

**2001-2002  
Catalog**



**Richland Community College**



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**2001-2002 Catalog**

**CollegeSource**

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# Richland Community College

Established 1972

## Accreditation

Richland Community College is accredited by The Higher Learning Commission and a member of the North Central Association.

## Recognition

- Illinois Board of Higher Education
- Illinois Community College Board under the provision of the Community College Act
- Illinois State Board of Education
- Universities of the State of Illinois
- U.S. Department of Education
- Veterans' Administration
- Illinois Student Assistance Commission
- Commission on Accreditation of Allied Health Education Programs
- National League for Nursing

## Disclaimer

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## Nondiscrimination Policy

Richland Community College subscribes to the principles and laws of the State of Illinois and the Federal Government pertaining to civil rights and equal opportunity, including applicable Executive Orders.

Richland Community College policy prohibits discrimination on the basis of race, color, religion, sex, marital or parental status, national origin or ancestry, age, mental or physical disability (except where it is a bonafide occupational qualification), sexual orientation, military status, status as a disabled or Vietnam-era veteran.

The College's non-discrimination policy applies to the admission and retention of students, recruitment, employment, and retention of faculty and staff, and access to and treatment in the College's programs and activities. Complaints of discrimination prohibited by the College are to be resolved within the College grievance resolution process.

# Richland Community College

Community College District 537



## 2001-2002 Catalog

One College Park, Decatur, Illinois 62521

Telephone: 217/875-7200

Switchboard Hours:

Monday-Thursday — 7:30 a.m. - 9:30 p.m.

Friday — 7:30 a.m. - 5:00 p.m.

World Wide Web Address:

*[www.richland.cc.il.us](http://www.richland.cc.il.us)*

E-mail Address:

*[rcchelp@richland.cc.il.us](mailto:rcchelp@richland.cc.il.us)*

**(Campus tours available)**

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# College Calendar

*(Subject to change)*

## April 2001

April 2-June 4		Registration for 2001 Summer Term
April 2-Aug. 20		Registration for 2001 Fall Semester
April 13	F	Holiday (College Closed)
April 14	S	No Classes

## May

May 11	F	Last Day for Withdrawal with "W"
May 12-17		Final Examinations
May 18	F	Graduation
May 21	M	Final Grades Due by 11:00 a.m. First 5-week Summer Session Begins
May 28	M	Memorial Day (College Closed)
May 29	T	Summer Scheduled Registration

## Summer 2001

### June

June 4	M	Summer Classes Begin
June 4	M	Drop-Add (Schedule Changes)
June 25	M	Second 5-week Summer Session Begins

### July

July 4	W	Independence Day Observed (College Closed)
July 24	T	Last Day for Withdrawal with "W"
July 25-26		Final Examinations
July 30	M	Final Grades Due by 11:00 a.m.

## Fall 2001

### August

Aug. 13	M	Staff Development Day (College Closed)
Aug. 15	W	New Student Orientation
Aug. 17	F	New Student Orientation
Aug. 20	M	Classes Begin 16-week Session and First 8-week Session
Aug. 20	M	Drop-Add (Schedule Changes)
Aug. 25	S	Saturday Classes Begin

### September

Sept. 3	M	Labor Day (College Closed)
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### October

Oct. 12	F	Columbus Day (College Closed) Midterm of Semester
Oct. 15	M	Second 8-week Session Begins
Oct. 29	M	Spring 2002 Registration Begins (through Jan. 14)

### November

Nov. 12	M	Veterans' Day (College Closed)
Nov. 21-24		Thanksgiving Vacation (No classes after 5:00 p.m., Wed., Nov. 21; College Closed Nov. 22, 23, and 24)

**December**

Dec. 7	F	Last Day for Withdrawal with "W"
Dec. 10-15		Final Examinations
Dec. 17	M	Final Grades Due by 11:00 am
Dec. 24-Jan. 1		Holiday Break

**Spring 2002****January**

Jan. 7	M	Staff Development Day (College Closed)
Jan. 9	W	New Student Orientation
Jan. 11	F	New Student Orientation
Jan. 14	M	Classes Begin 16-week Session and First 8-week Session
Jan. 14	M	Drop-Add (Schedule changes)
Jan. 19	S	Saturday Classes Begin
Jan. 21	M	Martin Luther King, Jr.'s Birthday (College Closed)

**February**

Feb. 12	T	Lincoln's Birthday (College Closed)
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**March**

Mar. 8	F	Midterm of Semester
Mar. 11-16		Spring Break
Mar. 18	M	Second 8-week Session Begins
Mar. 29	F	Holiday (College Closed)
Mar. 30	S	(No Classes)

**April**

April 1	M	Registration for Summer/Fall 2002 Begins
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**May**

May 10	F	Last Day for Withdrawal with "W"
May 11	S	Saturday Finals
May 13-16		Finals Week
May 17	F	Graduation
May 20	M	Final Grades Due by 11:00 a.m. First 5-week Summer Session Begins
May 27	M	Memorial Day (College Closed)

**Summer 2002****June**

June 3	M	8-week Summer Session Begins
June 3	M	Drop-Add (Schedule changes)
June 21	F	First 5-week Summer Session Ends
June 24	M	Second 5-week Summer Session Begins

**July**

July 4	Th	Independence Day (College Closed)
July 24	T	Last Day for Withdrawal with "W"
July 25-26		Final Examinations
July 29	M	Final Grades Due by 11:00 a.m.

# Welcome to Richland Community College!



This catalog will answer many of your questions about the programs, services, and opportunities at RCC. In addition to this catalog, students may want to obtain a copy of the *Student Handbook*. The *Handbook* contains information about student activities, clubs, and organizations and a calendar that will help you keep track of College events and important deadlines.

If you are interested in earning a degree that will lead to a good career, there are primarily two roads you can take. First, you can choose to earn an Associate of Arts or Science Degree and transfer to a four-year institution to earn a baccalaureate degree. There are a variety of baccalaureate careers, and this Catalog will describe those opportunities.

Another road to a successful future is the Associate of Applied Science Degree. Richland offers several technical degrees that can be completed in two years if the student meets all entrance requirements. There are programs in nursing, agriculture, automotive technology, robotics, computer information systems, and many others—these programs will lead directly to the world of work after two years of study. This Catalog provides complete information on the course work and requirements for each of the technical programs. The College's placement rate for graduates from these programs is over 90%, and the personal satisfaction, wages, and benefits offered by these careers are plentiful.

In other words, you have many choices at Richland. Whether you have recently completed high school or have not attended school for many years, the faculty and staff at Richland are dedicated to your success. We believe every individual who wishes to benefit from higher education should have the opportunity to do so. Our work is to help you learn and grow toward a better life. So, as you work in your classes to succeed, we will work to ensure that your experiences with us are of high quality and high value.

We look forward to helping you in every way possible as you learn and grow. If you have any questions or concerns, don't hesitate to ask any of us.

Sincerely,

A handwritten signature in black ink that reads "Charles R. Novak". The signature is written in a cursive style with a large, stylized "C" and "N".

Charles R. Novak,  
President

## Introduction to Richland

Richland Community College was founded in 1971. At that time, its mission statement identified it as a comprehensive community college, which required that it offer baccalaureate, technical, continuing education, and community service programs. Over the past 29 years, that is what the College has done. The people of the District have benefited and prospered from the services the College has offered.

Since its founding, the basic purpose and mission have not dramatically changed. What have changed, however, are the scope of activity and the manner in which it occurs. The world is not the same as it was in the 1970s. The 21st Century places demands on Richland that are far different than they were 30 years ago. The world has moved away from the mass production economy of the past to a new economy that retains the elements of mass production but adds new standards for quality, variety, customization, convenience, and timeliness. Yesterday's community colleges measured their success by how many students they served. Tomorrow's community colleges will measure their success by how well they serve. For a college to serve well, it must commit to improving standards of quality. It must commit to providing education, programs, and services in a multitude of ways to diverse people at ever-changing times and places.

The faculty and staff of Richland are committed to meeting the challenges of the new economies and technologies. They are committed to providing the leadership and education required to create a talented pool of people who will help Central Illinois grow and prosper in an increasingly complex world. The following statement of purpose and mission and the requisite goals outline the blueprint, the plan, and the process by which Richland will meet the challenges of the 21st century.

## Governance

The College is governed by an eight-member Board of Trustees. Seven of the members are elected on staggered, six-year terms by the registered voters living within the District. The eighth, a student member, is elected for a one-year term by the College student body. The student trustee may cast an advising vote to show position and can make and second motions.

The Trustees meet on the third Tuesday of every month in the College Board Room. Special meetings are also called as required. All meetings of the Board and its committees are open to the public except for discussion of certain exempt matters including those relating to employment, land acquisition, and pending litigation. The general public is invited to attend all Board meetings, and time is set aside during these meetings for citizens to address the Board and to make their opinions known.

## Statement of Purpose and Mission

### Statement of Purpose

The primary purpose of Richland Community College is to improve the quality of life in Central Illinois by actively serving the educational needs of the people, organizations, and institutions it serves. The College pledges to provide equal access to education and training for all citizens regardless of race, age, gender, religion, national origin, ethnic background, or disability.

### College Mission

The mission of Richland Community College is to offer educational programs that enable students to achieve their potential through higher education by obtaining the abilities, attitudes, and skills needed for personal and professional growth.

Richland Community College achieves its mission and purpose by offering the following programs:

1. The first two years of a baccalaureate education;
2. Technical courses, certificates, and degrees designed to provide job training, retraining, and upgrading of skills;
3. Basic educational skills designed to prepare students to engage in college-level study;
4. Continuing and community education courses and programs designed to provide and encourage opportunities for lifelong learning;
5. Student development programs and services designed to help students identify educational and career goals, set realistic career paths, and develop skills necessary to achieve intellectual and personal growth;
6. Academic programs and services that provide supplemental support to both teaching and learning;
7. Community education activities and programs that complement, enhance, and contribute to the growth and enrichment of students and the community, both inside and outside of the classroom; and
8. Community service activities and programs that promote linkages with business, industry, and governmental agencies designed to meet the changing needs of the market place and promote economic growth in Central Illinois.

## Ethics and Leadership

In September 1989, the staff of Richland Community College developed two statements to guide its leaders and managers. The first statement, prepared at the request of the Board of Trustees, provided a framework for good trusteeship. The second statement provided a framework for leadership and management.

The statements were adopted by the Board of Trustees in March 1990. The purpose of the statements is to establish a viewpoint, framework, and tone from which the College's leaders will lead.

## The Tenets of Community College Trusteeship

The community college is an egalitarian institution committed to the principle that higher education should be available to every person who can benefit. The purpose of a comprehensive community college is to serve all who then can serve to build a better society.

The primary task of the Board of Trustees is to serve as a regenerative force, always expanding and improving the College's service to people. Given this basic condition, the activities and deliberations of the Board of Trustees will be governed by the following tenets:

### About Allegiance

Trustees have but one allegiance; that is to the institution and its mission. Representing special constituencies dilutes trust and undermines institutional mission.

### About Commitment

To achieve distinction requires commitment, and commitment requires the devotion of time, thought, energy, effort, and ability whenever needed.

### About Distinction

The Board of Trustees has the authority and the autonomy to be original, creative, and regenerative; that is its responsibility. If the College is to become an institution of distinction, it will be because the Board demonstrates and requires distinctive service.

### About Evaluation

Purpose achieved with distinction does not occur in a vacuum. It occurs because of a Board desire for distinction and willingness to measure how well it is achieved.

### About Power

Power rests mostly with the Board of Trustees but also extends far beyond it. Trustee power and influence well used will result in staff power and influence well used; students will be served.

## About Purpose

The purpose of an educational institution is more than a Board decision. It is a Board responsibility. Defining the institution is a critical task that requires continuing review.

## About Service

All activities in which the College engages — teaching, serving, and guiding — must be evaluated by their effect upon students and community. How the College serves its community and how it serves and prepares its students are fundamental criteria by which the College must be measured.

## About Teamwork

The Board consists of individuals with differing values and beliefs, and debate is expected and natural. Although there are individual expressions, there are no individual decisions. Board decisions must be team decisions.

## An Administrator's Creed

The moral character of an educational organization is reflective of its leadership. Among those involved in the art and science of teaching, it is imperative that both teachers and leaders demonstrate a strong commitment to good principle and ethical behavior.

The fundamental contributions of education to society demand commitment to exemplary values. Educators influence, shape, and teach the values, attitudes, and beliefs that create tomorrow. As a consequence, they are charged with the responsibility to husband, advance, and improve upon the values and beliefs that sustain and characterize a people.

