, Emerson, Franklin, Hawthorne, Irving, Melville, Paine, Poe, Thoreau and Wheatley. Prerequisite: Reading Proficiency.

ENG:205  AMERICAN LITERATURE BETWEEN 1865 AND 1945  3
Presenting United States literature written between 1865 and 1945, this course includes writers such as Adams, Cather, Chopin, Crane, Cullen, Cummings, Dickinson, DuBois, Eliot, Faulkner, Fitzgerald, Frost, Gilman, H.D., Hemingway, Hughes, James, Jewett, Millay, Moore, O’Neill, Porter, Pound, Stevens, Twain, Washington, Wharton, Whitman, Williams. Prerequisite: Reading Proficiency.

ENG:206  AMERICAN LITERATURE AFTER 1945  3
Presenting United States literature after 1945, this course includes writers such as Albee, Baldwin, Bellow, Bishop, Brooks, Ellison, Erdrich, Ginsberg, Gluck, Kingston, Levertoff, Lowell, Malamud, Miller, Morrison, Plath, Rich, Sexton, Shepard, Silko, Snyder, Updike, Vonnegut, Welty, Williams, and Wright. Prerequisite: Reading Proficiency.

ENG:207  HUMOR IN AMERICAN LITERATURE  3
This course explores American humor primarily in written sketches, short stories, and novels by authors from Twain and Thurban to Bombeck and Vonnegut. It also analyzes jokes, movies, comic strips, stand-up comedians, and television sitcoms. The course questions what American humor is, what forces have shaped its growth, what personal and social functions it serves, and what value it might have for contemporary Americans. Prerequisite: Reading Proficiency.

ENG:210  BRITISH LITERATURE BEFORE 1800  3
An investigation into the best literature written in the British Isles, starting with the rough, oral Anglo-Saxon tales of warriors, to the chivalric romances of and bawdy stories about knights and common people, to the searching but exciting poems and plays of the English Renaissance, and finally to the carefully refined 18th Century Literature. The course emphasizes finding the ways in which literature explores the virtues and foibles of human nature and relating these qualities to modern experiences. Prerequisite: Reading Proficiency.
ENG:211 BRITISH LITERATURE AFTER 1800 3
This course covers representative works of major British writers from
William Blake at the beginning of the nineteenth century to James Joyce in
the twentieth century. The material may consist of poetry, prose essays,
short stories, novels and plays. Upon successful completion of the course,
students should be aware of the dominant social, cultural and artistic
concerns of the period as reflected in the literature. Prerequisite: Reading
Proficiency.

ENG:213 THE SHORT NOVEL 3
Some of the greatest fiction is neglected because of its length—too long for
short story collections and too short to be included in courses on the novel.
This is the short novel or novella—a distinct literary type. Students in this
course will study works by such writers as Melville, Tolstoy, Baldwin,
Dostoyevski, Chopin, Conrad, Faulkner, Porter, Wright and others.
Prerequisite: Reading Proficiency.

ENG:214 CONTEMPORARY FICTION 3
This course focuses on the post-WWII novel and short story with emphasis
on the fiction of the past fifteen years. In it, students will look at each
fictional work as an artistic creation and also as a social document and will,
thereby, consider the ways in which contemporary art reflects and is
reflected by the customs and values of contemporary society. Prerequisite:
Reading Proficiency.

ENG:215 POPULAR LITERATURE: FANTASY AND HORROR 3
The course will focus on major themes and writers in the horror and fantasy
genre (science fiction may be discussed but will not be the primary aim of
the course). By looking at major works of fantasy and horror from the gothic
romances to the 20th century, students will study the causes, effects
and nature of the genre. Readings will be supplemented by films. Prerequisite:
Reading Proficiency.

ENG:216 WOMEN IN LITERATURE 3
An exploration of the role of women in fiction, drama, poetry and other
literary genres, with primary emphasis on works written by women.
Prerequisite: Reading Proficiency.

ENG:217 MAJOR BLACK WRITERS 3
An examination of a selection of works by major black authors whose
writings have gained public attention by virtue of their excellence or
historical significance. Discussions will include considerations of topical
relevance and literary form and style. Prerequisite: Reading Proficiency.

ENG:218 LITERATURE OF AMERICAN MINORITIES 3
A study of American minority (racial and religious) experience and cultural
contributions to the nation by explaining them through literature.
Prerequisite: Reading Proficiency.

ENG:219 ADVANCED REPORT WRITING 3
This course provides detailed instructions in planning, writing, and editing
longer reports, especially complex formal reports designed for a diverse
group of readers. A logical sequence of report-preparation activities,
ranging from audience and problem-solving analysis through research and
follow-up activities, will be the core of this course. Emphasis will be placed
on designing professional reports. The course will also review mechanics,
gramar, rhetoric, and style. Students will write one report in a small
committee structure in order to simulate industrial and business working
conditions. Prerequisites: ENG:103 and Reading Proficiency.

ENG:220 ADVANCED POETRY WRITING 3
This is a workshop for students of all ages and backgrounds with some
creative writing experience who want to begin or continue creative writing
projects with the support and help of an instructor and peers. Projects may
include poetry, fiction, scripts, personal essays, memoirs, and career-related
writing. Students will contract to do the kinds of writing projects they
choose. Prerequisite: ENG:110 or permission of the instructor and Reading
Proficiency.

ENG:221 LITERATURE OF THE CARIBBEAN 3
This is a survey of Caribbean literature that represents varied periods and
cultural groups. Focus will be on the English-speaking Caribbean
literary works, but literature in translation from the Spanish-, Dutch-, and
French-speaking islands may be included. Through a study of a range of
short stories, poetry, novels, plays, and essays, students will be introduced
to major themes in Caribbean writing, including race, ethnicity, identity
formation, migration, colonialism and its legacies, myths of Africa, and
transnational identities. Prerequisite: Reading Proficiency.

ENG:222 ADVANCED EXPOSITION 3
Advanced Exposition is designed to upgrade each student's writing
proficiency with special focus on the multiple perspectives that shape
writing: The nature of the subject, purpose(s), the reader-audience,
prescribed or self-initiated writing situation, formal or informal style.
Assignments will correlate with students' writing goals and will be adapted
to different program requirements. Prerequisite: ENG:102 with grade of "C"
or better, or ENG:103, or MCM:112 and Reading Proficiency.

ENG:224 FICTION WRITING 3
This is a workshop for the student who has already experimented with
several forms of creative writing and who wishes special, focused work in
writing stories. The workshop format will allow for in-depth discussion of
student work in class. Some lectures and other kinds of presentations will
be given, involving various aspects of the writer's activity from initial
inspiration to preparation of manuscripts for publication. Prerequisite:
Reading Proficiency.

ENG:225 POETRY WRITING 3
This course is designed for the student who has already experimented with
several types of creative writing and who wants special work in the writing
of poems. A workshop format will emphasize consideration of student
works. Some lectures and presentations will be given, involving the various
facets of the writer's role from inspiration to preparing manuscripts for
publication. Prerequisite: Reading Proficiency.

ENG:226 CHILDREN'S LITERATURE 3
This course will familiarize students with examples of good children's
books, for children from infancy to adolescence. It will also help students
develop the ability to evaluate a book, analyze its appeal, and present it
effectively. (Same course as EDU:226.) Prerequisite: Reading Proficiency.

ENG:227 LITERATURE OF THE SOUTH 3
Although the South is an integral part of America, it has always considered
itself a place set apart from the rest. This course will explore whether
Southerners do have a particular point of view. It will examine whether
Southern literature is different from literature written in other parts of the
country and the nature of that difference. This course will analyze these
issues by examining works written by Southern men and women, both
black and white. Although the course will include works from the 19th
century, the majority will come from the 20th century. Prerequisite: Reading
Proficiency.

ENG:228 STUDIES IN LITERATURE 3
This course offers a basic introduction to literature, by being organized
around specific themes, historical periods, or genres, which may vary from
semester to semester. Students will learn how to read, analyze, write about,
and appreciate literature by focusing on particular issues raised by the
related works that the course addresses. Refer to "Schedule of Credit
Courses" for current course topics. Prerequisite: Reading Proficiency.

ENG:229 INTERMEDIATE WRITING WORKSHOP 3
This is a workshop for students of all ages and backgrounds with some
creative writing experience who want to begin or continue creative writing
projects with the support and help of an instructor and peers. Projects may
include poetry, fiction, scripts, personal essays, memoirs, and career-related
writing. Students will contract to do the kinds of writing projects they
choose. Prerequisite: ENG:110 or permission of the instructor and Reading
Proficiency.

ENG:230 ENVIRONMENTAL LITERATURE 3
This college-level course is a study of literature about nature and the
environment. The students will read and discuss a selection of non-fiction,
fiction, and poetry written by prominent authors about the natural world
and related topics. Prerequisite: Reading Proficiency.

ENG:231 WORLD LITERATURE 3
This course offers an introduction to literature organized around works by
writers from outside the United States. Its geographical focus varies from
semester to semester, as do its choices of literary genres. Students will learn
how to read, analyze, write about, and enjoy literature. They will learn to
see literature in its historical and cultural contexts. They will also grow by
learning about literature of other cultures. Prerequisite: Reading
Proficiency.

ENG:232 LITERATURE OF THE CARIBBEAN 3
This course is a survey of Caribbean literature that represents varied periods and
cultural groups. Focus will be on the English-speaking Caribbean
literary works, but literature in translation from the Spanish-, Dutch-, and
French-speaking islands may be included. Through a study of a range of
short stories, poetry, novels, plays, and essays, students will be introduced
to major themes in Caribbean writing, including race, ethnicity, identity
formation, migration, colonialism and its legacies, myths of Africa, and
transnational identities. Prerequisite: Reading Proficiency.
ENG:233  WRITING CREATIVE NONFICTION  3
This course is for the student who wants to focus on nonfiction prose forms such as personal essays, travel narratives, and/or biographies. This workshop format will allow for in-depth discussion of students' writings in class. Some lectures and presentations will be given, involving various aspects of the writer's activity from initial inspiration to preparation for publication. Prerequisite: ENG:101 with a grade of "C" or better or equivalent, and Reading Proficiency.

FINANCE

FIN:100  PERSONAL FINANCE  3
This course involves the study of personal financial planning and is intended to provide the student with a basis of knowledge that will enable the individual to better manage their income while maximizing the value received for the expenditures made. This course also addresses the safeguarding of assets and will provide the student with the tools for developing their own financial plan. Topics may include financial planning, developing personal financial statements and plans, insurance needs, basic taxing theories, and stock market options for personal financial planning. Prerequisite: Reading Proficiency.

FIN:101  INTRODUCTION TO INVESTMENTS  3
A survey course, designed for the novice investor with a rigorous examination of the workings of the financial markets. Among the topics covered are an overview of financial markets from the investor perspective, analysis and valuation of equity securities, fixed income and leveraged securities, mutual funds, and overall portfolio management. Prerequisite: Reading Proficiency.

FIN:201  FUNDAMENTALS OF FINANCE  3
Basic methods and principles of finance, such as money and banking, financing working capital and fixed capital needs, stocks and bonds, the marketing of securities, and the working of financial institutions. Prerequisite: ACC:110 or departmental approval. Prerequisite: Reading Proficiency.

FIRE PROTECTION TECHNOLOGY

FIR:100  FIRE DEPARTMENT APPARATUS  2
A study of the description and specification of the various fire department apparatus found in the modern organization, special emphasis is given to manufacturer's specifications, analysis of the various codes and standards of construction and methods of writing specifications for various pieces of equipment. In addition, the instruction covers the principles of care maintenance, and operation of the various types of apparatus including principles of pumping, pumps, and accessories, power development and transmissions and pumping practices. Prerequisite: Reading Proficiency.

FIR:102  FIRE CHARACTERISTICS  3
Characteristics and behavior of fire found in ordinary materials and special materials such as oils and other combustible chemicals. A review of basic chemistry with emphasis on combustion and internal combustion. Hazards of liquids and gases, special techniques in regard to oxygen supplies. Prerequisite: CHM:114 and Reading Proficiency.

FIR:103  FIRE SERVICE MANAGEMENT AND ADMINISTRATION  3
Instruction in management and administration for the fire service including the functions of management, planning, organizing, directing, controlling, the management cycle, motivation, behavioral science, executive development, educational development, and labor relations. Prerequisite: Reading Proficiency.

FIR:105  INSPECTION AND FIRE PREVENTION  3
Inspection surveying and mapping procedures associated with the organization and function of fire prevention. A survey of the various codes and standards; how these various standards are used in inspecting buildings for fire hazards; how to actually inspect a building with respect to existing fire protection equipment-structural details that must be known to avoid undue loss in case of fire. Opportunity will be provided to make at least one complete inspection and report on an operating industry. Prerequisite: Reading Proficiency.

FIR:106  TEACHING TECHNIQUES FOR FIRE DEPARTMENT PERSONNEL  3
The basic theories of learning and methods of instruction are discussed. The use of lectures, demonstrations, and visual aids as applied to the instruction of fire department personnel is illustrated. Practice is provided in the use of lesson plans, visual aids, tests, and other teaching devices including module on the use of microcomputers as an instructional device. Each student's application of a teaching procedure is critically discussed and evaluated. Prerequisite: Reading Proficiency.

FIR:110  BASIC FIRE PROTECTION AND ALARM SYSTEMS  3
A study of modern fire protection, including water supply, private fire protection methods, chemical extinguishers, and a study of various types of fixed and portable fire detection and alarm systems. This will include municipal, central station, proprietary and local alarm systems; heat, flame and smoke detectors; telephone, teletype and radio systems. Prerequisite: MTH:124 and Reading Proficiency.

FIR:202  FIRE INVESTIGATION  3
Methods determining point of origin, path of fire travel and fire causes; motives and methods for fire setting, recognizing and preserving evidence; arson laws, and types of arson fires, court testimony, reports and records. Prerequisite: Reading Proficiency.

FIR:204  FIRE FIGHTING TACTICS AND STRATEGY  3
Fundamental strategy and method of attack employed for various fire problems. Principles of fire fighting as applied to small and large scale fire problems and problems that are complex or unique in nature. Some practice with problems involving the use of tactics and strategy that employ equipment and manpower at various organizational levels. Prerequisite: Reading Proficiency.

FIR:205  FIRE SCIENCE HYDRAULICS  3
A study of the mechanics of liquids, particularly as pertains to water flow, hydrants, pumps, standpipes, hoses, nozzles, sprinkler systems as adapted to fire fighting practices. This involves interpretation of readings from various kinds of manometers, pressure gauges, and hydrostatic devices. Fluids in motion, head calculations, pumping problems, friction losses, cavitation, velocity of flow, use of pitot and venturi meters, are studied. Also the problems of supplying fire service pumps and efficiently using them is studied. Prerequisite: MTH:124 and Reading Proficiency.

FIR:207  CODES AND ORDINANCES  3
A detailed study of national, state and local ordinances applicable to the fire service and electrical, plumbing and building codes. Some coverage of problems in mutual aid pacts and agreements with other fire departments, and relations with civil defense and other government agencies. Prerequisite: Reading Proficiency.

FIR:208  HAZARDOUS MATERIALS  3
A second semester of basic fundamentals of chemistry used in fire science with emphasis on less common special hazards. Topics covered will include nuclear reactions, ionization, radiation detection equipment, peacetime uses of radioactive materials and control of resulting hazards. Prerequisite: Reading Proficiency.

FIR:210  ARCHITECTURAL STRUCTURAL REPRESENTATION-MATERIALS  3
Basic fundamentals of building plan reading including conventional delineation, symbols, abbreviations, methods of showing floor plans, elevations, and dimensions. Also basic characteristics of various materials and building structural systems when subjected to fire. Prerequisite: MTH:124 and Reading Proficiency.

FRENCH

FRE:101  ELEMENTARY FRENCH I  4
A beginning course presenting the basic sentence structure and vocabulary necessary to participate in elementary French conversation and to begin reading short French passages. Additional lab hours required. Prerequisite: Reading Proficiency.

FRE:102  ELEMENTARY FRENCH II  4
A continuation of FRE:101. Students complete basic elements of French grammar, increase their vocabulary and gain added facility in speaking and reading French. Additional lab hours required. Additional lab hours required. Prerequisite: FRE:101 or 2 years of high school French and Reading Proficiency.
FRE:201 INTERMEDIATE FRENCH I 4
A continuation of FRE:102. Emphasis is on becoming proficient in using the language so that students can function in a francophone culture. Primary concentration is on developing speaking and listening skills. Testing is both oral and written. Prerequisites: FRE:102 or 3 or more years of high school French and Reading Proficiency.

FRE:202 INTERMEDIATE FRENCH II 4
The major emphasis is preparing students to be functioning members of a French speaking community. The student will gain the linguistic skills necessary to perform in everyday situations. Speaking and listening skills are further developed. Testing is both oral and written. Additional lab hours required. Prerequisites: FRE:201 or 4 or more years of high school French and Reading Proficiency.

FRE:206 ADVANCED FRENCH CONVERSATION AND COMPOSITION 3
Designed to increase written and oral fluency in French. This course gives the student the opportunity to express himself/herself in a wide variety of everyday topics. Short compositions will be written and brief oral reports presented to the class. A relaxed, informal atmosphere is created to stimulate conversation. Prerequisite: FRE:202 or equivalent and Reading Proficiency.

FUNERAL DIRECTING

FD:101 FUNERAL MANAGEMENT/MERCHANDISING 6
The practices and procedures of establishing a funeral home are covered including personnel management, vital statistics, records and forms. Government regulations of OSHA, FTC, and ADA are studied. An in-depth study of merchandising funeral goods including caskets and vaults is covered. Prerequisite: Admitted to Funeral Directing Program and Reading Proficiency.

FD:102 FUNERAL SERVICE PSYCHOLOGY 3
This course studies the implications of grief and bereavement and the role of the funeral director in counseling the bereaved. The social role of the funeral director in the dynamics of grief and an investigation into the changing attitudes toward death is also studied. Prerequisite: Prior admissions to Funeral Directing Program and Reading Proficiency.

FD:103 HISTORY OF FUNERAL SERVICE 3
The historic role of the funeral director is investigated from ancient to present day as well as projected directions and functions of the funeral profession. Ethical and legal implications of these changing trends are discussed. Various religious, ethnic, fraternal and military practices are studied. Prerequisite: Admission to Funeral Directing Program and Reading Proficiency.

FD:104 FUNERAL SERVICE LAW 3
This course identifies the methods of disposing of human remains and the legal responsibilities of the funeral director. Principles of both mortuary and business law are covered from the local, state and federal level. Cemetery regulations, liability and pre-need are also studied. Prerequisite: Admitted to Funeral Directing Program and Reading Proficiency.

FUNERAL SERVICE EDUCATION

FNL:101 ORIENTATION TO FUNERAL SERVICE 2
An introduction to funeral service; ancient history, historical development, present funeral practices; values of funeral service; personal qualifications; ethics. Field trips to investigate current problem areas in funeral service. Prerequisite: Must have permission of program director and Reading Proficiency.

FNL:104 FUNERAL SERVICE EQUIPMENT 3
Designed to give the student a working knowledge of equipment items, manufacturing and use of such items. Study of caskets and vaults. Field trips and guest lecturers. Prerequisite: Must have permission of program director and Reading Proficiency.

FNL:106 DYNAMICS OF GRIEF 3
This course examines the dynamics of grief and its effect on the survivors following the death of a loved one. Various theories related to grief will be examined, as well as public attitudes about death and the funeral service profession. Specific helping skills utilized by the funeral director will be studied and practiced. Prerequisite: Reading Proficiency.

FNL:200 RESTORATIVE ART 4
A study of facial anatomy, color relationships and restorations. Students will develop skill in anatomical modeling and cosmetics. Additional lab hours required. Prerequisite: Sophomore standing in Funeral Service Education and Reading Proficiency.

FNL:201 EMBALMING 3
Procedures and techniques of embalming, embalming theory and consideration of special treatments. Prerequisite: BIO:111, FNL:103, sophomore standing in Funeral Service Education and Reading Proficiency.

FNL:205 FUNERAL SERVICE SEMINAR 1
Advanced management techniques and advanced technical procedures; research into current problems in funeral service; group discussion and problem solving. Practical applications and demonstrations of management counseling and funeral arrangement techniques. Prerequisite: Sophomore standing in Funeral Service Education and Reading Proficiency.

FNL:206 EMBALMING PRACTICUM I 2
One laboratory session for one semester in an appropriate situation. Practical experience in all phases of embalming. Additional lab hours required. Prerequisite: Previous or concurrent enrollment in FNL:201 and Reading Proficiency.

FNL:207 EMBALMING PRACTICUM II 2
Students placed in local funeral homes to work under the direct supervision of licensed embalmer to gain knowledge of procedures used in embalming human remains for funeral services. Continuation of Embalming Practicum I with special emphasis on funeral directing and funeral home management. Prerequisite: Previous or concurrent enrollment in FNL:201 and Reading Proficiency.

FNL:208 PATHOLOGY FOR FUNERAL SERVICE 3
Divisions and importance of pathology, nature and causes of diseases, to include: inflammation, repair and recuperation of tissue, tumors, diseases of the heart, respiratory and digestive systems are covered as well as microscopic examination of autopsy and surgical specimens. Prerequisite: Sophomore standing in FSE or Departmental approval and Reading Proficiency.

GENERAL ENGINEERING

GE:056 FUNDAMENTALS OF TECHNOLOGY 3
This course relates the fundamentals of technology to down-to-earth, everyday occurrences, problems, and devices. A unique instructional approach ties together parallel concepts for mechanical, electrical, fluid, and thermal systems. Skills used by all technicians are developed in practical hands-on laboratory experiences.

GE:101 TECHNICAL COMPUTER APPLICATIONS 3
This course is an introduction to the use of personal computers in technology. Topics of this course include PC hardware, operating systems, word processing, spreadsheets, graphics and the Internet. Prerequisite: Reading Proficiency.

GE: PRINCIPLES OF ENGINEERING 3
This course is an introduction to the opportunities and responsibilities of Engineering. Students will learn the field of Engineering, and explore Engineering Careers. They will complete projects in Design, Engineering Systems, Thermodynamics, Fluid Systems, Electrical and Control Systems, Strength and Properties of Materials, and Production Process and Quality Control.
GE:122 ENGINEERING DESIGN AND DEVELOPMENT 3
Students will work in teams to design and build solutions to authentic
engineering problems. Student teams will make progress reports to their
peers, mentor and instructor, and will present their research paper and
defend their projects to a panel of engineers, business leaders and
instructors for professional review and feedback. Prerequisites: GE:121 and
EGR:147 or ME:121; or ME:151 and EGR:100.

GE:131 ENGINEERING TECHNOLOGY ORIENTATION 1
An introduction to the opportunities and responsibilities of an engineering
technician. Exposure to the various fields of technology will be made by
field trips, movies and guest lectures. Introduction to materials, techniques
and college services which will assist the student in completing a
technology program will be presented. Prerequisite: Reading Proficiency.

GE:132 TECHNOLOGY APPLICATIONS 4
This course is an applications driven investigation of technological
concepts and devices. Mechanical, electrical, fluid, and thermal systems
applications are demonstrated and investigated for each topic area in
practical hands-on laboratory exercises. Topics include force transformers,
energy converters, transducers, optical systems, and vibrations.
Prerequisite: Reading Proficiency.

GE:290 WORKPLACE LEARNING: GENERAL ENGINEERING 1-6
This workplace-based course provides the student the opportunity to apply
theory and skills learned in the classroom, learn new skills, and explore
career possibilities while supervised by a professional in the field and a
faculty member. Students will observe and participate in the functions of
the industry to enhance their preparation for entering the field. Minimum
50 hours per credit hour in the workplace throughout the term. Prerequisite:
Departmental Approval and Reading Proficiency.

GEOGRAPHY

GEG:100 REGIONAL GEOGRAPHY: THE EASTERN WORLD 3
This geography course surveys the continents of Asia, Africa, Australia and
the Pacific World including countries. The survey includes the physical,
cultural, economic, and political roles of these countries within the family
of nations. Prerequisite: Reading Proficiency.

GEG:101 REGIONAL GEOGRAPHY: THE WESTERN WORLD 3
This geography course includes a survey of the continents of Europe,
Anglo-America and Latin America, the area's major countries and their
physical, cultural, economic, and political roles within the family of
nations. Prerequisite: Reading Proficiency.

GEG:103 PHYSICAL GEOGRAPHY 3
A study of the physical earth, emphasizing the principles of weather,
climate, natural vegetation soils and landforms. This course may be used to
satisfy a natural science requirement. Prerequisite: Reading Proficiency.

GEG:106 U.S. AND WORLD GEOGRAPHY 3
This geography course surveys the continents of the Earth, including the
nature of living environments of geographical areas and the geography of
cities, their regional functions, location and cultural landscape. The survey
includes weather, climate, resources, and land forms. Prerequisite: Reading
Proficiency.

GEOLOGY

GEO:100 EARTH SCIENCE 3
This introductory geoscience course will focus on the geologic events since
the origin of the earth, the interior structure of the earth, plate tectonics,
earthquakes, volcanoes, rocks, minerals, and surface processes.
Prerequisite: Reading Proficiency.

GEO:101 EARTH SCIENCE (LABORATORY) 2
Laboratory and field experiences illustrating the principles of earth science.
Additional lab hours required. Prerequisite: GEO:100 concurrent
enrollment and Reading Proficiency.

GEO:103 ENVIRONMENTAL GEOLOGY 3
Geologic hazards, natural resources and land-use planning will be considered with emphasis on problems caused by man. Prerequisite: Reading Proficiency.

GEO:104 PREHISTORIC LIFE 3
This general paleontology course is a survey of the fossil record of the
history of life and its development on earth through four billion years of
geologic time. Prerequisite: Reading Proficiency.

GEO:111 PHYSICAL GEOLOGY 5
Introduction to the theoretical and practical aspects of the composition and
structure of the earth. Additional lab hours required. Prerequisite: Reading
Proficiency.

GEO:113 OCEANOGRAPHY 3
This is a course covering all areas of oceanographic study. The primary
emphasis is physical oceanography, i.e. waves, tides, currents, shoreline
ocean basins, ocean sediments, and properties of salt water. A portion of
the course (approximately 1/4) covers marine ecology and marine life. A
student completing this course should have a much heightened awareness of
the water mass that covers over 70% of the earth's surface. Man's
interactions with this environment are constantly emphasized. Prerequisite:
Reading Proficiency.

GERMAN

GER:101 ELEMENTARY GERMAN I 4
A beginning course presenting the basic sentence structure and vocabulary
necessary to participate in elementary German conversation and to begin
reading short German passages. Additional lab hours required. Prerequisite:
Reading Proficiency.

GER:102 ELEMENTARY GERMAN II 4
A continuation of GER:101. Students complete the basic elements of
German grammar, increase their vocabulary and gain added facility in
speaking and reading German. Additional lab hours required. Prerequisite:
GER:101 or 2 or more years of high school German and Reading
Proficiency.

GER:201 INTERMEDIATE GERMAN I 4
A continuation of GER:102. Emphasis is on speaking German. A review of
grammar assists the student in perfecting basic skills. A variety of up-to-date
literary and cultural selections are read and form the basis for classroom
discussions. Additional lab hours required. Prerequisite: GER:102 or 3 or
more years of high school German and Reading Proficiency.

GER:202 INTERMEDIATE GERMAN II 4
A continuation of GER:201. Emphasis is on spoken German with continued
grammar review. A variety of short stories and contemporary cultural
selections are read and discussed in class. Additional lab hours required.
Prerequisite: GER:201 or 4 or more years of high school German and
Reading Proficiency.

GLOBAL EDUCATION

GLE:101 GLOBAL EDUCATION STUDIES 1-3
This course will present an opportunity for students to travel to and to
engage in the direct study of international cultures in order to foster an
enhanced sensitivity to, appreciation of, and an understanding of the global
community. Prerequisite: Permission of instructor and Reading Proficiency.

HEALTH INFORMATION TECHNOLOGY

HIT:101 MEDICAL TERMINOLOGY 4
This course provides a broad survey of the language of medicine and health
technologies. Students learn to accurately spell and define common
medical terms related to major disease processes, diagnostic procedures,
laboratory tests, abbreviations, drugs, and treatment modalities. Emphasis is
placed on formation, definition and pronunciation. Prerequisite: Reading
Proficiency.

HIT:102 HEALTH INFORMATION MANAGEMENT TECHNOLOGY 4
This course introduces healthcare data content and structure including its
collection, arrangement, presentation, and verification. Healthcare data
sets, primary and secondary record systems, and data quality and integrity
are introduced. Students learn how IT supports healthcare delivery and they
are introduced to health information systems concepts and applications.
Prerequisite: Reading Proficiency.
**HIT:103 HEALTHCARE DELIVERY SYSTEMS** 2
This course describes the organization of healthcare delivery in the United States. Students are introduced to healthcare organizations, their structure and operations, external standards, regulations and initiatives including licensure, certification, accreditation, and HIPAA. Payment and reimbursement methodologies are discussed for each type of healthcare provider and setting. Prerequisite: Reading Proficiency.

**HIT:104 BASIC PRINCIPLES OF DISEASE** 2
This course provides an overview of disease processes affecting the human body via an integrated approach to specific disease entities, including the study of causes, diagnosis and treatment of disease. Typical health record data is interpreted. Prerequisites: BIO:215 and HIT:101 and Reading Proficiency.

**HIT:105 PHARMACOLOGY FOR HEALTH INFORMATION TECHNOLOGY PROFESSIONALS** 1
This course provides an overview of pharmacy therapy available for clinical management of patient care. Specific disease states and the drugs used to alleviate and treat various conditions are studied. Prerequisites: BIO:215 and HIT:101 and Reading Proficiency.

**HIT:106 DIAGNOSIS CODING SYSTEMS I** 3
This course introduces learners to clinical coding, classifications, taxonomies, nomenclatures and clinical vocabularies. Students will learn principles and applications of ICD-9-CM, ICD-10-CM, DSM-IV and the relationship of DRGs to coding. Use of computerized encoding and application software and work processes to support clinical classification and coding is required. Prerequisites: HIT:101, HIT:102, BIO:215, and Reading Proficiency.

**HIT:107 PROCEDURE CODING SYSTEMS I** 3
This course is an introduction to the clinical coding of ICD-9-CM Volume III, CPT-4 (Anesthesia, E&M, Surgical, Pathology/Laboratory, Radiology and Medicine), HCPCS Level II codes, ICD-10-PCS and other procedure coding systems. Reading and interpreting healthcare documentation to classify services and procedures, and using computerized encoding software are required. Prerequisites: HIT:101, HIT:102, BIO:215, and Reading Proficiency.

**HIT:109 MEDICAL TRANSCRIPTION I** 3
This course is designed to develop skill in keyboarding/formatting and in transcribing from machine dictation in a variety of medical documents, such as forms, correspondence, consultation and simple reports. Reinforcement of medical terminology and language skills, use of reference materials, ethics, and confidentiality are emphasized. Additional lab hours required. Prerequisites: HIT:101 and IS:102 and Reading Proficiency.

**HIT:110 HEALTHCARE LEGAL AND ETHICAL ISSUES** 3
In this course learners investigate ethical issues in healthcare while examining the procedures and laws that regulate the content, confidentiality, disclosure, use, and retention of health information. Patient rights/advocacy, advanced directives, privacy, release of information, and security policies and procedures of healthcare organizations will be emphasized. Prerequisites: HIT:102 and Reading Proficiency.

**HIT:201 HEALTH INSURANCE BILLING AND REIMBURSEMENT** 3
This course prepares learners to compare and contrast health care payers, illustrate the reimbursement cycle, and comply with regulatory guidelines. Payment methodologies and systems are explored. Using computerized encoding and grouping software, the learner assigns DRGs, APCs, and RUGs. Chargemaster maintenance and reimbursement monitoring and reporting are emphasized. Prerequisites: HIT:103 and HIT:106 and Reading Proficiency.

**HIT:206 DIAGNOSIS CODING SYSTEMS II** 3
This course is a continuation of Diagnosis Coding Systems I. Students are introduced to additional Diagnosis Related Groups (DRGs) and their relationship to coding. Prerequisites: HIT:106 and Reading Proficiency.

**HIT:207 PROCEDURE CODING SYSTEMS II** 3
This course is a continuation of Procedure Coding Systems I. Students use computerized encoding systems and healthcare data/content to assign appropriate CPT/HCPCS codes including Level II National Codes developed by the Centers for Medicare and Medicaid Services. Prerequisites: HIT:107 and Reading Proficiency.

**HIT:208 ADVANCED CODING APPLICATIONS** 2
Students will apply their knowledge of anatomy, the clinical disease process, diagnosis and procedural terminology and pharmacology for correct code assignment and sequencing using various clinical classification systems. Prerequisites: HIT:206 and HIT:207, and Reading Proficiency.

**HIT:209 MEDICAL TRANSCRIPTION II** 3
This is an intensive course with emphasis on expanding medical terminology related to various specialties and on gaining skill in transcribing medical reports (history and physical examinations, consultations, operative notes, discharge summaries). Professionalism, decision-making, quality/productivity standards, and work priority are stressed. Additional lab hours required. Prerequisites: HIT:109 and Reading Proficiency.

**HIT:210 PROFESSIONAL PRACTICE EXPERIENCE** 2
This course allows students to experience the AHIMA e-HIM Virtual Lab in an environment that closely simulates real-world application of various technologies. Students apply problem-solving and analysis skills, and gain experience and familiarity with a range of healthcare applications including patient identification, administrative and reimbursement coding, data capture, and abstracting. Prerequisites: Permission of Department Chairperson or Program Coordinator. Reading Proficiency.

**HIT:211 ELECTRONIC HEALTH SYSTEMS** 3
This course emphasizes the role of information technology in healthcare, describes key elements of health information systems, defines the electronic health record (EHR), and establishes the context of the EHR within the scope of health information technology (HIT). Prerequisites: HIT:102, IS:103, IS:136, IS:151 and Reading Proficiency.

**HIT:213 QUALITY AND PERFORMANCE IMPROVEMENT IN HEALTHCARE** 3
This course introduces students to the theory, practice and management of quality performance and improvement through examination of peer review process, collection tools, data analysis and reporting techniques. Utilization, risk, and case management are blended concepts used throughout this course. Regulatory quality monitoring requirements and outcome measures monitoring are addressed. Prerequisites: HIT:102, HIT:103 and Reading Proficiency.

**HIT:214 CALCULATING AND REPORTING HEALTHCARE STATISTICS** 3
The focus of this course is the management of medical data for statistical purposes to include descriptive statistics such as means, frequencies, ranges, percentiles and standard deviations. Knowledge-based research techniques are explored. Vital statistics, registries and national guidelines regarding human subject research are examined along with IRB processes. Prerequisites: HIT:102, MTH:140. Reading Proficiency.

**HIT:291 WORKPLACE LEARNING: HEALTH INFORMATION TECHNOLOGY** 2
This experiential course provides the student the opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Students will observe and participate in the functions of health information technology to enhance their preparation for entering the field. Minimum 100 hours in the workplace throughout the term. Prerequisites: Permission of Department Chairperson or Program Coordinator. Reading Proficiency.

**HISTORY**

**HST:100 AMERICAN CIVILIZATION** 3
A study of American history, institutions and government. Special consideration will be given to the constitutions of the United States and Missouri. Intended primarily for students in career curricula. Credit not allowed for this course if credit is given for HST:101, HST:102, HST:103 or HST:104. Prerequisite: Reading Proficiency.