Educational leaders at Richland Community College believe and practice the following principles:

## About Creativity

Experimentation and originality are integral to the process of educational achievement; they should be more than encouraged — they should be sponsored.

## About Expectations

In a productive and harmonious work environment are clear standards and expectations for employees and the employer. Policies and procedures are common knowledge as is the process for changing them.

## About Learning

The most important element of education and learning is quality; the measure of quality will be found in the achievement of students.

## About Objectivity

The relationship between the institution and an individual is stable and harmonious where impartiality and reason guide the belief and conduct of the institution's leaders.

## About Openness

The College is founded in the public trust. Its leaders and managers have a responsibility to inform continually the students, staff, and public about not only the institution's goals but also its progress toward achieving them.

## About People

People generally wish to contribute to society. They have dignity; they have worth. Where dignity and worth are valued, positive contributions will be abundant.

## About Respect

All things deserve consideration, be they man-made or natural. Nothing and no one should be summarily ignored or rejected. Something is to be learned from everyone and everything.

## About Risk

Leadership requires risk. Risk brings victory or defeat. Leadership requires courage to face defeat and humility to live with victory.

## About Trust

Educational leaders must demonstrate faith and reliance on the integrity and ability of people. This trust is both a concept and

an emotion. It requires leaders to rely on others.

## About Truth

Truth is beyond quantification. It is a way of thinking that demands sincerity and integrity. It is a way of living — straight-forward, candid, and simple.

## Facilities

Richland Community College District 537 includes all of Macon County and parts of Christian, DeWitt, Logan, Moultrie, Piatt, Sangamon, and Shelby Counties, serving approximately 7,600 students annually at its main campus in Decatur, at its Clinton Extension Center, and at several satellite campuses throughout the District.

Richland offers students a more complete educational experience through the use of a variety of on-campus and off-campus facilities.

## Main Campus

Richland moved into its permanent home during the fall of 1988. This 150,000-sq.-ft. facility houses 44 classrooms and 25 laboratories, located on a site of 117 acres.

A 12,000-sq.-ft. **Horticulture/Agriculture/HVAC and Maintenance Facility** was completed during the summer of 1990. Through the generous donation of Paul Weidenbacher, an 800-sq.-ft. greenhouse was added to the Agriculture building during the spring of 1991.

**The Shilling Community Education Center** was made possible by a \$750,000 bequest from the Shilling Trust administered by the First National Bank of Decatur. Construction on the Shilling Center was completed in January 1993. The Center features a 325-seat auditorium, banquet room with seating for 300, conference rooms, and several classrooms available for use by students, faculty, staff, and the community. The facility is available for meetings, programs, teleconferences, performances, and other events by calling the Lifelong Learning Division, 875-7211, Ext. 264.

Richland's **Fitness Center**, located in the Shilling Center, includes aerobic conditioning equipment, weight machines, and free weights. Richland District residents may use the Fitness Center by registering for the appropriate Physical Education class or multiple non-credit options with the Fitness Center.

**The Kitty Lindsay Learning Resources Center**, located in W140, provides a variety of resource materials and a professional staff trained to help students locate and use materials. Materials available in the LRC are chosen to meet the needs of students and instructors.

The LRC has Internet and e-mail equipment available for student use. The LRC provides a quiet place to read a wide selection of current newspapers and magazines.

**Distance Learning Classrooms**, located in C141, C146, and in other specially-equipped classrooms in various area high schools throughout the District and the Decatur Public Library (in Richland's Work Keys Service Center located on the second floor), allow students and teachers the opportunity to conduct classroom activities from several sites through an interactive audio-video system.

**The Richland Bookstore**, located in the Mueller Student Center, C145, carries textbooks and materials for all Richland courses and a variety of school supplies. VISA, MasterCard, and Discover are accepted by the bookstore.

## Off-campus Facilities

The **Decatur Area Technical Academy**, 300 E. Eldorado Street, Decatur, is used primarily during late afternoon and evening hours for the teaching of Machining credit classes and contract training for business and industry. Area schools also provide classrooms for off-campus courses.

**The Automotive Technology Center**, located at the corner of Cerro Gordo and Jackson Streets (just east of the Decatur Area Technical Academy), is used in the evening for the teaching of all Automotive Technology classes.

**Decatur Public Library** provides an excellent source of information and secondary resources for Richland students. Additionally, the Library hosts distance learning, credit classes, workshops/seminars, and the WorkKeys Service Center (located on the second floor). Richland has also equipped the computer training room with new computers and offers computer classes there.

**The Richland Opportunities Center**, at 1500 East Condit Street, Decatur, houses the Opportunities Program, the Talent Search Program, and Project READ. Options/Opportunities provides its traditional services as well as offering admissions, registration, financial services, and career planning services to all students. The East Central Illinois Talent Search Program serves students grades 6 through 12 and high school dropouts in Decatur, Champaign, and Urbana who are low-income and/or demonstrate academic potential, and who would be first generation college students in need of program services. Project READ coordinates the volunteer services of hundreds of community

members who provide literacy instruction and tutoring to students. Adult Basic Education, credit and Lifelong Learning classes are also scheduled at the Opportunities Center. Listings of these classes are included in the schedules mailed to households throughout the College District prior to each semester. See page 36 for more information about the Options/Opportunities Program.

**The Clinton Extension Center** offers admissions, advising, registration, placement testing, financial aid, and many other services. Credit classes and Lifelong Learning workshops are scheduled in Clinton and other communities throughout Richland's District. General Educational Development (GED) and English as a Second Language (ESL) classes are also provided. In many cases, off-campus classes are held via interactive distance learning. Certain courses are guaranteed to be held at these off-campus sites, regardless of the number of students enrolled. The Clinton Extension Center is located at 400 North Jackson in Clinton. Call 935-6791 for information.



# Admissions

## Admission to the College

### Students seeking admission to Richland Community College should

1. Have graduated from high school, or
2. Have received a High School Equivalency Certificate based on the G.E.D. test, or
3. Have been home schooled and meet the “ability to benefit” as determined through a test recognized by the U.S. Department of Education, or
4. Intend to enroll in a G.E.D. course, or
5. Be a high school junior or senior and have principal approval to enroll, or
6. Be a gifted student below the age of 16 and have principal approval to enroll; see page 18.

## GED Placement Program

Students without a high school diploma will be required to participate in the Richland GED placement program and enroll in the appropriate GED course. Students will then be eligible for further study at Richland upon successful completion of the GED Test and receipt of the High School Equivalency Certificate.

## Admission to a Program or Course

Admission to the College is not the same as admission to a program of study and/or courses. Admission to a program or courses is based upon previous education, experience, and levels of achievement.

## Admission to a Program of Study

Each program of study (for example, Electronics, Horticulture, Associate in Arts or Science) has specific requirements for admission. These requirements are based on the student’s previous education, work experience, and levels of achievement. (See “Programs of Study” beginning on page 64 for a complete list of prerequisites for each program.)

Information that may be used in admission to a program includes:

1. A transcript of the student’s high school and college records. The student should request a transcript from the school(s) to be sent to Student Development and Services (SDS) at Richland. High school seniors applying for admission should also include a list of courses in progress. Transcripts of individuals who do not enroll at Richland will be kept on file for two years after receipt.
2. Test scores. Richland generally uses the American College Testing (ACT), Career Planning Program (CPP), or the ACT Assessment. Other comparable test results may be submitted if approved by a Richland counselor.
3. Application and personal interview, including related experiences since leaving high school or college.

Students may be provisionally admitted to a program even if they fail to meet some requirements. Students provisionally admitted may be required to enroll in developmental courses, take a reduced load, complete further testing, and/or receive career counseling.

Similar procedures may also be applied to students enrolling in individual courses only.

## Nursing Program Admission Requirements

Enrollment to the Associate Degree in Nursing program is limited, and applicants must meet the following minimum requirements to be considered:

1. Be one of the following:  
High school senior, graduate, or have a G.E.D. certificate.
2. Meet ONE criterion in each of the following areas:
  - a. Academic background
    - For graduates of high school, a cumulative high school GPA of 2.5 or better on a 4.0 scale and have an ACT composite of 21 and a science reasoning score of 20,

- A 2.5 GPA in 15 semester hours of approved college courses (list of approved courses includes: Engl. 101, Biol. 201, 202, 220, Math. 106, Psych. 110, 145, Socio. 110, Hlth. 220, and a Humanities elective),
- For high school seniors, an ACT composite of 21 and a science reasoning score of 20 are required as well as a cumulative high school GPA of 2.5 or better. These applicants must also have completed 3 years of English, 3 years of mathematics (including Algebra I and II and Geometry), and 3 years of science (including Chemistry and Biology) all with a "C" or better. These applicants must meet the Biology and Computer Literacy requirements before beginning the nursing program in the fall.
- b. Chemistry
  - High school chemistry with a "C" or better taken within the past 5 years,
  - College equivalent (Chem. 100 or above) with a "C" or better taken within the past five years.
- c. Biology
  - Meet prerequisite for Biol. 201
- d. Computer Literacy
  - Complete C.I.S. 110 or equivalent.

Students will also have to give personal history regarding criminal background and chronic health problems when applying for the RN license exam at the end of the program. For additional information, call the Nursing Coordinator (S145), Ext. 534/450. (Advanced placement available for LPNs who meet requirements.)

## Surgical Technology Regional Program Admission Requirements

Enrollment to the Surgical Technology program is limited, and applicants must meet the following minimum requirements to be considered:

1. Be one of the following:
  - High school senior or graduate or have a G.E.D. certificate.
2. Meet criteria in each of the following areas:
  - a. Academic background,
    - A 2.5 or better cumulative GPA in college and/or high school courses
  - b. Biology
    - Be eligible for Biol. 220 during the program's first semester.
    - High school students who graduate in the current year may take Biol. 101 and 220 in the junior or senior year of high school, as permitted by the College policy.
  - c. Revised PSB-Health Occupations Aptitude Test
    - Pass test with a combined score of 50% or above.

Students who are admitted to this program may take general education courses at their local college. The classroom Surgical Technology courses will be offered at Richland Community College. While enrolled at Richland Community College, the students will become in-district students. They will pay the current tuition rate and follow the same procedures regarding student services as in-district students. For additional information, call the Surgical Technology Coordinator (C244), Ext. 439/450.

## Minimum Subject Admission Requirements for Transfer Programs

The Illinois Board of Higher Education has established minimum subject requirements for baccalaureate degree programs.

These subject requirements, which will be in addition to the admissions requirements and procedures currently in place at Richland, became effective in the 1993 Fall semester.

Students entering a transfer program with subject deficiencies will be admitted provisionally and will be required to make up these deficiencies by graduation.

The minimum subject requirements are listed below:

Units	Subjects
4	English (emphasizing written and oral communications and literature)
3	Social studies (emphasizing history and government)
3	Mathematics (introductory through advanced algebra, geometry, trigonometry, or fundamentals of computer programming)
3	Science (laboratory sciences)
2	Foreign language, music, art, or voc. ed.

For further information, please contact your high school counselor or the Dean of Admissions and Records at Richland Community College, Ext. 286.

## Transfer of College Credit to RCC

Students who wish to transfer credit earned at another accredited college or university must request a transcript from the college attended. The transcript should be sent directly from the college or university to SDS at Richland. The student requesting a transfer of credit must pay any transcript fees.

Approved credit hours will be applied toward the total number of hours needed for the degree or certificate, provided the average grade for all such work is "C" or better.

Transfer credit will not be included in computing the student's grade point average at Richland. Approved credit hours will be recorded on the student's record only

1. After the student submits an Application for Graduation, and
2. After completion of eight or more credit hours toward an associate's degree or a certificate program at the student's request.

## Admission of High School Students and "Gifted" High School Students

High school students may also attend courses at Richland for credit toward either

a high school diploma or a college degree. Eligibility for enrollment as a high school student is decided as follows:

1. The student is a high school junior or senior.
2. The student's high school principal submits a letter stating that the student is a junior or senior, is taking the course(s) for high school, college credit, or dual credit, and has the principal's approval.
3. A high school transcript is submitted to Richland.
4. Final approval for enrollment is then determined by Richland.

College credit for classes taken by high school students will be held in "the bank" until completion of high school (as verified by an official high school transcript).

"Gifted students" (students with exceptionally high academic ability as determined by the students' school and the College) who are below sixteen years of age may also take courses at Richland with the approval of the student's principal and the College.

Gifted students should follow the application procedures previously listed for the admission of high school students.