**HST:101 AMERICAN HISTORY I** 3
A survey of the cultural, economic, institutional, political, and social forces and events which have shaped the United States through the Civil War. Credit not allowed for this course if credit is given for HST:100. Prerequisite: Reading Proficiency.
HST:102 AMERICAN HISTORY II 3
A survey of the cultural, economic, institutional, political, and social forces and events which have shaped the United States from the Civil War to the present. Credit not allowed for this course if credit is given for HST:100. Prerequisite: Reading Proficiency.

HST:103 AMERICAN HISTORY I, HONORS 3
This course is a survey of American history from the European discovery of the Americas through the Civil War. It explores the cultural, economic, political, and social forces which have shaped the nation during that period. As an honors course it emphasizes small-group interaction in a seminar setting. Credit not allowed for this course if credit is given for HST:100. Prerequisite: Department Approval and Reading Proficiency.

HST:104 AMERICAN HISTORY II, HONORS 3
This course is a survey of American history from the Civil War through the present. It explores the cultural, economic, political and social forces which have shaped the nation during that period. As an honors course it emphasizes small-group interaction in a seminar setting. Credit not allowed for this course if credit is given for HST:100. Prerequisite: Department permission and Reading Proficiency.

HST:105 U.S. IN THE TWENTIETH CENTURY 3
An investigation of the social, economic, political, and intellectual forces which have shaped contemporary American life and institutions. This course will focus on change within America during the period 1898 to the present and will consider the effects of that change both on America and on America's relations with the rest of the world. Prerequisite: Reading Proficiency.

HST:107 HISTORY OF BLACK AMERICA 3
This course covers the role of Black people in the development of American history from early American origins to the present. The basic aim is to promote a better understanding of America's past by developing increased awareness of the history of African Americans, their problems and their accomplishments both individually and as a group. Prerequisite: Reading Proficiency.

HST:108 U.S. MILITARY HISTORY 3
Surveys the military history of the United States from the Revolutionary War through the post-Vietnam era. Some general background from European history is included by way of introduction to the art and science of warfare. Topics also included are military technology, tactics and strategies, civilian-military relationships in peace and war, as well as detailed study of representative battles in American history. (The course is designed to meet the military history requirement of ROTC students, but is open to all students without prerequisite. It does not meet the history survey requirement satisfied by HST:100. American Civilization, and should not be regarded as a substitute). Prerequisite: Reading Proficiency.

HST:115 ANCIENT AND MEDIEVAL HERITAGE 3
Ancient and Medieval Heritage is a survey of the Western World from Antiquity through the Renaissance, with concentrations on Egypt, Mesopotamia, Hebrews, the classical civilizations of Greece and Rome, Christianity and Medieval Europe and Islam. Attention is given to political developments, cultural achievements and literary sources and philosophical impact of each area as it applies to today's world. Prerequisite: Reading Proficiency.

HST:117 EARLY MODERN EUROPE 3
Early Modern Europe is a survey introducing the history of Western Civilization from the later Middle Ages through the French Revolution. Attention is given to the cultural, economic, intellectual, political, religious, and social forces which shape the Western World and its spheres of influence. Prerequisite: Reading Proficiency.

HST:119 THE MODERN WORLD 3
An examination of the major cultural, technological and ideological changes which have helped to mold the complex, scientific, urban and materialistic world in which we live. Prerequisite: Reading Proficiency.

HST:128 WESTERN TRADITION II 3
This course will weave together the history, art, philosophy, literature, religion, geography, society, government and economics that evolved into European history from the Reformation: 1500 to the present. Prerequisite: Reading Proficiency.

HST:130 AFRICAN HISTORY I 3
This course will deal with the history of black Africans from the time of ancient Egypt to contemporary Africa. It will be concerned with the chronological progression of African civilization, covering individuals, events and the ideas of the various periods. Prerequisite: Reading Proficiency.

HST:131 AFRICAN HISTORY II 3
This course will encompass the interaction of Africa with the West and will evaluate the influence of black society on western society. Prerequisite: Reading Proficiency.

HST:137 AFRICAN AMERICAN HISTORY I 3
A survey of African American History from its African background through the Civil War and Reconstruction. The course will investigate African-American leaders, socio-cultural institutions, as well as the Black community's relationship with the larger community. Prerequisite: Reading Proficiency.

HST:138 AFRICAN AMERICAN HISTORY II 3
A survey of African American history from the era of Jim Crow to the present. The course will investigate African-American leaders, socio-cultural institutions, as well as the Black community's relationship with the larger community. Prerequisite: Reading Proficiency.

HST:139 BRITISH HISTORY 3
This course is a survey of British history from the time of Roman rule until the union of England and Scotland in 1707. Through lectures, videos, text assignments, and field trips, students will trace the historical development of the United Kingdom. Prerequisite: Reading Proficiency.

HST:140 MODERN LATIN AMERICAN HISTORY 3
This course examines the rise and development of nations and nationalism in nineteenth and twentieth-century Latin America. The struggles of women, peasants, workers, and minorities for political, social, and economic inclusion will be the central focus. Emphasis is placed on the role United States foreign policy played in the region. Prerequisite: Reading Proficiency.

HST:201 HISTORY OF THE FAR EAST 3
A survey of East Asian civilizations focusing on institutional continuity and change, problems of indigenous response and adaptation to western influence, and contemporary problems. Prerequisite: Reading Proficiency.

HST:203 THE AMERICAN WEST 3
This course covers the role of black people in the development of American history from early American origins to the present. The basic aim is to promote a better understanding of America's past by developing increased awareness of the history of African Americans, their problems and their accomplishments both individually and as a group. Prerequisite: Reading Proficiency.

HST:204 THE U.S. IN CRISIS AND CIVIL WAR 3
An in-depth study of the events and development in U.S. History between 1820 and 1865. The course will highlight the sectional differences and developments which led to the outbreak of the Civil War and the 1862-1865 war itself with all its national and international implications. Prerequisite: Reading Proficiency.

HST:205 HISTORY OF MODERN MIDDLE EAST 3
This course traces modern political, economic, and cultural developments in the Middle East. Special emphasis is placed on development and trends of contemporary importance. Prerequisite: Reading Proficiency.

HST:206 WOMEN IN THE TWENTIETH CENTURY 3
This course covers the struggle of women for the vote and for political, legal and economic rights will be considered, along with changing values, Freudian psychology, domestic architecture and other influences on women's lives. The course will deal with such topics as immigration, labor, economic change, and education. While the course will begin with a textbook in women's history, students will be encouraged to choose their own topics for original research. Prerequisite: Reading Proficiency.

HST:207 AMERICA IN VIETNAM 3
A survey of the Vietnam War (1945-1975) with emphasis on U.S. involvement in the 1960's. This course will combine military history with social and political history of the period. Vietnam will be seen as a case study in U.S. foreign policy. Prerequisite: Reading Proficiency.
HORTICULTURE

HRT:101 INTRODUCTORY HORTICULTURE
Beginning horticulture students will be introduced to the biological aspects of plant life, including cell structure, anatomy, morphology, physiology and taxonomy, and to the environmental factors which affect plant growth, including light, temperature, moisture, soils and the essential elements. (Same course as BIO:124.) Additional lab hours required. Prerequisite: Reading Proficiency.

HRT:102 SOILS
This course is designed to give the student an understanding of soil formation, the chemical and physical properties of natural soils and soil management. Topics include soil use as it relates to plant growth and nutrition, fertility, drainage, and soil sampling and testing. Additional lab hours required. Prerequisite: HRT:101 or BIO:124 and Reading Proficiency.

HRT:103 PLANT PROPAGATION
This course is designed to give students an understanding of the various methods of plant propagation. Propagation by seed as well as vegetative propagation including cutting, grafting, layering, propagation of specialized structures and tissue culture will be presented. Additional lab hours required. Prerequisite: HRT:101 or BIO:124 and Reading Proficiency.

HRT:104 LANDSCAPE DESIGN I
This course is an introduction to the basic principles of landscape design. It will emphasize learning computer aided design (CAD) programs that will be utilized professionally. Traditional drafting skills will also be developed to enhance plan presentation to clients. Additional lab hours required. Prerequisite: HRT:101 or BIO:124 and Reading Proficiency.

HRT:105 COOPERATIVE HORTICULTURE I
Field work in commercial or institutional horticulture enterprises provide the student with experience in different areas of horticulture and enables him/her to acquire actual work skills. Students are required to obtain their own job (either paid or volunteer) with the aid of the horticulture staff. Prerequisites: HRT:101 or BIO:124 and approval of Horticulture Department and Reading Proficiency. Weekly contact hours by arrangement.

HRT:110 FUNDAMENTALS OF HORTICULTURE
Students will learn the practical applications of the science of horticulture. Ornamental plant culture will be considered in relation to environmental factors such as light, temperature, moisture and soil conditions. Prerequisite: Reading Proficiency.

HRT:111 SELECTED TOPICS IN GARDENING
Students enroll in classes on special topics in horticulture through the adult education program at Missouri Botanical Garden. Classes must be approved by the Horticulture Program Coordinator. A total of 16 hours of instruction is required. Tuition rebates may apply. Prerequisites: HRT:110 and approval of Program Coordinator and Reading Proficiency.

HRT:112 PLANT IDENTIFICATION: ANNUALS AND PERENNIALS
Students will learn the identification, culture and uses of annuals and herbaceous perennials in the landscape. Emphasis will be on plants that perform well in the Midwest and on the study of native species. Prerequisite: HRT:110 and Reading Proficiency.

HRT:125 PLANT IDENTIFICATION: TREES
This course will study deciduous and evergreen landscape trees. Identification through study of botanical characteristics will be emphasized. Landscape uses and plant culture will also be covered. Prerequisite: HRT:110 and Reading Proficiency.

HRT:126 PLANT IDENTIFICATION: SHRUBS AND VINES
This course will study ornamental deciduous and evergreen shrubs and vines. Plant identification through study of botanical characteristics will be emphasized. Landscape uses and plant culture will also be covered. Prerequisite: HRT:110 and Reading Proficiency.

HRT:127 SOIL MANAGEMENT
Soil as a growth medium for plants will be discussed. Special emphasis will be given to soil chemistry, water and physics. Aspects of soil testing and fertility management will also be presented. Prerequisite: HRT:110 and Reading Proficiency.

HRT:128 TURFGRASS CULTURE
Turfgrass culture and management will be discussed. Specific practices as they relate to residential and commercial lawn care will be emphasized. Prerequisite: HRT:110 and Reading Proficiency.

HRT:130 PRINCIPLES OF LANDSCAPE DESIGN
Basic principles of landscape design will be presented. Application of these principles will be demonstrated through the study of landscape plans. Prerequisite: HRT:110 and Reading Proficiency.

HRT:132 PLANT PEST IDENTIFICATION AND MANAGEMENT
Various aspects of insect and disease management will be discussed as they pertain to ornamental plants. Special consideration will be given to identification and control of specific plant pests. Prerequisite: HRT:110 and Reading Proficiency.

HRT:133 LANDSCAPE MANAGEMENT
This course will address management practices for residential and commercial landscapes. Establishment and care of landscape plants will be covered and my include turf grass, trees, shrubs and herbaceous plants. Fertilization and irrigation practices will be discussed. Prerequisite: HRT:110 and Reading Proficiency.

HRT:134 MICROPROPAGATION OF PLANTS
This course is an introduction to micropropagation, also called tissue culture. Topics presented include plant anatomy, hormones involved in plant growth, micropropagation techniques and industry uses. Techniques practiced include apical, root and seed propagation, and callus manipulation influenced by different hormones. Additional lab hours required. Prerequisites: HRT:101 or BIO:124, and HRT:103 or BIO:219. Reading Proficiency.

HRT:201 TURFGRASS MANAGEMENT
This course will cover general and special-purpose turfgrasses. Turfgrass use, establishment and management will be emphasized. The laboratory is designed to give the student basic skills in turfgrass identification, pest diagnosis and cultural management. Additional lab hours required. Prerequisite: HRT:101 or BIO:124 and Reading Proficiency.

HRT:205 NURSERY AND GARDEN CENTER PRACTICES
This course is an overview of the nursery and garden center industries. Discussion of nursery operations will include practices from propagation through growing to final product production and distribution. Garden center topics will include merchandising, garden center layout, product trends and specialty items. Prerequisite: HRT:101 or BIO:124 and Reading Proficiency.

HRT:206 ORNAMENTAL PLANTS - TREES AND VINES
This course is a study of ornamental landscape plants with an emphasis on woody vines and deciduous trees. Botanical characteristics of plants will be emphasized for identification purposes. Landscape use and plant culture will also be discussed. Additional lab hours required. Prerequisite: HRT:101 or BIO:124 and Reading Proficiency.

HRT:207 ORNAMENTAL PLANTS - SHRUBS AND EVERGREENS
This course is a study of ornamental landscape plants with an emphasis on deciduous shrubs and evergreen shrubs and trees. Botanical characteristics of plants will be emphasized for identification purposes. Landscape use and plant culture will also be discussed. Additional lab hours required. Prerequisite: HRT:101 or BIO:124 and Reading Proficiency.

HRT:214 GROUNDS MANAGEMENT
This course is designed to provide students the skills necessary to manage and maintain the varied aspects of landscapes in residential and commercial settings. Specific topics will include planting techniques, soil preparation, pruning, fertilizing, water and irrigation management, and other related subjects. Additional lab hours required. Prerequisite: HRT:101 or BIO:124 and Reading Proficiency.

HRT:217 LANDSCAPE DESIGN II
This course is a continuation of HRT:104. Emphasis will be on applying the principles of art and design in developing landscape plans. Plant selection and use will be emphasized. CAD training will continue. Landscape construction plan details will be introduced. Prerequisite: HRT:104 and Reading Proficiency.
HRT:218 LANDSCAPE DESIGN III 3
This course is a continuation of Landscape Design II with emphasis on the application of the principles of art and design in developing landscape plans. This class will detail conceptual and planting design and emphasize construction plans. CAD training will continue. Additional lab hours required. Prerequisite: HRT:217 and Reading Proficiency.

HRT:220 LANDSCAPE IRRIGATION 3
This course will provide an overview of the components, management, design and use of irrigation systems used in various landscape situations. Specific applications for turf and garden irrigation will be addressed. Prerequisite: HRT:101 or BIO:124 and Reading Proficiency.

HRT:227 PLANT PEST MANAGEMENT 4
This course is a study of the insect and disease pests that affect ornamental plants. Emphasis is on pest identification and treatment through a knowledge of signs, symptoms and pest life cycles. Preparation for the Missouri Pesticide Applicator License is also included. Prerequisite: HRT:101 or BIO:124 and Reading Proficiency.

HRT:230 ORNAMENTAL PLANTS: HERBACEOUS PERENNIALS 3
Students will study the uses of perennials in the landscape and the role of perennials in commercial and residential garden design. Plant identification including specific characteristics such as growth habit, foliage and flowers will be emphasized. Gardening and cultural practice will be discussed. Prerequisites: HRT:101 or BIO:124 and Reading Proficiency.

HRT:235 ANNUALS AND ORNAMENTAL GRASSES 3
Students will be introduced to the identification of annual landscape plants and their use in private, public and commercial gardens. Ornamental grasses, their identification, use and culture will also be covered. Prerequisite: HRT:101 or BIO:124 and Reading Proficiency.

HRT:240 GOLF COURSE MANAGEMENT 3
This course will cover the varied aspects of management of private and public golf courses. Course content will include primary cultural practices of putting greens, tees, fairways, roughs and bunkers as well as address routine course maintenance and operations. Topics in specialized golf course equipment will be presented. Prerequisite: HRT:201 and Reading Proficiency.

HRT:241 GREENHOUSE MANAGEMENT 3
Students will learn techniques for producing a variety of ornamental crops. Greenhouse structures, and greenhouse environmental factors and their effect on plant growth will also be studied. Wholesale production and retail marketing will be presented. Special attention will be paid to the St Louis and Midwest markets. Additional lab hours required. Prerequisite: HRT:101 or BIO:124 and Reading Proficiency.

HRT:242 URBAN TREE MANAGEMENT 3
This course will introduce students to the management of urban forest greenspaces emphasizing the social value of urban trees, street and park tree inventories, tree ordinances and program administration. Tree selection, site evaluation, soil, planting, pruning and hazard tree evaluation will be included. Prerequisite: HRT:101 or BIO:124, and HRT:206 and Reading Proficiency.

HRT:245 SPECIAL APPLICATIONS IN LANDSCAPE DESIGN 3
Students will learn to design specialty gardens such as woody and herbaceous borders, small urban spaces, special access gardens, woodland gardens and public display gardens. Designs may be developed using CAD or traditional drafting methods. Course content will include construction techniques. Additional lab hours required. Prerequisites: HRT:206 and HRT:207 and HRT:230 and Reading Proficiency.

HOSPITALITY, RESTAURANT MANAGEMENT

HRM:112 PURCHASING 3
Purchasing duties. Inventory, receiving, and issuing of foods; food specifications; food grading; comparative buying; convenience foods. Prerequisite: Reading Proficiency.

HRM:128 NUTRITION 3
The study of food and its effect on the body. This course will provide the student with practical guidelines for preparing nutritious meals in a foodservice establishment. Prerequisite: Reading Proficiency.

HRM:134 INTRODUCTION TO THE HOSPITALITY INDUSTRY 3
A survey course of the hospitality industry. Lectures from outstanding foodservice and hotel operators will help to give the student an overview of opportunities available to them upon graduation. Other aspects covered include the following: history of the industry, current and future trends. Prerequisite: Reading Proficiency or concurrent enrollment in RDG:100 or ENG:070.

HRM:141 WORKPLACE LEARNING I: HOSPITALITY STUDIES I 3
This experiential course provides the student opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Student will observe and participate in the functions of the Hospitality industry to enhance their preparation for entering the field. Student is required to complete a minimum of 50 hours of supervised work experience in a position related to their academic or career goal. Corequisite: Must be concurrently enrolled in at least one class which is related to student’s major or career interest or with permission of instructor. Prerequisite: HRM:134 and completion of at least twelve (12) college credits, minimum 2.6 GPA, and be able to obtain a position related to student’s academic or career goals (student’s present job may qualify); or permission of instructor and Reading Proficiency.

HRM:201 PROBLEMS OF HOSPITALITY MANAGEMENT 3
A survey of the personnel and general management concerns of those at the mid-management level of the hospitality industry. Students will learn to make judgments and decisions through the use of management theories. Basic fundamentals and principles of management will be readily and easily applied to the hotel, restaurant and institutional field. Prerequisite: Reading Proficiency.

HRM:202 HOSPITALITY LAW 3
A course structured to meet the student’s needs concerning hospitality law, current state and federal employment and wage status, and tax provisions of all levels of government; credit philosophy and procedures; a survey of insurance needs and selection of most advantageous coverage; fundamentals of union organization, including contracts and bargaining; as well as general principles of business organization and organizational structure. Prerequisite: Reading Proficiency.

HRM:205 OPERATIONAL COST CONTROL 3
Methods of audit against established operational standard costs are developed and use of these methods to determine daily operational levels and break-even points are taught. Food, bar and labor cost control are included. Prerequisite: Reading Proficiency.

HRM:209 HOSPITALITY SALES AND MARKETING 3
This course will be structured into three sections: Salesmanship, Advertising, and Marketing. All aspects of the course will specifically focus on the Hospitality and Tourism career fields. Salesmanship section will develop specific steps of the selling process from prospecting to closing. Effective and efficient marketing strategies and marketing activities are emphasized as well as the illustration of what advertising is and how advertising is used to achieve market penetration. A survey of the advertising process, advertising, agencies, media, and consumer is shown. Prerequisite: Reading Proficiency.

HRM:210 GUEST SERVICES MANAGEMENT 3
This course examines the organization and management of the hotel front office and guest service operations. It explores key front office functions and related systems and skills necessary to ensure guest satisfaction and efficient operations. Additional lab hours required. Prerequisite: HRM:134 and Reading Proficiency.

HRM:211 HOTEL FACILITIES MANAGEMENT 3
This course covers the fundamental duties and responsibilities of hotel facilities management. Topics include personnel, cleaning, purchasing, equipment, textiles, maintenance, safety, and basic systems for hotel facility management record keeping. Prerequisite: HRM:134 and Reading Proficiency.

HRM:212 BAR AND BEVERAGE MANAGEMENT 3
This is an introductory course in how to set up, operate, and manage a bar. Students will learn about wines, spirits, and beers. Additional material covers layout and design, equipment, marketing, and staffing. Prerequisite: Reading Proficiency.
HRM:214 HOSPITALITY HUMAN RESOURCES MANAGEMENT 3
This course examines concepts and applications of human resource management in the hospitality industry. Topics include recruitment, selection, training, and evaluation. Emphasis will be placed on current management methods and productivity in the service environment. Prerequisite: HRM:134 and Reading Proficiency.

HRM:221 WORKPLACE LEARNING II: HOSPITALITY STUDIES 1
This experiential course provides the student an additional opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Student will observe and participate in the functions of the Hospitality industry to enhance their preparation for entering the field. Student is required to complete a minimum of 50 hours of supervised work experience in a position related to their academic or career goal. Corequisite: Must be concurrently enrolled in at least one class which is related to student’s major or career interest or with permission of the instructor. Prerequisite: HRM:141 and be able to obtain a position related to student’s academic or career goals (student’s present job may qualify); or permission of instructor and Reading Proficiency.

HRM:241 WORKPLACE LEARNING III: HOSPITALITY STUDIES 1
This experiential course provides the student an additional opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Student will observe and participate in the functions of the Hospitality industry to enhance their preparation for entering the field. Student is required to complete a minimum of 50 hours of supervised work experience in a position related to their academic or career goal. Corequisite: Must be concurrently enrolled in at least one class which is related to student’s major or career interest or with permission of the instructor. Prerequisite: HRM:221 and be able to obtain a position related to student’s academic or career goals (student’s present job may qualify); or permission of instructor and Reading Proficiency.

HRM:250 FOODSERVICE DESIGN AND LAYOUT 3
Survey of the basic essentials necessary for a successful layout and design of a foodservice establishment. Topics to be covered include: planning, design, selection, operation, maintenance, and layout of equipment used in various types of foodservice operations. Prerequisite: HRM:134 and Reading Proficiency.

HUMAN SERVICES

HMS:100 INTRODUCTION TO HUMAN SERVICES 3
A survey course to introduce students to human and community needs and to the concepts of the helping profession. Students examine community resources, the relationship of agencies and bureaucracies to the total community, and the worker’s role and responsibility in the helping profession. Prerequisite: Reading Proficiency.

HMS:101 HUMAN SERVICES: THEORIES AND SKILLS 3
An overview of methodology used in the helping profession. Course will include an analysis of helping relationships, a study of interpersonal skills and practice techniques. A process-oriented approach to solving individual, family and community problems will be stressed. Prerequisite: Reading Proficiency.

HMS:102 HUMAN SERVICES: POLICY AND POLITICS 3
An analysis of the political process involved in the formulation of social welfare policies from a historical point of view. Federal state and local programs will be examined in terms of skills and knowledge to affect program planning and delivery. Prerequisite: Reading Proficiency.

HMS:110 INTRODUCTION TO GERONTOLOGY 3
This course will explore the complex forces that shape an older person’s experiences and circumstances. It will help students to assess the impact of economics, social forces, cultural value systems, and social institutions on the needs and characteristics of the elderly. Prerequisite: Reading Proficiency.

HMS:111 GROUP PRACTICE IN HUMAN SERVICES 3
This course will focus on the basic issues of group work in Human Services settings. The theory behind group work practice, a study of the various types of groups, ethical issues, group leadership and the process of forming and working with groups will be covered. Prerequisite: HMS:100 recommended and Reading Proficiency.

HMS:112 INTERVIEWING IN THE HELPING RELATIONSHIP 3
Provides students with an integrated approach to basic helping skills, utilizing theories, practice and case application. An introduction to interviewing skills for use in both professional and paraprofessional settings. Prerequisite: Reading Proficiency

HMS:118 AGING AND DISABILITIES 3
This course will focus on the aging process and the manifestations of aging in persons with congenital or acquired disabilities. Current habitation, rehabilitation programs and recent technologies will be explored. Discussions will also center on aging care providers and their concerns and needs. Prerequisite: Reading Proficiency.

HMS:119 INTRODUCTION TO THE FIELD OF DISABILITIES 3
A course designed to provide an overview of issues in the field of disabilities. Discussions focus on the service delivery system and ways in which current legislation, inclusionary models, and other trends impact the lives of persons with disabilities and their care givers. Resources and careers in disabilities will be explored. Prerequisite: Reading Proficiency.

HMS:120 TEAM BUILDING: WORKING WITH CARE GIVERS 3
Focus is on communication, cooperation, and collaboration with care givers of persons with disabilities. Presented will be choices, decision-making, support systems, which aid persons with disabilities and their care givers with full inclusion into society. Prerequisite: Reading Proficiency.

HMS:121 WORKING WITH CHALLENGING BEHAVIORS 3
This course provides students with the learning and application of intervention skills to assist individuals with disabilities to achieve their full potential. Focus is on providing support in community settings to persons with disabilities whose behaviors pose challenges. Prerequisite: Reading Proficiency.

HMS:122 HEALTH ISSUES AND PERSONS WITH DISABILITIES 3
Introduction to the basic principles of the health, etiology, and prognosis of specific disabilities. First aid, CPR, medicine administration and other emergency concerns will be explored. Experiences focusing on personal care assistance, positioning, transferring, feeding, etc. for disabled will be learned. Prerequisite: Reading Proficiency.

HMS:123 INCLUSION IN THE COMMUNITY 3
Designed to help care givers and/or paraprofessionals prepare individuals with disabilities for maximum empowerment and self-advocacy in their respective communities. Introduction to and discussion of alternative living situations and supports needed for inclusion. Staff career competencies explored. Prerequisite: Reading Proficiency.

HMS:201 WORKPLACE LEARNING: HUMAN SERVICES I 3
This workplace-based course provides the student the opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Students will observe and participate in the functions of the organization to enhance their preparation for entering the Human Services field. Minimum 50 hours per credit hour in the workplace throughout the term. Concurrent enrollment in HMS:203 required. Prerequisites: HMS:100 and HMS:101 with grades of "C" or better and Reading Proficiency.

HMS:202 WORKPLACE LEARNING: HUMAN SERVICES II 3
This workplace-based course provides the student the opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Students will observe and participate in the functions of the organization to enhance their preparation for entering the Human Services field. Minimum 50 hours per credit hour in the workplace throughout the term. Concurrent enrollment in HMS:204 required. Prerequisites: HMS:201 and HMS:203 with grades of "C" or better and Reading Proficiency.
HUMAN SERVICES PRACTICUM SEMINAR I 3
Discussion and analysis in small groups of the human services practicum experience. There will be special learning objectives related to the kind of work the student will do in an organization after completion of the program. Concurrent enrollment in HMS:201 required. Prerequisites: HMS:100 and HMS:101 with grades of "C" or better and Reading Proficiency.

HUMAN SERVICES PRACTICUM SEMINAR II 3
Continuation of HMS:203 with different learning objectives. These objectives will be related to the work the student will do after completion of the program. Current enrollment in HMS:202 is required. Prerequisites: HMS:201 and HMS:203 with grades of "C" or better and Reading Proficiency.

CRISIS INTERVENTION 3
Course designed as a beginning training unit for people who anticipate or are presently working with individuals in crisis situations such as suicide, rape, spouse abuse, death and drugs. Will focus on theory and practical application of crisis intervention techniques. Prerequisite: Reading Proficiency.

HUMANITIES

HUMANITIES I 4
This course explores the development of Western culture from its beginnings to the early modern period. Its focus is on the basic attitudes, feelings and ideas expressed in art, music, literature, philosophy, and religion. A major objective of the course is to help students develop the ability to understand and enjoy diverse cultural styles. Prerequisite: Reading Proficiency.

HUMANITIES II 4
This course focuses on understanding the human meaning of the many different cultural styles in our modern Western world. The course will trace the development of classical and popular music, art, literature, and philosophy, and the growing impact of science on our beliefs and attitudes. The arts and ideas of the last 100 years will receive special attention, and recent developments such as rock music and jazz will be explored. Prerequisite: Reading Proficiency.

BLACK HUMANITIES 3
A study of neo African, African and African American philosophies as expressed nationally and internationally in literature, art and song. Prerequisite: Reading Proficiency.

ARTS AND IDEAS IN THE ANCIENT WORLD 3
This interdisciplinary humanities course will use the arts and literature to trace the development of belief systems from the earliest expressions found in prehistoric remains through the rise of the great civilizations of Egypt, Greece, and Rome. Prerequisite: Reading Proficiency.

THE MIDDLE AGES AND THE RENAISSANCE 3
This interdisciplinary humanities course will explore the arts and ideas that infused and created the cultural periods known as the Middle Ages and the Renaissance in Western Europe. Prerequisite: Reading Proficiency.

CREATIVE THINKING 3
This interdisciplinary course helps students develop their capacities to observe clearly, to generate ideas and alternatives, to overcome blocks to recognize and solve problems, and to assess results. The skills taught apply to all arts and sciences, to business, and to personal interests. Prerequisite: Reading Proficiency.

INTRODUCTION TO IRISH STUDIES 3
Introduction to Irish Studies is an interdisciplinary survey of Irish history and culture from prehistoric times to the present, with special emphasis on the role of the arts in the struggle for independence and the outstanding achievements of Irish writers and poets. Prerequisite: Reading Proficiency.

EXPLORING THE ARTS 3
This course concentrates on appreciating, understanding, and interpreting the creative and performing arts: painting, sculpture, music, dance, theatre and film. The focus is on the arts in contemporary life, though some historical background is included. Prerequisite: Reading Proficiency.

LIFE AND DEATH DURING THE NAZI ERA 3
An interdisciplinary approach to the study of life in Nazi Germany. Literary, psychological and historical texts on such topics as education, racial prejudice and propaganda are read and interpreted in class. Supplementary slides and documentary films are used. Prerequisite: Reading Proficiency.

LIBERAL ARTS SEMINAR: THEMES IN THE LIBERAL ARTS 3
The seminar will draw together the main themes of a liberal arts education: the consideration of the impact of science, technology and the humanities on societies over time, values and ethics appropriate to a new age, the future consequences of present policies, the enjoyment and importance of both the arts and the sciences. The theme may change semester by semester. Prerequisite: 32 hours or consent of Liberal Arts Coordinator/Instructor and Reading Proficiency.

BLACKS AND THE WORLD OF CINEMA 3
This course examines the historical and social evolution of blacks in the film industry. It traces the impact of African-Americans as actors, technicians, directors, producers, and audience of short and feature length films. Prerequisite: ENG:101 and Reading Proficiency.

HONORS COLLOQUIUM 3
This interdisciplinary, team-taught course is designed as a capstone experience for students in their last semester of honors study. The course topic, which changes periodically, will be examined from various perspectives using the theories and methodologies of both the humanities and the sciences. Students will develop a research project related to their major, program, or field of interest. Prerequisite: ENG:105 or ENG:102 and Reading Proficiency.

INFORMATION REPORTING TECHNOLOGY

PRINCIPLES OF JUDICIAL REPORTING I 3
This course introduces the student to the role of the reporter in trials, depositions, and administrative hearings. All phases of format and design are taught as it pertains to the production of trials, depositions, and administrative hearings. The student will receive instruction in reference materials, related jobs, NCRA Code of Professional Conduct, and basic proofreading techniques. Prerequisite: IRT:170 and Reading Proficiency.

INTRODUCTION TO COMPUTER-AIDED TRANSCRIPTION 3
This course introduces the student to the Computer-Aided Transcription (CAT) software and gives instruction in the operation of a computer hardware data input device for the creation of a legal document and the development of the dictionaries for their use. Prerequisites: IRT:170 and IS:123 and Reading Proficiency.

LEGAL TERMINOLOGY 3
This course will teach the student the meaning of legal and Latin terms. It will also cover instruction on civil and criminal law, the judicial system (including discovery, trial, and appellate processes), the legislative process, hearings, and arbitrations, research and citations, and the notary public law. Prerequisite: Reading Proficiency.

EDITING OF LEGAL DOCUMENTS 3
This course covers the basics of English grammar, punctuation, spelling, numbers, capitalization, vocabulary development, proofreading of the spoken word, and the transcription of legal documents. Prerequisites: IRT:170 and Reading Proficiency.

INTRODUCTION TO CAPTIONING 3
This course teaches the student to write spoken words, with punctuation, by means of realtime translation, conflict-free writing system to provide instantaneous translation that will be used for broadcast captioning for the television. Prerequisite: IRT:174 and Reading Proficiency.

LITERARY I 3
This course covers speedbuilding of literary dictation at speeds of 100 and 120 words per minute. Instruction will include writing the spoken word with punctuation by means of an NCRA Task Force approved Phase I and Phase II realtime transcription theory to provide instantaneous, realtime translation, with special emphasis on dictionary building/management. Prerequisite: IRT:172 and Reading Proficiency.

INFORMATION REPORTING I 3
This course introduces the student to the basic computer-compatible theory for writing on the stenotype machine. The student will develop the ability to write words and sentences. Prerequisites: IS:102 or 30 wpm typing. Reading Proficiency.
**INTRODUCTION TO COMPUTER SYSTEMS**

This course will introduce the student to the advanced applications of the computer-aided transcription (CAT) software for information reporting technology. The student will learn about videotaping in depositions for trial purposes and litigation support. Prerequisites: IR:138 and Reading Proficiency.

**INFORMATION SYSTEMS**

**IS:101 KEYBOARDING**

This course is designed for the beginning student to develop touch control of the keyboard, to use proper techniques, to build basic skill to a minimum of 25 words per minute for one minute. Emphasis is on learning the alphabetic, numeric, and symbol keys and on building basic skill. Pass/Fail grading. Additional hours may be required.

**IS:102 KEYBOARDING AND FORMATTING**

This course is designed for the beginning student to develop touch control of the keyboard, to use proper techniques, to build basic skill to a minimum level of 35 words per minute for three minutes, and to apply basic formatting skills to the production of letters, memorandums, reports, and tables. Additional hours may be required.

**IS:103 INFORMATION SYSTEMS FOR BUSINESS**

A study of computers and information systems for business functions. Topics include computer technology and its impact on business organization, role of people in an information system environment, programming fundamentals, information systems and the computer in solving business management problems. Credit not allowed for this course if credit is given for IS: 100. Prerequisite: Reading Proficiency.

**IS:107 INTRODUCTION TO PROGRAMMING**

This course emphasizes problem-solving techniques utilizing current programming development environments to create computer program solutions to simple programming problems. Topics include number systems, program design, pseudocode, loops and decisions, functions, arrays, structures, and recursion. Programming assignments using current development environments will be required. Prerequisites: IS:103, MTH:030 or higher-level math or scored placement into MTH:140. Reading Proficiency.

**INTRODUCTION TO COMPUTER SYSTEMS**

This course will introduce the student to the advanced applications of the computer-aided transcription (CAT) software for information reporting technology. The student will learn about videotaping in depositions for trial purposes and litigation support. Prerequisites: IR:138 and Reading Proficiency.
IS:109 PROOFREADING AND EDITING SKILLS 1
This course is designed to assist the office professional control the quality
of business communication through proofreading for accuracy in mechanics,
format, and content as well as editing documents for correctness, conciseness, and clarity. Reference materials are used as a source in applying spelling, word division, grammar, capitalization, punctuation, number and word usage. Prerequisites: IS:102 or IS:101 or IS:164 and Reading Proficiency.