## Dual Credit

High school students who rank above average in academic achievement and who meet all college course prerequisites may enroll in selected college classes at Richland Community College and receive both high school and college credit simultaneously. Students enrolling for dual credit must have appropriate academic qualifications and approval from their high school principal.

Students enrolling for dual credit should follow the application procedures previously listed for the admission of high school students. In addition, a signed "Principal's Approval" form and a "Parent/Guardian Approval Form for Dual Credit Program" must be submitted to Richland.

## Registration

Registration for classes at Richland takes place at various times before the beginning of each semester. Class schedules, including a list of all courses offered and registration dates, are available to interested persons before the start of the term.

Early registration is offered prior to each term; scheduled registration is held one week before the start of classes. Drop/Add registration is held on the first day of classes and is limited to courses for which enrollment is not filled.

Students may register for any course that has not begun if space is available.

Students must have their class schedules and fee forms approved and signed by a counselor or academic advisor before registering. Students registering for one course only may register without seeing an advisor if that course does not have a prerequisite.

Academic advisors are available during registration periods, but students are encouraged to register early.

Under certain conditions students may register without seeing a counselor or advisor. See the current class schedule for details.

## Credit Evaluation Programs

### College Credit for Experience Outside the Classroom

Richland realizes that many people who attend school have knowledge gained through work, military service, independent study, and other learning experiences. Richland may grant credit for this knowledge through the programs listed below.

Credit earned in this way will be recorded on the student's transcript without a grade and will not be used in computing the student's grade point average. The programs are:

#### 1. Advanced Placement Program (APP)

The APP is an organized instructional and/or testing program offered in high school in cooperation with the College Entrance Examination Board. Advanced high school courses may be

offered through the Program for college credit, or credit may be given for course areas not offered by the APP if the student passes an APP examination given by the high school. High school students interested in the Advanced Placement Program should contact their high school counselor.

#### 2. College Level Examination Program (CLEP) and DANTES Exam

Richland participates in the College Level Examination Program (CLEP) and the DANTES Examination Program, which allow students to obtain college credit based on their learning outside the classroom.

CLEP is divided into two areas: general examinations and subject examinations. Students may earn credit in one or more of four general areas (Humanities, Mathematics, Natural Science, and Social Science/History). Credit through a CLEP general examination may be applied to a degree or certificate as general education or elective(s). In addition, 30 CLEP subject examinations are offered in such areas as American government, English literature, general chemistry, or introductory accounting.

DANTES exams are available in areas such as education, criminal justice, finance, business, and world religions. Credit through a DANTES Exam may also be applied to a degree or certificate.

No credit will be awarded for English 101, 102, or Speech 101 at Richland through either the CLEP general or subject exam or through the DANTES Exam.

Credit granted through a CLEP or DANTES examination will be recorded as "Credit through CLEP" or "Credit through DANTES" and will not be used in computing a grade point average. Credit will be recorded after completion of eight semester hours toward an associate's degree or certificate program.

Students who have enrolled in college study before attempting a CLEP or

DANTES examination will not be granted credit if they attempt a subject examination after they have received a grade for that specific course or for prior college study that is directly related to a general exam taken.

For more information or to register to take a CLEP or DANTES examination, contact the Student Learning Center, Ext. 419.

3. Proficiency Examination

Students with wide varieties of educational experience may convert this experience into college credit on the basis of evaluations by Richland Community College staff and standards set by the College in those areas and courses deemed appropriate.

Students who are currently enrolled or who have completed eight semester hours of credit at Richland may apply for and receive credit through proficiency examination in certain courses by obtaining the appropriate form and obtaining permission from the division involved, paying the required fee, and successfully passing the examination.

A proficiency examination for a given course may be taken only once.

A student may enroll only on an audit basis in a course in which credit has previously been granted through proficiency.

A fee of one-half the in-district or out-of-district tuition normally charged for the course must be paid before the exam. The fee is refundable only if the examination is not given.

The student must meet the standards of the particular division or program of study to earn credit by proficiency. Fees are not refundable if the student fails to pass the required examination.

Credit hours earned through proficiency examination are posted on the student's permanent record. The credit is not included in the calculation of the grade point average and may not be used to establish enrollment status.

4. Proficiency by Advanced Course

Some courses are organized in sequence so that completion of an advanced course depends on knowledge gained from a previous course. Students who satisfactorily complete the advanced course at Richland without taking the previous course may be eligible for college credit for the previous course. Course sequences in which students may apply for proficiency by advanced course are listed below, along with the minimum grade required in the advanced course to earn credit for the lower course:

<i>Advanced Course</i>	<i>Proficiency Credit</i>	<i>Required Grade</i>
C.I.S. 162	C.I.S. 161	B
C.I.S. 252	C.I.S. 251	B
Eltrn. 113	Eltrn. 109	B
Eltrn. 202	Eltrn. 160	B
Fren. 202	Fren. 101, 102, 201	B
Fren. 201	Fren. 102 and/or 101	B
Fren. 102	Fren. 101	B
Germ. 202	Germ. 101, 102, 201	B
Germ. 201	Germ. 102 and/or 101	B
Germ. 102	Germ. 101	B
Mach. 102	Mach. 101	B
Math. 104	Math. 091	B
Math. 221	Math. 098, 116, 121, 122	B
Math. 122	Math. 098, 116, 121	B
Math. 121	Math. 098, 116	B
Music 201	Music 102 and/or 101	B
Music 102	Music 101	B
Nurs. 203	Nurs. 101, 102, 151, 202	B
O.T. 212	O.T. 112, 211	B
O.T. 211	O.T. 112 and/or 100	B
O.T. 112	O.T. 100	B
O.T. 100	Bus. 140	B
O.T. 132	O.T. 131	B
O.T. 243	O.T. 242 and/or 141	B
O.T. 242	O.T. 141	B
Span. 202	Span. 101, 102, 201	B
Span. 201	Span. 102 and/or 101	B
Span. 102	Span. 101	B
Weld. 102	Weld. 100, 101	B

Students desiring credit by advanced course must apply officially for such credit within four years following the completion of the advanced course. Ex-

ceptions to this policy may be approved only by the Dean of the appropriate division.

To apply for proficiency credit, obtain an "Application for Proficiency Credit Based on Satisfactory Completion of an Advanced Course in a Sequence" from SDS. A fee of \$1.00 per semester hour will be charged for consideration of the student's request and may be refunded only if the student is not eligible to receive such college credit.

#### **5. Armed Forces Health and Physical Education**

Any veteran who has completed a minimum of six months' active duty in the armed forces and presents evidence of an honorable or general "under honorable conditions" discharge from the service is eligible for a maximum of four semester hours of credit. Such credit will be recorded as "credit from military service" and will not be used to compute a grade point average. The credit will be applied as health and/or physical education activity course credit.

Veterans may apply for credit through SDS.

#### **6. United States Armed Forces and Armed Services Courses**

Credit may be given for group study or correspondence work completed through the United States Armed Forces Institute (USAFI), if the course is recommended by the American Council on Education. Training courses may also be used to earn credit if they are deemed appropriate by the American Council on Education.

The courses must be within the student's field of study, and the student must provide evidence of satisfactory completion of the course(s).

Such credit granted will be recorded as "credit through USAFI" or "credit through armed services courses."

Contact the Dean of Admissions and Records, Ext. 286, for further information.

## **Course Placement**

Students come to Richland with a wide variety of education, achievement, experience, and training. To help determine the student's level of learning, placement tests may be given in one or more areas. The tests are intended to help students select courses that will be most beneficial and to maintain academic standards.

Reports from other tests and transcripts also aid in placing students in the best courses for them.

## **Course Placement Testing**

Any student may be required to complete placement testing in English, mathematics, reading, health, and/or other areas in Assessment Services, Room W124. Test results will be used to determine a student's eligibility for courses with prerequisites and/or placement in developmental courses (courses numbered 087 through 098).

Some of these tests are administered on a computer, and some are untimed. Photo identification is required for all testing. Review materials for the mathematics and English Sentence Skills tests are on reserve in the Kitty Lindsay Learning Resources Center, Room C155, or may be reviewed at <[www.rich.cc.il.us/assessment/preplacement](http://www.rich.cc.il.us/assessment/preplacement)>. Other review options are available by asking in Assessment Services or in the Student Learning Center, Room S118. Retesting for some placement tests for a fee is possible if you meet certain guidelines. Once a student begins a sequence of courses based on the test results, the student may not retake the placement test in that area.

**English-Reading** - Each student will receive an English placement report based on his/her transcripts and/or ACT test scores. The report advises in which English class (Engl. 088/089, 090/091, Engl. 101, or Bus. 119) the student is to enroll. In some cases, students may be required to take an English and Reading Placement Test to help determine their level of competence.

Students unsure about their placement into English reading/writing courses should contact a counselor in SDS or the Student Learning Center.

**Foreign Language** - Students who have not studied a specific foreign language are to begin their college study with the course numbered 101. All persons whose most recent prior study of the language was more than five years ago should also start their college study with the course numbered 101.

Students who have studied a specific foreign language in high school within the past five years are to begin their study at Richland with the course number determined by the earned quality points:

Quality points are computed on the basis of full years of high school study and are assigned on the basis of the grade earned for each semester divided by two. (A = 4.00, B+ = 3.50, B = 3.00, C+ = 2.50, C = 2.00, D+ = 1.50, D = 1.00, F = 0.)

Example: A student who studied a foreign language for one year and received an “A” for both semesters would have earned four quality points, (i.e.,  $4.00 + 4.00 = 8.00 \div 2 = 4.00$ ). Another student who completed one year with a “B” for one semester and an

“A” for one semester would have earned three and one-half quality points (i.e.,  $4.00 + 3.00 = 7.00 \div 2 = 3.50$ ).

Earned Quality Points	Start With Course
0 to 4 .....	101
5 to 11 .....	102
12 to 14 .....	201
15 or more .....	202

Any person who wishes to register for a specific foreign language with course placement different from that shown above should consult with the Richland Arts and Sciences Academic Director’s Office (C162), Ext. 344, regarding appropriate placement.

**Mathematics Placement** - Some mathematics and science courses require prerequisites for enrollment. In some cases students will be required to take a placement test in arithmetic, elementary algebra, or college mathematics.

Students seeking clarification regarding their math placement should see a counselor in SDS or the Academic Director Office (S119).



# Financial Information

Tuition, Fees, and Charges

Tuition, fees, and other charges paid by a student to Richland Community College cover a portion of the actual expenses of a student's education. The balance of the cost is paid by the public through local property taxes assessed within District 537 (or, in some cases the student's own community), state financial support, and federal financial assistance.

The Academic Fee includes the following services and privileges: computer, both for computer-based classes and for open use; student activities, including student clubs and organizations, entertainment, and events.

Tuition, fees, and other charges are due and payable at the time of registration. The College reserves the right to change the rate of tuition, any fees, or any charge without notice.

Residents of Richland Community College District (and Out-of-District Students with Charge-Back Authorization)

Per Credit Hour	
Tuition	\$44.00*
Academic Fee	\$2.50*
Total	\$46.50

Out-of-District Students of Richland Community College (Without Charge-Back Authorization)

Per Credit Hour	
Tuition	\$44.00*
Academic Fee	\$2.50
Out-of-District	\$121.34**
Total	\$167.84

Out-of -State and International students pay \$289.87\*\* per credit hour plus fees.

- \* Subject to change with Board approval.
- \*\* These charges are subject to change on a yearly basis as per capita costs are determined.

Fees

Registration Fee (non-refundable and payable at the time of registration)	\$10.00
Art Lab Fee (Art 121, 122, 125, 126, 131, 225)	\$15.00
Automotive Lab Fee (per course except Auto. 101)	\$20.00
Biology Lab Fee (per course except Biol. 210)	\$20.00
Chemistry Lab Fee (per course)	\$20.00
Drafting Lab Fee (per course except Draft. 101, 102, 120, 130, 295)	\$20.00
Earth Science Lab Fee	\$5.00
Electronics Lab Fee (per course except Eltrn. 101, 102, 220, 290, 295)	\$20.00
Golf (golf rounds)	\$10.00
Home Economics 110	\$20.00
Machining (per course)	\$20.00
Mechanical Systems 110	\$15.00
Physical Education (Fitness Center only)	\$15.00
Welding Lab Fee (per course)	\$20.00
Graduation Fee (per application)	\$15.00

All students are expected to pay tuition, fees, and other charges at the time of registration. Students needing additional time to pay the balance may request an **Installment Plan Deferral** for a fee of \$10.00.