IS:110 PROGRAM DESIGN AND DEVELOPMENT 3
This course is a study of programming methods and algorithms including
object-oriented development, error handling, event processing, data
manipulation with database connectivity, forms and reports, and simple
graphics processing. Projects using current development environments will be
required. Prerequisites: Prior or Concurrent enrollment in IS:107, Reading Proficiency.

IS:111 PROGRAMMING IN BASIC 3
Study of the use of the BASIC computer programming language to solve
business oriented information systems problems. This course will cover
introductory programming topics. Additional lab time may be required.
Prerequisite:  IS: 110 or concurrent enrollment in IS: 110 and Reading Proficiency.

IS:112 SOFTWARE AND HARDWARE CONCEPTS 3
This course is a survey of technical topics related to computer systems with
emphasis on the relationships between hardware architecture and systems
software. Binary and hexadecimal number systems, data representation,
data structures, processor architecture, and operating systems functions and
methods will be explored. Prerequisites: IS:103; MTH:140 recommended, and Reading Proficiency.

IS:116 MICROCOMPUTER LITERACY 3
Introduction to microcomputer hardware, software, terminology and applications; includes hands-on use of popular application software. Additional lab time required. Prerequisite: Reading Proficiency.

IS:118 MICROCOMPUTER APPLICATIONS-DATABASES 1
Studies the use of a relational data base system on the microcomputer with
business and personal applications. Additional lab time may be required. 
Prerequisite: IS: 123 or equivalent experience.

IS:119 MICROCOMPUTER APPLICATIONS-WORD PROCESSING 3
This class is an introduction to word processing using a current software
program. Included in this course are the basic functions of creating,
formatting, editing, and printing documents. Additional lab assignments will be required outside of class. Prerequisite: IS:123 or equivalent experience.

IS:120 MICROCOMPUTER APPLICATIONS-SPREADSHEETS 1
Studies the use of a spreadsheet program with business and personal applications. Additional lab time may be required. Prerequisite: IS:123 or equivalent experience and Reading Proficiency.

IS:123 INTRODUCTION TO WINDOWS 1
This course introduces basic concepts of the Windows environment
beginning with the anatomy of a Window. The relationship between
various PC operating systems, and the advantages and disadvantages of the
Windows interface will be discussed. Students will learn how to create and manage files within the organizational structure of a Windows environment. The desktop, accessories, and navigational tools are among the topics to be covered.

IS:124 WINDOWS-ADVANCED TOPICS 1
This course provides students with an advanced approach to understanding and using a Windows operating system. Students will learn how to create and share files and folders and how to customize and maintain a workstation. Prerequisite: IS:132 and Reading Proficiency.

IS:125 EXCEL FOR WINDOWS 1
An introductory course in using Excel for Windows Worksheet for
applications in accounting, budgeting, expense tracking, what-if analysis,
charting, database development, queries and other applications. 
Prerequisite: IS:123 or equivalent experience.

IS:126 E-MAIL AND INFORMATION MANAGEMENT 1
This course examines, through practical application, the creation and
management of information received through electronic mail and
networks. Prerequisites: IS:123 and IS:102 and Reading Proficiency.

IS:129 HTML 1
This course covers the essentials of creating HTML documents such as
those used on the World Wide Web. Students will create basic pages which include simple text, links, and in-line images. Prerequisite: IS: 123 or experience using a graphical user interface and Reading Proficiency.

IS:130 HARDWARE AND SOFTWARE SUPPORT 3
This course offers the student through lecture, demonstrations, and hands-on exercises the in-depth knowledge and concepts necessary to perform
microcomputer-based hardware and software support. Topics include
hardware fundamentals and troubleshooting; operating system concepts;
software installation and troubleshooting; documentation; and help desk
issues. This class requires an average of three additional hours for research
and reading assignments per week. Prerequisite: IS: 103 and Reading Proficiency.

IS:131 ADVANCED HTML 2
This course is a continuation of IS: 129, Hypertext Markup Language and is
designed to introduce the student to the more advanced techniques of
HTML. Use of tables; creation and use of frames; construction of forms;
imagemaps; working with external media (sound and animation);
incorporating counters, guestbooks, and search engines; use of "meta information" tags; and a discussion of HTML editors and converters will be
presented. Prerequisite: IS: 129 and IS: 118 or IS: 129 and IS: 151 and Reading Proficiency.

IS:132 WINDOWS-INTERMEDIATE TOPICS 1
This course is a continuation of Introduction to Windows. Students will
become more familiar with the Windows interface and will learn how to
manage and manipulate programs, files, folders and objects. The
accessories will be covered in depth. Prerequisite: IS: 123 or equivalent experience.

IS:133 INTRODUCTION TO SQL 3
This course covers the concepts of SQL and relational databases. Students
will learn how to create tables, enter and manipulate data, query data in
tables and format the results using SQL commands. Advanced techniques
to retrieve data writing SQL scripts and security issues will also be taught.
Additional lab time may be required. Prerequisite: IS: 225 and Reading Proficiency.

IS:135 COMMUNICATION AND DESIGN FOR THE WWW 1
Students will learn to use the elements of graphic design to produce Web
pages that effectively deliver art and information for business/organizational
communications. Additional lab hours required. Prerequisite: ART:133, ART:131 or ART:227 and Reading Proficiency.

IS:136 INTERNET FUNDAMENTALS 1
This hands-on course allows students to learn how to safely use the
Internet. Searching, validating, and securely passing information to and
from the Internet are emphasized. Students will learn how to identify and
mitigate common threats such as spyware, viruses, Trojan Horses, and
identity theft. Prerequisites: IS: 123 and Reading Proficiency.

IS:137 MICROCOMPUTER APPLICATIONS-PRESENTATION SOFTWARE 1
This course introduces the student to the concept of using a graphics
presentation program to create effective, customized business
presentations. Students will create on-screen slide shows, audience
handouts, speaker’s notes and outlines for selected case studies. Emphasis
will be placed on mastering the word processing, drawing, color palette
and graphing tools used in a Windows environment. A discussion of
incorporating multimedia elements into on-screen presentations will be
included. Additional lab time may be required. Prerequisite: IS: 123 or equivalent experience.

IS:139 WEB PUBLISHING 3
This course introduces students to web design techniques including HTML,
Cascading Style sheets, Dynamic HTML, XHTML, XML, and JavaScript.
Tables, forms, imagemaps, animation, sound, dynamic content, input
validation, event handlers, security issues, a discussion of HTML editors,
and web site design standards for web accessibility are presented.
Prerequisites: IS:129 or equivalent experience. Reading Proficiency.

IS:141 GRAPHICS FOR THE WEB 3
This course focuses on generating graphics that can be utilized within
the context of the Internet. Topics will include use of graphics at the
appropriate times, performance issues, button creation, animated graphics,
and multimedia tools. Prerequisite: IS:129 and Reading Proficiency.
IS:150 MICROCOMPUTER APPLICATIONS-MICROSOFT PUBLISHER 1
This course instructs the student with no prior design experience in developing professional quality publications using Microsoft Publisher. Topics include designing and producing documents which combine text, graphics, illustrations, and photographs. Students will employ desktop publishing tools to produce high-quality color publications such as newsletters, flyers, logos, signs and forms. Laboratory assignments will be required outside of class. Additional hours required. Prerequisite: IS:123 and Reading Proficiency.

IS:151 MICROCOMPUTER APPLICATIONS IN BUSINESS 4
Survey of frequently used programs for the business environment. No programming knowledge is required. Software packages from these categories will be studied: operating system, electronic spreadsheet, database management, word processing, and presentation software. Additional lab time may be required. Prerequisite: IS: 123 or equivalent experience.

IS:155 OFFICE TECHNOLOGY 2
This course examines electronic equipment utilized to load specialized software, to enter, retrieve, and update data on a PDA (Personal Digital Assistant), to scan, fax, and present data on a large screen, and to conduct videoconferencing and teleconferencing sessions. Prerequisites: IS:151 or (IS:118 and IS:119 and IS:125 and IS:137) or (IS:118 and IS:119 and IS:120 and IS:137). Reading Proficiency.

IS:156 MICROCOMPUTER APPLICATIONS-INTERMEDIATE DATABASES 1
Continuing on the building blocks of IS:118 the student will learn about action queries inner/outer joins, mail merge, importing and exporting specifications, queries that “prompt” for criteria, and additional formatting techniques for reports. Macros will also be introduced. Prerequisites: IS:118 or IS:151 and Reading Proficiency.

IS:157 MICROCOMPUTER APPLICATIONS-INTERMEDIATE WORD PROCESSING 1
This class is a continuation of IS:119. The students will merge documents, create and sort tables, insert images, utilize drawing objects, use special formatting features, and prepare charts and web pages. In addition, students will create basic macros and integrate/import other applications into documents. Prerequisites: IS:119 or IS:151.

IS:158 MICROCOMPUTER APPLICATIONS-INTERMEDIATE SPREADSHEETS 1
This class is a continuation of IS:120. In it, students will utilize spreadsheet productivity features to create, modify, and format charts; add and format graphic objects to enhance worksheets and charts; sort and filter data; and include worksheets on web pages. Prerequisites: IS:120 or IS:151 and Reading Proficiency.

IS:161 MICROCOMPUTER APPLICATIONS-ADVANCED WORD PROCESSING 1
This class is a continuation of IS:157. In it additional emphasis will be placed on advanced word processing features. Students will create advanced macros, style sheets, outlines, master documents, fill-in forms, table of contents, and shared documents. Prerequisite: IS:157 and Reading Proficiency.

IS:164 VOICE RECOGNITION TECHNOLOGY 1
This course is an introduction to Voice Recognition Technology, which is a program that trains the computer to recognize voice input as an alternative to typing. Voice Technology is an important tool to assist companies and institutions in meeting ADA requirements. The student will learn how to use voice commands to create, edit and print documents. Time saving macros and templates will be created. Stored documents will be retrieved and edited by voice. Additional lab time will be required. Prerequisites: IS:119 or IS:151 and Reading Proficiency.

IS:165 MICROCOMPUTER APPLICATIONS-MICROSOFT PROJECT 1
This course introduces students to the Microsoft Project software application. Microsoft Project allows students, professionals, volunteers, or an individual managing or working on a project to organize all the details of a project into one central repository. Students learn to easily plan, communicate, track, and close projects. Classes consist of lectures, demonstrations, and hands-on case studies. Additional hours required. Prerequisite: Reading Proficiency.

IS:200 ELECTRONIC RECORDS MANAGEMENT 2
This is a course designed to familiarize students with records management procedures from creation through processing, maintenance, retention, retrieval, protection, and disposition. Electronic and manual filing rules are covered. Alphabetic, numeric, subject, and geographic filing methods are emphasized. Topics include database management. Prerequisites: IS:118 or IS:151 and Reading Proficiency.

IS:202 INFORMATION SYSTEMS FIELD WORK 3
A course to provide the student with practical experience in data processing. Assignments will be made at selected local data processing installations. Evaluation of the student’s performance will be a cooperative effort of the local installation management and the instructional staff. Prerequisite: 15 hours of Information Systems courses and Reading Proficiency.

IS:203 BUILDING SPEED AND ACCURACY 1
This course is designed for students to improve inputting skills (speed and accuracy) through timed copy analysis, goal setting and corrective drill practice. Prerequisite: IS:102 or IS:164 or 25 wpm and Reading Proficiency.

IS:204 BUILDING TEN-KEY NUMERIC SKILLS 1
This course teaches the fundamentals of operating the ten-key number pad using proper touch techniques with emphasis on speed and accuracy development. Prerequisites: IS:101 or IS:102 or IS:164 or 25 wpm and Reading Proficiency.

IS:205 MEDICAL TERMINOLOGY 4
This course provides a broad survey of the language of medicine and health technologies. Students learn to accurately spell and define common medical terms related to major disease processes, diagnostic procedures, laboratory tests, abbreviations, drugs, and treatment modalities. Emphasis is placed on formation, definition and pronunciation. Prerequisite: Reading Proficiency.

IS:208 MACHINE TRANSCRIPTION APPLICATIONS 2
This course emphasizes the development of skill in transcribing a variety of business communications from machine dictation. Language skills, specialized business vocabulary, formatting, proofreading, editing, listening, and decision-making are applied and reinforced in the production of industry-specific documents. Additional lab hours will be required. Prerequisites: IS:203 and IS:109 and Reading Proficiency.

IS:209 DEVELOPMENT OF END-USER MICROCOMPUTER SYSTEMS 3
This course presents concepts of local area networking including terminology, architectures, topologies, standards and protocols, cables, and operating systems. Criteria for selecting, organizing and maintaining a LAN will be introduced. Planning a network installation, connecting physical components, and configuring basic network features will also be presented. Students will master course objectives through a combination of lectures, demonstrations, case studies and/or hands-on exercises. Prerequisites: IS: 103 and IS: 130 (may be a corequisite), and Reading Proficiency.
IS:217 NETWORK PERFORMANCE MONITORING 3
This course introduces students to industry network management standards and to various mechanisms for implementing a standards-based network management system. Configuration and performance implications of network interconnection devices will be introduced. The theories behind network performance tuning, problem identification and resolution, and methods for analyzing link and server performance will be presented. Hands-on activities and demonstrations will be used to expose students to a number of commercially available products. Prerequisites: IS: 235 and IS: 236 and Reading Proficiency.

IS:218 NETWORK INTERNSHIP 3
A course to provide students with practical experience in computer network environment. Assignments will be at selected local computer network installations. Evaluation of students’ performance will be a cooperative effort between the internship sponsor and a faculty member of the program. Total of 120 working hours required. Prerequisite: IS: 235 and permission of instructor and Reading Proficiency.

IS:225 DATABASE MANAGEMENT 3
This course will cover the concepts, skills, methodology and database technology necessary to design and implement a relational database management system. Topics include relational databases from different vendors, data structures, relational data modeling and designing techniques and tools. This course emphasizes concepts rather than teaching a particular DBMS or tool. Prerequisites: IS:107 and Reading Proficiency.

IS:227 C PROGRAMMING 3
Study of the C programming language. Topics to be covered include logic structures, data structures, files, pointers, system and user defined functions, and input arrays. Programs will be written and executed on the computer. Additional lab time may be required. Prerequisite: IS: 110 and Reading Proficiency.

IS:229 UNIX/LINUX 3
This course introduces the Unix/Linux operating system with special emphasis on the creation, organization, and maintenance of files. Students are introduced to shell programming and to the standard Unix/Linux utilities. System administration and script writing are also presented. Students are expected to create functional and efficient scripts. Prerequisite: Reading Proficiency.

IS:231 INTRODUCTION TO DATA COMMUNICATIONS 3
The goals, history, and purposes of Data Communication will be explored. The components of a network; hardware, software, and connecting logic will be presented individually and then interrelated to provide an understanding of a communication system concept. Different types of networks and the technology that makes them function will be presented. Case studies will be employed to provide practical experience in the Data Communications area. Prerequisite: IS: 103 and Reading Proficiency.

IS:232 INTRODUCTION TO TELECOMMUNICATIONS 3
History, regulation and technology as applied to the telecommunications industry will be studied to provide a foundation from which sound decisions relating to selection of telecommunications equipment can be made. Methods of analyzing a site’s needs regarding telecommunication hardware will be explored. In addition the student will be made aware of the various information and product resources available within the industry. This course is slanted toward the business management applications of telecommunications, not the engineering technical aspects. Prerequisite: Reading Proficiency.

IS:233 COMPONENTS OF VOICE/DATA COMMUNICATIONS 3
This course will explore the basics of telecommunications equipment including instruments, PBXs, switching, transmission, and customer equipment and services. Telecommunications network equipment also will be discussed, including coaxial cable, microwave satellite and fiber optics. Students also will review current vendor offerings and compare and contrast services. Prerequisites: IS: 231 and IS: 232 or department approval and Reading Proficiency.

IS:234 DATA/VOICE TRAFFIC ANALYSIS 3
This course will cover evaluating and management of a voice/data systems, identifying costs, establishing a corporate telecommunications policy, and selecting, implementing and controlling a telecommunication system. Principles and procedures of traffic engineering, the impact of competition and fine system tuning will also be covered. Prerequisite: IS: 231 and IS: 232 and Reading Proficiency.

IS:235 NETWORK DESIGN AND INSTALLATION 3
This course provides students with the knowledge and practical experience to design and install a scalable computer-based network that provides end-user connectivity to local and remote servers. The course emphasis is on the installation of network servers and network operating systems. LAN and WAN design and interconnection issues will also be examined. Prerequisites: IS: 215 and IS: 231 and Reading Proficiency.

IS:236 NETWORK ADMINISTRATION 3
This course provides students with the knowledge and practical experience to administer local and enterprise-wide computer networks. Control of desktop systems, organization and maintenance of user accounts, multiprocessor client support and network security will be introduced. High speed internetworking technologies and protocols will also be presented. Prerequisites: IS: 215 and IS: 231 and Reading Proficiency.

IS:237 COMPUTER SYSTEM AND NETWORK SECURITY 3
This course presents a survey of computer system and network security tools and mechanisms. The focus is on the terminology, technologies, and standards used to implement modern security systems, including internet-related security. Prerequisite: IS: 231 and Reading Proficiency.

IS:238 WEB SERVER IMPLEMENTATION 3
Businesses are increasingly using the World Wide Web as a basis for customer and electronic commerce. This course prepares students to implement the servers that are needed to support these specialized applications. Requirements of both Internet and Intranet server implementation will be examined. Hands-on activities will be performed on a variety of platforms. Prerequisite: IS: 235 and Reading Proficiency.

IS:239 ROUTER ADMINISTRATION 3
This course prepares students to configure routers with a variety of interfaces and protocols. Specific topics include the Cisco Internetworking Operating System (IOS) commands, routed protocols, routing protocols including RIP and IGRP, and applicable components of the TCP/IP protocol suite. Prerequisites: IS:215 and IS:231 and Reading Proficiency.

IS:240 SQL AND DATABASE DEVELOPMENT 3
This course covers the concepts of SQL (Structured Query Language) and database development. Students learn how to create tables, views and indexes. Managing and formatting data, developing queries and sub-queries and advanced reporting are presented. Students learn how to develop, manage and implement database control and connectivity techniques. Prerequisites: IS:225 and Reading Proficiency.

IS:241 SYSTEMS ANALYSIS AND DESIGN 3
This course will cover the concepts, skills, methodologies, techniques and perspectives essential to analyze and design information systems. Visual and emerging development tools will be used to focus on object-oriented and visual development of information systems. Additional lab time may be required. Prerequisite: IS: 103, IS: 110 and a programming language is recommended and Reading Proficiency.

IS:246 VISUAL BASIC PROGRAMMING 3
This course is a comprehensive introduction to Visual Basic, one of Microsoft’s object-oriented development tools. Topics covered include language syntax, logic and flow control, data structures, procedures and functions, arrays, event and exception handling, files and database connectivity. Object-oriented principles will be emphasized, including the design and coding of classes. Prerequisites: Prior or concurrent enrollment in IS:110 and Reading Proficiency.

IS:250 SCRIPTING FOR THE INTERNET WITH PERL 3
This course will introduce the student to script writing for the Internet via the Common Gateway Interface (CGI) using the programming language Perl as the scripting language. The basics of Perl will be presented, including language elements (variables, control flow, functions, built-in operators) as well as the concepts of event driven programming and server-side processing of HTML forms. Students will learn to create web-based forms and program the associated CGI scripts to construct dynamic, interactive Websites. Prerequisite: IS: 129 and IS: 227, (or other high-level programming language) and Reading Proficiency.

IS:251 JAVA PROGRAMMING 3
This course is a comprehensive introduction to Java, a cross-platform, object-oriented language. Basic language syntax, control and data structure, arrays, methods and method overloading, and recursion will be covered while building both desktop and web-based applications. The design, development, instantiation, and use of user-defined classes will be emphasized. Prerequisites: Prior or concurrent enrollment in IS:110 and Reading Proficiency.
IS:252 ADVANCED JAVA PROGRAMMING
This course is a continuation of Java Programming focusing on enterprise-level development techniques and tools. Students will participate in a multi-component development project, working to deploy it in a multi-tier server installation typical of business environments. Advanced database processing, Java Server Faces, struts, multi-threading, and application-level security issues are included. Prerequisite: IS:251 and Reading Proficiency.

IS:254 ADVANCED MICROCOMPUTER OPERATING SYSTEMS
This course presents advanced topics related to the selection, installation and support of operating systems for individual personal computers and computer workstations on a network. Highly technical material covering disk partitioning, I/O interrupts, DLL’s, peripheral drivers, registry editing and security techniques will be presented. Students will master course objectives through a combination of lectures, demonstrations, case studies, and/or hands-on exercises. Prerequisites: IS: 103 and IS: 124 and Reading Proficiency.

IS:255 ADVANCED VISUAL BASIC PROGRAMMING
This course continues Visual Basic Programming focusing on enterprise-level development techniques and tools, including web interfaces. Students participate in a multi-component development project, deploying it in a multi-tier server installation typical of business environments. Topics include advanced database processing, object-oriented component architecture, server-side coding for business processes, and multi-threading. Prerequisites: IS:246 and Reading Proficiency.

IS:256 C++ PROGRAMMING
This course introduced the C++ programming language. Topics include language syntax, logic and flow control, data types and structures, files, pointers, system and user defined functions, arrays, recursion, and the use of libraries. Object-oriented principles are emphasized, including the design and coding of classes and class objects. Prerequisites: Prior or concurrent enrollment in IS:110. Reading Proficiency.

IS:257 ADVANCED DATABASE DESIGN
This course is a continuation of the database design course. It will cover implementation concepts such as client server architectures, middleware, SQL functionality, distributed databases and data warehousing concepts. A project will be implemented in this course to allow students to apply database concepts. Additional lab time may be required. Prerequisite: IS: 225 and Reading Proficiency.

IS:258 APPLIED INFORMATION SYSTEMS
This is a capstone course utilizing all of the theory and skills to which the student has been exposed to in previous courses. Analysis, design, coding, testing, documentation, and presentation skills will be reinforced. Projects will be real life whenever possible. Group techniques will be employed. Additional lab time may be required. Prerequisites: Minimum of 15 hours of IS courses including IS:241 and a two semester sequence of a programming language. Reading Proficiency.

IS:259 INTRODUCTION TO JAVASCRIPT
This course is an introduction to JavaScript, an object-oriented programming language interpreted by most Web browsers; it serves as an extension to HTML. JavaScript allows easy access to the browser’s features and enables Web pages to be interactive and intelligent. JavaScript works directly with HTML elements in a Web page, and utilizes event handlers and other various high-level programming features to give HTML pages the power to process user actions. Additional lab time may be required. Note: Either IS: 131 or IS: 139 would be excellent preparation for the HTML knowledge component needed for success in IS: 259. Prerequisite: (IS: 111 or IS: 227) and (IS: 131 or IS: 139) or department approval and Reading Proficiency.

IS:260 VISUAL C++ APPLICATION DEVELOPMENT
This course is an introduction to Windows programming using Visual C++ to program Microsoft Foundation Classes (MFC) and the Windows API. Microsoft Foundation Classes is a set of objects that allow C++ programmers to create object-oriented Windows applications. During the hands-on exercises, Visual C++ will be used to create an assortment of applications that use forms, graphics, printing, documents and message based programming. The Visual C++ code generation tools AppWizard and the ClassWizard will be used to generate a framework from which complete applications can be composed. Additional lab time may be required. Prerequisite: IS: 256 and Reading Proficiency.

IS:261 OBJECT-ORIENTED PROGRAM DESIGN
This course focuses on programming design that develops an application's data and the methods you need to manipulate that data. Topics covered will include defining a class, instantiating and using objects, using inheritance, and understanding polymorphism. Code examples will be presented as part of the class discussions. Benefits of object-oriented programming will also be discussed. A strong understanding of modular procedural programming concepts such as variables, modules, and passing values to modules is required as a starting point for this course. Prerequisites: IS: 111 or IS: 227 and Reading Proficiency.

IS:262 ADVANCED SOFTWARE DEVELOPMENT
Students will participate in a multi-component, enterprise-level project with substantial freedom to use previously acquired development skills. Development methodology is emphasized as students explore the roles of analyst, designer, architect, coder, and tester. Established and emerging web technologies such as ASP, PHP, JSP, and AJAX are explored, as are security issues. Prerequisites: IS:252 or IS:253 or IS:275. Reading Proficiency.

IS:264 ADVANCED UNIX: SYSTEM ADMINISTRATION I
This course is designed to prepare students to perform basic UNIX Systems Administration tasks at the System Administrator I level. Students will learn how to perform System Administrator software, hardware, and network tasks and advanced shell programming techniques including job scheduling with cron. They will also learn about user, group, file, and directory security, physical and logical device configuration, and system backups and restores. Prerequisite: IS: 229 and Reading Proficiency.

IS:265 WEB SCRIPTING TECHNOLOGIES
This course presents current and emerging scripting technologies used for development of state-of-the-art websites and other applications. The primary focus is on client-side technologies. Students will use a variety of technologies in this project-oriented class. Prerequisites: IS:139 and either IS:246, IS:251, or IS:256. Reading Proficiency.

IS:266 UNIX SHELL PROGRAMMING
This class is for experienced UNIX users with programming experience who wish to learn about UNIX scripting in depth. The class covers Bourne (sh), Bourne again (bash), Korn (ksh) C shell (csh), and TC shell (tcs) scripting and the scripting languages awk and sed. Students will write, debug, and run shell scripts using the UNIX operating system. Prerequisite: IS:229 and Reading Proficiency.

IS:270 ORACLE PL/SQL
This course covers the concepts of Oracle PL/SQL and developing databases applications. Students will learn how to master PL/SQL syntax and the structured programming language. Advanced techniques in table handling, cursors, triggers, procedures and functions will be taught. Additional lab time may be required. Prerequisite: IS: 133 and Reading Proficiency.

IS:271 ORACLE USER INTERFACE DESIGN
This course covers the development of GUI applications in Oracle. Students will use Developer/2000 tools such as Oracle Forms, Oracle Reports and Oracle Graphics to develop object-based, database applications. Practical solutions for typical business situations will be discussed, demonstrated and developed in a lab environment. Additional lab time may be required. Prerequisite: IS: 225 or equivalent business experience and Reading Proficiency.

IS:272 ORACLE DATABASE ADMINISTRATION
This course covers the activities performed while administering an Oracle database. Students will be installing and customizing the database, perform backup and recovery procedures, apply database tuning techniques and implement database security methods. Students will be exposed to real world examples of the various tasks that a DBA will perform on a daily basis. Additional lab time may be required. Prerequisite: IS: 225 or equivalent business experience and Reading Proficiency.

IS:273 ORACLE DESIGN AND IMPLEMENTATION
This course covers the concepts, fundamental issues and techniques for the design and development of an Oracle database. Students will be exposed to all the phases and tasks of the design process, including business modeling, conceptual and physical modeling strategies in developing application systems in Oracle. Requirements of data warehouse design and implementation will be discussed along with design methods for distributed database and Web-based applications. Students will gain hands-on experience in Oracle designer tools. Prerequisite: IS: 225 or equivalent business experience and Reading Proficiency.
IS:274 C# PROGRAMMING 3
Students will study the C# object-oriented programming language. Topics to be covered include basic language syntax, primitive and user-defined data types, control structures, classes (including derived classes), encapsulation, inheritance, and abstraction. Prerequisites: IS:246 or IS:251 or IS:256. Reading Proficiency.

IS:275 ADVANCED C++ PROGRAMMING 3
This course is a continuation of IS:256, covering database connectivity, object-oriented data structures, sorting, searching, exception handling, and the Standard Template Library. The creation and use of classes will be emphasized including the principles of inheritance and polymorphism. GUI technologies will be explored, including the development of web interfaces. Prerequisites: IS:256 and Reading Proficiency.

IS:291 WORKPLACE LEARNING: INFORMATION SYSTEMS 3
A workplace learning experience consists of a work assignment with an employer or agency (minimum of 150 hours during the semester), which allows the student to apply skills learned in the classroom. Students are also able to learn new skills and to explore career possibilities while supervised by the employer and a faculty member. Prerequisites: Enrollment in an IS Program, Departmental Approval, and Reading Proficiency.

IS:292 CO-OP WORK EXPERIENCE II - INFORMATION SYSTEMS 3
Continuation of IS:291. Prerequisite: IS: 291 and Reading Proficiency.

IS:293 CO-OP WORK EXPERIENCE III - INFORMATION SYSTEMS 3
Continuation of IS: 292. Prerequisite: IS: 292 and Reading Proficiency.

INFORMATION TECHNOLOGY

IT:101 CISCO NETWORKING ACADEMY I: NETWORKING BASICS 5
This is the first of four courses offered as preparation for the Cisco Certified Network Associate (CCNA) certification exam. The focus is on network terminology, communication protocols, local-area networks (LANs), wide-area networks (WANs), Open System Interconnection (OSI) model, cabling, Ethernet, internet protocol (IP) addressing, and network standards. Upon successful completion of this course, students will be able to perform tasks related to networking mathematics, IP addressing and subnetting, copper, optical, and wireless connections, and operation of 10/100/1000/10 G versions of Ethernet and Ethernet switching. Prerequisites: IS:103 or Departmental Approval, and Reading Proficiency.

IT:201 CISCO NETWORKING ACADEMY II: ROUTERS/ROUTING BASICS 5
This is the second of four courses offered as preparation for the Cisco Certified Network Associate (CCNA) certification exam. The focus is on initial router configuration, Cisco IOS software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Students will develop the skills to configure a router, manage Cisco IOS software, configure RIP and IGRP routing protocols, and create and set ACLs to control user access. Prerequisites: IT:101 and Reading Proficiency.

IT:202 CISCO NETWORKING ACADEMY III: SWITCHING BASICS AND INTERMEDIATE ROUTING 5
This is the third of four courses offered as preparation for the Cisco Certified Network Associate (CCNA) certification exam. The focus is on IP variable length subnet masking (VLSM), routing protocols such as RIPv2, single-area OSPF and EIGRP, the command-line interface configuration of switches and routers, Ethernet switching, virtual LANs (VLANs), spanning tree protocol (STP), and VLAN trunking protocol (VTP). Students will be required to apply lessons from Cisco Networking Academy I and II to a network and explain how and why a particular strategy is used. Prerequisites: IT:201 and Reading Proficiency.

IT:203 CISCO NETWORKING ACADEMY IV: WAN TECHNOLOGIES 5
This is the last of four courses offered as preparation for the Cisco Certified Network Associate (CCNA) certification exam. The focus is on advanced IP addressing techniques, network address translation (NAT), port address translation (PAT), dynamic host configuration protocol (DHCP), WAN technology and terminology, PPP, ISDN, DDR, Frame Relay, and network management. Students are required to apply knowledge and skills taught in Cisco Networking Academy courses I, II, and III to a network. Prerequisites: IT:202 and Reading Proficiency.

IT:204 CISCO NETWORKING ACADEMY V: ADVANCED ROUTING 5
This course is offered as preparation for students seeking the Cisco Certified Network Professional (CCNP) certification. It introduces students to scaling IP networks. Students learn to use VLSM, private addressing, and NAT to optimize IP address utilization. The majority of the course content relates to implementation of RIP, EIGRP, OSPF, IS-IS, and BGP routing protocols. In addition, the course details the important techniques used for route filtering and route redistribution. This course will help students prepare for the Building Scalable Cisco Internetworks (BSI) exam which applies toward the CCNP, CCIP, and CCID certifications. Prerequisites: IT:203, or CCNA Certification, or Departmental Approval. Reading Proficiency.

IT:205 CISCO NETWORKING ACADEMY VI: IMPLEMENTING SECURE CONVERGED WIDE AREA NETWORKS (ISCW) 5
This course is offered as preparation for students seeking the Cisco Certified Network Professional (CCNP) certification. Students will acquire the knowledge and skills necessary to secure and expand the reach of an enterprise network to teleworkers and remote sites while focusing on secure remote access and VPN client configuration. Topics include the Cisco hierarchical network model as it pertains to the WAN, teleworker configuration and access, frame mode MPLS, site-to-site IPSEC VPN, Cisco EIGRP, strategies used to mitigate network attacks, Cisco device hardening and IOS firewall features. This course will help students prepare for the Implementing Secure Converged Wide Area Networks (ISCW) exam, which applies toward the CCNP certification. Prerequisites: IT:203, or CCNA Certification, or Department Approval. Reading Proficiency.

IT:206 CISCO NETWORKING ACADEMY VII: MULTILAYER SWITCHING 5
This course is offered as preparation for students seeking the Cisco Certified Network Professional (CCNP) certification. It introduces students to the deployment of state-of-the-art campus LANs. The course focuses on the selection and implementation of the appropriate Cisco IOS services to build reliable scalable multilayer-switched LANs. Students will develop skills with VLANs, VTP, STP, inter-VLAN routing, multilayer switching, redundancy, Cisco AVVID solutions, QoS issues, campus LAN security, and emerging transparent LAN services. This hands-on, lab-oriented course stresses the design, implementation, operation, and troubleshooting of switched and routed environments. This course will help students prepare for the Building Cisco Multilayer Switched Networks (BCMMSN) exam, which applies toward the CCNP and CCDP certifications. Prerequisites: IT:203, or CCNA Certification, or Department Approval. Reading Proficiency.

IT:207 CISCO NETWORKING ACADEMY VIII: OPTIMIZING CONVERGED CISCO NETWORKS 5
This course is offered as preparation for students seeking the Cisco Certified Network Professional (CCNP) certification. Students will acquire the knowledge and skills to optimize and provide effective QoS techniques for converged networks. Topics include implementing a VOIP network, implementing QoS on converged networks, specific IP QoS mechanisms for implementing the DiffServ QoS model, AutoQoS, wireless security and basic wireless management. This course will help students prepare for the Optimizing Converged Cisco Networks (ONT) exam, which applies toward the CCNP certification. Prerequisites: IT:203, or CCNA Certification. Reading Proficiency.

IT:208 CISCO NETWORKING ACADEMY: NETWORK SECURITY I 5
This course focuses on the overall security processes in a network with particular emphasis on hands-on skills in the following areas: security policy design and management, security technologies, security products and solutions, firewall and secure router design, installation, configuration, maintenance, AAA implementation using routers and firewalls, securing the network at layers 2 and 3 of the OSI model. This hands-on, lab-oriented course stresses documentation, design, and installation issues. Cisco Networking Academy: Network Security I and Cisco Networking Academy: Network Security II will help prepare students for the Cisco Firewall Specialist designation. Prerequisites: IT:203, CCNA certification, or Departmental Approval. Reading Proficiency.
IT:209 CISCO NETWORKING ACADEMY: NETWORK SECURITY II 5
This course focuses on the overall security processes in a network with particular emphasis on hands-on skills in the following areas: Security policy design and management, Security technologies, products and solutions, Firewall and secure router design, installation, configuration, and maintenance Intrusion Prevention (IPS) implementation using routers and firewalls, VPN implementation using routers and firewalls, PIX Security Appliance Contexts, Failover, and Management. The Cisco Networking Academy: Network Security I course will prepare students for the Cisco Firewall Specialist designation. Prerequisites: IT:208, CCNA Certification. Reading Proficiency.

INTERDISCIPLINARY STUDIES

IDS:101 CORNERSTONE 3
An introductory level course in which, through a variety of themes and topics, students will be introduced to the overall goal of general education and will explore the moral and ethical values of a diverse society in order to understand their own decision making process. They will learn how to identify the arguments of others and how to articulate their own. Skills such as communicating, higher-order thinking, and managing information, as well as orientation skills conducive to the successful completion of a college education, will be integrated throughout the course. This is a technology-enhanced course that requires students to gain proficiency in the basic use of computers. Prerequisites: ENG:030 or appropriate placement test score, and RDG:030 or appropriate placement test score and Reading Proficiency.

IDS:201 CAPSTONE 4
This interdisciplinary course focuses on a selected topic or cluster of related topics which admit of multiple perspectives. Students research and analyze information from traditional and electronic sources and use the results to produce and present a project. This writing intensive course emphasizes the management of information and may integrate valuing, higher-order thinking and communicating skills. Prerequisite: Completion of 27 hours of General Education including IDS:101 and Reading Proficiency.

INTERNATIONAL BUSINESS

IB:100 INTERNATIONAL BUSINESS 3
An introduction to various facets of international business, from marketing to the completion of shipment. Emphasis is placed on terminology and the importance of understanding cross-cultural differences. Prerequisite: Reading Proficiency.

ITALIAN

ITL:033 ELEMENTARY ITALIAN I 4
A beginning course presenting the basic sentence structure and vocabulary necessary to participate in elementary Italian conversation and to begin reading short Italian passages. Prerequisite: ENG:030 and Reading Proficiency.

ITL:104 ELEMENTARY ITALIAN II 4
A continuation of ITL:103. Students complete basic elements of Italian grammar, increase their vocabulary and gain added facility in speaking and reading Italian. Prerequisite: ITL: 103 and Reading Proficiency.

JAPANESE

JPN:101 MODERN JAPANESE I 4
This course focuses on the construction and practice of fundamental vocabulary, basic sentence structures and social conventions necessary for simple interpersonal communication in Japanese. The emphasis is on the use of Japanese in everyday situations. Prerequisite: Reading Proficiency.

JPN:102 MODERN JAPANESE II 4
This course is a continuation of JPN:101. Students will further practice speaking and writing the language through the acquisition of new vocabulary and the learning of Japanese sentence structure. Students will also continue to learn cultural aspects necessary for effective interpersonal communication. Prerequisites: JPN:101 and Reading Proficiency.

LEGAL STUDIES

LGL:104 INTRODUCTION TO CIVIL TRIAL PROCEDURES 3
This course includes study of composition, location and jurisdiction of all courts, examination of all aspects of trial preparation and process, and some legal drafting and writing. Prerequisite: LGL:108 and Reading Proficiency.

LGL:106 COMPUTERS AND THE LAW 3
This course will help the Paralegal become familiar with the possible applications of the computers in law offices of different sizes and provide a general introduction to the varieties of hardware and software available and the creation of appropriate systems for a law office. Prerequisite: Reading Proficiency.

LGL:107 ALTERNATIVE DISPUTE RESOLUTION 1
Alternative dispute resolution is a method for using out-of-court alternative forums to resolve disputes. This course will examine the historical, statutory, and economic basis of ADR. Topics to be covered in both business and dissolution of marriage are: mediation, arbitration, mini trials, and summary jury trials. Prerequisite: LGL:108 and Reading Proficiency.

LGL:108 INTRODUCTION TO LAW FOR THE PARALEGAL 3
This course includes a general discourse on the training and purpose of Paralegals, examines the role of the law in modern society, the ethical and professional practice standards applicable to lawyers and paralegals, surveys the various fields of law and examines legal resource materials and the processes of legal research. Prerequisite: Reading Proficiency.

LGL:202 WILLS, TRUSTS AND PROBATE ADMINISTRATION 3
Study of the more common forms of wills and trusts and a survey of the fundamental principles of law applicable to each; a study of the organization and jurisdiction of a Missouri Probate Court; a detailed analysis of the administration of estates in Missouri Probate; a review of estate and inheritance taxes applicable to such estates. Prerequisite: LGL:108 and Reading Proficiency.

LGL:205 LAW OF REAL PROPERTY AND REAL ESTATE TRANSACTIONS 3
A study of the law of real property and in-depth survey of the more common types of real estate transaction and conveyances, such as deeds, contracts, leases, deeds of trust; drafting problems involving various of these instruments; and special research projects related to the subject matter; study of the system of recording and search of public documents. Prerequisite: LGL:108 and Reading Proficiency.

LGL:206 BUSINESS ORGANIZATION AND GOVERNMENT REGULATION 3
A study of the formation and operation of corporations, partnerships, business trusts and other business vehicles, including a survey of the fundamental principles of law applicable to each; special research projects related to the subject matter; a study of the impact and regulation of taxation and other forms of government regulation of business. Prerequisite: LGL:108 and Reading Proficiency.

LGL:211 TORTS 3
A study of the fundamental principles of the law of torts including special research assignments related to the subject matter, consideration of the techniques of investigation involved in the lawyer’s handling of tort claims; a study of the various forms of pleadings involved in commencing such claims in court actions. Prerequisite: LGL:106 and Reading Proficiency.

LGL:216 ADVANCED CIVIL TRIAL PROCEDURES 3
This course is designed as an advanced course for those students who have completed Introduction to Civil Trial Procedures. The focus will be a detailed examination of court rules pertaining to discovery, intervention, interpleading in trial procedures and appellate procedures. Prerequisites: LGL:104 and LGL:108 and Reading Proficiency.

LGL:217 LEGAL RESEARCH 3
This course is designed as an introduction to the process of legal research, and an introduction to the connection between research and legal writing. The course involves several research projects to be completed both in the lab (Internet, CD-ROM and CALR) and in a law library. A moderate amount of legal writing will be integrated into the course assignments. This course is a prerequisite to LGL:218 Legal Writing. Both courses are required courses in the Paralegal Program. This course requires students to travel off campus to a local law library. Prerequisite: LGL:108 and Reading Proficiency.
LGL:218 LEGAL WRITING 3
This course is designed as a continuation of LGL:217 Legal Research and is intended to expand on all principles involved in legal reasoning as it relates to legal analysis and the preparation of legal memoranda. Students will be responsible for completing several writing projects which involve a legal research component. This course requires students to travel off campus to a local law library. Prerequisite: ENG:101 or equivalent, LGL:108 and LGL:217 and Reading Proficiency.

LGL:219 PARALEGAL INTERNSHIP 3
Under the supervision of an attorney, the student will have the opportunity to participate in the daily operation of a law office, corporate legal department, or governmental law related office. Working as an intern for one hundred hours, the student will be exposed to all aspects of the management of a legal problem, including client contact, legal research, file preparation, drafting of legal documents, and all duties that might be performed by a paralegal in that situation. Prerequisite: Student must have completed nine credit hours in Paralegal courses and have the approval of the campus Program Coordinator and Reading Proficiency.

LGL:220 CRIMINAL LAW AND PROCEDURE FOR THE PARALEGAL
This course will cover the substantive elements of major crimes, the requisite intent and defenses. The criminal procedures will be discussed and the role of the paralegal in the criminal process analyzed. Prerequisite: LGL:108 and Reading Proficiency.

LGL:221 ADVANCED ONLINE-DATABASE LEGAL RESEARCH
Students will learn to use advanced query techniques using Westlaw and Lexis databases. Keyword, term search, and natural language searching skills will be taught. Assignment of complex legal problems will require students to understand and use the extensive library structures of these databases. Additional lab hours will be required. Prerequisites: LGL:108 and LGL:214 or LGL:217 and LGL:218 and Reading Proficiency.

LGL:222 LEGAL RESEARCH ON THE INTERNET
This course will demonstrate the use of the Internet as a legal research tool. Using various browsers and search engines, students will learn basic Internet maneuvers. Students will learn the process of searching and retrieving information to build a file of relevant legal sites. Current legal issues on Internet use will be examined. Considerable time will be required on-line to meet the requirements of this class. Prerequisite: LGL:108 and Reading Proficiency.

LGL:223 EVIDENCE
This course is the study of the gathering and admissibility of various types of evidence. The theories of relevance, materiality, hearsay, and competency that apply to all evidence will be explored in detail. Prerequisite: LGL:108 and Reading Proficiency.

LGL:224 ENVIRONMENTAL LAW
This course will explore the issues of business and consumer generated pollution, hazardous, and toxic waste. The student will learn how the federal and state governments are trying to contain levels of pollution and to clean up hazardous waste sites and examine the major environmental protection laws applicable to businesses and individuals. Prerequisite: LGL:108 and Reading Proficiency.

LGL:225 ADMINISTRATIVE LAW
An examination of the nature and scope of Administrative Law. The authority of administrative agencies, Administrative Procedures Act, rules and rule making, administrative hearings, and the role of the paralegal will be examined in this course. Prerequisite: LGL:108 and Reading Proficiency.

LGL:226 LAW OFFICE ADMINISTRATION
A study of the function, management, and administration of the law office or legal department. It includes office environment, structures, personnel supervision, financial management, records management, and management theories. Prerequisite: LGL:108 and Reading Proficiency.

LGL:227 REMEDIES
This course will cover legal and equitable remedies in property, contract and tort litigation and settlement, measurement of damages, injunctive relief, and specific performance. Prerequisite: LGL:108 and BLW:101 and Reading Proficiency.

LGL:228 FAMILY LAW
The student will become familiar with stature and case law regarding the dissolution of marriage action, termination of parental rights, adoption law, court appointment of guardians and guardian ad litem. The student will develop skills in client interviewing and counseling; learn in detail the preparation of necessary forms and documentation to be filed in court; and learn the discovery devices such as interrogatories and deposition and emphasize their utilization in family law matters. Prerequisite: LGL:108 and Reading Proficiency.

LGL:229 ADVANCED COMPUTER UTILIZATION 3
This course will extend the paralegal student's computer knowledge to the new and advanced areas of computer utilization in law offices and corporate legal departments. Topics will include network based application software, database management, integration of word processing, spreadsheets and databases, and presentation software. Prerequisite: LGL:106 and LGL:108 and Reading Proficiency.

LGL:230 EMPLOYMENT LAW
The study of the employer and employee relationship and the laws governing the employment agreement. This course will examine the specific areas of employment discrimination, Worker's Compensation, and regulation of union activity. Prerequisite: LGL:108 and Reading Proficiency.

LIB:030 INTRODUCTION TO COLLEGE RESEARCH AND INFORMATION LITERACY 3
This course is designed to develop college-level information literacy skills focusing on library and Internet resources. Students will build critical thinking skills while learning to determine information needs and to effectively and efficiently locate, evaluate, and manage information through lecture and participatory activities. Corequisite: RDG:030.

LIB:101 INTRODUCTION TO LIBRARY AND ONLINE RESEARCH
This course offers students instruction in using library resources, including the Internet, online databases, and the library catalog. Through a combination of hands-on practice and lectures, students will learn to locate, evaluate, and manage information efficiently and effectively. Prerequisite: Reading Proficiency.
MANAGEMENT

MGT:101 INTRODUCTION TO SUPERVISION 3
This course is designed to provide the student with the latest leadership skills to function as a supervisor in today's modern organizations. Special emphasis is placed on coaching, motivation, positive reinforcement, achieving high productivity and the latest court decisions and laws that affect management decisions. This course will give the student confidence and skills needed to succeed in today's workplace. Prerequisite: Reading Proficiency.

MGT:106 HUMAN RESOURCES MANAGEMENT 3
The emphasis is on the development of knowledge, skills, attitudes of managers, supervisors and employees in resolving human problems and in developing effective employee motivation and productivity in both union and nonunion settings. Topics include: sexual harassment, EEO, ethics, cultural diversity, grievance and conflict resolution, legal issues, compensation and benefits, turnover, employment and team building. Prerequisite: Reading Proficiency.

MGT:107 LABOR RELATIONS 3
This introductory course reviews current U.S. labor-management relationships and discusses the conditions, events and legislation which have brought them about. It explores the fundamentals of negotiating the labor agreement and its day-to-day administration. Prerequisite: Reading Proficiency.

MGT:109 BUSINESS ORGANIZATIONAL BEHAVIOR AND DYNAMICS 3
The study of organizational behavior and the interplay of individual differences in industrial settings. The course will relate the study of people in organizations to a frame-work designed to promote understanding of the individual by the supervisor. Prerequisite: Reading Proficiency.

MGT:110 SAFETY MANAGEMENT 3
This course presents the principles and concepts of safety organization and management and acquaints the supervisor with his or her responsibilities in accident prevention. Prerequisite: Reading Proficiency.

MGT:120 MANAGERIAL LEADERSHIP 3
This course introduces a balanced approach to leadership: theory, critical thinking and development of skills. The student will apply leadership theories and concepts to develop critical thinking skills, differentiate between learning about leadership and learning to be a leader in the acquisition of skill. Prerequisite: Reading Proficiency.

MGT:130 INTRODUCTION TO SUPPLY CHAIN MANAGEMENT 3
An introductory study of the supply chain management system and the elements that make up its integrated and interdependent whole. The course emphasizes supply chain management is a system of multiple firms working together in partnership for the purpose of developing and coordinating engineered systems for procurement, handling and control of materials and products from acquisition at the vendor's plants through processing, to the delivery of final product to the domestic and global customers. Prerequisite: Reading Proficiency.

MGT:140 PROJECT MANAGEMENT 4
This course is designed for students, working professionals, volunteers, and personal projects. Project Management introduces theory to application and implementation of project through case studies and project simulation. Application of Microsoft Project software supports the process of defining, organizing, tracking, and communicating information about a project. Prerequisite: Reading Proficiency.

MGT:201 CASE STUDIES IN SUPERVISION 3
This course is comprised of actual cases in supervisory management and allows the student to conceptualize alternatives and possible solutions to real cases on topics like: problem employees, training, compensation and benefits, absenteeism, sexual harassment, employee rights and responsibilities, safety, EEO, and conflict resolution. Prerequisite: MGT:101 and Reading Proficiency.

MGT:204 BUSINESS ORGANIZATION AND MANAGEMENT 3
A study of basic concepts, functions, and the management process of planning, organization, staffing, directions, and control as they relate to modern business operations and problems. Prerequisite: BUS:104 and Reading Proficiency.

MGT:205 PURCHASING MANAGEMENT 3
The course is designed to acquaint the student with the principles, concepts, and techniques of purchasing management. Emphasis would be placed on the organization, development, and evaluation of the purchasing function, the methods and procedures utilized; understanding of the legal and ethical considerations; and comparison of purchasing practices for private companies, institutions, and government. Prerequisite: Reading Proficiency.

MGT:220 LAW AND BANKING: PRINCIPLES 2
A banker's guide to law and legal issues with emphasis on the Uniform Commercial Code. Includes summaries of law pertaining to contracts, real estate and bankruptcy, as well as the legal implications of consumer lending. A glossary of legal terminology is also included. Prerequisite: Reading Proficiency.

MGT:221 COMMERCIAL LENDING 2
This course is a practical approach to understanding the lending environment within a bank. Commercial lending is a study of lending policies, processing loan applications, analyzing applicants' creditworthiness, interest rate structures and other charges, and portfolio management, including collection of problem accounts. Prerequisite: BUS:115 and Reading Proficiency.

MGT:222 CONSUMER LENDING 2
Consumer Lending provides an up-to-date, insider's view of consumer lending. This course offers essential information about the maze of regulations that govern credit practices, and reviews loan processing, cross selling, and collections. Prerequisite: BUS:115 and Reading Proficiency.

MGT:224 E-COMMERCE: MANAGEMENT 3
This course looks at contemporary management issues revolving around the deployment and use of electronic commerce, presentation, networking, and interactive technologies. Topics are contemporary in nature and include: career opportunities and staffing issues; making the transition from traditional to digital or "virtual" modes of operations; intellectual property/legal issues; and geo-political ramifications. Prerequisite: Reading Proficiency.

MGT:230 LOGISTICS OPERATIONS 3
This course focuses on the principles of logistics operations in the supply chain as they apply to materials handling equipment, warehousing and packaging. Specifically, emphasis will be placed on techniques and strategies for analyzing logistics systems challenges and opportunities will be stressed, using student participation, case studies, multi-media presentations and plant tours. Prerequisite: MGT:130 and Reading Proficiency.

MGT:231 PRODUCTION PLANNING AND INVENTORY CONTROL 3
This course is a study of efficient and effective utilization of manufacturing resources. Course topics will include forecasting, inventory management, aggregate planning, MRP, capacity planning and control, job shop production activity, total quality management, theory of constraints and technological innovations. Prerequisites: MGT:130 and BUS:201 and Reading Proficiency.

MGT:232 TRANSPORTATION LOGISTICS MANAGEMENT 3
This course is a study of various facets of transportation management and its relationship to the supply chain. The emphasis is on management's utilization of transportation mode selection, rate negotiations, capital equipment commitments, private operations, special transport services, and loss/damage claims procedures. Prerequisite: MGT:130 and Reading Proficiency.

MGT:239 ADVANCED SUPPLY CHAIN MANAGEMENT 3
This is a capstone course designed to focus on the whole enterprise system as a profit center and computer-simulated models for data development, input analysis and implementation of supply chain systems. This course identifies logistics operations, production, inventory, transportation, purchasing and information as the key drivers of supply chain performance. Prerequisites: MGT:230, MGT:231, MGT:232, MGT:205 and Reading Proficiency.
MARKETING

MKT:101 ADVERTISING THEORY 3
A general survey of the values, purposes and techniques of advertising in its many forms, including all of the major and minor media. The managerial viewpoint will be emphasized in the analysis. Prerequisite: Reading Proficiency.

MKT:104 PRINCIPLES OF SELLING 3
A course in creative, strategic, consultative and adaptive selling techniques applied to various kinds of products and services sold into and through industrial, trade, and retail markets. Emphasis on clear and adequate effectiveness of selling, utilizing presentation skills and a high degree of business ethics. Prerequisite: Reading Proficiency.

MKT:203 PRINCIPLES OF MARKETING 3
This course covers the fundamental principles and functions of marketing. It describes the institutions, processes, and problems involved in transferring goods and services from producers to consumers. Prerequisite: BUS:104 and Reading Proficiency.

MKT:215 MARKETING FINANCIAL SERVICES 2
This course is designed for the financial services employee interested in ways to develop new business and retain current customers. The marketing concept will be the core of the course, but emphasis will be placed on practical information rather than on marketing theory. Topics include advertising and promotion, marketing research, pricing of products, sales planning, alternative ways to deliver financial services, and public relations. Prerequisite: BUS:115 and Reading Proficiency.

MKT:219 E-COMMERCE: STRATEGIES 3
This course examines the strategic operating theories behind using electronic commerce, presentation, networking, and interactive technologies to gain a competitive advantage in the marketplace. Topics are contemporary in nature and include: the Internet; Electronic Data Interchange (EDI); rapid product prototyping; data-mining and warehousing; digital presentation/capture technologies; and customer service relationship management. Prerequisite: Reading Proficiency.

MKT:220 E-COMMERCE: METHODOLOGIES 3
Students will explore how businesses and organizations use electronic commerce, presentation, networking, and interactive technologies to differentiate themselves from their competitors and to enhance their marketing, public relations, advertising, and human resource efforts. Within this framework, the student will have an opportunity to develop a hands-on project, or to further study an area of his/her choice. Prerequisite: Reading Proficiency.

MASS COMMUNICATIONS

MCM:101 INTRODUCTION TO MASS COMMUNICATIONS 3
This general course examines the nature and influence of mass media in our society. Students will analyze the impact media has throughout the world. Topics include mass media foundations, media's role in culture, ethics, influence on society, media methods, controls, gatekeeping, and world impact. Prerequisite: Reading Proficiency.

MCM:102 MEDIA LITERACY 3
This course focuses on approaches through which students can develop a sensitivity to media messages, as well as enhance their appreciation of media programming. This course devotes attention to the process and impact of media on the individual and society. The class will analyze applied media formats, including: journalism; advertising; and political communications. (Personal media, mass media, and telecommunication.) Prerequisite: Reading Proficiency.

MCM:110 JOURNALISM I: WRITING AND REPORTING 3
Contemporary newspaper writing and reporting techniques will be covered in this introductory course through discussions, readings, and practical exercises. The concepts of news coverage in the American press will be emphasized. Students are required to write news stories on a regular basis. Prerequisite: ENG:100 or ENG:101 or permission of instructor and Reading Proficiency.

MCM:111 JOURNALISM II: EDITING AND DESIGN 3
By studying the functions of the news editor and the copy editor, the student is exposed to the practical and theoretical techniques of editing and designing contemporary newspapers, magazines, and other print media. Students are required to write, rewrite, and edit copy on a regular basis. Prerequisites: ENG:100 or ENG:101 and MCM:110 or permission of the instructor and Reading Proficiency.

MCM:112 FEATURE WRITING 3
Students will be exposed to the professional and marketing possibilities of feature writing. They will learn the theories and techniques of writing newspaper and magazine features. Students are required to write on a regular basis. Prerequisite: ENG:100 or ENG:101 or permission of the instructor and Reading Proficiency.

MCM:113 APPLIED JOURNALISM 3
Students are given the opportunity to gain practical experience in journalistic concepts and techniques through work on available campus publications. Students are required to write and edit copy on a regular basis. Prerequisites: ENG:100 or ENG:101 and MCM:110 or permission of the instructor and Reading Proficiency.

MCM:114 PHOTOJOURNALISM 3
Students will study the professional techniques of photojournalists and history of news photography both for photographers and non-photographers. Prerequisite: ART:165 or permission of the instructor and Reading Proficiency.

MCM:115 ACTING FOR THE CAMERA 3
This course includes the following: (1) exploration of the aesthetics and principles of acting for the camera; (2) analysis of diverse acting styles and outstanding performances in film and television; and (3) acting exercises for the camera. Some acting exercises will be videotaped and edited for analysis. (Same course as THT:115). Prerequisite: Reading Proficiency.

MCM:120 INTRODUCTION TO BROADCASTING 3
This course examines the background and operation of the broadcasting industry, including history, regulations, social and economic settings and the organization of radio and television stations. Newer technologies will also be a focus of this course. Some hands-on experience might be included. Prerequisite: Reading Proficiency.

MCM:121 TELEVISION PRODUCTION 3
The course instructs the student in the effective and creative use of television equipment also providing students with practical experience in technical areas including lighting, graphics, and field production. Students will cooperate in producing projects such as a newscast, advertisement, interview, or investigative feature. Prerequisite: Reading Proficiency.

MCM:122 APPLIED BROADCASTING 3
This is a skills-content course in which students will develop skills in broadcasting principles and practice. It may include the campus radio and/or television facilities. Prerequisite: Reading Proficiency.

MCM:123 BROADCAST JOURNALISM 3
Students in this course study the principles and skills of radio and television journalism, including work in the news operations of the campus radio or television facilities. Prerequisite: ENG:100 or ENG:101 or permission of the instructor and Reading Proficiency.

MCM:124 RADIO PRODUCTION 3
The primary objectives of this course are to introduce students to basic professional concepts of radio broadcast theory and techniques and to provide students with hands-on experience. Some additional time in the lab or studio may be required. Prerequisite: Reading Proficiency.

MCM:125 SCRIPTWRITING FOR TV AND FILM 3
This course is designed to provide practical instruction in writing short scripts for TV and film for the beginning student and the student interested in the creative aspects of scriptwriting. Basic terminology and script formats will be presented as well as analysis of a variety of scripts. Prerequisite: ENG:100 or ENG:101 and Reading Proficiency.

MCM:126 VIDEO PRODUCTION - FIELD 3
Students will learn video skills in pre-production (concept development), production (camera shooting) and post-production (editing). On-location, single camera shooting will be emphasized. Class includes lectures, discussions, practical applications and evaluations. Prerequisite: Reading Proficiency.
MCM:127 VIDEO PRODUCTION - STUDIO 3
This course instructs the student in the effective and creative use of the television studio. It provides practical experience in nontraditional areas like scripting and program development and technical areas including lighting, audio, graphics and camera operation. Class includes lectures, discussions, practical applications and evaluations. Prerequisite: Reading Proficiency.

MCM:130 FILM APPRECIATION 3
Students study a variety of films: contemporary and classic, narrative and nonnarrative, animated and live action, American and international, short and feature-length. Topics include: camera movement, composition, sound, editing, lighting, special effects, and social issues such as violence and stereotyping. Class includes lectures, discussions, written analysis, and in-class screenings. Prerequisite: Reading Proficiency.

MCM:131 HISTORY OF FILM 3
Students study film history from the magic lantern to contemporary films through technical, artistic, sociological, and economic factors in fiction and nonfiction, feature-length and short works. Topics include various styles and movements as well as issues such as violence and politics. Class includes lectures, discussion, writing, and in-class screenings. Prerequisite: Reading Proficiency.

MCM:132 MAJOR THEMES IN FILM 3
Each semester this course focuses on one film theme or type. Examples include Academy Award winning films, animation, comedy, musicals, and women in film. Classes include lectures, discussion, written analysis, and in-class screenings of films illustrating the semester's topic. This course may be retaken for credit with different topics. Prerequisite: Reading Proficiency.

MCM:134 FILMMAKING 3
Using super-8 technology, students plan, shoot, edit, and mix sound for short works. All equipment is provided, including cameras, projectors, and editing stations, both digital (Avid) and film. Students pay for their film and for processing. Class includes lectures, discussions, and screenings. Some time in the editing lab is required. Prerequisite: Reading Proficiency.

MCM:135 COMMUNICATION AND DESIGN FOR THE WWW I 3
Students will learn to use the elements of graphic design to produce Web pages that effectively deliver art and information for business/organizational communications. Additional lab hours required. Prerequisite: ART:133, ART:131 or ART:227 and Reading Proficiency.

MCM:136 INTRODUCTION TO MULTIMEDIA 2
Students will survey the current field of computer hosted multimedia with an emphasis on the use of multimedia corporate training, business presentations, classroom instruction and supplemental instruction, advertising, and the World Wide Web. Additional lab hours required. Prerequisite: Reading Proficiency.

MCM:137 MULTIMEDIA PRODUCTION 4
Students will work with digital type and text, graphics, photographs, video, and sound using current "authoring" software to produce computer hosted multimedia. In the process students will learn to use the various hardware and software tools required. Attention will be devoted to various multimedia delivery options including compact disc and the World Wide Web. Additional lab hours required. Prerequisite: MCM:136 and Reading Proficiency.

MCM:140 INTRODUCTION TO ADVERTISING 3
Students learn about advertising theories and techniques by studying history, functions, the importance of marketing, behavioral science, and aesthetics. Topics include ad agency organization, campaign planning, and media placement and production (radio, television, print, point of purchase). This will be accomplished through lectures, discussions, and campaign analysis. Prerequisite: Reading Proficiency.

MCM:141 PUBLIC RELATIONS 3
This introductory course focuses on the work of the public relations practitioner as communications specialist. Topics include the techniques of effective public relations and the demands of the field. Students will explore the ways segments of the public form opinions and the ways public relations should influence that attitude building. Students also write press releases and examine field/case studies. Prerequisite: Reading Proficiency.

MCM:142 APPLIED ADVERTISING 3
This course will further the student's knowledge of advertising practices, campaigns, strategies, and production. Along with lectures, discussions, and other activities, this course includes scripting, storyboarding and executing radio, television and/or print ads. Class involves lectures, discussions, and video production activities. Prerequisites: MCM:140 and Reading Proficiency.

MCM:201 MEDIA INTERNSHIP I 3
This course allows students to gain practical experience through an arrangement with selected media outlets. Students must apply for the internship through the Communication Department for entrance into the course. Prerequisite: Reading Proficiency.

MCM:202 MEDIA INTERNSHIP II 3
This course allows students to continue gaining practical experience through an arrangement with selected media outlets. Students must apply for the internship through the Communications Department for entrance into the course. Prerequisites: MCM:201 Departmental approval and Reading Proficiency.

MCM:209 BLACKS AND THE WORLD OF CINEMA 3
This course examines the historical and social evolution of Blacks in the film industry. It traces the impact of African-Americans as actors, technicians, directors, producers, and audience of short and feature-length films. Prerequisite: Reading Proficiency.

MCM:211 APPLIED PUBLIC RELATIONS 3
Applied Public Relations provides for the integration and application of public relations theories and practices studied in the prerequisite public relations course. Through further study and practical application the student will develop a greater understanding of the purpose, function and importance of effective public relations activity in today's increasingly complex society. Prerequisite: MCM:141 and Reading Proficiency.

MCM:212 SPECIALIZED PUBLICATION PRODUCTION 3
Through lectures and demonstrations, students will be exposed to the techniques of writing, editing, designing and having printed specialized publications. Small company newsletters and newspapers; brochures, church bulletins and the like will be emphasized. This course is for both regular students and persons who already have these responsibilities in their job. Prerequisite: Reading Proficiency.

MCM:213 ADVANCED VIDEO PRODUCTION 3
Students will develop their skills in preproduction, production and post-production video work, both multi-camera studio and on location. The course will include concept development, scripting, storyboarding, shooting and editing video projects. Class includes lectures, discussions, and video production activities. Prerequisite: MCM:121 or MCM:126 or permission of instructor and Reading Proficiency.

MCM:215 MAJOR FILM DIRECTORS 3
Students study a major director's landmark films. Topics include consideration of the selected director's style, themes, cinematography, stars, and social as well as other artistic factors that have made this an influential director. Class includes lectures, discussion, written analysis, and in-class screenings of films. Prerequisite: Reading Proficiency.

MCM:217 PUBLICATIONS WRITING 3
This course focuses on the specialized and distinctive writing skills employed in technical and corporate publications. Students will master the basic skills needed to write simple reports, product descriptions and price lists. In the corporate area, students will research and write news and feature stories for newsletters, as well as press release and brochure copy. All writing requires basic word processing skills. Prerequisite: ENG:102 or ENG:103 or equivalent work experience and Reading Proficiency.

MCM:218 ADVANCED FILMMAKING 3
Students develop filmmaking expertise through super-8, 16mm, and digital productions. Topics include: concept development, scripting, storyboarding, composition, lighting, sound, editing both as film and on nonlinear digital. Avid stations, special effects, and film exhibition. All equipment is provided; students pay for film and processing. Class includes lectures, discussions, and screenings. Prerequisite: MCM:134 or permission of instructor and Reading Proficiency.
MATH:004 HANDS-ON ARITHMETIC WORKSHOP
This course is designed to help students experiencing difficulty with mathematics in general and arithmetic in particular. Students progress at their own pace using manipulatives in a guided discovery mode to gain an understanding of numbers, arithmetic operations (on whole numbers, integers, fractions, decimals, and involving percents) and metric measurement. Additional lab hours required. Prerequisites: RDG:020 and ENC:020.

MTH:020 PRE ALGEBRA
This course is for students who need to review the basic fundamentals of mathematics. Topics include operations on whole numbers, fractions, decimals, percents, signed numbers, word problem applications and an introduction to algebra.

MTH:025 HANDS-ON ALGEBRA WORKSHOP
The purpose of this course is to help students who have experienced great difficulty with mathematics in general and algebra in particular. Working individually and in small groups, students use various mathematics manipulatives in a guided discovery mode to explore algebraic concepts in order to gain an understanding of integers, linear equations, polynomials, graphing, and functions. In this hands-on lab course, students proceed at their own pace. This course does not replace Elementary Algebra. This course is also valuable for teachers who want to teach mathematics with a goal of preparing students for algebra. Prerequisites: MTH:020 or MTH:001 with grade of "C" or better, or satisfactory score on the placement test; an appropriate score in Reading and English on the placement test.

MTH:027 BRIDGES TO ELEMENTARY ALGEBRA
This course is designed for students who qualify for Elementary Algebra. Completion of this course will greatly enhance a student’s chance for success in Elementary Algebra. This course offers a brief review of operations on whole numbers, fractions, decimals and percents. Also included is an intense review of applications of ratios, geometry, signed numbers, like terms, simplifying algebraic expressions and solving basic equations. Prerequisites: Placement into MTH:030 or completion of MTH:020 with a grade of "C" or better.

MTH:030 ELEMENTARY ALGEBRA
This course is for students who have not taken a full year of algebra in high school or wish to review algebra. Topics include operations on whole numbers, operations on polynomials, operations on rational expressions, and solving equations. Prerequisites: MTH:001 or MTH:020 with grade of "C" or better; or satisfactory score on placement test.

MTH:040 ELEMENTARY ALGEBRA AND BASIC MATH
This course combines the topics of Basic Mathematics (operations on whole numbers, fractions, decimals, percents, signed numbers, and word problem applications) with those of Elementary Algebra (operations on polynomials, operations on rational expressions, and solving equations) and is intended for students who need to review the materials in these two courses. Prerequisite: Satisfactory score on placement test.

MTH:108 ELEMENTARY APPLIED MATHEMATICS
This course will include a review of fractions, decimals and percents. Other topics included will be ratio, proportion, measurement, metrics, powers, roots, simple equations, estimation, graphs, and applications relevant to many Associate in Applied Science programs. (NOTE: Not all students will study the same applications). Prerequisite: MTH:020 or MTH:001 with a grade of "C" or better, or satisfactory score on placement test and Reading Proficiency.

MTH:123 INTRODUCTION TO THE TEXAS INSTRUMENTS GRAPHING CALCULATOR
This course is designed for students who will be using a graphing calculator in their math and science course work. Students will be introduced to the use of the TI-83 plus graphing calculator. Students will learn to perform basic computations, graph functions, create tables and use stat plots to graph data. Prerequisites: Placement into MTH:140 or completion of MTH:030 with a grade of "C" or better and Reading Proficiency.

MTH:124 TECHNICAL MATHEMATICS I
This course includes operations on algebraic expressions, solving linear equations, the Cartesian coordinate system in two dimensions, slope of a line, and graphing techniques. Prerequisite: MTH:007 or MTH:030 with a grade of "C" or better, or satisfactory score on placement test and Reading Proficiency.

MTH:134 TECHNICAL MATHEMATICS II
The course content includes complex numbers, solution of quadratic equations, and a study of exponential logarithmic and trigonometric functions. Vectors in the Cartesian plane and applications are also among the topics included. Prerequisite: MTH:124 with a grade of "C" or better and Reading Proficiency.

MTH:137 BRIDGES TO INTERMEDIATE ALGEBRA
This course is designed for students who qualify for Intermediate Algebra. Completion of this course will greatly enhance a student’s chance for success in Intermediate Algebra. This course offers a brief review of linear equations and inequalities. Also included is an intense review of exponential properties, polynomials, factoring, rational expressions, the rectangular coordinate system and basic linear graphs. Prerequisites: Placement into MTH:140 or MTH:030 or 007 with a grade of "C" or better and Reading Proficiency.

MTH:140 INTERMEDIATE ALGEBRA
This course will provide the transition from elementary algebra into college algebra. Operations on rational expressions, operations on radicals, solving quadratic equations, and the rectangular coordinate system are among the topics covered. Prerequisite: MTH:030 or MTH:040 with grades of "C" or better or satisfactory score on placement test and Reading Proficiency.

MTH:144 TECHNICAL ALGEBRA AND TRIGONOMETRY
This course includes basic algebraic skills, complex numbers, quadratic equations, linear systems, and a study of the trigonometric functions. Applications for engineering technology students are included in the course content. Prerequisite: MTH:140 with a grade of "C" or better or satisfactory score on placement test and Reading Proficiency.