Tuition Discount For Senior Citizens

District 537 residents who are 65 or older or who will become 65 years old during the calendar year are eligible to enroll without payment of tuition in regularly scheduled credit courses, other than credit courses designed specifically for senior citizens, provided that available classroom space exists and tuition paying students enrolling constitute the minimum number required for the course. Such waiver does not apply to all other fees associated with enrollment in such a course. For more information, call the Business Services Office, 875-7200, Ext. 227.

## Proficiency Exam

The fee for a proficiency exam is one-half of the tuition normally charged for a course.

## Transcripts

Transcripts are \$2.00 per copy. Faxed transcripts are \$5.00 per copy.

## Refund Policy

Richland Community College's refund policy is based on full payment of tuition, fees, and other charges at the time of registration. Students who register and then withdraw from any or all classes at the College will have a portion of their tuition returned according to the following schedule:

### Regular Semester:

Prior to beginning of semester .....	100%
First week of classes .....	100%
After the first week of classes .....	0%

### Summer Session:

Prior to beginning of semester .....	100%
First three days of session .....	100%
After third day of session .....	0%

For classes that do not follow a traditional semester schedule, refunds will be issued at the equivalent of the above regular semester schedule. Students participating in the Pell Grant program shall receive refunds computed in accordance with Federal regulations.

The Registration Fee is non-refundable unless the class has been canceled. Lab fees and all other fees are non-refundable after classes begin.

All withdrawals and drops must be initiated by the student and must be processed through SDS before any refund can be made.

## Residency

A student is considered a resident of Richland Community College District 537 if one of the following criteria is met for at least 30 days prior to enrollment:

1. The student resides with his/her parents within the District; or
2. The student does not live with his/her parents but depends on them for support at Richland, and both the student and the parents reside within the District; or
3. The student is married and maintains a family residence within the District; or
4. The student is 18 years of age or older, is self-supporting, and maintains a residence within the District.

## Charge-Back Authorization In-District Students Planning to Attend Another Community College

A resident of Richland Community College District 537 may receive a Charge-Back to attend another Illinois community college if the student is accepted into a program not offered by Richland. Both full- and part-time attendance are allowed.

Applications for Charge-Back are reviewed and disapproved or recommended to the Board of Trustees for approval. Charge-Backs are approved only for degrees or certificates. Single courses are not eligible for Charge-Backs. Charge-Back Applications are acted upon by the Richland Community College Board of Trustees on the third Tuesday of every month.

A resident of Richland's District 537 who plans to attend another community college and wants to avoid out-of-district fees should request an Application for Charge-Back in SDS at Richland. It must be completed and returned to SDS at Richland no later than 30 days prior to the beginning of the term for which application for Charge-Back is being made.

## Out-of-District or Out-of-State Students Planning to Attend Richland

A resident of another community college district who plans to attend Richland Community College and wants to avoid out-of-district fees should request an Application for Charge-Back from the commu-

nity college located in the district in which he/she resides. It must be completed and returned to that college no later than 30 days prior to the beginning of the term for which application for Charge-Back is being made.

Applicants who reside in another community college district may be granted an out-of-district or out-of-state tuition waiver if they are employed at least 35 hours per week by an entity located in Richland's District or if they are enrolled in a course that is being provided under the terms of an agreement between the employing entity

and Richland. If employed for less than 35 hours per week, the course must be work-related.

## Cooperative Agreements

Cooperative agreements exist between Richland Community College and the community colleges listed on page 65. Under the agreements, no Charge-Backs or out-of-district fees are required of students enrolling in the designated programs of study. A cooperative agreement authorization must be completed and submitted to the college that the student plans to attend.

## Financial Aid

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All students seeking state or federal financial assistance are required to complete the Free Application for Federal Student Aid (FAFSA) unless otherwise instructed. This application may be obtained from Student Development and Services (SDS) at Richland or from high school counselors. Early application is important.

Students who have been home schooled must pass a Department of Education approved test to determine their ability to benefit from postsecondary education.

## Grants

### PELL Grant

Is awarded to help undergraduates pay for their education after high school. The PELL Grant, based on need, is the largest federal student aid program. For many students, these grants provide a "foundation" of financial aid to which aid from other programs may be added. Unlike loans, grants do not have to be paid back. Eligibility is determined through the FAFSA.

### Supplemental Educational Opportunity Grant (SEOG)

Is awarded to help pay for education after high school and available to undergraduates only. These grants are awarded to students who demonstrate exceptional need determined through the submission of the

FAFSA. Because of limited funding, priority is given to students who complete files the earliest.

### Illinois Incentive for Access Grant (IIA)

Is a one-time award for freshman students who, based on the federal need calculation, have been determined to have no family resources. Students who are enrolled at least half-time receive up to \$500 of grant aid beyond tuition and fees.

### Illinois State Monetary Award Program (MAP)

Provides all or part of the tuition and fees of students who qualify on the basis of financial need. Full-time (12+ credit hours) and half-time (at least 6 credit hours) awards are available for up to ten semesters of full-time enrollment. Eligibility is determined through the FAFSA. Application should be made prior to June 30 for full-year consideration.

### Less than 1/2 time MAP

Students with "O" EFC's (Expected Family Contribution) and who are eligible for a MAP Award are able to attend less than half time (take 3 to 5½ hours) and receive a MAP Award covering tuition and fees up to \$300. Contact the Financial Aid Office, Room C129, for more information.

## Scholarships

### Merit Recognition Scholarship

Provides \$500 scholarships to Illinois students who rank in the top 5% of their high school class at the end of the seventh semester. Initial eligibility is determined by high school counselors. Eligible students will receive an application from the Illinois Student Assistance Commission that they must complete and submit to the college they will be attending. Awards depend on state funding.

### Illinois National Guard/Naval Militia Program

Is available to enlistees and officers to the rank of captain in either of these services for the equivalent of eight semesters or twelve quarters of undergraduate study. The award pays tuition and some fees. Eligible students should obtain a separate application available in SDS or from guard/militia units. ING recipients must meet the Standards of Academic Progress for Financial Aid Recipients, Condition I. Applicants must apply each academic year.

### Policeman/Fireman Scholarship

Provides tuition and mandatory fees for children under age 25 whose parents were killed in the line of duty. Interested students should apply directly to the Illinois Student Assistance Commission, 106 Wilmot Road, Deerfield, IL 60015, 1-800-899-4772.

### Correctional Workers' Scholarship

Provides tuition and mandatory fees for dependents of workers who were killed or were 90% disabled in the line of duty since January 1, 1960. Application should be made directly to the Illinois Student Assistance Commission, 106 Wilmot Road, Deerfield, IL 60015, 1-800-899-4772.

### MIA/POW Scholarship

Pays the cost of tuition and fees for spouses and children of veterans who have been declared missing in action, were prisoners of war, died as a result of a service-connected disability, or have a permanent

and total disability as a result of military service. The veteran must have been a resident of Illinois prior to entering military service. Eligible dependents are entitled to use the Scholarship for up to 120 semester hours. Children must begin using the Scholarship prior to their 26th birthday, and spouses must begin using the Scholarship no later than ten years from the effective date of the veterans' eligibility. The Scholarship may be used for twelve years from the initial term of study. Applications are available in SDS.

### Illinois Veterans' Grant (IVG)

Pays the cost of tuition and fees for veterans who were residents of Illinois before military service and who returned to Illinois within six months after service. Anyone who served honorably in the U.S. Armed Forces may be entitled, subject to the following requirements: Any veteran who was separated after August 11, 1967, must have served at least one year or have been separated for a disability directly related to such service. The grant may be used for a maximum of 120 semester hours. IVG recipients must meet the Standards of Academic Progress for Financial Aid Recipients, Condition No. 1. Applications are available in SDS, Room C129, and on the Internet through Richland's Financial Aid webpage. Veterans must inform the Financial Aid Office each semester they want to be certified for GI Benefits.

### Department of Human Services

Provides financial assistance for postsecondary education for physically or mentally handicapped Illinois residents who have financial need. Interested individuals should apply to the local Department of Rehabilitation Services.

### RCC Foundation, Private, and Institutional Scholarships

A number of RCC Foundation and institutional scholarships have been established at Richland. Most require that the student has filed the FAFSA and submitted a Student Aid Report to the College in order to be

considered. Some are need-based and many are based on grades, achievement, and other unique criteria. Awards are made for the Fall and Spring Semesters only, and the student must be enrolled full time unless noted. Applications for Foundation and Institutional Scholarships must be submitted by April 30 for the following fall semester. Applications and instructions are available in the Financial Aid Office, Room C129, and on the Internet <[www.richland.cc.il.us](http://www.richland.cc.il.us)>.

## Student Employment

### Federal Work-Study

This financial aid program authorizes part-time employment for eligible students who are enrolled at least half-time (6 semester hours or more) and in good standing as defined by the College's Academic Standard Policy. Students are limited to 20 hours per week. Eligibility is determined by filing the Federal Application for Federal Student Aid.

### Institutional Student Employment

The College offers part-time, on-campus employment for students who are enrolled at least half-time (6 semester hours or more). Students are limited to 20 hours per week while classes are in session and 30 hours during the semester breaks. Student Employment Applications are available in the SDS Office, Room C129.

### Off-Campus Employment

SDS maintains a current list of job openings within the Richland District. Many Richland students are employed on a part-time basis by local places of business while attending college full or part time. See the Job Placement listings on bulletin boards throughout the College, and visit the Career Planning and Placement Center in C137.

### VA Workstudy

Veterans who are enrolled 3/4 to full time and interested in VA Workstudy should contact the Financial Aid Office, Room C129, for more information.

## Loans

Richland participates in the Federal Family Education Loan Program. These loans include the Subsidized Stafford Loan and the Unsubsidized Stafford Loan. These are low-interest loans to students made by banks, credit unions, and savings and loan institutions and guaranteed by the government. In order to receive a loan, students must apply for financial aid by filling out the Free Application for Federal Student Aid and submitting their student aid report to the Financial Aid Office. Students must be enrolled in 6 or more credit hours and be in good standing academically to receive a loan. Students on Financial Aid Probation or Suspension are not eligible to receive a Student Loan. Loan counseling is required for all applicants. For more information, contact the Financial Aid Office, Room C129.

## Loan Limits at RCC

The following chart indicates Federal Stafford Loan limits that apply to a combination of both subsidized and unsubsidized loans:

*Academic Level Combined Subsidized and Unsubsidized Loan Limits (based on full-time enrollment)*

Freshman..... \$2,625 (6 to 29 credit hours)  
Sophomore . \$3,500 (30 plus credit hours)

## Transfer Students

Students transferring their financial aid from another school to Richland may obtain written procedures from SDS explaining how financial aid is transferred. Transfer students must also submit a Financial Aid Transcript(s) and academic transcript(s) from all colleges previously attended.

Transfer students who have not submitted a copy of their transcript from a prior school or were not meeting Satisfactory Progress the last school attended will be placed on financial aid probation and not eligible to participate in the Stafford Student Loan program their first semester.

## Standards of Academic Progress for Financial Aid Recipients

The Richland Community College Financial Aid Office is required by federal regulations to monitor academic progress toward a degree or certificate for all financial aid recipients.

In order to receive financial aid at Richland, a student's total academic record, including transfer work, must be evaluated. The following two conditions must be met each semester in order to receive financial aid:

### Condition I. Grade Point Average

The following grade point average must be maintained:

<i>Cumulative hours attempted</i>	<i>GPA required</i>
1 - 15 hours	1.70
16 - 30 hours	1.85
31+ hours	2.00

Students who do not earn the above overall grade point averages will be placed on probation.

### Condition II. Completion of Hours

Based on the student's enrollment status at the end of the first week of classes, the following minimum hours must be completed at the end of the term and/or school year:

<i>Initial enrollment status</i>	<i>Minimum hours which must be completed</i>
Full-time (12+ hours)	8 hours per term/ 20 hours per year
¾-time (9 to 11 hours)	6 hours per term/ 15 hours per year
½-time (6 to 8 hours)	3 hours per term/ 9 hours per year
Less than ½-time (3 to 5 hours)	Must complete all

Grades of F, W, or I do not count as completed classes; however, they do count toward hours attempted. A student with an

incomplete class at the end of the term that prevents him/her from complying with the above conditions will be placed on Probation or Suspension until the class is completed and a grade is posted.

Summer hours may be used to make up deficient hours for the year.

Failure to meet Satisfactory Academic Progress conditions listed above will result in Financial Aid Probation or Suspension. Financial aid probation is not the same as academic probation.

## Financial Aid Probation

Students who do not meet the grade point average requirements and the completion of hours requirements as explained above will be placed on Financial Aid Probation.

A student **may continue** to receive state and federal grants, scholarships, and work-study during a probationary semester.