MTH:154 TECHNICAL ANALYTIC GEOMETRY AND CALCULUS
This course is designed primarily for engineering technology students. Among the topics included are plane analytic geometry, limits, derivatives, integration, and applications. Prerequisite: MTH:144 with a grade of "C" or better and Reading Proficiency.

MTH:155 SURVEY OF COLLEGE MATHEMATICS
This course contains topics from the development of the structure of the real number system and college algebra, and selected topics from geometry, probability statistics, or mathematical modeling, with emphasis on applications of mathematics. Prerequisite: MTH:140 with a grade of "C" or better or satisfactory score on placement test and Reading Proficiency.

MTH:157 BRIDGES TO COLLEGE ALGEBRA
This course is designed for students who qualify for College Algebra. Completion of this course will greatly enhance a student’s chance for success in College Algebra. This course offers a brief review of rational expressions, exponents, roots and radicals, inequalities, and systems of equations. Also included is an intense review of functions and function notation, including linear and non-linear functions. Prerequisites: (Placement into MTH:160 or MTH:160B or MTH:160C) or completion of MTH:140 with a grade of "C" or better and Reading Proficiency.

MTH:160A COLLEGE ALGEBRA WITH TECHNOLOGY
Computers or graphing calculators will be used to study: theory of equations; systems of equations; functions and graphs including polynomial, rational, exponential, and logarithmic; matrices; sequences and series; binomial theorem. Applications will include linear and non-linear regression. Credit will be granted for only one of the following: MTH:160, MTH:160A, MTH:160B, MTH:160C, MTH:185. Prerequisites: MTH:140 with grade of "C" or better, or satisfactory score on placement test and Reading Proficiency.
MTH:160B  COLLEGE ALGEBRA: NON-TECH MAJORS
4
Computers or graphing calculators will be used to study: theory of
equations; systems of equations; functions and graphs including
polynomial, rational, exponential, and logarithmic; matrices; sequences
and series; binomial theorem. Applications will be chosen primarily from
non-technical content areas. Credit will be granted for only one of the
Prerequisites: MTH:140 with grades of "C" or better, or satisfactory score
on placement test. Reading Proficiency.

MTH:160C  COLLEGE ALGEBRA
4
Topics included are: theory of equations; systems of equations; functions
and graphs including polynomial, rational, exponential, and logarithmic;
matries; sequences and series; binomial theorem. Applications will be
primarily from science and business. Credit will be granted for only one of
Prerequisites: MTH:140 with grade of "C" or better, or satisfactory score on
placement test and Reading Proficiency.

MTH:165  STRUCTURES OF MATHEMATICAL SYSTEMS I
3
Introduction to problem solving and logic. A study of the development
and construction of mathematical systems, including whole numbers, integers,
and rational numbers. Suggested for students planning to transfer into early
childhood education, elementary education, or special education programs.
Prerequisite: MTH:160 or MTH:160A or MTH:160B or MTH:160C with a grade of "C" or better, or satisfactory score on placement test and Reading Proficiency.

MTH:166  STRUCTURES OF MATHEMATICAL SYSTEMS II
3
Continuation of MTH:165. Includes an intuitive study of elementary
geometry, the deductive theory of geometry, graphing, probability and
statistics, with applications in the area of elementary education. Suggested
for students planning to transfer into early childhood, elementary education,
or special education programs. Prerequisite: MTH:165 with a grade of "C" or better and Reading Proficiency.

MTH:170  TRIGONOMETRY
3
This course uses an analytic approach to the definitions and graphs of the
functions of an angle. It includes formulas and identities, trigonometric
functions, inverse functions, and radian measure. Prerequisite: MTH:160
or MTH:160A or MTH:160B or MTH:160C with grade of "C" or better, or
satisfactory score on placement test. Reading Proficiency. Note: Credit will
not be granted for both MTH:170 and MTH:185.

MTH:173  TRIGONOMETRY REFRESHER
1
This course is designed for students who have taken trigonometry in the
past, but would benefit from a review of important topics and applications.
This course includes a review of right triangle trigonometry, trigonometric
functions and identities. Prerequisites: MTH:170 or MTH:185, and Reading
Proficiency.

MTH:177  FINITE MATHEMATICS
4
This course includes a study of matrices, linear programming, and
probability, along with several types of applications. Prerequisite: MTH:160
or MTH:160A or MTH:160B or MTH:160C with grades of "C" or better and
Reading Proficiency.

MTH:185  PRECALCULUS
5
A unified study of college algebra and trigonometry. Emphasis is placed on
the development of algebraic and trigonometric concepts. Prerequisite:
MTH:140 with a grade of "C" or better or satisfactory score on placement
test and Reading Proficiency. Note: Students will be granted credit for either
MTH:185, or MTH:160 and MTH:170.

MTH:186  SURVEY OF CALCULUS
4
An introduction to plane analytic geometry and the basic techniques of the
differential and integral calculus. Applications are business oriented.
Prerequisite: MTH:160 or MTH:160A or MTH:160B or MTH:160C all with
grades of "C" or better and Reading Proficiency.

MTH:210  ANALYTIC GEOMETRY AND CALCULUS I
5
Topics included are limits and continuity of functions of a single variable,
derivatives and antiderivatives of algebraic functions and trigonometric
functions, and applications. Prerequisite: MTH:185 or (MTH:160 or
MTH:160A or MTH:160B or MTH:160C and MTH:170) with grades of "C"
or better or satisfactory score on placement test and Reading Proficiency.

MTH:212  DISCRETE MATHEMATICS
3
Students will learn the important topics in discrete mathematics which are
particularly relevant to computer science. Topics include, but are not
limited to, logic, elementary number theory, modular arithmetic, methods
of proof, sets, probability and combinatorics, recurrence relations,
algorithmic efficiency, elementary graph theory, and trees.
Prerequisites: Previous completion of MTH:210 or equivalent with a grade of "C" or better and Reading Proficiency.

MTH:215  LINEAR ALGEBRA
3
Topics include systems of linear equations, properties of matrices and
determinants, vector spaces, linear transformations, inner products, and
eigenvalues, as well as selected applications. Prerequisite: MTH:210 with a
grade of "C" or better and Reading Proficiency.

MTH:220  ANALYTIC GEOMETRY AND CALCULUS II
5
Differentiation and integration of transcendental functions, techniques of
integration, improper integrals, parametric equations, polar coordinates,
and infinite and power series are among the topics covered.
Prerequisite: MTH:210 with a grade of "C" or better and Reading Proficiency.

MTH:230  ANALYTIC GEOMETRY AND CALCULUS III
5
Solid analytic geometry, vectors in two and three dimensions, differential
calculus of functions of more than one variable, partial derivatives,
directional derivatives, gradients, multiple integration, and an introduction
to the calculus of vector fields.
Prerequisite: MTH:220 with a grade of "C" or better and Reading Proficiency.

MTH:240  DIFFERENTIAL EQUATIONS
3
This course introduces methods of solving ordinary differential equations
including LaPlace transforms and differential operators with applications.
Prerequisite: MTH:230 with a grade of "C" or better and Reading Proficiency.

MECHANICAL ENGINEERING TECHNOLOGY

ME:101  WELDING TECHNOLOGY
3
The major objective of this course is to provide a comprehensive coverage
of current welding practices. A variety of welding processes will be covered
including shielded metal-arc, gas shielded-arc, resistance and other special
techniques intended specifically for welding sophisticated metals.
Additional lab hours required. Prerequisite: Reading Proficiency.

ME:103  MECHANICAL MAINTENANCE
3
Identifies and explains the various types and functions of mechanical power
transmission components such as gears, couplings, chains, belts, bearings,
and clutches. Manufacturer handbooks will be utilized to reinforce the
proper installation, inspection, and maintenance specifications. In addition,
pumps and compressors will be emphasized including repair and
preventive maintenance. Additional lab hours required. Prerequisite: MTH:007 or MTH:030 and Reading Proficiency.

ME:104  PLUMBING DESIGN I
3
This course will cover the following items: contract documents, regulatory
agencies, plumbing materials, piping methods, pipe insulation, plumbing
fixtures, architectural/structural problems, hydraulic principles, and sizing
plumbing systems. Prerequisite: Reading Proficiency.

ME:105  PLUMBING DESIGN II
3
This course will cover the following: basic graphics, supply systems,
domestic hot water systems, water treatment, storm water systems, site
utilities, waste systems, pool systems, and pump systems. Prerequisite: ME:
104 and Reading Proficiency.

ME:106  PLUMBING DESIGN III
3
This course will cover the following: food service systems, hospital
plumbing, public building plumbing, irrigation systems, gas systems,
compressed air systems, vacuum systems, cost estimating and
specifications. Prerequisite: ME: 105 and Reading Proficiency.

ME:108  PRINCIPLES OF PLUMBING/PIPEFITTING
3
The principles of water supplies and sewage systems are presented. The
course covers alteration, repair, and maintenance methods of commercial
and domestic plumbing systems. Nomenclature of the various connecting
devices for metal and plastic pipe and proper assembly such as soldering,
threading, and gluing are included. Laboratory exercises and assembly
projects provide the practice and methodology required to successfully
repair and maintain fixtures and systems. Additional lab hours required.
Prerequisite: Reading Proficiency.
ME:109 ELECTRICAL FUNDAMENTALS AND MAINTENANCE 3
Presents basic DC and AC elementary circuitry and electrical schematics. The electrical properties and relationships of voltage-amperage-resistance-power and measurement techniques are covered. The applications portion emphasizes wiring and wiring materials, electrical controls and switches, DC and AC motor fundamentals and electrical troubleshooting. Additional lab hours required. Prerequisite: Reading Proficiency.

ME:110 HVAC OPERATOR I 3
A practical course dealing with the basic operation, maintenance and troubleshooting of heating, ventilating and air conditioning equipment including air, closed water stream and control systems. The dynamic equipment components of various systems will be studied with special emphasis upon preventive maintenance. Prerequisite: Reading Proficiency.

ME:121 COMPUTER INTEGRATED MANUFACTURING 3
This course applies principles of robotics and automation. Students will use CNC equipment to produce actual models of their three-dimensional designs. Fundamental concepts of robotics used in automated manufacturing and design analysis are included. Prerequisites: EGR:145 or EGR:47 or Departmental Approval.

ME:131 PRODUCTION CONTROL 3
Students will gain an understanding of the tools, techniques and processes used to plan, schedule and track materials through the complete value chain in a manufacturing environment. Topics will include both manual and computer assisted methods including Materials Requirements Planning, Shop Floor control, Lean Manufacturing and ’Just in Time’ techniques. Prerequisite: Reading Proficiency.

ME:135 MECHANICS - STATICS 3
A study of forces and their effects on motionless objects. Applications to trusses, beams, frames, and other topics are presented. Basic theory for structural design in mechanical and civil programs is studied. Prerequisite: MTH:140 and Reading Proficiency.

ME:138 MECHANICAL MEASUREMENT 3
This course is designed to provide the fundamentals of dimensional measurement for the technician. Measurement terms, equipment and tools will be explained and laboratory activities will provide the student an opportunity to master the basic skills of measuring devices. Scaled, vernier, micrometer instruments and dial indicators with gage blocks will be used. Measurement standards will be reviewed. Prerequisite: Reading Proficiency.

ME:140 INTRODUCTION TO ROBOTICS 3
This course is an introduction to the field of robotics. It will provide the student with a historical overview of the use and development of robotics. Topics to be studied include: specific types and application of industrial robots, the effects of industrial robots and technology on employers and employees, and Numerical Control (N.C.) and Computer Numerical Control (C.N.C.), information as it relates to the programming and functioning of robotic simulators. Additional lab hours required. Prerequisite: MTH:124 or equivalent and Reading Proficiency.

ME:151 MANUFACTURING PROCESSES I 3
Teaching theory and manipulative skills in the basic processes of manufacturing: lathes, milling machines, shapers, drill presses, welding, foundry, sheet metal, precision instrument reading, and hand tools. Additional lab hours required. Prerequisite: Reading Proficiency.

ME:152 MANUFACTURING PROCESSES II 3
This course is a continuation of Manufacturing Processes I with emphasis in Flexible Manufacturing Systems (FMS). Instruction includes Computer Numerical Control (CNC) programming, Robotics applications of Programmable Logic Controls (PLC), and Computer Integrated Manufacturing (CIM). Students will develop a CIM cell project. Additional lab hours required. Prerequisite: ME: 151 and Reading Proficiency.

ME:153 LATHES AND MILL OPERATIONS AND SAFETY 3
This course is designed to teach fundamental machining operations on a Lathe and Mill. The course will emphasize good shop safety practices and machine operating procedures that is safe for the operators and other workers. Prerequisite: Reading Proficiency.

ME:210 ROBOTICS SUBSYSTEMS AND COMPONENTS 3
A continuation of Introduction to Robotics (ME: 140) covering more advanced programming on ROBOT simulators (i.e., application of motion, voice, light, and sound sensor). Typical robot subsystems and components such as electronic (feedback devices, controls, microprocessor interfacing), hydraulic, pneumatic and mechanical drive mechanisms are covered with regard to their functions and operational principles. Additional lab hours required. Prerequisites: ME: 140 and EE: 242 or department approval and Reading Proficiency.

ME:211 PROGRAMMABLE LOGIC CONTROLLERS 3
This course presents the fundamentals of ladder logic (or relay logic) used on modern industrial controllers. Basic elements such as timers, counters, and sequences are studied, as well as traditional methods of applying them to machine control. Students will program and perform laboratory experiments with programmable logic controllers, such as the Allen Bradley PLC-100 controllers and interface them to various input and output devices. An industrial robot also is available in class for lab experiments. Use of IBM/Allen Bradley personal computer interface software will be covered as well. Additional lab hours required. Prerequisite: ME: 140 recommended and Reading Proficiency.

ME:222 BASIC HYDRAULICS I 3
This course is arranged to give the student a general knowledge of the basic components of hydraulic systems, as well as a general understanding of the basic laws and formulas used in simple hydraulic calculations. It includes such topics as pumps, control valves, control assemblies, actuators, the use of standard hydraulic symbols, and maintenance procedures. Prerequisite: Reading Proficiency.

ME:225 FIXTURE DESIGN 3
The design of machining fixtures for drilling, milling, turning, welding, and numerical control processes is studied in this course. The uses of standard components, accurate location of parts, and correct clamping are stressed. Procedures range from freehand sketching to accomplishing accurate working drawings of fixtures. Additional lab hours required. Prerequisite: ME: 151 and EGR:100 and Reading Proficiency.

ME:226 AIR CONDITIONING AND HEATING 3
This course covers the operation of air conditioning and heating equipment and the calculation of cooling/heating loads for residential and commercial buildings. Laboratory experiments will supplement classroom work. Additional lab hours required. Prerequisite: MTH:124 and Reading Proficiency.

ME:230 INTRODUCTION TO 3-D SOLID MODELING FOR DESIGN 4
This course is designed to teach the use of 3D solid modeling, CAD packages. Instruction includes how to use a 3D CAD package to develop solid models in order to generate assemblies and 2D drawings. CAD package used in a particular semester or a section of this course may depend on the industry or student’s demand. Some of the commonly used 3D solid modeling packages in the industry are: SDRC’S I-Deas Master, SolidWorks, Pro-E, and Solid Edge. It is suggested that prior to registering for this course, students would inquire with the department as to which CAD will be emphasized in a given semester or a section of the course. Additional lab hours required. Prerequisite: Departmental Approval and Reading Proficiency.

ME:241 NUMERICAL CONTROL PROGRAMMING 3
This course will include a brief summary of machine types and their application with movies and local field trips; also, basic CNC programming language and preparation of part programs. Students will program and operate three axis vertical mills with sequential and word address controls. Prerequisite: ME: 151 and Reading Proficiency.

ME:242 MECHANICS-DYNAMICS 3
Dynamics extends the study of mechanics from forces and their effects on motionless objects to motion and the forces required to produce motion. Energy, impulse and momentum are included. Prerequisite: ME: 135 and Reading Proficiency.

ME:243 STRENGTH OF MATERIALS 3
This course consists of the study of the reaction of materials to tension, compression torsion and flexure. Applications to the design of beams, columns, shafts and fasteners are presented. The students perform various materials tests in a fully-equipped laboratory. Additional lab hours required. Prerequisite: ME: 135 and Reading Proficiency.

ME:244 MECHANICAL DESIGN I 3
This course applies the principles of engineering graphics to problems dealing with the drawing and design of machines and parts. The emphasis is to produce accurate and complete detail and assembly drawings utilizing the latest industrial drafting procedures and practices which include GD&T methods. Additional lab hours required. Prerequisite: EGR:100 and Reading Proficiency.
ME:246  MECHANICAL DESIGN II  3
This course presents the design of various machine elements. The topics include: survey of engineering materials, weldments, fasteners, linkages, indexing mechanisms, cams, belt and chain drives, gears and gear trains, shafts, keys and splines, bearings and lubrication, couplings, clutches, brakes, power units, and springs. Additional lab hours required. Prerequisite: ME: 241 and ME: 244 and Reading Proficiency.

ME:249  MATERIALS AND METALLURGY  3
This course is a survey of the sources, preparation, properties and uses of engineering materials. Topics include the following: the iron-carbon system, ferrous metallurgy, nonferrous metallurgy, ceramics, plastics, elastomers, composites, and finishes. Practical laboratory activities are performed to clarify and enhance text material. Additional lab hours required. Prerequisite: Reading Proficiency.

ME:253  ENERGY CONVERSION  2
This course is a fundamental study of the conversion of energy into work and heat. The principles of thermodynamics used in the analysis of engines, air conditioning systems, turbines, pumps and fans are reinforced through laboratory experiments. Additional lab hours required. Prerequisites: MTH:124 and Reading Proficiency.

ME:254  ELECTRICITY AND CONTROLS  3
A basic course in AC-DC electricity and controls for non-electrical students. Study of DC, AC and magnetic circuits used for electric motor drives and transformers introduction to solid state and electromagnetic controls. Laboratory experiments parallel classroom material covered. Additional lab hours required. Prerequisite: Reading Proficiency.

ME:255  FLUID POWER  3
This course is that portion of fluid mechanics which deals with its application and has been termed "Fluid Power." It emphasizes the study of components of hydraulics and pneumatics systems as used for industrial power transmission and control purposes. Additional lab hours required. Prerequisite: MTH:144 or equivalent and Reading Proficiency.

Music

MUS:101  MUSIC THEORY I  4
An integrated course in musicianship. Diatonic harmony with reference to 18th-century style. Combines written and keyboard harmonization. Develops rhythm, pitch and harmony through sight-singing and dictation. Additional studio hours required. Prerequisites: Experience in reading music notation is recommended and Reading Proficiency.

MUS:102  MUSIC THEORY II  4
Continuation of MUS:101: Enlargement of vocabulary to comprise inversion of triads, non-harmonic tones, chord extensions, harmonic analysis and modulation. Additional studio hours required. Prerequisite: MUS:101 or permission of instructor and Reading Proficiency.

MUS:103  BASIC MUSIC  3
A course in the fundamentals of music including note reading, scales, keys, intervals, rhythmic activities and simple keyboard study.

MUS:113  HISTORY OF JAZZ  3
A study of main eras of jazz: New Orleans Dixieland, Ragtime, Chicago Dixieland, Swing, Bop, Cool, Third Stream, Improvisation. Emphasis on the controversies surrounding this genre. Prerequisite: MUS:101 or demonstrated proficiency and Reading Proficiency.

MUS:114  THE JOYMENT OF MUSIC  2
An introduction to a wide variety of musical styles moving from more familiar examples toward a greater understanding of more unfamiliar styles. A survey of the uses and historical evolution of music including discussion of the composers and their works. Prerequisite: Reading Proficiency.

MUS:115  VOICE I  2
Introduction to the fundamentals of singing. Attention directed to tone production, breath control, diction, phrasing, rhythmic and melodic precision stage deportment. Prerequisite: Reading Proficiency.

MUS:116  VOICE II  2
A continuation of Voice I. Efficient breath control, improvement of tone quality, and song interpretation are stressed. Songs in English and Italian will be studied. Prerequisite: MUS:115 and Reading Proficiency.

MUS:121  CLASS PIANO I  2
A course designed to develop basic skills and techniques in piano playing applicable to various types of music. For the student with no previous keyboard experience.

MUS:122  CLASS PIANO II  2
Continuation of MUS:121. Prerequisite: MUS:121 or demonstrated proficiency and Reading Proficiency.

MUS:128  SURVEY OF ROCK MUSIC  3
A year-by-year review of the music, artists, composers, record producers, and others associated with rock 'n' roll from 1954 to the present with emphasis on the controversies surrounding this genre. Prerequisite: Reading Proficiency.

MUS:129  MUSIC FOR THE CLASSROOM TEACHER  3
Designed for elementary education students without regard to previous musical training. Students are prepared to use music functionally and developmentally in the elementary classroom through singing, through playing the piano and informal instruments, and through responding to music rhythmically. Creative aspects and values of music are emphasized and materials are studied in relation to their future uses in the classroom. (Same course as EDU:129.) Prerequisite: Reading Proficiency.

MUS:130  BEGINNING GUITAR  2
Course objective is to acquire a classical playing technique. Emphasis on correct seating and hand positions, note reading, chording and basic music theory. Students must supply their own guitar (nylon string recommended). Prerequisite: Ability to read music is recommended and Reading Proficiency.

MUS:131  CHORUS  1
Study and performance of representative choral literature. Emphasis on vocal technique and development. Additional studio hours required.

MUS:132  ORCHESTRA  1
Study and performance of representative chamber and symphonic literature. Additional studio hours required. Prerequisite: Audition and Reading Proficiency.

MUS:133  JAZZ LAB BAND  1
Study and performance of the best in recent big band jazz compositions. Additional studio hours required. Prerequisite: Experience in playing a band instrument and Reading Proficiency.

MUS:134  SYMPHONIC BAND  1
Study and performance of representative symphonic band literature. Additional studio hours required. Prerequisite: Audition and Reading Proficiency.

MUS:135  CHOIR  1
A study of advanced choral literature. Emphasis on vocal technique and development. Additional studio hours required. Prerequisite: Audition.

MUS:137  JAZZ IMPROVISATION I  2
The study and application of beginning jazz theory and improvisation to the performance of jazz music in a combo setting with little emphasis on concert performance. Additional studio hours required. Prerequisites: Performance ability; audition; permission to enroll and Reading Proficiency.

MUS:139  JAZZ IMPROVISATION II  2
The study and application of intermediate jazz theory and improvisation to the performance of jazz music in a combo setting with greater emphasis on concert performance. Additional studio hours required. Prerequisites: MUS:138 or equivalent and Reading Proficiency.

MUS:140  GOSPEL CHORUS  1
This course will study choral music from the African-American gospel tradition. The emphasis will be on historical awareness and stylistic practice. Additional hours required.

MUS:141  APPLIED MUSIC I  2
Individualized study of instrument or voice. Prerequisite: demonstrated proficiency and Reading Proficiency.

MUS:142  APPLIED MUSIC II  2
Continuation of MUS:141. Prerequisite: MUS:141 and Reading Proficiency.

MUS:143  INTRODUCTION TO DESKTOP MUSIC PUBLISHING  3
This course is an introduction to the software called “Finale” as it is applied to desktop publication of printed music. Students will learn music printing techniques and will use digital keyboards to enter and play back musical scores. Additional studio hours required. Prerequisite: Reading Proficiency.
MUS:144 AFRICAN DRUM ENSEMBLE 1
Students will learn and perform the dance music of West African countries. Special emphasis will be placed on the hand techniques of the djembe. Students will, however, perform on other instruments as well, including: bells, dunums, and shekeres. Additional hours required. Prerequisite: Reading Proficiency.

MUS:145 PERMISSION ENSEMBLE 1
Students will compose, learn, and perform chamber music for a wide variety of percussion instruments. Each semester will culminate in an on-campus concert. Additional hours required. Prerequisite: Reading Proficiency.

MUS:150 FUNDAMENTALS OF MUSIC TECHNOLOGY 2
This course teaches the fundamentals of computer-based music and sound production. Topics covered include the computer operating system, file manipulation, basic MIDI sequencing, basic audio recording, data archiving, and CD creation. Prerequisite: Reading Proficiency.

MUS:151 MUSIC INDUSTRY: MARKETING AND PROMOTION 2
This course presents a survey of careers and business practices in the music industry. Emphasis is placed on the student's role, responsibilities, and expectations as a professional in this field. Marketing, publicity, and contracts are covered. Prerequisite: Reading Proficiency.

MUS:152 AUDIO ENGINEERING 3
Students will learn how to run a recording session from set-up, to tracking, to tear-down. They will learn the theory of compressors, EQ, delays, reverbs, chorus, and other effects. Microphone design, selection, and placement are emphasized. This course combines theory with practical experience in digital audio. Prerequisites: MUS:150 and Reading Proficiency.

MUS:153 DRUM MACHINE PROGRAMMING 2
Students will learn to create drum patterns, beats, and loops using a variety of music software and hardware. Traditional drum instrumentation, experimental techniques, groove settings, and editing in a variety of styles will be explored. Prerequisite: Reading Proficiency.

MUS:154 MUSIC RECORDING WITH PRO TOOLS I 2
In this course students will learn how to use the Pro Tools digital audio workstation to record music. They will learn to use plug effects, mix automation, and studio hardware. The Audio Engineering class is helpful, but not required. Prerequisites: MUS:150 and Reading Proficiency.

MUS:201 MUSIC THEORY III 4

MUS:202 MUSIC THEORY IV 4
Continuation of MUS:201. Advanced chromatic harmony, 19th and 20th century practices. Analysis of written and keyboard harmonization. Development of rhythm, pitch and harmony through sight-singing and dictation. Additional studio hours required. Prerequisite: MUS:201 or permission from instructor and Reading Proficiency.

MUS:211 MUSIC HISTORY I 3
The history of music in Western civilization from its origins to the Baroque era. Emphasis on listening to and analyzing the music with score. Prerequisite: ability to read music and Reading Proficiency.

MUS:212 MUSIC HISTORY II 3
The history of music in Western civilization from the Baroque era to the present. Emphasis on listening to and analyzing the music with score. Prerequisite: Ability to read music and Reading Proficiency.

MUS:213 THE SYMPHONY 3
Great symphonies analyzed and discussed as to style, form, compositional techniques and content. Directed listening and visits to live rehearsal and concerts. Prerequisite: Reading Proficiency.

MUS:216 JAZZ IMPROVISATION III 2
The study and application of advanced techniques in jazz improvisation in a combo setting with emphasis on concert performance. This course may be reenrolled for additional credit. Additional studio hours required. Prerequisite: MUS:139 or equivalent and Reading Proficiency.

MUS:221 CLASS PIANO III 2
Continuation of MUS:122. Prerequisite: MUS:122 or demonstrated proficiency and Reading Proficiency.

MUS:222 CLASS PIANO IV 2
Continuation of MUS:221. Prerequisite: MUS:221 or demonstrated proficiency and Reading Proficiency.

MUS:225 BEGINNING CHORAL CONDUCTING 3
This course is an introduction to the art of Choral Conducting. The course stresses the development of fundamental skills as well as the application of practical solutions to problems found in everyday rehearsals. Throughout the course, emphasis will be placed on each participant developing a personal musical methodology based upon creative problem solving. The course provides a direct assessment of individual musicianship skills acquired in earlier core music classes such as ear training, theory, and music history. Additional studio hours required. Prerequisites: MUS:102, MUS:122, MUS:135 and Reading Proficiency. Corequisite: MUS:201.

MUS:241 APPLIED MUSIC III 2
Continuation of MUS:142. Prerequisite: MUS:142 and Reading Proficiency.

MUS:242 APPLIED MUSIC IV 2
Continuation of MUS:241. Prerequisite: MUS:241 and Reading Proficiency.

MUS:243 PORTFOLIO PREPARATION 1
In this course each student will design a concise and interesting package of original work representing his/her abilities and accomplishments. Guidance and review will be provided. Portfolios will feature various types of media as indicated by the student's experience. Prerequisites: MUS:151, MUS:152, MUS:254, and Reading Proficiency.

MUS:244 WORKPLACE LEARNING: MUSIC TECHNOLOGY 3
This experiential course provides the student the opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Students will observe and participate in the functions of the Music Technology Industry to enhance their preparation for entering the field. Minimum 150 hours in the workplace throughout the term. Prerequisites: MUS:151, MUS:152, MUS:254 and Reading Proficiency.

MUS:254 MUSIC RECORDING WITH PRO TOOLS II 2
Learn to use the Pro Tools digital audio workstation to record music. The second semester emphasizes an in-depth study of advanced mixing and mastering techniques used to complete digitally recorded projects. The Audio Engineering class is helpful, but not required. Prerequisites: MUS:154 and Reading Proficiency.

NURSING

NUR:101 FUNDAMENTALS OF NURSING 5
This course is an introduction to the role of the nurse in meeting needs common to all patients through knowledge, skill, and attitudes essential for the practice of nursing, based on principles of physical, biological and behavioral sciences, and nursing theory. Additional lab hours required. Prerequisites: MUS:102. Corequisite: NUR:101. Additional lab hours required. Prerequisites: Enrollment in Nursing Program, Passing of Dosage Calculation Test, Grade of "C" or better in BIO: 207 or permission of chairperson, Grade of "C" or better in PSY:205 or permission of chairperson, Reading Proficiency.

NUR:102 NURSING LABORATORY PRACTICUM I 1
This course is designed to provide the student with the practice of nursing skills in the College Nursing Laboratory and to reinforce principles introduced in Fundamentals of Nursing. Additional lab hours required. Prerequisite: Reading Proficiency.

NUR:105 NURSING LABORATORY PRACTICUM II 1
This course is designed to provide the student with the practice of nursing skills in the College Laboratory and to reinforce nursing principles introduced in NUR:108. Additional lab hours required. Corequisite: NUR:108. Prerequisite: Reading Proficiency.

NUR:106 LPN TO RN BRIDGE COURSE I 1
This is the first of two required courses to prepare the licensed practical nurse to pursue an associate degree in nursing. Emphasis is on assessing, reinforcing, and expanding competencies. Classroom content focuses on role change, communication, critical thinking, the nursing process, pharmacology, and nutrition. Includes a college laboratory component. Prerequisites: Enrollment in Nursing program and passing the dosage calculation test. ENG:101, PSY:205 with grades of "C" or better, prior or concurrent enrollment in BIO:208 with a grade of "C" or better. Reading Proficiency.
NUR:107  LPN TO RN BRIDGE COURSE II  4
This is the second required course to prepare licensed practical nurses to pursue an associate degree in nursing. Emphasis is on nursing care of patients through the life cycle, including perioperative, maternal-newborn, mobility, fluid and electrolytes, acid-base and immunity. Includes a college and professional laboratory component. Additional hours required. Prerequisites: NUR:106 with a grade of "C" or better; BIO:208 with a grade of "C" or better or permission of chairperson. Reading Proficiency.

NUR:108  NURSING OF ADULTS AND CHILDREN I  8
This course is designed to assist the student to acquire knowledge and skills in meeting the needs of adults and children with an emphasis on adaptation to illness and hospitalization in medical-surgical nursing, and mothers and newborns during the maternity cycle. Additional lab hours required. Prerequisites: BIO:207, PSY:205, NUR:101, all with grades of "C" or better, and Grade of "C" or better in BIO:208 or permission of chairperson and Reading Proficiency. Co-requisite: NUR:105.

NUR:119  LPN EXPERIENTIAL CREDIT I  5
This course is designed to transcript LPN experiential credit for first semester nursing. LPN's must be enrolled in LPN Bridge Program and must have successfully completed NUR:106. Prerequisite: Enrolled in LPN Bridge and completion of NUR:106 with a grade of "C" or better and Reading Proficiency.

NUR:120  LPN EXPERIENTIAL CREDIT II  5
This course is designed to transcript LPN experiential credit for second semester nursing. LPN's must be enrolled in LPN Bridge Program and must have successfully completed NUR:107. Prerequisite: LPN enrolled in LPN Bridge and completion of NUR:107 with a grade of "C" or better and Reading Proficiency.

NUR:201  NURSING OF ADULTS AND CHILDREN II  9
This course is designed to assist the student to further develop knowledge and skills necessary to meet the needs of adults and children with selected medical-surgical problems and exaggerated behavior problems. Additional lab hours required. Prerequisites: NUR:108 or NUR:107 and BIO:203 and BIO:208 all with grades of "C" or better. Co-requisite: NUR:203 and Reading Proficiency.

NUR:202  CONTEMPORARY NURSING  1
This course is a study of selected topics related to the development of nursing practice and education, professional organizations, ethical legal aspects, current issues and trends. Prerequisites: NUR:108 or NUR:107 with grades of "C" or better. Co-requisite: NUR:201 and Reading Proficiency.

NUR:204  MANAGEMENT SKILLS IN NURSING  3
This course includes theory and practicum in principles of managing the care of a group of patients. The student will participate actively in the role of a beginning staff nurse under the guidance of agency staff and instructor. Prerequisites: NUR:201 and NUR:203 both with grades of "C" or better and Reading Proficiency. Co-requisite: NUR:205, 1 lecture, 6 clinical hours per week.

NUR:205  NURSING OF ADULTS AND CHILDREN III  8
This course is designed to assist the student to further develop knowledge and skills necessary to meet the needs of adults and children with selected medical-surgical problems. Additional lab hours required. Prerequisites: NUR:201 and NUR:203 both with grades of "C" or better and Reading Proficiency. Co-requisite: NUR:204. 5 lecture, 9 clinical hours per week.

NUR:206  RN FIRST ASSISTANT - DIDACTIC COMPONENT  3
This course is designed for the experienced perioperative nurse preparing for practice as an RN First Assistant (RNFA). Course content shall emphasize the expanded functions unique to the RNFA during operative and other invasive procedures. Additional hours required. Prerequisites: Proof of licensure to practice as an RN in the state in which the clinical internship will be undertaken. Verification of certification as one of the following: (1) CNOR or CNOR eligible, or (2) Board certified or board eligible as an advanced practice nurse (APN). Certification in one of the above must be submitted before program completion. Cardiopulmonary resuscitation (CPR) or basic cardiac life support certification (BCLS) is required; advanced cardiac life support (ACLS) is preferred. Letters of recommendation attesting to the years of experience as an RN and knowledge, judgment, and skill specific to surgical patient care. Reading Proficiency.

NUR:207  RN FIRST ASSISTANT - CLINICAL INTERNSHIP  4
The clinical internship provides the perioperative nurse the opportunity to apply in the practice setting the expanded functions unique to the RNFA during operative and other invasive procedures. Additional hours required. Prerequisites: Successful completion of all requirements of NUR:206. Evidence of current employer or personal professional liability insurance for RNFA practice.

OCCUPATIONAL THERAPY ASSISTANT

OTA:101  FUNDAMENTALS OF OCCUPATIONAL THERAPY ASSISTANT I  3
An introduction to occupational therapy, its philosophy, goals and focus in relation to basic treatment in geriatrics, psychosocial dysfunction, physical disabilities and developmental pediatrics. Beginning skills in practice of occupational therapy are learned. Prerequisite: Admission into the program and Reading Proficiency. (3 hours per week clinical assignments to be arranged).

OTA:102  FUNDAMENTALS OF OCCUPATIONAL THERAPY ASSISTANT II  4
Beginning skills in occupational therapy treatment in geriatrics and psychosocial dysfunction are introduced. Group dynamics, work and leisure principles and activity analysis are included. Prerequisite: OTA:101 and Reading Proficiency. (4 hours per week clinical assignment to be arranged).

OTA:103  ADAPTIVE ACTIVITIES I  2
The use of activities in occupational therapy including those that address sensory motor, cognitive, and psycho-social performance components. The student is introduced to activity analysis, methods of instruction, goal setting and cost and supply factors. Prerequisite: Admission to the OTA Program and Reading Proficiency.

OTA:104  ADAPTIVE ACTIVITIES II  2
The student will learn beginning skills in designing and fabricating a piece of adaptive equipment. Adaptive activities as they apply to seating, positioning, splinting, and functional tasks will be taught. Additional lab hours required. Prerequisite: OTA:101, OTA:103 and Reading Proficiency.

OTA:203  FUNDAMENTALS OF OCCUPATIONAL THERAPY III  4
Occupational therapy evaluation and treatment procedures including self-care, therapeutic exercise, home management, use of adaptive equipment, work and leisure skills. Clinical assignments to be arranged. Prerequisite: OTA:102 and Reading Proficiency.

OTA:204  FUNDAMENTALS OF OCCUPATIONAL THERAPY IV  4
Occupational therapy evaluation and treatment procedures including developmental and perceptual motor skills, self-care, design and use of adaptive equipment and play/leisure. Field trips to be arranged. Prerequisite: OTA:102 and Reading Proficiency.

OTA:207  HEALTH AND DISEASE  4
This course is an overview of disease conditions commonly seen for treatment in occupational and physical therapy departments. Acceptance into the PTA or OTA Program is required. Prerequisite: BIO:207 and Reading Proficiency.

OTA:208  ADAPTIVE LIVING SKILLS  2
The course presents principles of adapting environments for persons with disabilities. The student will learn basic treatment techniques that are used with persons with physical disabilities across the lifespan. Prerequisite: BIO:209 and OTA:207 and Reading Proficiency.

OTA:213  OCCUPATIONAL THERAPY ASSISTANT PRACTICUM I  4
Field work experience in the treatment of geriatric clients, physically disabled children or adults or clients with psychosocial dysfunction. The student is supervised by an on-site occupational therapist. 8 weeks full time clinical assignment. Prerequisite: OTA:204, OTA:208, and OTA:215 and Reading Proficiency.

OTA:214  OCCUPATIONAL THERAPY ASSISTANT PRACTICUM II  4
Field work experience in the treatment of geriatric clients, physically disabled, children or adults, or clients with psychosocial dysfunction. The student is supervised by an on-site occupational therapist. 8 weeks full time clinical assignment. Prerequisite: OTA:204, OTA:208, and OTA:215 and Reading Proficiency.
OTA:215 THE MANAGEMENT OF OCCUPATIONAL THERAPY

OTA:216 LEVEL II FIELDWORK SEMINAR
The study of topics related to Level II fieldwork and employability skills including organizational structures, regulation, continued professional development, job preparation skills. Prerequisites: OTA:203, OTA:204 and OTA 215 and Reading Proficiency.

PARAMEDIC TECHNOLOGY

PAR:201 PRINCIPLES OF PARAMEDIC TECHNOLOGY I
This course is an overview of Paramedic practice integrating the theory behind the use of advanced diagnostic and treatment procedures into the management of organic, life-threatening emergencies. Prerequisites: EMT:121 and BIO:207 and Departmental Approval and Reading Proficiency.

PAR:202 PRINCIPLES OF PARAMEDIC TECHNOLOGY II
This course serves as an overview of paramedic practice as well as integrating the theory behind the use of advanced diagnostic and treatment procedures in the management of organic, life-threatening emergencies. Topics include cardiovascular, cerebrovascular and other medical emergencies and their relationship to their respective disease processes. Prerequisite: PAR:201 and Reading Proficiency.

PAR:203 PHARMACOLOGY FOR PARAMEDICS
This course discusses drug theory and usage by paramedical personnel. Areas of emphasis are general principles of drug action, the mathematics of dosage calculation, the therapeutic effects, indications, contraindications, dosages, administration routes, and possible side effects of emergency drugs. Discussion of important prescription medications and their relationship to emergency treatment. Prerequisite: Reading Proficiency.

PAR:211 PARAMEDIC LABORATORY I
This course covers the practical skills relating to PAR:201 including patient assessment and history taking techniques, parental infusion techniques, antishock trousers, oxygen administration, airway adjuncts to include endotracheal intubation and tracheotomy techniques. Prerequisite: Admission to the Paramedic Program and Reading Proficiency.

PAR:212 PARAMEDIC LABORATORY II
This course covers the practical skills relating to PAR:202 and PAR:226, including patient assessment and history taking techniques with emphasis on ECG interpretation as well as special OB/GYN techniques. At the completion of the semester all skills covered previously will be reviewed. Additional lab hours required. Prerequisite: Reading Proficiency.

PAR:221 PARAMEDIC CLINICAL I
Students provide advanced therapy to hospitalized patients under the supervision of licensed personnel. Additional hours required. Prerequisite: Admission to the Paramedic program and Reading Proficiency.

PAR:222 PARAMEDIC CLINICAL II
Student provides advanced therapy to hospitalized patients under the supervision of licensed personnel. Additional hours required. Prerequisite: PAR:201 and Reading Proficiency.

PAR:223 PARAMEDIC INTERNSHIP I
This course is designed specifically for those students who are currently enrolled in Paramedic Technology. Arrangements are made for the student to work with a pre-hospital, advanced life support system under the supervision of licensed personnel. Students will observe and practice the application of paramedic skills. Additional hours required. Prerequisite: Admission to the Paramedic program and Reading Proficiency.

PAR:224 PARAMEDIC INTERNSHIP II
This course is designed specifically for the student who is currently enrolled in PAR:202 and PAR:226. Arrangements are made for the student to work with a pre-hospital, advanced life support system under the supervision of licensed personnel. Student will observe and practice the application of paramedic skills. Additional lab hours required. Prerequisite: PAR:201 and Reading Proficiency.

PAR:225 PARAMEDIC INTERNSHIP III
This course is designed specifically for the student who is currently enrolled in Paramedic Technology. Arrangements are made for the student to work with a pre-hospital advanced life support system under the supervision of licensed personnel. Student will observe and practice the application of paramedic skills. Additional hours required. Prerequisite: PAR:226 and Reading Proficiency.

PAR:226 PRINCIPLES OF PARAMEDIC TECHNOLOGY III
This course integrates the theory behind the use of advanced diagnostic treatment procedures into the practice of the paramedic. Areas of emphasis include infectious disease, OB/GYN, behavior, abuse, geriatrics, hematology and patients with special considerations. Prerequisites: PAR:201 and Reading Proficiency.

PAR:227 PRINCIPLES OF PARAMEDIC TECHNOLOGY IV
This course integrates the theory behind the use of advanced diagnostic treatment, assessment based management, counseling, rescue and communication procedures into the practice of the paramedic. Areas of emphasis include pediatrics, management of the chronically ill patient, extirpation and rescue and communication techniques. Prerequisites: PAR:201, PAR:202, PAR:226 and Reading Proficiency.

PAR:228 PARAMEDIC CLINICAL III
Student provides advanced therapy to hospitalized patients under the supervision of licensed personnel. Additional hours required. Prerequisite: PAR:226 and Reading Proficiency.

PERSONAL DEVELOPMENT

PRD:100 HELPING SKILLS
The focus will be on improving listening skills learning alternative ways of dealing with friends, family or co-workers and learning to help people help themselves.

PRD:101 INTERPERSONAL DYNAMICS TRAINING
This course will provide students with an opportunity to assess their competencies and deficiencies in the process of communicating with others. Through role playing and practice, students will utilize the skills and techniques that are valuable in improving their ability to interact in a productive manner with other people. These skills and techniques will include listening, responding and initiating in personal interactions.

PRD:102 CAREER EXPLORATION
Career Exploration emphasizes students learning about themselves as well as about the world of work. Students will learn to identify accurate career information and resources. They will also learn a decision making model to assist them in their career selection process.

PRD:103 ASSERTIVE TRAINING
The aim of this course is to make non-assertive or aggressive persons aware of alternative responses and to give them support and experience in trying out new responses. There will be stress on developing a belief system in order to be able to make a choice of what kind of response one wants to make in any situation. Some videotape use in role-playing practice may be utilized.

PRD:106 RELAXATION TRAINING
This is a course for students who are dealing with increasing expectations and pressures. Participants will learn to identify when and how they experience stress in themselves. The material covered will include the causes of stress, individual assessments, relaxation techniques, methods of handling interpersonal stress, and audio tapes. Students will be asked to actively practice and utilize the techniques.

PRD:107 EXPLORATIONS FOR WOMEN
In a group setting women will be provided the opportunity to explore their self-concepts and expectations of themselves and of the world, as well as to experiment with new directions for their personal growth. The group will utilize a variety of activities to help each member to become aware of her strengths, her needs and her patterns of communication and behavior, and to formulate personal goals and experiment with programs to achieve them.

PRD:108 PERSONAL GROWTH AND IDENTITY
This course is designed to involve participants in the process of seeing themselves more clearly having more available alternatives in their interaction with others, together with a clear perception of their own uniqueness. This class will be organized with a group discussion format emphasizing self-exploration.
PHL:104 ETHICS 3
An introductory survey of basic issues and approaches in the field of ethics, with the aim of showing the relevance of philosophical inquiry to contemporary moral concerns. Questions concerning the good life, the nature and content of morality, and the relation of the individual to the standards of society will be considered. Prerequisite: Reading Proficiency.

PHL:105 BLACK PHILOSOPHY 3
This course looks at the major philosophical and ideological themes manifested in Black life in the Western world. Black theology, Black nationalism, communalism, pan-Africanism, Consciencism, African socialism, and Black values are some of the topics that may be included, as well as an introductory survey of African views. Prerequisite: Reading Proficiency.

PHL:106 BLACK RELIGION 3
This is a study of the nature and function of religion in the lives of black people. This course will include the relationship of Christianity, Islam, and other African Philosophies to the ongoing struggles of black people. Prerequisite: Reading Proficiency.

PHL:109 BIO-MEDICAL ETHICS 3
An examination of some moral problems such as patients' rights, abortion, euthanasia, cloning, artificial insemination, the definition of death, the allocation of medical resources, experimentation with human subjects, behavior control and genetic engineering. The relevance of both traditional and modern ethical theories will be explored. Prerequisite: Reading Proficiency.

PHL:111 ENVIRONMENTAL ETHICS 3
First examines the history of ideas in the environmental movement. It next considers our human centered perspective and three alternatives to it: animal rights, reverence for life, and Aldo Leopold's land ethic. Finally it discusses wilderness, endangered species, and global warming from the perspective of these three alternatives. Prerequisite: Reading Proficiency.

PHL:112 BUSINESS ETHICS 3
The ethical dimensions of the world of business are analyzed from a philosophical perspective. Using theories drawn from philosophy, students will evaluate business case studies with respect to such topics as personal and corporate responsibility and the obligations of justice. Prerequisite: Reading Proficiency.

PHYSICAL EDUCATION

PE:101 ADAPTIVE ACTIVITIES I 1
Individual therapeutic exercise programs including aquatic and resistance type activities, limited individual and team games, cardiovascular fitness instruction. Prerequisite: Department chair approval.

PE:102 ADAPTIVES II 1
Continued supervised program involving development of individualized therapeutic exercise programs including aquatic activities, strength building activities, flexibility or cardiovascular fitness instruction and training. Designed for students who may be limited in the amount/type of activity they can do. Prerequisite: PE: 101

PE:103 AEROBIC FITNESS 1
A program of exercise designed to develop cardiovascular fitness. A variety of activities may be involved ranging from walking, jogging, calisthenics, and stretching to stationary cycling. The student is introduced to the basic principles of developing, assessing, and evaluating aerobic fitness.

PE:104 ARCHERY 1
Archery conducted in 25 yard indoor archery area includes shooting techniques, target shooting. Columbia rounds and intracalss competition. Archery classes sometimes held outdoors.

PE:105 DEEP WATER EXERCISE 1
A program of deep-water exercise designed to promote cardiovascular fitness. Assisted by a flotation device students will engage in warm-up, aerobic, and toning exercises in a suspended state, thereby avoiding hard impact on joints. Recommended for individuals who have excess weight, knee or back problems. Additional hours required.

PE:106 BACKPACKING AND HIKING 1
Introduction to outdoor living skills; menu planning, choice of proper hiking-camping apparel, campsite development, safety and sanitation. Practicum includes two one-day trail walks and one weekend camping trip. (Each student is responsible for his/her own equipment).
PE:107  BASEBALL I  Indoor/outdoor instruction in hitting, fielding, throwing, baserunning, conditioning, bunting, strategy, position play.

PE:109  BASIC FITNESS I  Cardiovascular-neuromuscular emphasizing focusing on the individual. Various methods of exercise are introduced.

PE:110  BASIC FITNESS II  This course is designed to increase strength and aerobic capacity through various fitness activities in a supervised program. Strength training machines and free weight training, running, and cycling are the focus of this program with emphasis on individual progress through tests and measurements.

PE:111  BASEBALL II  Basics of ball handling, shooting, offense, defense, team play, conditioning.

PE:112  BASEBALL III  Advanced individual and team skills: offenses, defenses, special situations, coaching techniques and strategy. Prerequisite: PE:111 or Instructor approval.

PE:113  BICYCLING / ROAD TRACK AND TOURING  Bicycling includes campus and college area touring, fitness development, selection and maintenance of equipment. Instruction on safety, camping, competition.

PE:114  BILLIARDS  Pocket and cushion billiards techniques, breaking, bridging and cushion shots, individual and partner competition.

PE:115  BOWLING I  Bowling is held at a nearby lane (nominal fee). Instruction includes approach, delivery, scoring, handicapping.

PE:116  BOWLING II  Continued emphasis on skills including adjustments to lane conditions, approach, developing a strike ball, picking all spare and split combinations; individual and team competition.

PE:117  CAMPING AND FLOATING  Students are introduced to fundamentals of outdoor living (i.e. cooking, campsite development, shelter, canoeing, selection and care of equipment). The course includes float trips on Missouri Rivers. Each student should be a confident swimmer.

PE:118  CARE AND PREVENTION OF ATHLETIC INJURIES I  The course is designed to introduce the student to selected aspects of athletic training. Material presented has sufficient introductory information so that comprehensive background knowledge of anatomy, physiology, and kinesiology is not required. Student participation enhances the meaning of information presented. Student observation and participation in the use of therapeutic modalities and opportunities to follow the sequence of care, treatment and rehabilitation of athletic injuries are provided. Guest speakers add insight and variety to the students. Prerequisite: Reading Proficiency.

PE:119  COMMUNITY CPR  Physiological principles of cardio-pulmonary function with practicum in administering this lifesaving technique. ARC Certification for those who qualify.

PE:120  CYCLING ERGOMETRY FOR FITNESS  A complete controlled aerobic training program for any age, sex, or fitness level. Course is designed to improve lung capacity, stimulate metabolism, effect body composition through the loss of fat, and reduce stress. This supervised program involves the development of individualized workload programs. Course is conducted in the Fitness Center and utilizes ergometry equipment especially for stationary bicycles.

PE:121  DANCE AEROBICS  Exercise to music. Involves full muscle activity combined with vigorous cardiovascular activity.

PE:122  DANCE AEROBICS II  Advanced movements of exercise set to music. Full muscle activity plus cardiovascular activity is a part of the program. A low impact component is included. Prerequisite: PE:122.

PE:123  DANCE-CONTEMPORARY SOCIAL DANCE  The student will be exposed to contemporary and social dance steps/patterns. Content may include dance terminology, common step patterns/movements, rhythm and timing, and balance. Examples of dance include: East & West Swing, Imperial, Country Line and Slow Dancing.

PE:124  DANCING I  Introduction to dancing. Technique, terminology and etiquette are addressed. The rules and basic strategy of dancing are introduced.

PE:125  DANCING II  Advanced dancing technique. Technique, terminology and etiquette are addressed. The rules and basic strategy of dancing are introduced.

PE:126  DANCING III  Advanced dancing technique. Includes standing throws (Naga Waza), choking techniques (Shime Waza), grappling techniques (Katame Waza),Body composition through the loss of fat, and reduce stress. This supervised program involves the development of individualized workload programs. Course is conducted in the Fitness Center and utilizes ergometry equipment especially for stationary bicycles.

PE:127  FIRST AID  American Red Cross Standard First Aid and adult CPR. Emergency treatment for sick and injured including bleeding, breathing, poisoning, and fractures. Preventative concepts and cardiovascular resuscitation (CPR) also included. ARC certification available. This course may be taken to satisfy one credit hour of physical education. Prerequisite: Reading Proficiency.

PE:128  FENCING I  Students develop fundamental offensive and defensive techniques for saber fencing. Rules, terminology and etiquette are addressed. The rules and basic strategy of fencing are introduced.

PE:129  GOLF  Basic fundamentals such as swing, club selection, putting, rules and etiquette are covered. Clubs are not provided.

PE:130  HEALTH AND PERSONAL HYGIENE  Lecture discussion course covering the interrelatedness of the body systems, the nature and communication of disease and the recovery process. Includes nutrition, fitness, sexuality, drugs and the wellness. Recommended for students intending to major in teacher education. May satisfy Missouri Teacher Certification. Prerequisite: Reading Proficiency.

PE:131  ICE SKATING  Instruction in basic fundamentals and techniques of ice skating including proper dress and equipment. Course is held at local skating rink.

PE:132  JUDO I  Introduction to the "gentle way" - the basic techniques of Sport Judo. Includes standing throws (Naga Waza), grappling techniques (Katame Waza), choking techniques (Shime Waza) and free exercise (Randori).

PE:133  JUDO II  Intermediate techniques preparatory to advancement to higher rankings. Includes personal "kata" development as well as experience teaching peers, which is part of the advancement requirement in Judo.

PE:134  KARATE I  Techniques of blocking, striking, punching, kicking. Combinations of techniques emphasizing correct timing, distance and focus. Sparring and "kata" are also added for advancement in rank.

PE:135  KARATE II  Continued study of basic language and unwritten laws of Karate. Improved skills in punching, thrusting, striking, kicking and blocking. To learn more sophisticated combination techniques for defensive and offensive situations. To learn second and possibly third Kata as requirements for advancement in rank. To improve stamina and form in Kumite. Prerequisite: PE: 139.

PE:136  LIFEGUARD TRAINING  This course provides students with the opportunity to complete American Red Cross Lifeguard Certification. Students will gain the knowledge and skills necessary to keep the patrons of aquatic facilities safe in and around the water. First Aid/CPR is included. Additional hours required. Prerequisite: Swimming proficiency in an endurance swim and student must be at least 15 years of age and Reading Proficiency.
PE:143  **FITNESS AND FOOD FOR WEIGHT CONTROL**  
This course will educate students on controlling weight by emphasizing fitness activities and exercise while applying the principles of healthy eating. Additional hours required.

PE:145  **PERSONAL DEFENSE**  
Basic techniques of hand-to-hand defense including jujitsu and karate. Basic throws, attacks, blocks and releases. General rules of safety and prevention of attack situations are covered.

PE:147  **PHYSICAL EDUCATION IN ELEMENTARY SCHOOLS**  
Activities such as game skills, perceptual-motor and manipulative activities, apparatus, stunts, tumbling, relays, combinations and rhythms are presented in progression. Proper use of facilities and equipment with an emphasis on safety is stressed. Classroom management and development of lessons are a focal point of the class. Prerequisite: Reading Proficiency.

PE:150  **RECREATIONAL GAMES**  
Introduction to variety of individual, dual, and team sports popular as recreational activities. Course content may include racquetball, badminton, volleyball, swimming, bowling, golf, tennis - intracalss competition.

PE:153  **SCUBA DIVING I - OPEN WATER**  
P.A.D.I. Open Water Diver Course utilizes pool and classroom activities to cover knowledge and skills needed for open water scuba diving. The course introduces the physiological and psychological aspects of using self contained underwater breathing apparatus. Safety, care, and maintenance of equipment are included. Successful completion of the classroom, confined water skills, and four open water dives will lead to P.A.D.I. Open Water Diver Certification. Prerequisites: Ability to swim 200 yards continuously and tread water for 10 minutes and meet P.A.D.I. medical standards, and Reading Proficiency.

PE:154  **SCUBA DIVING II - ADVANCED OPEN WATER**  
Students participate in classroom and pool sessions as well as five supervised open water dives in various environments, utilizing equipment and skills beyond the scope of Scuba Diving I - Open Water. Course is designed to prepare students for PADI Advanced Open Water Certification. Prerequisites: PE:153 or permission of instructor and Reading Proficiency.

PE:155  **SCUBA DIVING III - SPECIALTIES**  
Students acquire in-depth, specialized knowledge, skills, underwater training, and experience in areas such as Underwater Photography, Search & Recovery, Navigation, Wreck Diving, Nitrox, Deep Diving, Night Diving, Dry Suit, etc. Course is designed to prepare students for PADI Specialty Diver Certifications. Prerequisites: PE:154 or permission of instructor and Reading Proficiency.

PE:158  **SOCCER AND HOC-SOC**  
Indoor and outdoor soccer activity - instruction in ball handling, dribbling, trapping, passing, shooting, heading, throwing, goal tending, position play, team play, rules of the game. Hoc-soc is a 6-person game played indoors with modified rules, smaller goal, no out-of-bounds or off-side rule.

PE:159  **SOFTBALL**  
Indoor/outdoor instruction in hitting, fielding, throwing, baserunning, bunting, strategy, conditioning, position play.

PE:161  **STRESS MANAGEMENT**  
This course presents an overview of the effect of stress on the body including its nature, physiology, role in disease and impact on one’s health and wellness. A variety of coping strategies will be explored with an emphasis on exercise, tai chi, yoga, nutrition and diaphragmatic breathing. Prerequisite: Reading Proficiency.

PE:162  **SWIMMING I (BEGINNING/ELEMENTARY)**  
Fundamentals of breathing, kicking, strokes, entries, water games, stunts. Strokes covered include crawl, back, side, elementary back, sculling, some endurance swimming and introduction to diving.

PE:163  **SWIMMING II (ALL LEVELS)**  
Intermediate course in swimming includes all strokes survival swimming, endurance, elementary rescues, plus recreational water games.

PE:165  **TAI CHI I**  
An ancient Chinese form of exercise that is done at a slow rate of speed, repeating forms. Various styles may be introduced.

PE:166  **TAI CHI II**  
This course is a continuation of first level activities of Chen Style Tai Ji Quan. Students will complete the Chen Style form, including Chen Style theory, and will begin to learn other aspects of Tai Ji Quan practice, including Chen style pushing, hands and Tai Ji Zhuang (Taiji meditation), which will give a base for learning the complete Chen style Tai Ji Quan system. Prerequisite: PE: 165.

PE:167  **TEAM SPORTS I**  
Indoor/outdoor sports activities may include: Flag football, field hockey, softball, volleyball, hoc-soc, modified water polo and basketball.

PE:168  **TEAM SPORTS II**  
Winter indoor team sports: iceless hockey, hoc-soc, power volleyball, basketball, modified water polo. Spring outdoor team sports: softball, field hockey, soccer. Selection based on availability of facilities.

PE:169  **TENNIS I**  
Introduction to basic strokes: forehand, backhand, serve, volley, lob; position play, strategy, singles and doubles matches, history, rules and intraclass competition included.

PE:170  **TENNIS II**  
Extension of PE: 169 with added emphasis on competitive aspect singles-doubles, play-serving game, strategy-ladder competition.

PE:171  **VOLLEYBALL I**  
Techniques in serving, volleying, setting-up, spiking, position play, scoring, intraclass competition.

PE:172  **VOLLEYBALL II**  
Basic competitive skills including bumping, setting, blocking, serving, passing; plus history, rules and team play. Prerequisite: PE: 171.

PE:173  **WALKING FOR FITNESS**  
Emphasis on techniques of walking, cardiovascular fitness, weight control, safety and equipment.

PE:174  **WATER AEROBICS**  
Water Aerobics fitness is a program of water exercise designed to develop cardiovascular fitness. A variety of water exercises for all ages and swimming levels. Non-swimmers can participate.

PE:177  **WEIGHT TRAINING I**  
General muscular development through circuit weight training utilizing universal weight machines. Progression measured on the 16 stations.

PE:178  **WEIGHT TRAINING II**  
Advanced training on newest weight training techniques utilizing the latest weight machines. Increased muscular development through lifting more weight.

PE:180  **WELLNESS AND FITNESS CONCEPTS**  
This course is designed to assist the individual to develop a personalized wellness program. Topics will include exercise, nutrition, substance abuse, weight management, stress management, sexually transmitted disease, and other relevant topics. An exercise component will be included. Additional hours required. Prerequisite: Reading Proficiency.

PE:181  **YOGA I (BEGINNING)**  
Introduction to Hatha Yoga (the Yoga of physical wellbeing). Designed for students of all physical conditions. Tones and limbers the body, reduces the effects of everyday physical and mental strain. Written observations included in course requirements.

PE:182  **YOGA II (ALL LEVELS/INTERMEDIATE)**  
Course for beginners and intermediates. Course deals with Hatha Yoga (the Yoga of physical well-being). Improves flexibility and muscle tone, working toward reduction of effects of everyday strain.

PE:186  **SCUBA DIVING IV - RESCUE DIVER**  
Students acquire the knowledge and skills necessary to organize, implement, and supervise a rescue operation including underwater and surface rescue techniques, search patterns for locating a missing diver and administering first aid and/or CPR. The ability to organize and function as part of a team is highly stressed. Prerequisite: PE:154 or equivalent national certification and Reading Proficiency.

PE:191  **BODY CONTOURING**  
Exercise class using resistance in the form of free weights and elastic bands to develop the figure, posture, flexibility and muscle tone. Nutrition strategies will be discussed.

PE:192  **CARDIO-FLEX**  
Emphasis in cardiovascular fitness, techniques of walking, low impact movement patterns set to music, weight control, and conditioning stretches to improve flexibility.

PE:195  **JAZZ I**  
This is an introductory dance class that involves learning basic jazz techniques such as jumps, pirouettes, battements and leaps. Students will develop body awareness and gain flexibility, strength, and coordination by executing warm-up, progressions and combinations set to contemporary music.
BASIC KAYAKING SKILLS AND WATER SAFETY

This course provides the fundamentals of Kayaking. Content covered includes environmental safety in an indoor facility, flatwater skills on a lake, and ends with moving water skills on a river. Other topics include boat design, launching, paddling and stroke introduction. Additional hours required. Prerequisite: Entry Test Requirements: must demonstrate comfort in swimming in the deep end of the pool and display ability to swim the length of the pool continuously.

PED:116 PILATES

Pilates improves core strength and balances the muscles around the joints, improving the way your body functions, looks and feels. It focuses on breathing, pelvic placement, rib-cage placement, scapular movement, and head and cervical spine placement.

PED:134 GOLF II

This course provides students with the opportunity to learn and practice advanced skills in driving, pitching, putting, and selected course play. Students will develop skills which will provide them with an enhanced insight and understanding of golf. Additional hours required. Prerequisite: PE:133 or prior golf playing experience.

PED:135 FENCING IV

Techniques, target area, rules and strategy of epee fencing will be introduced. Additional hours required. Prerequisite: PE:126.

PED:136 POWER WALKING I

Speed walking technique and cardio vascular fitness will be the major emphasis. Equipment selection, safety and warm up will be reviewed. Prerequisite: PE:173.

PED:138 YOGA - ADVANCED

Ten advanced asanas and additional breathing techniques will be presented. The emphasis will be placed on Classical yoga. Additional hours required. Prerequisites: PE:181 and PE:182.

PED:139 EXTREME FITNESS

This course is designed to teach correct execution of lower- and upper-body plyometric exercises; teach the correct execution of sport-specific sprinting and speed development exercises. Additional hours required. Prerequisites: Permission by instructor. The student must provide documentation of a recent completed physical examination and sign a release waiver to be admitted into the class.

PED:201 PSYCHOLOGICAL PERSPECTIVE IN EXERCISE AND SPORT

Sport and exercise psychology is the scientific study of people and behavior in sport and exercise contexts. This course focuses on two areas of study: (1) learning how psychological factors affect an individual's physical performance and (2) understanding how participation in sport and exercise affects a person's psychological development, health, and well-being. Prerequisite: PSY:200 and Reading Proficiency.

PHYSICAL THERAPIST ASSISTANT

PTA:100 INTRODUCTION TO PHYSICAL THERAPIST ASSISTANT

This course provides an introduction to the professional field of physical therapy and the role of the physical therapist assistant in the health care system. Legal and ethical questions are discussed as well as interpersonal communication skills, learning styles, and the importance of empathy and respect for all patients. Prerequisite: Reading Proficiency.

PTA:104 CLINICAL EXPERIENCE I

Students will have the opportunity to practice communication, interpersonal, technical and administrative skills acquired in the first year of study in a clinical facility under the direction and supervision of a licensed clinical instructor for three weeks. Prerequisite: PTA:105 with a grade of "C" or better and Reading Proficiency.

PTA:105 FUNDAMENTALS OF PATIENT CARE FOR THE PTA

This course is an introduction to the basic patient care skills in physical therapy. Treatment procedures include patient positioning, transfer techniques, massage, gait with and without assistive devices, wheelchair management and architectural barriers. Emphasis throughout is on safety, the preparation of the patient physically and psychologically, appropriate PTA/patient interaction, and patient/caregiver teaching. Additional lab hours required. Prerequisite: PTA:214 with a grade of "C" or better and Reading Proficiency.

PTA:208 HEALTH OCCUPATION SEMINAR

A study of the health care system and the role of PTA within it. Topics include health care organizations; department policies and procedures; audits and evidence based research; professional communication; legal and ethical issues; community resources; record keeping; and application for licensure and work. Prerequisite: PTA:104 with a grade of "C" or better and Reading Proficiency.

PTA:211 PHYSICAL AGENTS

This course provides PTA students with scientific knowledge and clinical application skills required to safely and efficiently provide treatment under the direction of a PT with the following physical agents: thermal agents, compression therapies, traction, cryotherapy, hydrotherapy, light and sound agents, and electrotherapeutic modalities. Additional lab hours required. Prerequisite: PTA:105 with a grade of "C" or better and Reading Proficiency.
PTA:212  THERAPEUTIC EXERCISE AND REHABILITATION CONCEPTS I  7
This course covers data collection and intervention techniques used by the PTA under the direction and supervision of the PT in the treatment of arthritis, postural abnormalities, extremity and spinal dysfunctions, abnormal gait, cardiopulmonary conditions, and amputations. The principles and application of prosthetic and orthotic devices will also be included. Prerequisite: PTA:105 with a grade of "C" or better and Reading Proficiency.

PTA:213  THERAPEUTIC EXERCISE AND REHABILITATION CONCEPTS II  2
This course includes data collection and treatment intervention techniques performed by the PTA under the direction and supervision of the PT for pediatric and neurological conditions. The role of the PTA in assisting the PT to identify community integration barriers for clients with physical disabilities will also be discussed. Additional lab hours required. Prerequisite: PTA:212 with a grade of "C" or better and Reading Proficiency.

PTA:214  DATA COLLECTION AND INTERVENTION TECHNIQUES FOR THE PTA  4
An introductory course on data collection and intervention techniques used by the PTA which includes vital signs, sterile techniques, dressing changes, emergency procedures, goniometry, muscle testing, cardiovascular response to exercise, and gait. In addition the basic concepts of exercise and techniques to develop flexibility, strength, power, and endurance will be taught. Additional lab hours required. Prerequisite: BIO:209 with a grade of "C" or better, or concurrent enrollment in BIO:209, and Reading Proficiency.

PTA:215  MEDICAL CONDITIONS IN REHABILITATION  3
This course is an overview of disease conditions commonly seen for treatment in occupational and physical therapy departments. Acceptance into the PTA or OTA program is required. Prerequisites: BIO:207 with a grade of "C" or better and Reading Proficiency.

PTA:216  CLINICAL EDUCATION IIA  4
Students will have the opportunity to practice skills acquired in the first & second year of the program in a clinical facility under the direction and supervision of a clinical instructor for 6 weeks. Prerequisite: PTA:213 with a grade of "C" or better and Reading Proficiency.

PTA:217  CLINICAL EDUCATION IIB  4
Students will have the opportunity to practice skills acquired in the first and second year of the program in clinical facility under the direction and supervision of a clinical instructor 6 weeks. Prerequisites: PTA:216 with a grade of "C" or better and Reading Proficiency.

PHYSICS

PHY:111  COLLEGE PHYSICS I  4
This course is the first semester of a two-semester non-calculus physics sequence. The entire sequence covers topics in mechanics, heat, sound, electricity, magnetism, optics and modern physics. Additional lab hours required. Prerequisite: MTH:144 or MTH:160 or concurrent enrollment in MTH:160A or MTH:160B or MTH:160C and Reading Proficiency.

PHY:112  COLLEGE PHYSICS II  4
This course is the second semester of a two-semester non-calculus physics sequence. The entire sequence covers topics in mechanics, heat, sound, electricity, magnetism, optics and modern physics. Additional lab hours required. Prerequisite: PHY:111 and Reading Proficiency.

PHY:122  ENGINEERING PHYSICS I  5
The first semester of a three-semester calculus-level physics sequence. The entire sequence covers topics in mechanics, heat and thermodynamics, optics, electricity and magnetism, and nuclear and atomic physics, with mechanics being one of the topics covered in the first semester. Additional lab hours required. Prerequisite: prior or concurrent enrollment in MTH:220 and Reading Proficiency.

PHY:223  ENGINEERING PHYSICS II  5
The second semester of a three-semester calculus-level physics sequence. The entire sequence covers topics in mechanics, heat and thermodynamics, optics, electricity and magnetism, and nuclear and atomic physics, with electricity, magnetism, and optics being among the topics included in the second semester. Additional lab hours required. Prerequisites: PHY:122 and MTH:230 and Reading Proficiency.

PHY:224  ENGINEERING PHYSICS III  3
The third semester of a three-semester, calculus-level physics sequence. The entire sequence covers topics in mechanics, heat and thermodynamics, optics electricity and magnetism, and nuclear and atomic physics, with modern (nuclear and atomic) physics being the primary topics included in the third semester. Additional lab hours required. Prerequisite: PHY:223 and prior or concurrent enrollment in MTH:240 and Reading Proficiency.

PLASTICS TECHNOLOGY

PLA:100  INTRODUCTION TO PLASTICS TECHNOLOGY  4
This is an introductory course in Plastics Technology program. The course is designed to give an overview of the plastics industry, plastics materials, and various methods of plastics processing including injection and blow molding and extrusion processes. Additional lab hours required. Prerequisite: Reading Proficiency.

PLA:150  PLASTICS MATERIALS, TESTING AND HANDLING  4
This course will provide an introduction to the structure of polymers to include composition and applications of thermo- plastics and thermoset materials. Details with examples of flow of materials beginning with receiving, through handling, processing, and shipping of the product will be presented. The course will also cover hands-on demonstration on measurement techniques for the commonly used physical properties of plastic materials utilizing ASTM standards. Additional lab hours required. Prerequisite: PLA:100 and Reading Proficiency.