Students **may not participate** in any Federal Family Education Loan Program while on probation.

**Students placed on probation must sign a Probation Contract.**

Students must enroll in at least six credit hours and complete the classes taken during the Probation term with a 2.00 GPA and meet required completion of hours as explained above.

If the conditions of probation are met and all other conditions for Satisfactory Progress are met, the student is continued on probation or returned to good standing.

Failure to meet the conditions of the probation will result in Financial Aid Suspension.

## Re-Entry Students

Students re-entering Richland after an absence of five or more years from any college who do not meet the Satisfactory Progress standards will be placed on probation.

Transfer Students on Probation

Students who have attended another college or university and have not submitted an academic transcript will not be allowed to participate in the Student Loan Program their first semester at Richland. The first semester will be a Probation Semester.

Students who have attended another college or university and have submitted an academic transcript but are not meeting satisfactory progress will not be allowed to participate in the Student Loan Program their first semester at Richland. The first semester will be a Probation Semester.

Financial Aid Suspension

Financial Aid Suspension will result in the loss of all state and federal financial aid. The following must be accomplished during one term in order to reinstate Financial Aid:

- 1. Complete at least six credit hours, with no drops or withdrawals, and
- 2. Earn a 2.0 GPA for the semester.
- 3. If 31 hours have been completed, earn a cumulative GPA of 2.0.

Appeals

Students should submit a letter explaining unusual circumstances to the Director of Financial Aid for consideration of an informal resolution. If not satisfied with the informal resolution, then a request for a Formal Hearing can be filed. A form to request a formal hearing can be obtained in the Financial Aid Office, Room C129. The Judicial Board will hear the appeal.

Program Completion Policy

Maximum time allowed for Program Completion:

Program	Attempted Credits
Associate's Degree .....	96
Advanced Certificate .....	60
Basic Certificate .....	40

Hours attempted include all courses enrolled in after the first week of classes. It includes grades of F, W, and I.

A student requiring developmental courses will be allowed an additional twenty-four hours attempted for developmental course work.

Students may appeal the 96-credit rule by filling out a Request for Formal Hearing Form available in the Financial Aid Office, Room C129.

Other Financial Aid Policies

Federal financial aid applicants must have a high school diploma or G.E.D. Applicants who have been home schooled must pass a Department of Education-approved test to determine their ability to benefit from postsecondary education. This test is offered free at Richland.

A student must be attending classes on a regular basis. Any student reported as not attending classes will have his/her financial aid adjusted accordingly.

A student must be enrolled in an eligible program as approved by the Department of Education, leading to a certificate or degree. All courses taken must be applicable to that certificate or degree.

Financial aid will not cover audited courses or courses that do not count toward a certificate or degree.

Disbursement

The dates for disbursing PELL and/or loan checks are published prior to the beginning of each academic year. Students who are enrolled in only courses which begin at midterm will have a different PELL check distribution date. For more information, check with the Financial Aid Office, Room C129.

PELL award will be determined by hours of enrollment at the end of the first week of classes.

Students who are eligible to receive a PELL Book Check and withdraw prior to earning enough PELL funding to cover



their check will be sent a bill requesting a repayment to Richland and/or the Federal Government.

Students who withdraw prior to completing 60% of the classes may still be eligible to receive Federal Funding.

(The College reserves the right to change the above information.)

## Refunds to Aid Recipients

Refunds for students attending Richland who receive federal financial assistance and withdraw before completion of 60% of the semester will be calculated on a pro rata basis based on the federal governments returning of funds formulas.

The Return of Title IV Funds 668.22 rules assume that a student earns his or her aid based on the period of time he or she remained enrolled.

## Veterans' Affairs

Veterans may be eligible for federal and state benefits to assist them in completing their GED, certificate, and/or associate's degree.

Veterans are required to meet the same academic standards of progress as other students and cannot receive DVA benefits if they remain on academic probation after two consecutive semesters of enrollment. In addition, if a veteran withdraws from school or drops a class(es), he/she may be required to repay the Veterans' Administration all or part of the monthly payments received from the beginning of the term. (This would not apply if the Veterans' Administration determines the reason for dropping or withdrawing is beyond the student's control.) Also, veterans are required to enroll in courses that are required for their educational or vocational objectives in order to receive monthly benefits.

Veterans must submit a certified Member 4 copy of their DD214 when first applying for veterans' benefits. An official academic transcript from all colleges/universities previously attended must be sub-

## Loan Policies

All loan applicants must file a FASFA and have it verified before a loan will be certified.

No Federal Family Education Loan will be certified for students on Financial Aid Probation.

For more information, contact the Financial Aid Office.

## Verification

All new and re-entering Financial Aid applicants and all applicants who have been selected for verification are required to submit documents that verify the financial information on their student aid report. Documents requested may include, but are not limited to, tax returns, W-2's, child support, Social Security (SSI), and proof of all untaxed income.

mitted to the Student Records Office for evaluation of prior credits.

Veterans need to enroll in and complete at least six semester hours to receive half-time monthly benefits. "Accelerated" courses, independent study courses, or televised courses may affect monthly benefits, so veterans are advised to see the Director of Financial Aid and Veterans' Affairs before enrolling in these courses.

Applications and/or information concerning the following Veterans' programs are available in SDS or the RCC financial aid webpage at: [www.richland.cc.il.us/sds/finaid/](http://www.richland.cc.il.us/sds/finaid/).

**Chapter 30** - Montgomery G.I. Bill - Active Duty Educational Assistance Program

**Chapter 1606** (formerly 106) - Montgomery G.I. Bill - Selected Reserve Educational Assistance Program

**VEAP** - Post-Vietnam Era Veterans' Educational Assistance Program

**Chapter 35** - Survivors and Dependents' Educational Assistance Program

### **Chapter 31 - Disabled Veterans - Vocational Rehabilitation**

#### **Illinois Veterans' Grant**

Refer to Scholarships, page 27.

#### **MIA/POW Scholarship**

Refer to Scholarships, page 27.

### **Tutorial Assistance**

The Student Learning Center offers tutoring for students who need extra help in courses. In addition, veterans enrolled on at least a half-time basis are eligible for VA benefits to pay a qualified tutor, if needed.

### **Credit for Military Training**

Veterans may receive college credit for training they completed while in the Armed Forces.

Credit is also available for health and physical education experiences obtained in the military. (See page 21.)

# Student & Academic Support Services

### Orientation

New students should to participate in New Student Orientation before beginning classes. The Orientation Program helps students become familiar with the staff, school policies and regulations, social and recreational activities, and campus facilities.

The Orientation Program is provided through Student Development and Services (SDS). New students are notified of the Orientation schedule.

An orientation course for one credit hour is also offered. The course covers such topics as study skills, career exploration, stress, listening, notetaking, job seeking skills, and time management.

The Student Ambassador Mentor Program provides ongoing orientation services to the Richland student.

An on-line orientation is available at [<www.richland.cc.il.us/sds/orientation/>](http://www.richland.cc.il.us/sds/orientation/).

### Counseling Services

Counselors are professionally trained, experienced in working with students of different ages and backgrounds, good listeners, and committed to students' well-being and development. Individual and group counseling is available on a short-term basis. The purpose of short-term counseling is to focus on personal issues that may prevent a student from achieving academic success. Counselors can also help students make contact with appropriate community agencies.

Counseling Services is located in SDS, Room C129. Information about Counseling Services is available at [<www.richland.cc.il.us/sds/counseling.html>](http://www.richland.cc.il.us/sds/counseling.html).

### Career Planning

Selecting a career is an important part of each student's educational planning. The counselors and academic advisors in Student Development and Services assist students in all phases of the career planning process.

Students may select from a variety of interest and personality inventories that provide insight into their career interests and values. A career counselor will explain the inventory results and also recommend other resources for further exploration.

The **Career Planning and Placement Center** is located in C137 in the Multicultural Student Enrichment Center. The Center houses many resources for students to use when planning a career or when looking for a job. Visit the RCC Career Center online at [<www.richland.cc.il.us/sds/career/>](http://www.richland.cc.il.us/sds/career/).

### Academic Advisement

Assistance with program and course selection is provided by faculty, counselors, and staff advisors. Students may contact the Student Development and Services Office, Room C129, or call 875-7200, Ext. 267. Appointments or walk-in assistance is available. Information about Academic Advisement is available at [<www.richland.cc.il.us/sds/acadadv.html>](http://www.richland.cc.il.us/sds/acadadv.html).

### Self-Advisement

Students may self-advise if they have completed 30 semester hours at Richland, have a 2.25 grade point average, and are eligible for Engl. 101 and Math. 098.

Students eligible for self-advisement are sent a notification by mail. Notification must be submitted with the class registration form at the time of registration at the Student Records counter, Room N143.

### Transfer Center

Students planning to transfer to other colleges or universities should contact the Transfer Center, located within the Multicultural Student Enrichment Center, Room C133. The Transfer Center provides a wide range of services to assist students in the transfer process, including preparation of a Transfer Academic Plan, and ensuring that Richland courses transfer to the college or university of the student's choice. The staff also provides information on the trans-

fer process, including admission requirements, financial aid, housing, and campus visits. Visit the RCC Transfer Center website at [www.richland.cc.il.us/sds/transfer/](http://www.richland.cc.il.us/sds/transfer/).

## Job Placement

Job placement assistance is available in the Career Planning and Placement Center, Room C137. Part-time and full-time job openings available in the community are posted daily in the Center and on-line at [www.richland.cc.il.us/sds/career](http://www.richland.cc.il.us/sds/career).

Students may also request resumé writing assistance, as well as other job search assistance, by making an appointment with Career Planning and Placement staff.

A computer, printer, and special resumé software are also available for student use. All services are free.

Students desiring to work on campus must fill out a Student Employment Application form available in SDS and submit it to the Career Planning and Placement Director.

Students are also encouraged to register with the Illinois Skills Match.

Visit the RCC Career Center online at [www.richland.cc.il.us/sds/career/](http://www.richland.cc.il.us/sds/career/).

## Internship

A wide variety of internships or work practica are available for students desiring to gain relevant work experience while they are attending school. Students enroll in the appropriate work experience and practicum seminar or internship course, which lasts eight to sixteen weeks. Internships may be paid or unpaid. Interested students should consult with the appropriate Dean, faculty member, or Career Planning and Placement Director. The following programs include internships as part of the curricula:

- Agriculture Products and Processing Business
  - Accounting
  - Management and Leadership
  - Marketing
- Child Care and Education
- Computer Information Systems

- Electronic Systems Technology
- Electronics
- Electronics - Bio-Medical Option
- Food Service Management
- Graphic Arts
- Heating, Ventilation, Air Conditioning and Refrigeration
- Horticulture
- Industrial Drafting
- Law Enforcement
- Mechanical Technology
- Office Technology
- Sociology

## Disability Accommodation Services

Richland Community College offers support and accommodations to students with documented disabilities by providing advisement, counseling, adaptive equipment and materials, instructional aids, tutors, notetakers, interpreters, and testing accommodations, as well as many individualized services. All campus facilities are accessible. The campus is self-contained except for the Horticulture/Agriculture Building. For more information, students should contact the Disability Accommodation Services (DAS) Office, Room C130.

Documentation of disability is required for all services. Visit DAS online at [www.richland.cc.il.us/sds/das/](http://www.richland.cc.il.us/sds/das/).

## Student Learning Center

The Student Learning Center (SLC) offers free tutoring to students who may need help with classes or programs. Both peer and faculty tutors are available on an appointment or drop-in basis for many areas of study including math, biology, chemistry, reading comprehension, study skills, vocabulary building, and research and for specific written assignments. Reading and writing help is available in Room S118, and math help is available in Room S116. An open computer center is located in Room S117 and may be used at any time the SLC is open. Biology and chemistry tutoring is available in Room E112 with hours varying

each semester. The SLC also offers several study groups each semester. Schedules with location and time are posted in the Center.

### Assessment Services

Assessment Services, located in Room W124, provides testing services for placement in English, mathematics, and health courses. Also administered are the Constitution test, exams from other universities, and make-up tests for Richland classes. Photo identification is required for all students completing any test in Assessment Services. Students completing tests for other universities or for CLEP or DANTES testing may need to pay an additional fee.

### Options/Opportunities Programs

The Options Program assists homemakers who are divorced, widowed, or separated. The Opportunities Program assists current or former T.A.N.F. (public aid) recipients. Both programs provide academic advising, training, workshops, career planning, and job placement in an effort to support students in achieving economic self-sufficiency. Services may include tuition, books, child care, transportation, and some supplies. Call 875-7200, Ext. 232, for more information.