PLA:200  PLASTICS MACHINE OPERATIONS I  4
This is the third course in the Plastics Technology Certificate program. It is the first of a two course sequence that details plastics processing techniques including injection molding, blow molding, and extrusion. The hydraulic and electric principles of machine operation are considered, and followed through with "hands-on" operation for verification. Safety considerations in processing are included where applicable. Prerequisites: PLA:100 or Consent of Department, and Reading Proficiency.

PLA:250  PLASTICS MACHINE OPERATIONS II  4
This is the last course in the plastics technology certification program, and the second of a two course sequence that details processing techniques. The primary emphasis is on injection molding, blow molding, and secondary operations. Process capability and process control are also considered. Additional lab hours required. Prerequisite: PLA:200 or Consent of Department, and Reading Proficiency.

PLA:290  WORKPLACE LEARNING: PLASTICS TECHNOLOGY  3
This workplace-based course provides the student the opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Students will observe and participate in the functions of the industry to enhance their preparation for entering the field. Minimum of 50 hours per credit hour in the workplace throughout the term. Additional hours required. Prerequisite: PLA:200 or Consent of the department, and Reading Proficiency.

POLITICAL SCIENCE

PSC:101  INTRODUCTION TO AMERICAN POLITICS  3
A survey of the American political scene which meets the State requirement. Basic values, current issues, government processes, and citizen rights are discussed in a modern framework. National, as well as some state and local areas, are covered. Prerequisite: Reading Proficiency.

PSC:102  AMERICAN NATIONAL POLITICS  3
A basic course which introduces the student to political parties, interest groups, elections, individual freedoms and the institutions of the national government (Congress, the Courts, and the President and bureaucracy). Prerequisite: Reading Proficiency.

PSC:103  STATE AND URBAN POLITICS  3
This course is a study of the political patterns of the American states and their formal and informal relationships to local governments. Special emphasis is placed on urban, suburban, and metropolitan politics and problems. Prerequisite: Reading Proficiency.

PSC:104  BRITISH POLITICS AND SOCIETY  3
This course introduces students to some of the main institutions and issues of contemporary British politics and society. Through lectures, videos, text assignments, and field trips, students will explore government in 21st-century Britain. Prerequisite: Reading Proficiency.
PSC:106  BLACKS AND THE
AMERICAN POLITICAL PROCESS  3
A study of the American political system and its effect on Black Americans.
This includes an analysis of governmental processes, current issues, citizen’s rights, and techniques for effective participation in the political process. Prerequisite: Reading Proficiency.

PSC:107  INTRODUCTION TO INTERNATIONAL STUDIES  3
This course is designed to provide an introduction to the international system. The focus is on the emergence of the Third World as a significant part of the international system, the global issues of food, energy, and population, and the politics of the conflicts in the Middle East and South Africa. Prerequisite: Reading Proficiency.

PSC:201  INTERNATIONAL RELATIONS  3
An introduction to politics and policies among nations. Topics discussed include balance of power, balance of terror, terrorism, developing countries, international economic transactions, multinational corporations, international organizations, and the foreign policies of the major powers. Prerequisite: Reading Proficiency.

PSC:204  POLITICS OF AFRICAN NATIONS  3
This course is an analysis of representative and current problems of African nations with particular attention to some specific problems of political development and modernization common to all of them. Prerequisite: Reading Proficiency.

PSC:205  CONSTITUTIONAL ISSUES  3
A study of various constitutional issues as free speech; sex, age and wealth
discrimination, privacy; abortion; de facto segregation; and state and national issues. Missouri cases related to such constitutional issues will be examined. Cases are used as a basis for discussion. Prerequisite: Reading Proficiency.

PSC:207  FUTURE WORLDS: POLITICS AND SOCIETY  3
This course introduces alternative approaches to the future. The impact of technology on society will be discussed along with a consideration of environmental problems including energy, food supply, population, and natural resources. Discussions will explore political and economic power and institutions in an interdisciplinary framework. Prerequisite: Reading Proficiency.

PSC:211  U.S. FOREIGN POLICY  3
This course traces the evolution of American foreign policy from the origins
of World War II to the present. The focus is on the cold war, containment, and contemporary issues. Specific policies and objectives are analyzed and evaluated along with the experiences, thinking, and goals of decision-makers. Prerequisite: Reading Proficiency.

PSYCHOLOGY

PSY:100  PSYCHOLOGY OF GRIEF  2
This course investigates the meaning of dying, the experience of dying, choices and decisions in death, death and the child, grief and bereavement. Special emphasis is placed on the role of funeral service personnel in working with the dying and with the bereaved. Prerequisite: Reading Proficiency.

PSY:125  HUMAN SEXUALITY  3
Human sexuality includes not only the biological component of male and female sexuality, but also attitudes, values and feelings about one’s own gender and sex role. Consequently, in dealing with sex as a natural biological function, the expression of which is a dimension of psychosocial behavior, the sexual development and/or differentiation of men and women from conception to maturity will be stressed. Same course as BIO:122. Prerequisite: Reading Proficiency.

PSY:200  GENERAL PSYCHOLOGY  3
This course is an introduction to the scientific study of human behavior. It attempts to help students gain insights into their own and others’ behavior. A variety of topics relating to psychological development will be covered. Prerequisite: Reading Proficiency.

PSY:203  CHILD PSYCHOLOGY  3
Psychological basis of child growth and development is covered. Emotional, mental, physical and social needs of childhood and adolescence are covered. Includes an analysis of the factors in the home, school and community which influence behavior and personality. Prenatal development and the problems of pregnancy are covered. Prerequisite: PSY:200 and Reading Proficiency.

PSY:205  HUMAN GROWTH AND DEVELOPMENT  3
This course is a survey of the basis of human growth and development. Emotional, mental, physical and social needs of children, adolescents and adults are reviewed. Analysis of the multiple factors which influence and shape behavior and personality is made. Prerequisite: PSY:200 and Reading Proficiency.

PSY:206  INTRODUCTION TO SOCIAL PSYCHOLOGY  3
This course presents an overview of social behavior and cognitive processes with emphasis on such topics as first impressions, impression management, nonverbal behavior, persuasion, conformity, interpersonal relationships, altruism, prejudice and discrimination, and group behavior. Prerequisite: PSY:200 and Reading Proficiency.

PSY:207  APPLIED PSYCHOLOGY  3
This course involves the application of psychological principles to problems of personal and social adjustment in a variety of settings. Prerequisite: PSY:200 and Reading Proficiency.

PSY:208  ABNORMAL PSYCHOLOGY  3
A survey of abnormal/deviant behavior, including the causes and theories concerning neuroses, psychoses, mental retardation, drug abuse, sexual disorders, criminal behavior, and other selected topics. A discussion of the prevention and treatment of these disorders is included. Prerequisite: PSY:200 and Reading Proficiency.

PSY:210  PERSONALITY AND ADJUSTMENT  3
An examination of the contributions of the major schools of human personality and its expression in patterns of adjustment and growth as well as in dysfunctional behavioral patterns. Theories surveyed will represent dynamic, humanistic, cognitive and behavioral perspectives. Adjustment issues include: self concept, social environment and role adaptation, self-management, maladjustment, remediation and treatment. Prerequisite: PSY:200 and Reading Proficiency.

PSY:213  PSYCHOLOGY OF AGING  3
An examination of normal and pathological aging changes in personality, sensory mechanisms, intelligence, creativity, and sexuality with some emphasis on methods of treatment. Prerequisite: PSY:200 and Reading Proficiency.

PSY:214  ADOLESCENT PSYCHOLOGY  3
The study of the individual from puberty to young adulthood. An examination of the physical, social, emotional, cognitive and moral development of adolescence. Additional topics of importance such as juvenile delinquency, adolescent sexuality and vocational choice are also discussed. Prerequisite: PSY:200 and Reading Proficiency.

PSY:215  BRAIN AND BEHAVIOR  3
This course examines the basic mechanisms of neuronal structure, function and communication. Behavioral functions studied include: sensations and perception, emotion and drives, learning and memory, vision, sleep and dreams, stress, addiction, language, aging effects, sex differences, and disorders. Prerequisites PSY:200 and Reading Proficiency.

PSY:216  PSYCHOLOGY OF GENDER  3
Psychological and cultural examination of gender, gender roles, socialization, and issues related to stereotyping, gender differences and similarities, and mental health. Prerequisite: PSY:200 and Reading Proficiency.

PSY:217  CROSS-CULTURAL PSYCHOLOGY  3
Cross-Cultural Psychology will examine the influence and impact of a variety of cultures (e.g., Chinese, Indian, Latino, Japanese, Middle Eastern) on psychological issues. Among the psychological issues included are: parenting, aging, gender, personality, cognition, and stress. Prerequisite: PSY:200 and Reading Proficiency.

PSY:218  ADDICTION AND COMPULSIVE BEHAVIOR  3
This course explores the dynamics and scope of addiction and compulsive behavior in human experience. Unlike a course strictly devoted to substance abuse, this course examines the extent to which a chemical dependency model of addiction is applicable to other forms of compulsive behavior. Prerequisite: PSY:200 and Reading Proficiency.
QUALITY CONTROL

QC:100 INTRODUCTION TO QUALITY CONTROL 3
A course that teaches the basic theories and concepts of quality control. Emphasis will be placed on the current technology used in quality control. Topics covered will include organization structure, collection of quality related information, quality engineering and total quality control. Computer applications and quality control software will be utilized to develop graphical analysis and diagnosis of symptoms. Quality planning principles will be introduced as a method of quality improvement. Prerequisite: Reading Proficiency.

QC:102 QUALITY COST ANALYSIS 3
A survey course on the elements of product costs as they relate to quality. Direct quality cost, prevention, appraisal and failure and indirect quality cost: consumer incurred, customer dissatisfaction will be discussed in detail. The collection and evaluation of cost data as related to quality will be developed on a measurement base that is sensitive to change. Prerequisite: Reading Proficiency.

QC:104 PRINCIPLES AND APPLICATION OF QUALITY 3
A course designed to teach the current technology used in quality control with emphasis on computer applications and software. Product control, job shop control and quality planning will be emphasized. Quality improvement through graphical analysis and diagnosis of symptoms, causes and remedies will be stressed. Prerequisite: Reading Proficiency.

QC:105 NON-DESTRUCTIVE TESTING 4
This course presents the theory and application of the most common non-destructive test methods. Students will learn the types of equipment and procedures used for the testing of various materials as well as joined materials, detail parts and assemblies. Testing methods studied will include ultrasonic, eddy current, x-ray, magnetic particle and liquid penetrant. Additional lab hours required. Prerequisite: Reading Proficiency.

QC:200 QUALITY ASSURANCE 3
Advanced course on the scope and function of quality assurance. Topics covered include vendor selection, records, procurement methods and data analysis. The subject of quality standards will be covered and students will be instructed in quality audit techniques. Prerequisite: Reading Proficiency.

QC:202 INSPECTION METHODS 3
This course will introduce the subject of inspection as it relates to the product or process specification. The location of various inspection functions, type of inspection plans, the inspection standard and inspection organization will be discussed. Inspection records keeping and tool calibration will be developed for a typical inspection function. Prerequisite: Reading Proficiency.

QC:204 RELIABILITY AND FAILURE ANALYSIS 3
This course will analyze the component failure to determine the validity of a product design. The subject of failure will be developed on a coordinated approach to include: failure prediction, failure testing and failure elimination in design, manufacturing and field use. Prerequisite: MTH:124 and Reading Proficiency.

QC:206 STATISTICAL QUALITY CONTROL I 3
Introduction to frequency distributions and the normal curve. Concepts of variation, statistical process control and process capability. Pre-control, control charts for variables and attributes, and SPC techniques for short run will be discussed. Prerequisite: MTH:124 or QC: 204 and Reading Proficiency.

QC:208 STATISTICAL QUALITY CONTROL II 3
Fundamentals of probability and probability distributions. Development and use of acceptance sampling plans and operating characteristic curves. Introduction of a wide assortment of sampling strategies and hypothesis testing. Prerequisite: QC: 206 and Reading Proficiency.

QC:209 DESIGN OF EXPERIMENTS/TAGUCHI METHODS 3
Introduction to techniques for efficiently designing and analyzing experiments to optimize processes or product designs. Emphasis is on the use of Taguchi methods and utilizing techniques to minimize variation. Prerequisite: QC: 208 and Reading Proficiency.

QC:210 SOFTWARE QUALITY ASSURANCE 3
Course provides theory and application of quality assurance practices at each phase of software life cycle development. Government and industry software quality assurance standards are covered. Prerequisite: Reading Proficiency.

QC:211 ASSESSMENT OF QUALITY SYSTEMS 3
This course will discuss methods for evaluating the effectiveness of a company's quality system. Standards and criteria to be used include the current ISO 900 series, the Malcolm Baldridge National, and state quality award criteria. Self-assessment and general auditing techniques will be examined, along with how to utilize these evaluation methods to foster a company's improvement journey. Prerequisite: Reading Proficiency.

QC:212 QUALITY TOOLS FOR ADVANCED MANUFACTURING 3
This advanced course covers tools used in a manufacturing environment. Topics covered include quality attitude, quality statistics, probability, the tools of quality, process improvement, metrology, and computer generated charts and graphs. Prerequisites: MTH:124 or MTH:140 or MTH:144, and Reading Proficiency.

RADIOLOGIC TECHNOLOGY

XRT:101 RADIOGRAPHIC PROCEDURES I 6
In-depth coverage of radiographic anatomy, positioning and examination procedures for the chest, abdomen, IV urogram, gastrointestinal series and selected portions of the extremities. In-depth coverage of basic radiation protection, nursing procedures, ethics and terminology are presented. Additional hours required. Prerequisite: current enrollment in program and Reading Proficiency.

XRT:102 RADIOGRAPHIC PROCEDURES II 3
A continuation of XRT:101, covering radiographic anatomy, positioning and examination procedures for the extremities, shoulder and pelvic girdle, bony thorax and vertebral column and the skull. Prerequisite: XRT:101 and Reading Proficiency.

XRT:103 RADIOGRAPHIC PROCEDURES III 3
A continuation of XRT:102, covering intraoral, bedside, trauma and selected specialized procedures. Prerequisite: XRT:102 and Reading Proficiency.

XRT:104 PRINCIPLES OF RADIOGRAPHIC EXPOSURE I 2
This course is intended to give the beginning student basic knowledge in technique and an in-depth coverage of exposure factors, quality of radiographs. Additional lab hours required. Prerequisite: XRT:101 and Reading Proficiency.

XRT:105 PRINCIPLES OF RADIOGRAPHIC EXPOSURE II 2
Continuation of XRT:104 with an in-depth coverage of quality of radiographs, control of exposure factors, and techniques of chart construction. Additional lab hours required. Prerequisite: XRT:104 and Reading Proficiency.

XRT:107 RADIOLOGIC PHYSICS I 2
Fundamental principles of radiation physics and equipment to include the study of x-ray tubes, rating charts, radiation control devices and automatic processing. Prerequisite: XRT:101, XRT:102, and XRT:104 and Reading Proficiency.

XRT:108 RADIOLOGIC PHYSICS II 2
Production and measurement of radiation, interaction with matter, principles of radioactivity and electromagnetic radiation will be covered. Prerequisite: XRT:101, XRT:102, and XRT:107 and Reading Proficiency.

XRT:111 CLINICAL EDUCATION I 1
Observation in all aspects of the radiology department. Prerequisite: Current enrollment in Radiologic Technology program and Reading Proficiency.

XRT:112 CLINICAL EDUCATION II 2
Practicum in basic radiographic positioning. Prerequisite: XRT:111 and Reading Proficiency.

XRT:116 CLINICAL EDUCATION III 4
Practicum in radiographic positioning and the use of contrast media. Prerequisite: XRT:112 and Reading Proficiency.

XRT:121 RADIOGRAPHIC FILM EVALUATION I 2
A critical analysis of radiographs in the examination of the upper and lower extremities, the shoulder and pelvic girdle, bony thorax, vertebral column and the skull. Prerequisite: XRT:103 and Reading Proficiency.

XRT:122 RADIOGRAPHIC FILM EVALUATION II 2
A continuation of XRT:121, completing the skull and also covering the respiratory system, abdomen, digestive and urinary systems. Prerequisite: XRT:121 and Reading Proficiency.
**XRT:207 RADIOLOGIC PATHOLOGY**

This course is a presentation of the more commonly encountered lesions of the human body as seen through the medium of x-ray. Anatomy and physiology of pathologic processes are presented by body systems as a means of exploring the rationale of many intricate radiologic examinations. Prerequisite: XRT:105 and Reading Proficiency.

**XRT:208 IMAGING AND SPECIAL TECHNIQUES**

A presentation of various recording media with emphasis on thermography, xeroradiography, Polaroid, ultrasound, C.T. scanners and duplication and subtraction techniques. Prerequisite: XRT:105 and Reading Proficiency.

**XRT:209 RADIOBIOLOGY**

A course emphasizing effects of radiation upon tissue and tissue recovery rate. Prerequisite: Reading Proficiency.

**XRT:211 RADIOLOGIC TECHNOLOGY REVIEW**

A review of all major phases of radiologic technology, to include anatomy and physiology, radiographic procedures, radiographic exposure, physics, and radiation biology. This course will review critical material necessary for the national certifying examination. Prerequisite: Fourth semester R.T. student and Reading Proficiency.

**XRT:212 RADIOLOGIC TECHNOLOGY SEMINAR**

Provides an introduction to quality assurance programs, computer applications and radiology management techniques as well as a discussion of various career options in radiology. Prerequisite: Reading Proficiency.

**CLINICAL EDUCATION IV**

Continuation of practical education in all routine phases of radiologic technology. Prerequisite: XRT:116 and Reading Proficiency.

**CLINICAL EDUCATION V**

Practicum in the operation of specialized equipment used in highly technical procedures. Prerequisite: XRT:213 and Reading Proficiency.

**CLINICAL EDUCATION VI**

A continuation of clinical education in all phases of radiologic technology. Prerequisite: XRT:214 and Reading Proficiency.

### READING

**RDG:012 BASIC READING SKILLS**

This is an initial reading course with emphasis on word attack skills, basic reading comprehension skills, and basic reading vocabulary development.

**RDG:013 BASIC READING SKILLS LAB**

This is an individualized course encompassing individual diagnostic-prescriptive laboratory reading instruction. Additional lab hours required. Prerequisite: Concurrent enrollment in RDG:012.

**RDG:016 DEVELOPMENTAL READING**

This course is designed to help students expand the range of their reading comprehension and vocabulary skills. Prerequisite: Concurrent enrollment in RDG:017.

**RDG:017 DEVELOPMENTAL READING LAB**

This is an individualized course designed to develop reading comprehension and vocabulary. Additional lab hours required. Prerequisite: Concurrent enrollment in RDG:016.

**RDG:020 READING IMPROVEMENT**

This course is designed to help students gain greater understanding of written material and to improve reading vocabulary. Prerequisites: RDG:016 and RDG:017 with grades of "C" or better, or appropriate score on placement test.

**RDG:021 READING IMPROVEMENT LAB**

This course provides individualized practice under the supervision of a reading instructor. Additional lab hours required.

**RDG:030 INTRODUCTION TO COLLEGE READING**

This course is designed to develop college-level reading comprehension, vocabulary and study skills. Prerequisite: RDG:020 with a grade of "C" or better, or appropriate score on placement test.

**RDG:031 INTRODUCTION TO COLLEGE READING LAB**

This course provides individualized practice under the supervision of a reading instructor. Additional lab hours required.

**RDG:033 INTRODUCTION TO TECHNICAL READING**

This is a course designed for students in or entering technical/science programs who wish to improve their reading skills in these content areas. Emphasis will be placed on skills for handling technical/scientific terminology and principles.

**RDG:050 SPELLING IMPROVEMENT**

This course is designed for students who wish to improve their spelling skills. Students are allowed to progress at their own rates.

**RDG:051 SPELLING IMPROVEMENT LAB**

This course is designed for students who wish to improve their spelling skills. In this class, the instruction is individualized. Students are allowed to progress at their own rates. Additional lab hours required.

**RDG:052 VOCABULARY IMPROVEMENT**

This course will promote vocabulary growth through the study of word parts, understanding words in context and specific development of specialized vocabularies.

**RDG:053 VOCABULARY IMPROVEMENT LAB**

This course will promote vocabulary growth through the study of word parts, understanding words in context and specific development of specialized vocabularies. In this class, the instruction is individualized. Students are allowed to progress at their own rates. Additional lab hours required.

**RDG:054 STUDY SKILLS AND NOTETAKING**

This course is designed as an introduction to general study skills.

**RDG:055 STUDY SKILLS AND NOTETAKING LAB**

This course is designed as an introduction to general study skills. In this class, the instruction is individualized. Students are allowed to progress at their own rates. Additional lab hours required.

**RDG:059 READING LAB**

This is an individualized course in reading designed to enable students to develop vocabulary and comprehension skills appropriate to their needs. Additional lab hours required.

**RDG:060 COMPREHENSION DEVELOPMENT**

This course is designed to aid students in getting meaning from their reading. The instruction includes development of comprehension skills using interesting and challenging material. Prerequisite: Placement test.

**RDG:061 COMPREHENSION DEVELOPMENT LAB**

This is an individualized course designed to aid students in getting meaning from their reading. The instruction includes development of comprehension skills using interesting and challenging material. This course is not suitable for students in RDG:012 and RDG:016. Students are allowed to progress at their own rates. Additional lab hours required.

**RDG:100 COLLEGE READING AND STUDY SKILLS**

This is an advanced course emphasizing reading in the content areas. The major focus is on study techniques applicable to transfer level courses. Prerequisite: Reading Proficiency.

**RDG:101 RAPID READING**

This course is designed for the improvement of reading rate, flexibility and comprehension. This course is recommended for those who are already average or above average readers. Prerequisite: Placement test and Reading Proficiency.

### REAL ESTATE

**REL:100 REAL ESTATE SALES PROCEDURES**

This course assists those persons desiring to sit for the real estate sales license examination. It will include topics normally covered in the Uniform and Missouri portions of the exam including real estate ownership, contracts, financing, mathematics, brokerage, valuation and taxes, land description, and federal and state codes and regulations. (Course also available as continuing education option.) Prerequisite: Reading Proficiency.

**REL:102 PROPERTY APPRAISAL I: RESIDENTIAL**

An introduction to the field of real estate appraising including basic appraisal principles, concepts, and techniques and the economic principles which apply to real estate valuation. Prerequisite: Reading Proficiency.

**REL:104 REAL ESTATE LAW**

A general introduction to real estate law designed to provide the non-lawyer with a working knowledge of real estate law and related aspects. The course will include examination of the laws that govern basic rights of ownership and use of real estate and deals specifically with aspects such as the sale of property, leasing, land use, land management and financing. Prerequisite: Reading Proficiency.
REL:105 RESIDENTIAL APPRAISAL II: MARKET DATA ANALYSIS 3
This course is a significant expansion of the following areas presented in REL:102 (1) Proving adjustments by market abstractions (2) calculating depreciation; and (3) completing the URAR Small Residential Income Property Report. Also included are basics of understanding styles of residential housing and construction and how to use the Marshall and Swift Residential Cost Manual. The student must pass the examination given at the end of the course if he/she wishes to receive a certificate of satisfactory completion from N.A.I.F.A. Prerequisite: REL:102 and Reading Proficiency.

REL:202 PROPERTY APPRAISAL II: INCOME PRODUCING 3
This course will serve as a continuation of study for those who intend to specialize in appraisal. It will also provide a general base of knowledge in income property appraisal for those planning to work in sales or management. Prerequisite: REL:102 and Reading Proficiency.

REL:204 REAL ESTATE FINANCE 3
A study of the economics of real estate financing, including sources of mortgage money, mortgage terms, marketing loans, and discussion of real estate appraisals for financial purposes. Prerequisite: REL:102 and Reading Proficiency.

REL:205 REAL ESTATE PROPERTY MANAGEMENT 3
A general overview of property management including merchandising, public relations, economic trends and cycles, investment planning, cost and income projections, budgeting, maintenance and repair, rent collection, property administration process and the organization and operation of a management office. Prerequisite: Reading Proficiency.

REL:208 REAL ESTATE BROKER PROCEDURES 4
Meeting the state course of study requirements for the brokers license examination, this course covers Missouri Real Estate Law and Rules; arithmetic, ownership, brokerage, valuation, taxes, economics, and finance. Prerequisite: REL:100 and Reading Proficiency.

REL:209 INCOME APPRAISAL II 3
This course is a continuation and further development of the material covered in the REL:202 course. The student will also be required to do an appraisal of a complex income producing property which will serve as a partial basis for determination of the final grade. The individual will be able to utilize the information gained in the two income appraisal courses in a hands-on approach. The appraisal will also serve as a demonstration of the student’s abilities to prospective employers. (Requires the possession and use of a financial calculator). Prerequisite: REL:102 and REL:202 and Reading Proficiency.

REL:210 REAL ESTATE INVESTMENT ANALYSIS 3
This course will analyze investing strategies and alternatives for small to medium size investment programs. Financing, tax consequences, discounted cash flow and tax deferred exchanges will be reviewed. The investor will move through simulated acquisition, holding, and disposition of investment property. Prerequisite: Reading Proficiency.

RESPIRATORY THERAPY

RTH:120 INTRODUCTION TO RESPIRATORY CARE AND RESPIRATORY PHYSICS 5
This course is an introduction to the field of Respiratory Care. Instruction includes: the historical perspective of respiratory care professional organizations, and the principles of physics, as they apply to respiratory care. The theory and laboratory applications for; cylinders, regulators, flowmeters, analyzers, blenders, oxygen administration devices, aerosol and humidity therapy and nebulizers will be presented. A programmed presentation for medical terminology, mathematics, and computer applications are also presented. Prerequisites: BIO:207 and CHM:101 and MTH:124 or higher and Reading Proficiency.

RTH:121 ORIENTATION TO THE HOSPITAL 2
Topics to be covered in this course include: hospital and departmental organization, medical ethics, patient’s rights, legal responsibilities, and hospital visitation. Theory, application and equipment for patient assessment and life vital signs. Prerequisite: Admission to the program and Reading Proficiency.

RTH:125 AIRWAY MANAGEMENT 3
Anatomy and physiology of the upper and lower airway. Theory, application and equipment for the management of the airway for the conscious and unconscious patient. Topics to include: artificial airways, resuscitation devices, chest physiotherapy, and secretion removal. Additional lab hours required. Prerequisite: RTH:120 and Reading Proficiency.

RTH:126 INTRODUCTION TO MECHANICAL VENTILATION 3
This course will present information relevant to positive pressure techniques, and how they applied in mechanical ventilatory support. Basic indications and hazards of positive pressure therapies will be presented along with the technical components of intermittent positive pressure breathing, non-invasive positive pressure support, adult and pediatric mechanical ventilators. A two-hour per week laboratory session will enable the learner to observe and practice the principles of operation of mechanical ventilators prior to their hospital experience. Practice in the patient simulator laboratory is also included. Prerequisites: RTH:120 and RTH:121 and Reading Proficiency.

RTH:127 RESPIRATORY PHARMACOLOGY 2
Basic pharmacologic principles, classification of drugs, the effects, side-effects, and hazards of the medications used in cardiopulmonary medicine. Prerequisites: Admission to program; must hold a certificate or degree from an allied health program or waiver from program director and Reading Proficiency.

RTH:128 ARTERIAL BLOOD GASES 2
A theory and application of Henderson-Hasselbach Equation, oxygen dissociation curve, oxygen uptake, transport, and consumption, oxygen and carbon exchange, renal physiology, and arterial and venous gas tensions. Clinical application of obtaining arterial samples, and interpretation of results. Prerequisite: Admission to program; must hold a certificate or degree from an allied health program or waiver from program director and Reading Proficiency.

RTH:131 PEDIATRIC RESPIRATORY CARE 3
This course provides a presentation on pediatric and neonatal respiratory care to include: embryonic development of the cardiopulmonary system, cardiopulmonary malformations, and lung disease. The course will also cover the technical aspects of assessment, equipment, and maintenance of pediatric neonatal respiratory care devices, including mechanical ventilator systems. A two-hour per week laboratory session will enable the learner to observe and demonstrate the skills essential to pediatric and neonatal respiratory care. Additional lab hours required. Prerequisites: RTH:128 and RTH:140 and BIO:208 and Reading Proficiency.

RTH:140 RESPIRATORY CARE CLINICAL I 1
Application of respiratory care principles in the hospital setting. Additional hours required. Prerequisite: RTH:120 and RTH:121 and Reading Proficiency.

RTH:146 CLINICAL LEVEL II 3
Application of respiratory care principles in the hospital. Additional hours required. Prerequisite: RTH:126, RTH:128 and RTH:140 and Reading Proficiency.

RTH:220 PULMONARY PATHOPHYSIOLOGY 3
The etiology, pathology, symptomology, and treatment of various lung diseases, to include: C.O.P.D., asthma, restrictive lung disorders, infectious lung diseases, occupational lung diseases, pulmonary neoplasms, and pulmonary manifestations of other disease states. Prerequisite: Admission to the program; must hold certificate or degree from an allied health program or waiver from program director and Reading Proficiency.

RTH:221 CRITICAL CARE MONITORING 2
The theory and clinical aspects of invasive and noninvasive hemodynamic monitoring to include: anatomy and physiology of the heart and vascular systems, equipment, procedures, and interpretation of results, the theory, application, and interpretation of basic electrocardiography. Prerequisite: RTH:126 or waiver from program director and Reading Proficiency.

RTH:222 CARDIOPULMONARY PHYSIOLOGY 2
A detailed discussion of the normal physiologic principles utilized by the cardiopulmonary system, to include: neurotransmission of breathing, reflexes governing respiration, properties of elastance, resistance, compliance, and conductance, the physiologic properties of the pulmonary and systemic vascular systems. Prerequisite: Admission to program; must hold a certificate or degree from an allied health program or waiver by program director and Reading Proficiency.

RTH:223 MECHANICAL VENTILATION: A CLINICAL APPROACH 4
This course will cover the clinical applications of mechanical ventilation, to include: ventilator clinician, discontinuance and weaning techniques, the maintenance of a patient on a mechanical ventilator. The hazards and side effects of positive and negative pressure mechanical ventilation, and the management of chronic ventilator-dependent patients is also covered. Recent development in mechanical ventilation such as inverse-ratio ventilation, APRV, and the interpretation of waveforms graphics will be covered. Demonstrations in the patient simulator laboratory are mandatory. Additional lab hours required. Prerequisites: RTH:126 and RTH:128 and Reading Proficiency.
RTH:225 PULMONARY FUNCTION TESTING 3
The theory application and equipment for the purpose of diagnosing respiratory pathologies through the measurement of lung gas volumes, capacities, and flows. Includes evaluation through stress (exercise) testing and pulmonary rehabilitation. Additional lab hours required. Prerequisites: RTH:220 and RTH:222 and Reading Proficiency.

RTH:228 N.B.R.C. REVIEW 2
A comprehensive review of the major components of respiratory care as they apply to the NBRC matrix for the entry-level and advanced practitioner exams. Including testing methodologies, strategies, evaluations, and simulated testing experiences; extensive simulated testing for entry-level, written and clinical simulations. Prerequisite: Admission to program and Reading Proficiency.

RTH:240 RESPIRATORY CARE CLINICAL III 2
Application of respiratory care principles in the hospital setting. Additional hours required. Prerequisite: RTH:146 and Reading Proficiency.

RTH:245 RESPIRATORY CARE CLINICAL IV 2
Application of respiratory care principles in the hospital setting. Additional hours required. Prerequisite: RTH:220, RTH:221, RTH:222, RTH:223 and RTH:240 and Reading Proficiency.

RTH:246 BASIC NEUROLOGIC ANATOMY AND PHYSIOLOGY 2
This course is designed to give the learner the basics of normal neuroanatomy and physiology, with an emphasis on sleep. Also covered are normal and abnormal sleep patterns, and their physiologic effects on the body. Prerequisites: Admission into the program and an AAS degree or higher in any Health Science. Reading Proficiency.

RTH:247 POLYSOMNOGRAPHY EQUIPMENT AND TESTING I 2
This course will present information relevant to the equipment required for polysomnographic testing to include: multi-channel recorders, transducers, electrodes, physiologic monitors, and calibration of the equipment. Preparing the equipment and patient for the test will also be covered. Additional hours required. Prerequisites: Admission into the program and an AAS degree or higher in Health Science or approval of program director and Reading Proficiency.

RTH:248 POLYSOMNOGRAPHY CLINICAL LEVEL I 1
This course is designed to give the student the basic knowledge in setting-up the equipment and patient for a polysomnographic examination. The student will go to an area sleep laboratory, and observe and participate in a pre-determined number of patient tests. Skill development includes: equipment preparation, calibration, and patient set-up. Prerequisites: Admission into the program and an AAS degree or higher in Health Science or approval of program director and Reading Proficiency.

RTH:249 NEUROPATHOLOGY AND SLEEP MEDICINE 2
This course is designed to give the student the basic information related to the disease processes and conditions which adversely effect sleep, and how these conditions interfere with health. Neurologic neuroanatomic, and upper airway problems will be discussed. Etologies, clinical presentation, diagnosis and treatment will be covered for each condition. Additional hours required. Prerequisites: Admission into the program and an AAS degree or higher in Health Science or approval of program director and Reading Proficiency.

RTH:250 POLYSOMNOGRAPHY EQUIPMENT AND TESTING II 2
This course is designed to build upon the concepts and skills presented in Equipment and Testing I, which include basic function and calibration of the equipment, setting-up the monitors and patient for a polysomnographic examination. This course will present information and skill development on performing the test, quality assurance, and reporting test results via paper copies or computer-generated results. This course will also present information on equipment used in the treatment of various sleep disorders, to include Oxygen Therapy, C.P.A.P., BiPAP, and Nocturnal Ventilatory Support. Additional hours required. Prerequisites: Admission into the program and an AAS degree or higher in Health Science or program director approval and Reading Proficiency.

RTH:251 POLYSOMNOGRAPHY CLINICAL LEVEL II 1
The student will observe and participate in a pre-determined number of polysomnographic examinations. The student will prepare the patient for the exam, and will operate the equipment to assure the data collected is accurate and valid. When ordered by a physician, the student will initiate supplemental oxygen therapy, and/or positive airway pressure therapy. Prerequisites: Admission into the program and an AAS degree or higher in Health Science or approval or program director and Reading Proficiency.

RTH:252 POLYSOMNOGRAPHIC TEST INTERPRETATION AND SCORING 2
This course is designed to give the student the knowledge required to provide a basic interpretation for any polysomnographic exam. Course content includes interpretation of: normal and abnormal values for multichannel data, abnormal waveforms and events, and interpretation of abnormalities and artifacts, in accordance with standard nomenclature, and scoring of the exam. Additional hours required. Prerequisites: Admission into the program and an AAS degree or higher in a Health Science or approval of program director and Reading Proficiency.

RTH:253 AMERICAN POLYSOMNOGRAPHY NATIONAL BOARD PREPARATION 1
This course is designed to give the student the information required to prepare for the National Sleep-testing Board Examination. Content includes: purpose of board exams and exam construction, examination matrix, review of major testing areas, and simulated examinations. Additional hours required. Prerequisites: Admission into the program and an AAS degree or higher in a Health Science or program director approval and Reading Proficiency.