### Student Support Services/TRIO

Student Support Services/TRIO, a federally-funded program, provides educational support to low-income, first generation (neither parent with a bachelor's degree) students and to students with physical or learning disabilities. Participants must also be accepted as Richland students and have citizenship, permanent residency, or refugee status. The purpose of the program is to help students improve academic performance, graduate from Richland, and transfer to a four-year institution of their choice.

Services include tutoring, advising, mentoring, workshops, cultural events, transfer trips, and leadership activities. Applications are available in the TRIO Office in Room W143.

### Talent Search Program

The East Central Illinois Talent Search Program is a FREE college prep program that serves students at target schools in Champaign, Urbana, and Decatur. The program serves 600 participants annually which includes students from grades 6 through 12 and high school dropouts. All Talent Search participants must demonstrate academic potential and a need for program services. Two thirds of the participants must meet low-income eligibility requirements and be potential first-generation college-bound participants (neither parent the participant lives with or lived with prior to age 18 has a four-year college degree).

### Perkins Program

The Perkins Program is a federally-funded program designed to assist students in becoming academically successful. For student to be eligible for the Perkins Program, they must be enrolled in an occupational program and meet one of the following requirements:

1. student is enrolled in a non-traditional field for gender (i.e. female in Electronics, male in Child Care),
2. English is the student's second language,
3. student is considered low income,
4. student has a disability,
5. student has taken or is required to take a developmental math or English course,
6. student is a single parent (including single pregnant women), displaced homemaker, or
7. student has other barriers to educational achievement.

Perkins support must match the need of the students based on the criteria for which they

were eligible.

If a student is enrolled in an occupational area, he or she is automatically enrolled in the Perkins Program. Students may call the Perkins Program Coordinator, Ext. 480, for more information.

## Project READ

The goal of Project READ is to provide improved educational services for adult students reading below the ninth-grade level. One of its main services is to recruit, train, and place volunteers in locations where they can be effective tutors for those adult students. The office is located off campus at the Richland Community College Opportunities Center, 1500 East Condit Street, Decatur, IL. Prospective students and volunteers may call for appointments or further information at 423-7323.

## Honors Opportunities Program

Students with excellent academic skills are encouraged to apply for the Honors Opportunities Program. The Program is designed to offer students an added dimension to their studies through small class seminars, special lectures, programs, and field trips.

The Honors Opportunities Program is open to full- and part-time students who plan to complete any associate's degree at Richland. Seventy-five percent of all tuition is waived for Honors Program participants.

To be admitted to the program:

1. Recent high school graduates must have an ACT composite score of 27 with no individual score lower than 22 (or equivalent scores on any national testing program).
2. Presently enrolled students or transfer students must have a cumulative grade point average of 3.5 or better on a 4.0 scale for 12 or more semester hours in courses equivalent to Richland courses numbered 100 or above.

3. All students must agree to complete the requirements of the program as outlined in the Honors Opportunities Program Brochure available from SDS or from Division offices.

A new student in the top 10% of his/her graduating class whose ACT composite score is 25 or better with no score lower than 20 will be permitted to take an honors course. Other non-honors students may take honors courses if they have a 3.5 GPA or if they have a 3.5 in the field of the course and consent of the instructor or of the Director of the Honors Program. Non-honors students who complete honors courses with grades of "A" or "B" may have "H" added to the grades on their transcripts, but their tuition will not be waived. Call the Director of the Honors Program for more information.

## Child Care Services

Licensed child care services are provided for the children of Richland students (credit and lifelong learning), staff, and faculty whenever regular classes are in session (except weekends).

The program accepts children ages 2 (toilet trained) through 12. Both day and evening hours are available. Current child care fees are under review and subject to change. Contact the Child Care Learning Center at 875-7200, Ext. 319, for cost of Child Care Services.

Children may attend for a maximum of five hours per day provided that they leave the Center within those five hours for a half-hour break. Children may return to the Center after 4:00 p.m. for an additional five hours during the evening provided that they leave the Center within those five hours for a half-hour break.

Preschool activities are available to combine play with learning. These activities include art, music, science, math, motor development skills, and language skills. School-age children are offered table games, art, and science activities. Computer software is available for all ages.

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The Child Care Learning Center is licensed by the Illinois Department of Children and Family Services and is supported by Richland student activity funds, user funds, and fundraising activities.

Children are required to provide physical and T.B. records to attend the Center. Registration forms must also be completed.

The Center is open from 7:30 a.m. to 10:00 p.m., Monday through Thursday, and 7:30 a.m. to 4:00 p.m. on Fridays during regular semesters. The Center is open from 7:30 a.m. to 4:00 p.m. Monday through Thursday during the summer 8-week session. Center hours are subject to change.

### Student ID's

Photo student identification cards will be available at no cost to registered students. These will be useful for students using the computer lab and Assessment Services and for students to receive student discounts where applicable.

Photo ID's will be taken throughout the semester. A schedule of locations and times is printed in the Student Handbook.

### Parking

Parking is available on a first-come, first-served basis with the exception of handicapped parking spaces, which require a handicapped sticker/license that are only issued by the Secretary of State's Office; contact the Driver's License Facility.

### Security Services

Richland has around-the-clock security officers. Evening escort service is available. Richland's security works with local law enforcement officers with campus interventions..



# Student Life

## Multicultural Student Enrichment Program

The Multicultural Student Enrichment Center promotes the educational experiences of students through the development of, exposure to, and participation in social, cultural, intellectual, recreational, and governance programs. Through various communications, students are informed about institutional policies and procedures and how these are related to their lives and activities.

Clubs and organizations are structured to meet the needs of a changing student population, including creating more diverse programs and services to meet the needs of ethnic populations, older and disabled students, and other student groups with unique interests.

We invite you to become involved in MSEP campus activities, organizations, and clubs to enrich your college life.

## Clubs

A variety of professional, honorary, and social clubs are based at Richland Community College.

The **Black Student Association** creates unity among African-American students by promoting political, social, and economic awareness in African-American students at Richland and within the African-American community.

The **College Republicans Club** increases the political involvement of young people through political activity within the Richland Community College District.

The **Creative Writing Club** helps students develop their prose and poetry. Each year the Club publishes IMAGES, which is a collection of writings from Richland and the community.

The **Early Childhood Professionals Club** provides educational opportunities for child care students by promoting issues that directly affect child care workers.

The **Engineering, Math, and Science Club** promotes interest in engineering

through visits to college campuses, sponsoring academic competition, and involvement with WYSE.

The **Environmentalists Appreciating our True Home (E.A.R.T.H.)** promotes awareness of environmental issues. Members are encouraged to plan and participate in projects designed to educate the public and foster a feeling of "environmental friendliness" in the community.

The **Global Links Club** promotes awareness and appreciation of various cultures in the community. Members highlight cultures through various social gatherings throughout the year.

The **Honors Club** encourages academically talented students to pursue knowledge and strive to achieve their maximum potential. This club provides special programs of instruction, recognition for academic excellence, and opportunities for interaction with students and faculty members.

The **Horticulture Club** strives to heighten awareness of the horticulture program at the College and in the community. This club enriches a student's education by attending and organizing educational seminars and by selling plants grown in the greenhouse.

The **Le Cercle Français** promotes interest in French and in Francophone cultures around the world.

Richland's **N.A.A.C.P. College Chapter** promotes diversity as an asset by having students from various social and cultural groups come together to resolve issues related to race, creed, religion, gender, or national origin.

The **Nursing and Health Careers Club** was established to assist Richland students who have an interest in health occupations to gain information about various health occupations, training programs, and financial assistance. Members participate in community service projects, educational seminars, and fund-raising activities.

Richland's chapter of **Phi Theta Kappa**, a national two-year college honor society, initiates new members each fall and spring. Students with a 3.5 grade point average in at

least twelve hours of 100-level courses of transferable credit during a specific semester are invited to join.

**People Respecting Individual Differences in Everyone (P.R.I.D.E.)** provides education surrounding gay, lesbian, bisexual, and transgender (GLBT) issues, seeks to foster a greater awareness and tolerance for GLBT persons and issues, and furnishes social and emotional support for GLBT persons and allies on campus.

**Phi Beta Lambda (PBL)** provides additional opportunities for post-secondary and college students to develop vocational competencies for business and office occupations and business teacher education. PBL is an integral part of the instructional program and in addition promotes a sense of civic and personal responsibility.

The **Spanish Club** promotes interest in Hispanic and international cultures and languages. Members are provided with culturally diverse activities including trips to ethnic localities.

**Students Unlimited** provides assistance and support to students with disabilities in the areas of adaptive equipment and support services. The continuing goal of the club is to increase the awareness of the campus and community in regard to individuals with disabilities.

Contact the Director of the Multicultural Student Enrichment Program, room C131, or the club's current faculty advisor for more information.

## Organizations

Licensed **Child Care Services** are provided for the children of Richland students, staff, and faculty whenever regular classes are in session (except weekends). Pre-school activities are available to combine play with learning. These activities include art, music, science, math, motor development skills, and language skills. Children ages 2 (toilet trained) to 12 years of age are accepted. School-age children may attend on days when public schools are not in session if space is available.

*The Communicatur* is the **Student Newspaper** and is staffed by student reporters, photographers, and students from Richland's journalism classes. The newspaper is published four to seven times each semester and is available at various locations on and off campus. The Communicatur office is located in the Multicultural Student Enrichment Center, Room C135.

Limited scholarships are available to members of the Communicatur editorial board. Story and picture ideas and letters to the editor are always welcome.

The **Forensics (Speech) Team** competes in intercollegiate competition at State, national, and international levels. The team allows students co-curricular experience in public speaking, oral interpretation, and acting. Past members have achieved National Championships, increased self-perception, improved communication skills, and acquired a sense of collegiate achievement.

The **Program Board** consists of students and faculty who plan and arrange College-wide events. Unique learning opportunities are provided through seminars, lectures, professional entertainment, tours, and displays.

The **Student/Ambassador Mentor (S.A.M.)** Program helps new students in their transition to higher education and exposes them to the broad educational opportunities and services at Richland. Besides participating in the New Student Orientation Program, student mentors provide ongoing support to new students in the areas of positive attitude development and relationship-building with faculty, staff, and peers. Student Ambassador Mentors are knowledgeable and can refer students to appropriate College services and staff.

The **Student Senate** represents the students of Richland through effective communications by promoting unity and fellowship with all members of the College community. The Student Senate strives to represent and adequately interpret student opinion as related to campus policy and to distribute the auxiliary fees to provide a

variety of educational and social opportunities for students. Through College-wide elections six senators are elected each fall and spring semester.

The **Student Trustee** is elected each spring semester by the student body to serve as a non-voting advisory member of the Board of Trustees. The Student Trustee may make and second motions during Board meetings and also serves on the twelve-member Student Senate.

## Student Rights and Responsibilities

Richland Community College, an open-door institution, recognizes the rights of its students guaranteed by the Constitution of the United States and the Constitution of the State of Illinois. The College further recognizes and identifies students' rights to equal access to all programs, information, freedom of speech, inquiry, assembly, to the peaceful pursuit of an education, and to the reasonable use of services and facilities of the College.

Richland Community College is committed to learning and teaching. As a teaching and learning community, relationships among students, faculty, and staff are marked by mutual respect and appreciation for each other's roles and responsibilities.

Further, Richland Community College strives to maintain an educational environment that supports the academic, professional, and/or personal development of all members of the community and identifies responsibilities assigned to students as members of the learning community.

Richland Community College has established a "Statement of Student Rights" and a "Statement of Student Responsibilities" to educate students about the manner in which they are to pursue their own educational objectives as well as support the objectives of others. These statements identify the rights to which students are entitled through membership in the Richland learning community along with the responsible

behaviors in which students should be engaged as members of the learning community.

See **Student Handbook** for details of policies and procedures.

## Student Records and Confidential Information

The Family Educational Rights and Privacy Act of 1974 and its accompanying regulations establishes the rights of students, including rights pertaining to their educational records.

All information received by the College becomes a part of the student's education record except for information from a physician, psychiatrist, psychologist, or other recognized professional or paraprofessional. Student education records are classified as follows:

1. **Directory Information**—Name, address, telephone number; date and place of birth; program in which enrolled; participation in officially recognized institutional or extracurricular activities; dates of enrollment; certificates and degrees received; last educational institution attended.  
  
Directory information may be released by the College to any person or organization without the student's consent. If a student does not want directory information released, a form must be filed with Student Development and Services each term.
2. **Confidential Information**—All information other than directory information is considered confidential. Examples of confidential items include: class schedule, daily attendance, academic record, grade reports, progress reports, high school and college transcripts, and test results; correspondence, including letters of recommendation and comments from counselors and faculty; and application information for financial aid, Illinois Veterans' Scholarship, and G.I. Bill benefits.

## Access to Confidential Information By Students

Students may have access to the confidential information in their own records by contacting the Dean of Admissions and Records.

On request, the College will provide students with a list of the types of education records kept, including directory and confidential information.

Richland will provide copies of education records to students at the students' expense and will respond to reasonable requests for explanations and interpretations of their records. Copies of transcripts from high schools or other colleges that are on file cannot be provided. Students also have the right to a hearing to challenge any portion of their education records. Requests for a hearing should be directed to the Vice President of Student Development and Services.

## Access to Confidential Information By Others

Confidential information contained in a student's records will not be released to other parties without the student's consent. Exceptions are listed, and information is given only with the understanding that such information may not be passed on to a third party without the student's written consent.

The College will maintain a record of all persons other than College personnel who have obtained access to a student's records. The College record will include the legitimate reason that the outside party has for reviewing the student's education record.

Persons and agencies who may review students' records are

1. College personnel having a legitimate need for information as a result of their College duties;
2. Colleges, universities, and other academic institutions at which the student wishes to enroll;
3. Agencies and their representatives requesting financial aid information in connection with a student's application for or receipt of financial aid;

4. State and local officials to whom the College must release information as required by a state statute or administrative regulation adopted before November 19, 1974;
5. State and federal officials auditing and evaluating federally-supported education programs or enforcing legal requirements related to these programs;
6. Organizations conducting studies for the College, including the development, validation, or administration of predictive tests, administration of student aid programs, and improvement of instruction;
7. Persons acting pursuant to a judicial order or subpoena, providing the College notifies the student before complying;
8. Appropriate persons if necessary to protect the health or safety of the student or others; and
9. Parents of an eligible student who is claimed as a dependent for income tax purposes.

## Withholding Student Information

The College has the right to withhold grade reports, transcripts, certificates and degrees, and other student information if the student has unmet obligations, including financial obligations, to the College.

## Student Grievances

When a student believes that a condition exists which is in violation of his or her rights, College policies, rules, standards, or procedures, he or she has the right to file a grievance.

A grievance may be categorized as follows:

1. Academic Concerns
  - Academic Dishonesty
  - Academic Suspension
  - Educational Guarantee
  - Grade Appeals
  - Graduation Requirements
  - Other academic concerns
2. Americans With Disabilities Act (accommodations)

- 3. Discrimination (age, disability, gender, race)
- 4. Financial Aid Suspension
- 5. Family Educational Rights and Privacy Act (confidentiality)
- 6. Sexual Harassment (by student, staff, or faculty)
- 7. Student Conduct
- 8. Student Employment
- 9. Tuition Refunds
- 10. Others not represented above

A grievance may be resolved through either an informal or formal process. Informal or formal hearings and resolution of complaints will be conducted in a prompt and fair manner without fear of retribution.

Formal hearings are conducted by the College's Student Judicial Board or by a Special Committee appointed by the President.

The College student grievance process, although encouraged in resolving grievance issues, is not mandatory. Students may seek alternatives in resolving grievances.

**Student Resolution Process Chart**  
(Contact Individuals Listed  
in Sequential Order)

Category	For Informal Resolution, Contact:	For Formal Resolution, Contact:
- Academic Concerns - Academic Dishonesty - Academic Suspension - Educational Guarantee - Grade Appeals - Graduation Requirements	Instructor (1 <sup>st</sup> ) Academic Director (2 <sup>nd</sup> ) Dean (3 <sup>rd</sup> ) V.P. Academic Affairs (4 <sup>th</sup> )	V.P. Academic Affairs
Americans with Disabilities Act (accommodations)	Disability Accommodation Specialist (1 <sup>st</sup> ) V.P. Academic Affairs or V.P. Student Development & Services (2 <sup>nd</sup> ) Director of Human Resources (HR)	Director of HR
Discrimination (gender, race, age, disability)	Director of HR	Director of HR
Financial Aid Suspension	Coord. Financial Aid (1 <sup>st</sup> ) V.P. Student Development & Services (2 <sup>nd</sup> )	V.P. Student Development & Services
Family Education Rights and Privacy Act Issues (confidentiality)	Dean of Admissions/Records (1 <sup>st</sup> ) V.P. Student Development & Services (2 <sup>nd</sup> )	V.P. Student Development & Services
Sexual Harassment by Faculty, Staff, or Student	Director of HR	Director of HR
Student Conduct (in classroom)	Instructor (1 <sup>st</sup> ) Academic Director (2 <sup>nd</sup> ) Dean (3 <sup>rd</sup> ) V.P. Academic Affairs or V.P. Student Development & Services (4 <sup>th</sup> )	V.P. Academic Affairs or V.P. Student Development & Services
Student Conduct (out of classroom)	V.P. Student Development & Services	V.P. Student Development & Services or V.P. Academic Affairs
Student Employment	Supervisor (1 <sup>st</sup> ) Director of HR (2 <sup>nd</sup> )	Director of HR
Tuition Refunds	Controller (1 <sup>st</sup> ) V.P. Finance & Administration (2 <sup>nd</sup> )	V.P. Finance & Administration
Others not listed	Staff member responsible for area involved	V.P. responsible for area involved

Procedures for filing a grievance are available in the Student Development and Services office, **Student Handbook**, and on the following page.

## Disciplinary Proceedings Policy

If a student, faculty, or staff member feels that a condition exists in which a student's behavior is unsatisfactory or is in violation of College policies, rules, standards, or procedures, he or she may file a grievance against a student.

### Initiation of Grievance or Disciplinary Proceedings

**Every attempt will be made to resolve grievances or problems at the point of origin.**

#### Informal Resolution Process:

First: Contact the faculty or staff member involved at the point of origin or the appropriate administrator to resolve the matter.

Second: Contact the coordinator, director, dean or other appropriate administrator responsible for the area to resolve the matter.

**Third: Contact the Vice President over the area.** In all cases where appropriate, grievances/complaints will be investigated by the appropriate administrators or third party.

If resolution of the grievance or disciplinary charge is reached informally, a written agreement (if deemed appropriate) outlining the provisions of the resolution and indicating that he or she was aware of but waived the right to a formal resolution must be signed by the student.

Except for grade appeals, **a student has the right to bypass the informal process and request a formal hearing. In cases of academic dishonesty and academic suspension, the College has the right to bypass the informal process.**

**If a student grievance or disciplinary problem cannot be resolved at the infor-**

**mal level, a formal hearing of the Judicial Board or special committee appointed by the President may be convened.**

## Formal Resolution Process

A formal hearing before the Student Judicial Board or Special Committee appointed by the President may occur at the request of a student, faculty, or staff member.

Formal hearings must be coordinated through a Vice President or the Director of Human Resources. The Executive Assistant to the President and College Counsel will convene the Judicial Board or Special Committee.

## Academic Dishonesty

Each student is expected to be honest in his/her class work or in the submission of information to the College. Richland regards dishonesty in classroom and laboratories, on assignments and examinations, and the submission of false and misleading information to the College as a serious offense.

A student who cheats, plagiarizes, or furnishes false, misleading information to the College is subject to disciplinary action up to and including failure of a class or suspension/expulsion from the College.

## Smoking

The policy of Richland Community College is to respect the rights of both the non-smoker and the smoker in Richland buildings and facilities. When these rights conflict, Richland administrators, faculty, staff, and students should endeavor to find a reasonable accommodation. When such an accommodation is not possible, the rights of the non-smoker should prevail.

Smoking and the use of smoking materials are allowed only in designated areas outside the building. All remaining areas are non-smoking areas.

Rules and regulations to enforce this policy are determined by an appropriate College committee and communicated to students and staff on a regular basis.

## Substance Abuse Policies

A student shall not possess or use any illegal or controlled drug or substance in either refined or crude form on College property except under the direction of a licensed physician. Any student who violates any provision of federal or state law pertaining to the manufacture, possession, purchase, sale, or use of drugs on College property will be referred to the appropriate civil authority. Irresponsible behavior attributable to any such drug or substance will not be tolerated and will be subject to College disciplinary action, which may include expulsion from the College.

## Intoxicant Use

Possession and use of intoxicants on College property are prohibited. Irresponsible behavior attributable to any such intoxicants will not be tolerated and will be subject to College disciplinary action, which may include expulsion from the College.

## Pamphlets, Counseling

Numerous pamphlets are available throughout the College dealing with drug, substance, and alcohol use and addiction. Counselors in SDS will make referrals to appropriate agencies.

## Chronic Communicable Disease Policy

A student with chronic communicable diseases may attend school in the regular classroom setting whenever, through reasonable accommodation, the risk of transmission of the disease or the risk of further injury to the student is sufficiently remote in such a setting.

Each student with a chronic communicable disease shall be evaluated by a placement committee that will consist of the

President, as chairperson, and other appropriate College personnel, a physician or other consultants selected by the President or his designee, the student's physician, public health personnel, the student, and the student's parents or guardians.

The student's placement shall be determined in accordance with the above standards and upon the following factors: the risk of transmission of disease to others; the health risk to the particular student; and reasonable accommodations that can be made without undue hardship to reduce the health risk to the student and others. The vote of a majority of the committee shall determine the student's placement.

The student shall be reevaluated at least once a year by the placement committee to determine whether the student's placement continues to be appropriate. The student's medical condition shall be disclosed only to the extent necessary to minimize the health risks to the student and others. The College President may establish additional rules and regulations designed to implement this policy.

If the student is handicapped, special arrangements may be made as required by Section 504 of the U.S. Rehabilitation Act of 1973.

Numerous pamphlets are available throughout the College dealing with chronic communicable diseases. Counselors available in SDS can make referrals for psychological counseling through the Heritage Behavioral Health Center.

## Sexual Harassment Policy

Employees and students are prohibited from sexually harassing other employees or students.

In the case of sexual harassment of a student by an employee, sexual harassment means:

1. Any sexual advance by an employee toward a student.
2. Any request by an employee of a sexual advance or request for sexual favors from a student.



3. Any conduct of a sexual nature by an employee directed toward a student when
  - a. the student's submission to or rejection of such conduct is either explicitly or implicitly a term or condition of the student's grade or the student's participation in any school-sponsored activity, or
  - b. such conduct has the purpose or effect on a student of reasonable sensibilities of creating an intimidating, hostile, or offensive school environment for the student.

In the case of sexual harassment of a student or employee by a student, sexual harassment means:

1. Any sexual advance by a student toward an employee.
2. Any request by a student to an employee for sexual favors from the employee.
3. Any conduct of a sexual nature by a student directed toward an employee when such conduct has the purpose or effect on an employee of reasonable sensibilities
  - a. of creating an intimidating, hostile, or offensive school environment for the employee, or
  - b. of influencing either the student's grade or participation in any school-sponsored activity.
4. Sexual harassment prohibited by this policy includes verbal or physical conduct. The terms "intimidating, hostile, or offensive" as used above include conduct that has the effect of humiliation, embarrassment, or discomfort.

Complaints alleging a violation of this policy must be brought to the attention of the Director of Human Resources.

Complaints must be filed with the appropriate school official within 30 days of the date of the alleged harassment.

## Responsible Use of Information Technology Policy

In support of its mission of teaching and community services, Richland Community College provides access to information technology resources for students, faculty, and staff within institutional priorities and financial capabilities.

Access to the College's information technology facilities is a privilege granted to College students, faculty, and staff. The College reserves the right to extend, limit, restrict, or deny privileges and access to its information resources. Individuals other than College faculty, staff, and students may be permitted access to information technology provided such access does not violate any license or contractual agreement.

All members of the College community who use the College's computing, information, and communication resources must act responsibly. All users of College-owned or College-leased information technology systems must respect the rights of other users, respect the integrity of the physical facilities and controls, and comply with all pertinent licenses and contractual agreements. All users of the technology systems are bound by applicable local, state, and federal laws and regulations.

Information technology provides important means of communication, both public and private. Users will respect the privacy of person-to-person communication in all forms including, but not limited to, voice (telephone), text (electronic mail and file transfer), and image (graphics and television).

College facilities and accounts are to be used for the activities or purposes for which they are assigned. College computing resources are not to be used for commercial purposes without written authorization from the College.

## Possession of Weapons Policy

Possession of weapons on the College campus, on property controlled by the College, at events sponsored by the College, or at events attended while on College business is prohibited unless the individual is an authorized law enforcement officer in the performance of his or her duty. The College may request suitable identification authorizing someone to possess a weapon and may confirm the authorization with authorities.