RTH:254 POLYSOMNOGRAPHY CLINICAL LEVEL III 1
This course is designed to enable the student to become proficient in all aspects of sleep testing. The student will go to an area sleep lab and prepare the patient and equipment for a test, perform the examination, record the data, and provide a basic interpretation and score for the exam. Prerequisites: Admission into the program and an AAS degree or higher in Health Science or program director approval and Reading Proficiency.

RUSSIAN

RUS:101 ELEMENTARY RUSSIAN I 4
A beginning course presents the basic sentence structure and vocabulary necessary to participate in elementary Russian conversation and to begin reading short Russian passages. Emphasis is on the use of Russian in everyday situations. Prerequisite: Reading Proficiency.

RUS:102 ELEMENTARY RUSSIAN II 4
A continuation of RUS:101. Students complete the basic elements of Russian grammar, increase their vocabulary and gain added facility in speaking and reading Russian. Prerequisites: RUS:101 and Reading Proficiency.

SAFETY TECHNOLOGY

SAF:100 SAFETY PROGRAM ORGANIZATION AND ADMINISTRATION 3
An introduction to provide the essential knowledge and skills to organize and operate an effective safety program for any size company and type of industry. Course topics include management responsibility, accident investigation and analysis, recording and reporting occupational injuries and illnesses, making safety inspections, personal protective equipment, job safety analysis, fire prevention and control and sources of help for the safety professional and management. Prerequisite: Reading Proficiency.

SAF:101 SAFETY AND HEALTH STANDARDS, REGULATIONS AND CODES 3
A course dealing with the Williams-Steiger Occupational Safety and Health Act (OSHA). Course reviews all aspects of the OSHA regulations including how standards are developed, source of current standards and how the federal safety program is administered. OSHA standards are reviewed to provide an understanding of what the law requires. Prerequisite: Reading Proficiency.

SAF:102 PLANT AND EQUIPMENT LAYOUT 3
A study of techniques of planning a variety of operations required by a comprehensive safety program including plant construction, layout and process arrangement. Important elements of the course are good plant housekeeping, adequate illumination, color, dynamics, human factors engineering and general safety considerations. Prerequisite: Reading Proficiency.
**SAF:103 OPERATION - HAZARDS AND CONTROLS** 3
An examination of the hazards connected with various industrial operations and dealing with the safe control of those hazards. Areas covered are machine guarding principles, techniques and methods of grounding electrical equipment, the safe use of compressed air and gases, and the hazards associated with the use of hand and power tools. Prerequisite: Reading Proficiency.

**SAF:200 MATERIALS HANDLING SAFETY** 3
Injury and property damage aspects of materials handling, control or elimination of hazards in various methods of handling materials, including manual hoists, conveyors, transporters, and railways. Prerequisite: Reading Proficiency.

**SAF:201 OCCUPATIONAL SAFETY ENGINEERING TECHNIQUES** 3
A study of the principles and philosophy of occupational safety engineering techniques. This course includes methods of identifying and controlling occupational hazards in an industrial environment. This course also includes knowledge and application of job safety and hazard analysis techniques; human factors engineering and system safety analysis methods. Prerequisite: Reading Proficiency.

**SAF:202 ELEMENTS OF INDUSTRIAL HYGIENE** 3
A study of environmental energy and chemical hazards including gases, vapors, fumes, dusts, and mists. Also stresses the importance of protective clothing and equipment when physical corrections cannot be made. The course includes basic concepts of chemistry and physics that are fundamental to the control of chemical and energy hazards. Some attention is given to the principles of ventilation control. Prerequisite: Reading Proficiency.

**SAF:203 MOTOR FLEET SAFETY** 3
An introduction to vehicle and traffic safety including a study of federal, state and local regulatory requirements. Also covered is the management of various firms using different types of commercial and industrial vehicles, driver safety programming including driver selection, training, supervision, records; vehicle accident investigation and statistical analysis, vehicle preventive maintenance and safe driver incentive programs. Prerequisite: Reading Proficiency.

**SKILLED TRADES**

**SKT:100 BASIC RIGGING** 3
This course presents an overview of industrial rigging procedures (safety, hand signals) and equipment (types and components). Specific equipment studied includes cranes, wire ropes, chains, slings, hoists, wrenches, rows, jacks, and related hardware and devices. Prerequisite: Reading Proficiency.

**SOCIOLOGY**

**SOC:100 HUMAN RELATIONS** 3
This course is designed to investigate interpersonal relationships. The focus is on the sociological and psychological factors which influence persons in their associations and interactions with other members of contemporary society. Discussions involve current developments in society, their causes, events and possible changes. Prerequisite: Reading Proficiency.

**SOC:101 INTRODUCTION TO SOCIOLOGY** 3
The factors which determine social organization and behavior are considered in this course. Study is concentrated on the social interaction of individuals with one another, of individuals with groups and of groups with one another. Consideration is given to culture, social classes, population, institutional life and major trends in sociology. Prerequisite: Reading Proficiency.

**SOC:102 INTRODUCTION TO SOCIOLOGY - HONORS** 3
The factors which determine social organization and behavior are considered in this course. An in-depth study is concentrated on the social interaction of individuals with one another, of individuals with groups and of groups with one another. Consideration is given to culture, social classes, population, institutional life and major trends in sociology. Prerequisite: Reading Proficiency.

**SOC:103 HUMAN BEHAVIOR AT WORK AND IN BUSINESS** 3
Course framework will be the organization and what people must do to become more effective within it. Focus will be in five major areas: self-concept development, listening skills, expression, conflict resolution, and interpersonal skills. Prerequisite: Reading Proficiency.

**SOC:125 HUMAN SEXUALITY** 3
Sexuality includes not only the biological component of male and female sexuality, but also attitudes, values and feelings about one’s own gender and sex role. Consequently, in dealing with sex as a natural biological function, the expression of which is a dimension of psychological behavior, the sexual development and/or differentiation of men and women from conception to maturity will be stressed. Prerequisite: Reading Proficiency.

**SOC:126 STUDY OF PSYCHODYNAMIC SUBSTANCES** 3
This course will focus on the properties of drugs as chemicals and their impact on the body and mind. The history of drug use and abuse, issues surrounding addiction, factors that indicate a high risk to addiction and the interaction of drugs with each other will be examined. Prerequisite: Reading Proficiency.

**SOC:201 ASPECTS OF AGING** 3
Examines the factors and forces that affect life quality in the late years. The physiological, psychological, and sociological aspects of aging will be considered, including those influences in the cultural context that enhance and impede continued growth of the person. Prerequisite: SOC:101 or PSY:200 or HMS:100 and Reading Proficiency.

**SOC:202 AMERICAN SOCIAL PROBLEMS AND ISSUES** 3
A study of select social problems, including consideration of proposed lines of action in dealing with them. Problem areas include population, the affluent society, poverty, urban renewal, delinquency and crime, automation, the aged, ethnic and racial relations and the role of the United States in relationship to the underdeveloped areas of the world. Prerequisite: SOC:101 or SOC:102 and Reading Proficiency.

**SOC:203 CRIMINOLOGY AND DEVIANCE** 3
The perspective of this course is that of crime and deviance as normal aspects of the functioning of a society. In addition to the traditional focus on the criminal and the deviant, the course will examine societal forces which create crime and deviance and societal responses to them. Prerequisite: SOC:101 or SOC:102 or permission of instructor and Reading Proficiency.

**SOC:204 MARRIAGE AND THE FAMILY** 3
This course is a review of the historical development of the family, an analysis of the family living in modern society including preparation for marriage and the factors involved in marital success. Prerequisite: SOC:101 or SOC:102 and Reading Proficiency.

**SOC:211 ALCOHOLISM AND DRUG ABUSE** 3
Course focuses on nature, causes, treatment and prevention of alcoholism and drug abuse. Strategies of education and treatment will be reviewed. Course designed to deal with problems encountered either personally or professionally. Course also looks at social and cultural factors in alcoholism and drug abuse. Prerequisite: Reading Proficiency.

**SOC:212 RACE AND ETHNICITY** 3
A sociohistorical examination of race and ethnic group relations focusing on the forms and processes of assimilation, cultural diversity, causes of racial conflict and factors which promote racial harmony. Includes an assessment of the contemporary status and future prospects of major ethnic groups in American society. Prerequisite: SOC:101 or SOC:102 or permission of instructor and Reading Proficiency.

**SPANISH**

**SPA:101 ELEMENTARY SPANISH I** 4
A beginning course presenting the basic sentence structure and vocabulary necessary to participate in elementary Spanish conversation and to begin reading short Spanish passages. Additional lab hours required. Prerequisite: Reading Proficiency.

**SPA:102 ELEMENTARY SPANISH II** 4
A continuation of SPA:101. Students complete the basic elements of Spanish grammar, increase their vocabulary and gain added facility in speaking and reading Spanish. Additional lab hours required. Prerequisite: SPA:101 or 2 years of high school Spanish and Reading Proficiency.
### SURGICAL TECHNOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>ST:104</td>
<td>PHARMACOLOGY FOR SURGICAL TECHNOLOGISTS</td>
<td>2</td>
<td>The course is designed to provide the student with learning opportunities which will enable him to apply scientific principles of the biologic science of pharmacology. Emphasis is placed on the relationship of drugs to the surgical patient. Prerequisite: Must be enrolled in Surgical Technology program and Reading Proficiency.</td>
</tr>
<tr>
<td>ST:105</td>
<td>FUNDAMENTALS OF SURGICAL TECHNOLOGY</td>
<td>4</td>
<td>This course provides the student with skills necessary to function as a surgical technologist. Laboratory experience is focused so the student will achieve a satisfactory level of performance in gowning and gloving, surgical scrub, establishing and maintaining asepsis, draping, instrumentation, and proper care of the surgical patient. Students learn to work with and care for surgical equipment and supplies in both scrub and circulating roles. Students spend five hours per week at clinical site. Course will correlate with ST:101 so student may apply principles of theory and practicum. Prerequisite: ST:101 to be taken concurrently with ST:105. Must be enrolled in the Surgical Technology program and Reading Proficiency. 155 lab/clinical hours, 64 open lab hours.</td>
</tr>
<tr>
<td>ST:106</td>
<td>INTRODUCTION TO SURGICAL TECHNOLOGY</td>
<td>6</td>
<td>This course will introduce the student to the field of surgical technology. Topics will include principles of aseptic technique and patient care in the operating room. Responsibilities and functions of the surgical technologists in the pre, intra-, and post operative phases will be discussed. Corequisite: ST:105. Prerequisite: Must be enrolled in the Surgical Technology program and Reading Proficiency.</td>
</tr>
<tr>
<td>ST:108</td>
<td>PRINCIPLES OF OPERATING ROOM COMMUNICATION</td>
<td>2</td>
<td>This course will address the modes of communication in the operating room, specifically focusing on medical/surgical terminology and computer technology utilization. Corequisite: ST:108. Prerequisite: Must be enrolled in Surgical Technology program and Reading Proficiency.</td>
</tr>
<tr>
<td>ST:110</td>
<td>SURGICAL PROCEDURES I</td>
<td>4</td>
<td>This course will introduce the surgical technology student to the principles of surgical intervention and patient care considerations in multiple specialty areas. Pathophysiology, diagnostics, prognosis and complications of procedures will be addressed. Corequisite: ST:111. Prerequisite: ST:108 and must be enrolled in the Surgical Technology program and Reading Proficiency.</td>
</tr>
<tr>
<td>ST:111</td>
<td>SURGICAL TECHNOLOGY CLINICAL I</td>
<td>8</td>
<td>This course involves application of surgical technology principles in the hospital setting. Corequisite: ST:110. Additional hours required. Prerequisites: ST:108 and ST:105 and Reading Proficiency.</td>
</tr>
<tr>
<td>ST:210</td>
<td>SURGICAL PROCEDURES II</td>
<td>2</td>
<td>This course is a continuation of Surgical Procedures I. Surgical procedures in advanced specialty areas will be introduced to the student. Content will include related pathophysiology, diagnostics, prognosis and complications. Corequisite: ST:211. Prerequisites: ST:110 and must be enrolled in the Surgical Technology program and Reading Proficiency.</td>
</tr>
<tr>
<td>ST:211</td>
<td>SURGICAL TECHNOLOGY CLINICAL II</td>
<td>4</td>
<td>This course involves advanced application of surgical technology principles in the hospital setting. Corequisite: ST:210. Additional hours required. Prerequisites: ST:110 and ST:111 and Reading Proficiency.</td>
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</tbody>
</table>

### TELECOMMUNICATIONS

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEL:103</td>
<td>INTRODUCTION TO TELECOMMUNICATIONS</td>
<td>3</td>
<td>An introduction to the types of electronic communication systems, the basic concepts of their operation and how they send and receive information is emphasized in this course. Prerequisite: Reading Proficiency.</td>
</tr>
<tr>
<td>TEL:104</td>
<td>VOICE COMMUNICATIONS</td>
<td>3</td>
<td>A development of characteristics of voice communication systems. Topics include transmission levels, loss, and frequency response, noise and crosstalk, return loss and echo, longitudinal balance, distortion, and standards organizations. Prerequisite: EE: 110 and TEL:103 and Reading Proficiency.</td>
</tr>
<tr>
<td>TEL:105</td>
<td>FIBER OPTIC FUNDAMENTALS</td>
<td>1</td>
<td>This course will introduce the student to basic theory of fiber optics and its application in the communications industry. This course will teach the student on the selection and use of cables and connectors. The student will have demonstrations and hands-on experience using the 3M Hot Melt Connectors, splice connections, and test equipment to insure they have a maximum light transfer from one service to another. Prerequisite: Reading Proficiency. 16 lecture hours total.</td>
</tr>
<tr>
<td>TEL:205</td>
<td>DIGITAL SWITCHING AND TRANSMISSION</td>
<td>3</td>
<td>An analysis of the methods used to send data including voice from one point to another. Topics include encoding signals, time division multiplexing, T1 transmission, digital switching matrices, and Integrated Services Digital Network. Prerequisite: TEL:104 and Reading Proficiency.</td>
</tr>
<tr>
<td>TEL:206</td>
<td>NETWORK TOPOLOGY</td>
<td>3</td>
<td>Course covers various communications networks. Topic include T-1 systems, local area networks, wide area networks, internetworking, and synchronous optical networks. Prerequisite: TEL:104 and Reading Proficiency.</td>
</tr>
<tr>
<td>TEL:207</td>
<td>TRANSMISSION MEDIA</td>
<td>5</td>
<td>This course covers the basics of how signals can be transmitted and the factors that distort and attenuate those signals. Topics include how signals are measured, noise, and types of transmission media such as wire lines, optical fibers, and satellite transmission. Additional lab hours required. Prerequisite: TEL:104 and Reading Proficiency.</td>
</tr>
<tr>
<td>TEL:209</td>
<td>TELECOMMUNICATION SYSTEM OPERATIONS</td>
<td>3</td>
<td>The course covers the installation, maintenance and repair of equipment in the central office. Prerequisite: TEL:205 and TEL:207 and Reading Proficiency.</td>
</tr>
</tbody>
</table>
THEATRE

THT:101 INTRODUCTION TO THEATRE 3
A course designed to enhance the enjoyment of theatre going. Students study the nature of theatre as a composite art form, including and investigation of the function of playwright, actor, director, and designer in the traditional forms of theatre. Prerequisite: Reading Proficiency.

THT:102 STAGECRAFT 3
The purpose of this course is to study the technical areas of theatre production: emphasis will be on scenery construction and rigging; paints and the painting of scenery; stage lighting; costume design; and construction. Included will be a survey of terminology and equipment for the stage. Prerequisite: Reading Proficiency.

THT:103 STAGE DESIGN AND LIGHTING 3
This course investigates the function of the technical designer in the theatre. This course will be related to actual production in the college theatre and includes instructions in set drawings, lighting plots, and lighting. Prerequisite: Reading Proficiency.

THT:104 THEATRE PRACTICUM 1
Practical application of acting (when cast) and production techniques. Assignments are made on an individual basis. Prerequisite: Reading Proficiency.

THT:105 THEATRE PRACTICUM 2
Practical application of acting (when cast) and production techniques. Assignments are made on an individual basis. Prerequisite: Reading Proficiency.

THT:106 THEATRE PRACTICUM 3
Practical application of acting (when cast) and production techniques. Assignments are made on an individual basis. Prerequisite: Reading Proficiency.

THT:107 PLAYWRITING 3
This course explores the fundamental processes of playwriting. It will provide the beginning student with opportunities to investigate the concepts of dialogue, plot, characterization, mood, conflict and setting as they relate to writing for the theatre. Prerequisite: Reading Proficiency.

THT:108 ACTING I 3
Emphasis on application of principles of theory of creative acting. Exercises in movement and voice are integrated with improvisational techniques. Prerequisite: Reading Proficiency.

THT:109 ACTING II 3
Continuation of THT:108. Performance of scenes from both classical and contemporary plays is required in class. Emphasis is on individual development in the use of principles and styles of acting. Prerequisite: Reading Proficiency.

THT:110 HISTORY OF THEATRE 3
A survey of the development of the theatre from its beginnings to the present. Emphasis is on periods of history in which most significant contributions to the theatre were made. Prerequisite: Reading Proficiency.

THT:115 ACTING FOR THE CAMERA 3
This course includes the following: (1) exploration of the aesthetics and principles of acting for the camera; (2) analysis of diverse acting styles and outstanding performances in film and television; and (3) acting exercises for the camera. Some acting exercises will be videotaped and edited for analysis. (Same course as MCM:115). Prerequisite: Reading Proficiency.

TOURISM

TUR:104 TRAVEL AND TOURISM FOUNDATIONS I 6
This course is designed to prepare students for The Travel Institutes' first level of certification, the CTA program, to meet the needs of travel professionals in the early stages of their careers. It focuses on the areas necessary for effective practice in the travel industry: Understanding Customer Needs, Customer-Focused Selling, Professionalism at Work, Customer Service, Selling Special Interest Travel, Interpersonal Communication, and Computer Technology. Prerequisites: Department Chair approval and Reading Proficiency.

TUR:105 TRAVEL AND TOURISM FOUNDATIONS II 10
This course is the second component to the Travel and Tourism Foundations training. It is designed to provide automated, foundational knowledge for those entering the travel and tourism industry. Students will learn how to utilize a live GDS (Global Distribution System) and the Internet to acquire information and construct travel reservations. Prerequisite: Prior or concurrent enrollment in TUR:104 and Reading Proficiency or concurrent enrollment in RDG:030 or ENG:070.

TUR:106 DOMESTIC/INTERNATIONAL GEOGRAPHY AND LANDMARKS 3
This course is a survey of U.S. and world travel destinations, examining natural and manmade landmarks that attract tourists to popular cities, states, territories, and countries. The purpose of the course is to make students familiar with the saleable aspects of an area, so they can match destinations with traveler wants and needs. Prerequisite: Reading Proficiency.

TUR:201 CONVENTION AND MEETING PLANNING 3
This course is designed for those people in an association or business who are responsible for planning meetings, conferences, and conventions. The material in this course will cover negotiations with hotels and airlines, site inspection and selection, housing systems, conference and meeting facility needs, programs, speakers, banquets, receptions and breaks, displays and exhibits, entertainment and recreation, spouse programs, video-conferences, budgeting, audio-visual equipment, advertising and promotion, personal development. The course will consider the difference between planning for a business or planning for an association. Prerequisite: Reading Proficiency.

TUR:223 SELLING LEISURE CRUISES AND TOURS 3
This course will provide students with the knowledge base that is necessary to effectively sell leisure cruises and tours. Class will study the types of cruises and tours, popular cruise and tour destinations, travel agents, and leisure travel trends. It will cover the sales process and acquaint students with some of the brochures and websites of leading cruise and tour companies. Prerequisite: Reading Proficiency.

TUR:230 INTERNATIONAL TRAVEL AND WORLD ISSUES 3
The course will provide students with the essentials in international travel, including currencies, customs, immigration, insurance, time zones, passports and visas. Students will also learn how world issues and events influence the flow of travelers between countries. Prerequisites: TUR:104, TUR:105, TUR:106 and Reading Proficiency.

TUR:235 CERTIFIED TRAVEL ASSOCIATE (CTA) PREP COURSE AND TEST 3
The course is designed to prepare students for The Travel Institutes' first level of certification, the CTA program, to meet the needs of travel professionals in the early stages of their careers. It focuses on the core areas necessary for effective practice in the travel industry: Understanding Customer Needs, Customer-Focused Selling, Professionalism at Work, Customer Service, Selling Special Interest Travel, Interpersonal Communication, and Computer Technology. Prerequisites: Department Chair approval and Reading Proficiency.

TUR:236 WORKPLACE LEARNING: TRAVEL AND TOURISM 3
This experiential course provides the student the opportunity to apply theory and skills learned in the classroom, learn new skills, and explore career possibilities while supervised by a professional in the field and a faculty member. Students will observe and participate in the functions of a travel and tourism organization to enhance their preparation for entering the field. Minimum 150 hours in the workplace throughout the term. Prerequisites: Departmental Chair Approval and Reading Proficiency.

WOMEN'S STUDIES

WMS:100 INTRODUCTION TO WOMEN'S STUDIES 3
This course is an introduction into the field of Women's Studies. Women's issues are explored from a variety of disciplines. An emphasis will be placed on personal experience and its relationship to larger social structures. The focus of this course is to develop a sense of empowerment and critical thinking in students. Prerequisite: Reading Proficiency.
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Wildwood

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Index to Programs

A
Accounting 38
Addictions Study 39
African-American Studies 40
Architectural Technology 40
Art. See Associate in Fine Arts Degree Program 33
Associate in Applied Science Degree Program 38
Associate in Arts Degree Program 23
Associate in Fine Arts Degree Program 33
  Art Education Option 33
  General Fine Arts Option 34
  Graphic Communications Option 34
  Photography Option 35
Associate in Science Degree Program 35
Associate of Arts in Teaching Degree Program 32
Automotive Technology 41
  Ford Asset Option 42

B
Banking and Finance 42
Biotechnology 43
Building Inspection and Code Enforcement Technology 44
  Housing Inspection Option 44
Business Administration 26, 45
  Management Option 26

C
Certificate of General Education 28
Certificate Programs 38
Chemical Technology 45
Child Care. See Early Care and Education 58
Civil Engineering Technology 46
Clinical Laboratory Technology 46
Communications Arts 27
  Advertising/Public Relations Option 27
  Broadcasting Option 27
  Creative Writing Option 27
  Film Option 27
  Foreign Language Option 27
  Journalism Option 27
  Literature Option 27
  Multimedia Option 28
  Organizational Communication Option 28
  Speech Communication Option 28
  Technical/Business Communication Option 28
  Theatre Arts Option 28
Computer Accounting Technology Program 39
Computer Aided Design (CAD) 47
Computer Aided Manufacturing (CAM) 47
Computer Aided Publishing 47
Computer Science 35
Construction Office Management 48

Construction Management Technology 48
Credit Management 49
Criminal Justice
  Corrections Option 49
  Law Enforcement Option 49

D
Database Developer 50
Deaf Communication Studies: Interpreter Education 51
Deaf Communication Studies: American Sign Language 51
Dental Assisting 51
Dental Hygiene 52
Diagnostic Medical Sonography 52
Diesel Technology 53
Dietetic Technology
  Food Service Management Option 54
  Nutrition Care Option 55
Digital Media
  3D Design and Animation 55
  Fine Art 56
  Graphic Design 56
  Photography 57
  World Wide Web 57

E
E-Commerce 58
Early Care and Education 58, 59, 60
  Child Development Associate Option 58
  Developmental Disabilities Option 59
Electrical/Electronic Engineering Technology 60
Electronic Engineering Technology 61
Emergency Medical Technology 62
Engineering Science 36
Entrepreneurship 62

F
Fire Protection Technology 62
  Safety Option 63
Funeral Directing 64
Funeral Service Education 64

G
General Education Requirement 23
General Transfer Studies 29
  International Studies Option 29
Gerontology 65
Graphic Communications 65
<table>
<thead>
<tr>
<th>H</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Information Technology 66</td>
<td>Occupational Therapy Assistant 86</td>
</tr>
<tr>
<td>Horticulture 66</td>
<td>Oracle Developer 87</td>
</tr>
<tr>
<td>Hospitality Studies 68</td>
<td>P</td>
</tr>
<tr>
<td>Baking and Pastry Arts 68</td>
<td>Paramedic Technology 87</td>
</tr>
<tr>
<td>Culinary Arts Option 69</td>
<td>Phlebotomy 88</td>
</tr>
<tr>
<td>Hotel and Restaurant Management Option 68</td>
<td>Physical Therapist Assistant 88</td>
</tr>
<tr>
<td>Hotel Management 70</td>
<td>Plastics Technology 89</td>
</tr>
<tr>
<td>Restaurant Management 70</td>
<td>Plumbing Design Engineering Technology 89</td>
</tr>
<tr>
<td>Human Services 71</td>
<td>Polysomnography Technology 90</td>
</tr>
<tr>
<td>Corrections Option 71</td>
<td>Q</td>
</tr>
<tr>
<td>Disabilities Studies Option 72</td>
<td>Quality Technology 90</td>
</tr>
<tr>
<td>Human Services: Disabilities 72</td>
<td>R</td>
</tr>
<tr>
<td>Information Reporting 73</td>
<td>Radiologic Technology 91</td>
</tr>
<tr>
<td>Broadcast Captioning 73</td>
<td>Real Estate 92</td>
</tr>
<tr>
<td>Captioning 73</td>
<td>Real Estate Appraisal 92</td>
</tr>
<tr>
<td>CART 74</td>
<td>Respiratory Therapy 93</td>
</tr>
<tr>
<td>Judicial 74</td>
<td>Robotics Technology 93</td>
</tr>
<tr>
<td>Information Systems</td>
<td>S</td>
</tr>
<tr>
<td>Computer Network Specialist Option 75</td>
<td>Sales 94</td>
</tr>
<tr>
<td>Microcomputer Support Specialist Option 75</td>
<td>Skilled Trades Industrial Apprenticeship Training</td>
</tr>
<tr>
<td>Office Information Coordinator Option 76</td>
<td>Carpenter 94</td>
</tr>
<tr>
<td>Software Developer Option 77</td>
<td>Electrician 95</td>
</tr>
<tr>
<td>Information Technology: Network Administration 77</td>
<td>Millwright 95</td>
</tr>
<tr>
<td>Interiors Design 78</td>
<td>Plumbing and Pipefitting 95</td>
</tr>
<tr>
<td>K</td>
<td>Tool and Die 96</td>
</tr>
<tr>
<td>Kitchen and Bath Design 78</td>
<td>Welder Repair 96</td>
</tr>
<tr>
<td>L</td>
<td>Skilled Trades Industrial Training 96</td>
</tr>
<tr>
<td>Landscapes and Gardening 68</td>
<td>Supply Chain Management 96</td>
</tr>
<tr>
<td>Lead Maintenance Mechanic 79</td>
<td>Surgical Technology 97</td>
</tr>
<tr>
<td>Legal Studies for the Paralegal 79</td>
<td>T</td>
</tr>
<tr>
<td>Life Sciences 30</td>
<td>Teacher Education 32</td>
</tr>
<tr>
<td>M</td>
<td>Technical/Business Communication 98</td>
</tr>
<tr>
<td>Maintenance Mechanic 80</td>
<td>Technology Teacher Education 37</td>
</tr>
<tr>
<td>Management and Supervisory Development 80</td>
<td>Telecommunications Engineering Technology: Basic Electronics 98</td>
</tr>
<tr>
<td>Manufacturing Technology 82</td>
<td>Travel and Tourism 98</td>
</tr>
<tr>
<td>Mass Communications 82</td>
<td>Travel and Tourism Foundations 99</td>
</tr>
<tr>
<td>Broadcasting Option 82</td>
<td>V</td>
</tr>
<tr>
<td>Print Option 83</td>
<td>Voice/Data Communications Analyst 99</td>
</tr>
<tr>
<td>Mathematics 31</td>
<td>W</td>
</tr>
<tr>
<td>Mechanical Engineering Technology 83</td>
<td>Web Development 100</td>
</tr>
<tr>
<td>Medical Billing and Coding 84</td>
<td></td>
</tr>
<tr>
<td>Medical Transcription 84</td>
<td></td>
</tr>
<tr>
<td>Microcomputer Applications 85</td>
<td></td>
</tr>
<tr>
<td>Multimedia 85</td>
<td></td>
</tr>
<tr>
<td>Music 31</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Nursing 86</td>
<td></td>
</tr>
</tbody>
</table>
Directions to Joseph P. Cosand
St. Louis Community College Center
300 S. Broadway, St. Louis, MO 63102-2800

From Interstate 70
Take the Memorial Drive/Arch exit. Turn right on Market. Turn left on Broadway.

From Interstate 64/Highway 40
Take the 11th Street exit. Proceed on 11th Street to Walnut. Turn right and proceed to Broadway. Turn right on Broadway.

From Interstate 44/55
Take the Memorial Drive/Arch exit. Turn left on Market. Turn left on Broadway.

FLORISSANT VALLEY CAMPUS

COSAND CENTER

FOREST PARK CAMPUS

MERAMEC CAMPUS
ADMISSION APPLICATION

A Unique Identification Number (UIN) will be assigned as your college ID. Check here if you wish to receive your UIN via e-mail: □

Social Security No.: ____________________________ Former Student Number (if known): ____________________________

Name: ________________________________________ Previous Legal Name(s): ____________________________

Last                  First                  Middle

Permanent Address: ____________________________________________________________

(No P.O. Box) Number Apt. No. Street

City                            State                            Zip Code

County of Residence: ____________________________

Mailing Address: ____________________________________________________________

(If DIFFERENT FROM ABOVE) Number Apt. No. Street

City                            State                            Zip Code

Telephone Numbers: Home: ( )____________________ Cell: ( )____________________ Business: ( )____________________

Preferred E-mail Address: __________________________________________________

Emergency Contact: _______________________________________________________

Person’s Name: ___________________________________ ( )____________________ Telephone: ____________________ Relationship to Applicant: ____________________________

Sex: □ Male □ Female Date of Birth: ___ / ___ / ___

Month  Day Year

ETHNIC ORIGIN

Are you Hispanic/Latino? □ Yes □ No

Please check any or all of the below which apply to you:

□ American Indian or Alaska Native

□ Asian

□ Black or African-American

□ Native Hawaiian or Other Pacific Islander

□ White

EDUCATIONAL HISTORY

High School Information

Check one:

□ High School Graduate Date of Graduation: Month / Year High School Attended: ____________________________

□ GED Graduate Date of Test Results: Month / Year Name: ____________________________

□ Still in High School Expected Graduation Date: Month / Year City: ____________________________ State: ______

□ Did Not Graduate Date Last Attended: Month / Year MOSIS® ID Number (if known) ____________________________

Have you taken the ACT and/or SAT? □ Yes □ No Date of Test: Month __________ Year __________

Did you enroll (or are you currently enrolled) in a college credit course or program while in high school? □ Yes □ No If yes, check all that apply:

□ Tech Prep □ Project Lead the Way □ Advanced Placement □ Dual Credit/Enrollment □ Other ____________________________

Previous College(s)

Most Recently Attended: Name of College ____________________________ City ____________________________ State ____________________________ Dates Attended ____________________________

Other College Attended: Name of College ____________________________ City ____________________________ State ____________________________ Dates Attended ____________________________

Other College Attended: Name of College ____________________________ City ____________________________ State ____________________________ Dates Attended ____________________________

Highest Degree Completed:

□ High School/GED □ Certificate □ Associate’s □ Bachelor’s □ Master’s □ Doctorate □ First Professional □ None of the previous
Have you previously attended St. Louis Community College?  
☐ Yes  ☐ No  If so, when: ________________________________________________

Application submitted for:  
☐ Fall  Year __________  Please indicate which campus you plan to attend:  
☐ Summer  Year __________  ☐ Florissant Valley  ☐ Meramec  
☐ Spring  Year __________  ☐ Forest Park  ☐ Wildwood

A. My primary reason for attending St. Louis Community College (select only one):  
☐ to improve existing job skills  
☐ to prepare for a new job  
☐ to transfer courses to another college/university  
☐ for self-improvement (not job-related)

B. I will accomplish this by (select only one):  
☐ taking selected courses  
☐ earning a Certificate  
☐ earning an Associate’s degree

What do you plan to study at St. Louis Community College? (Program of Study) ____________________________________________________________

Entry status (select only one):  
☐ New College Student (never attended any college)  
☐ Transfer Student (most recently attended another college)  
☐ Re-Entry Student (most recently attended St. Louis Community College)  
☐ Dual-Enrolled Student (still attending high school)

I agree to adhere to all college policies and procedures which includes the statement of student rights and responsibilities. Any violation of those policies will be reason for disciplinary action and could result in dismissal from the college.

Student’s Signature (REQUIRED) ___________________________ Date (Month/Day/Year): _____/_____/

SEND APPLICATION AND TRANSCRIPTS TO: Admissions/Registration office at campus of choice:

<table>
<thead>
<tr>
<th>Campus</th>
<th>Address</th>
<th>Phone Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florissant Valley</td>
<td>3400 Pershall Road, St. Louis, MO 63135-1408</td>
<td>314-513-4244</td>
</tr>
<tr>
<td>Meramec</td>
<td>5600 Oakland Avenue, St. Louis, MO 63110-1393</td>
<td>314-644-9127</td>
</tr>
<tr>
<td>Forest Park</td>
<td>11333 Big Bend Road, St. Louis, MO 63122-5720</td>
<td>314-984-7601</td>
</tr>
<tr>
<td>Wildwood</td>
<td>2645 Generations Drive, Wildwood, MO 63040-1168</td>
<td>636-422-2000</td>
</tr>
</tbody>
</table>

Campus Safety: In accordance with federal law, the college publishes a security report annually covering crime reported within the St. Louis Community College district over a three-year period. Copies are available upon request.

Non-Discrimination Statement  
St. Louis Community College is committed to non-discrimination and equal opportunities in its admissions, educational programs, activities and employment regardless of race, color, creed, religion, sex, sexual orientation, national origin, ancestry, age, disability or status as a disabled or Vietnam-era veteran and shall take action necessary to ensure non-discrimination. For information contact:  
CBIL—Judy Keenig, supervisor, Downtown Education Center, 300 S. Broadway, St. Louis, MO 63102-2800, 314-539-5360  
COSAND Center—Patricia Henderson, senior manager of Employment, 300 S. Broadway, St. Louis, MO 63102-2800, 314-539-5214  
Florissant Valley—Laura Sterman, vice president, Student Affairs, 3400 Pershall Road, St. Louis, MO 63135-1408, 314-513-4250  
Forest Park—Herb Gross, vice president, Student Affairs, 5600 Oakland Ave., St. Louis, MO 63110-1316, 314-644-9114  
Meramec—Stephen Petersen, vice president, Student Affairs, 11333 Big Bend Road, St. Louis, MO 63122-5720, 314-984-7607  
Wildwood—Marilyn Taras, director, Student Affairs, 2645 Generations Drive, Wildwood, MO 63040-1168, 636-422-2008  
Section 504/Title II Coordinator—Dr. Donna Dace, acting vice chancellor for Education, 300 S. Broadway, St. Louis, MO 63102-2800, 314-539-5286

Accommodations Statement  
St. Louis Community College makes every reasonable effort to accommodate individuals with disabilities. If you have accommodation needs, please contact the Access office at the campus where you are registering at least six weeks before the beginning of the class. Individuals with speech or hearing impairments may call via Relay Missouri by dialing 711.