A weapon is defined as a firearm, dangerous chemical, any explosive device of any description, compressed air guns, pellet guns, BB guns, illegal knives, stun guns, electric shock devices, or any item used in a threatening manner toward another individual. The College reserves the right to further determine the definition of a

“weapon” and may prohibit other devices on an individual basis, such as unusual walking canes that may be more of a club, flashlights that may be used as a club, air horns, fluid discharge devices, compressed air devices, etc.

Defensive devices, such as Mace, pepper sprays, etc. will be allowed, if legal, unless used in an offensive manner. Any device defined as a weapon that is required at the College for any purpose must be checked in through the Security Office, and all proper safety requirements must be taken by the responsible individual.

Individuals who violate this policy will be subject to disciplinary sanctions, may be barred from the College, and may face legal prosecution by law enforcement personnel. Being under the influence of drugs and/or alcohol does not excuse the violation of this policy.

# Continuing & Community Education

## Adult Education

Adult Education offers a variety of courses to help meet the diverse needs of the community. Adult Secondary Education courses prepare students for passing the GED test. (Passing the test demonstrates eligibility for a high school equivalency certificate.) Adult Basic Education courses are available to students who need to review basic skills in reading, writing, and mathematics for personal development or advancement to higher level courses. Job Skills courses help students improve opportunities for employment, and Parenting classes are provided at selected sites.

To enroll in the program, students must first attend an orientation, which is conducted weekly, or an appointment can be arranged. The session is free and lasts about an hour. Individuals interested in enrolling in the program must be at least 16. All classes and textbooks for the program are free to students.

## English as a Second Language Program

English as a Second Language (ESL) courses are for individuals who are native speakers of another language and who need to improve their English speaking, reading, and writing skills for academic or employment purposes. Courses are offered at the pre-beginning, beginning, intermediate, and advanced levels. Persons interested in enrolling in these classes should contact the Adult Education office, 875-7200, Ext. 355, for further information. All classes and textbooks for this program are free.

## Applied Learning Skills (ALS) Program

Applied Learning Skills (ALS) courses are designed to help review academic areas or to reinforce basic skills. ALS courses are one-credit-hour modules that supplement existing Richland courses. They offer several benefits: flexibility in scheduling class time, a wide range of instructional methods,

and a low pressure method of learning.

In order to participate in this program, students should be able to work on their own and be dedicated and motivated. Students are expected to spend a minimum of 15 hours in the Student Learning Center.

## Lifelong Learning Program

The Lifelong Learning Program promotes access to lifelong learning by providing programs in convenient locations as well as on campus. Credit, vocational skills credit, and seminars/workshops are held in locations throughout the Richland District. Programs are based on a continuous assessment of community needs and interests.

Richland Community College provides extension of its resources into the community through cooperation with other groups as a high priority in helping to serve the needs of the District's varied population.

A listing of the Lifelong Learning classes to be offered can be found in the Lifelong Learning Class Schedule, published prior to the beginning of each semester. The schedule indicates the days, times, and locations of the classes and expense to the student. There are five major areas of focus:

1. Professional/Technical/Career Development
2. Personal Interest
3. Vocational Skills Credit
4. Community Services/Cultural Programs
5. Youth Programming

### 1. Professional/Technical/Career Development

- a. Continuing Education for Professionals—Programs designed to update knowledge and theory to fulfill job responsibilities where continuing education units are required or suggested.
- b. Courses for persons who want to enter the job market, find a new career, or upgrade their position within their present occupational field.

Classes are available in a variety of areas.

2. **Personal Interest**—Richland encourages adults of all ages and educational backgrounds to turn leisure time into creative, productive opportunities. Adults can sample various kinds of exercise, games, sports, hobbies, crafts, art, music, and dance. Qualified experts create informal classrooms in which participants may express themselves.

Self-improvement courses enable individuals and groups, young and old, to benefit from new skills. Many classes enhance the students' opportunities to learn for profit as well as pleasure.

3. **Vocational Skills & Continuing Education Credit**—Registration for vocational skills credit courses is conducted the same as registration for other seminars and workshops. Continuing Education Credit is conducted through workshops and seminars which are certified with professional regulating agencies.
4. **Community Services/Cultural Programs**—Community services include the sharing of the educational resources and specialized knowledge of Richland's faculty and staff with area organizations through lectures, conferences, institutes, general advisory services, reference bureaus, and cultural programs. They are designed to complement and enhance existing community projects and special College-community programs either initiated by the College or as a joint effort with community organizations.

Arrangements can be made for seminars, workshops, conferences, and cultural events expressly tailored to meet the needs of professional organizations, business and industrial associations, or groups of private citizens. Such activities can be designed for small or large groups sharing a common interest or concern.

5. **Youth Programming**—Richland encourages young people to attend classes at the College offered for pre-schoolers to teens, including College for Young Learners classes offered each summer.

For more information about these offerings, contact the Lifelong Learning Division, 875-7200, Ext. 263.

## The Center for Business Training and Development

The purpose of the Center for Business Training and Development is to operate a creative and innovative program promoting Richland's involvement with business, industry, and the community to meet the needs of today and the challenges of the future.

The Center provides seminars, workshops, and classes for professional and personal development; cultural and public affairs programs; and economic enrichment assistance for communities in the District.

## The Work Keys Service Center

The Work Keys Service Center, located in Richland's classroom on the second floor of the Decatur Public Library, is a new assessment and training program. Developed by ACT, Inc., Work Keys offers a complete spectrum of job analysis, assessment, instructional support, and training services. The program is built around a common skill scale that accurately measures both the skills of individuals and the skills required for successful job performance. Assessments are available in the following areas: Applied Mathematics, Applied Technology, Listening, Locating Information, Reading for Information, Observation, Writing, and Teamwork.

The Center is open 8:00 a.m. to 4:30 p.m. Students who are interested in using Work Keys as a career assessment tool or to build a resumé with measured skills can call

424-1550 to make an appointment to take the assessments. Cost is dependent on number and type of assessments taken. Employers who would like to discuss how Work Keys can help them improve productivity, build a more qualified workforce, screen and select employees with needed skills, or reduce costs associated with high turnover and rehiring can contact Richland at 875-7200, Ext. 269.

### **Richland Foundation**

The Richland Community College Foundation was formally established in 1985 to encourage and receive monetary and in-kind contributions and support for the College. Foundation funds are designated for scholarships, facilities, and equipment for the campus, technological innovations, educational and developmental programs, and community service projects. For information, call 217/875-7200, Ext. 206.

### **Alumni and Friends Association**

The Richland Alumni and Friends Association was founded in 1985 to provide a link between alumni, friends, and the Richland community, and because of its similar goals and purpose, it is a part of the Richland Foundation. Former students, staff members, and friends of Richland are invited to join and to participate in the work of the Association.

Purposes and goals of the Association include advancing the growth and development of the College; promoting the personal, educational, and professional development of alumni; and establishing and encouraging a mutually beneficial relationship between the College and its alumni and friends. Membership in the first year following graduation is free. After the first year, membership dues are based on a sliding scale. For information call 217/875-7200, Ext. 206.

# Academic Information & Regulations

## Student Status and Classification

**First-time enrollee** — one who has never attended a college or university.

**Transfer student** — one who has attended another college before enrolling at Richland.

**Re-entering student** — one who has attended classes at Richland but not registered for one or more terms (including the most recent) and has not attended another college since that time. Re-entering students must reapply by completing an application for admission in order to activate their files.

**Freshman** — one who has earned fewer than 30 semester hours (or 45 quarter hours) toward a degree or certificate at Richland.

**Sophomore** — one who has earned more than 30 semester hours (or 45 quarter hours) toward completion of a program at Richland.

**Unclassified student** — one who has reached junior standing at a college or university or who has earned a degree and is enrolled in selected courses rather than a program of instruction.

**High-school student** — one attending high school but who has enrolled in courses at Richland.

## Full-Time Academic Load

An academic load of 12-17 semester hours is considered normal for a full-time student during regular semesters. During the summer session, 6-8 semester hours is considered a full load.

Part-time students are those students enrolled for less than the normal full load. Students with jobs or other outside commitments should limit their credit loads accordingly.

Students planning an overload of courses (more than 17 semester hours) must have at least a “B” average for 12 or more hours during the previous semester. All such overloads must be approved by an advisor or counselor before registration.

## Study Time Required

Two hours or more of outside study for each class hour of lecture/discussion is usually needed for satisfactory performance, although this amount may vary from student to student.

Two-hour laboratories giving one credit hour usually demand an hour of outside work to complete assignments. If three hours or more of laboratory work are required for one credit hour, students should be able to complete assignments during the laboratory period.

Students who plan to work at outside jobs while attending Richland should take study time into consideration when planning their schedules.

## Academic Standards Graduation

A cumulative grade point average (GPA) of at least 2.00, or a “C” average, is required to receive an associate’s degree or certificate.

## Probation

A student may be placed on academic probation for failure to achieve the minimum cumulative GPA required for good standing as shown below:

<i>Cumulative hours attempted</i>	<i>GPA required</i>
1 - 15 hours	1.70
16 - 30 hours	1.85
31+ hours	2.00

A student on academic probation is encouraged to meet with a counselor to discuss career and educational goals. The student may wish to utilize the Student Learning Center for tutorial assistance. The counselor may suggest a reduced number of courses to improve chances for success, a different program of study, or repeating courses previously taken with a grade of “D” or “F.”

The student must achieve at least a 2.00 GPA during the following semesters after being placed on academic probation until



being placed on good standing as illustrated in the previous chart. Failure to achieve a 2.00 GPA will result in dismissal from the College for one or more semesters, excluding the Summer Term.

An appeals procedure is available through the Judicial Board. See Student Resolution Process Chart on page 44.

## Grading Policy

The following letter grades are used at Richland to represent the student's level of performance in courses numbered 080 or above in this catalog:

- A Superior or excellent
- B Very good or above average
- C Good or average
- D Barely passing or below average
- F Failure or unsatisfactory
- AU Audit (For more information, see "Auditing a Course" in this section.)
- CR Completed course requirements.
- I Incomplete. All coursework must be finished by the end of each term, unless the instructor agrees in writing to a specified grace period no longer than 60 days after the end of the term. Failure to complete coursework within the 60-day grace period may result in a grade of "F."
- P/F Pass/Fail for selected courses to be determined by faculty and the dean of a division with the approval of the Curriculum Committee. Pass/Fail grading will not be used for courses in a degree sequence or for transfer courses.
- W Withdrew from the College or dropped the course before the beginning of the final examination period.
- X Did not complete course requirements.

## Grade Point Average Calculation

A grade point average (GPA) for each student who has received a grade of A, B, C, D, or F will be calculated by term and by cumulative total.

Each grade listed above is assigned a quality point value (A = 4, B = 3, C = 2, D = 1, and F = 0). The grades AU, I, W, CR, and X do not have point values and are not used to calculate a GPA.

The point value of the grade received is multiplied by the number of credit hours given for the course. The results for each course during a term are totaled, and that sum is divided by the number of semester hours attempted.

If, for example, a student received an A for a 3-hour course and a B for a second 3-hour course, the grade point average would be figured as follows:

$$\begin{aligned} A &= 4 \text{ quality points and } 4 \times 3 \text{ hrs.} = 12 \\ B &= 3 \text{ quality points and } 3 \times 3 \text{ hrs.} = 9 \\ 12 + 9 &= 21 \text{ total points} \end{aligned}$$

21 divided by 6 attempted credit hrs. = 3.5, the grade point average for that term.

## Semester Academic Honors

The Semester Academic Honors List includes the names of students who have

1. Completed 12 or more cumulative semester hours of 100 level courses or above at RCC; and
2. Completed 6 or more semester hours for the current term; and
3. Attained at least a 3.50 GPA for the current term.

## Appealing a Grade

A student who feels he/she has received an unfair or inaccurate grade may appeal through the Judicial Board.

Grade appeals must be filed no later than one year from the last day of the semester for which the grade was received. A student wishing to appeal should follow the procedures set forth in the Student Resolution Process Chart on page 44 under Student Grievance and Disciplinary Proceedings.

## Alternative Methods of Instruction

### Distance Learning Program

Distance Learning delivery provides College courses that otherwise may not be available at off-campus locations due to low enrollment. Students are able to participate in classroom activities from several sites around the District through an interactive video system. Courses offered through Distance Learning are listed in the Class Schedule. Non-credit distance learning classes are listed in the Lifelong Learning tabloid.

### Virtual Courses

Virtual courses are delivered via the Internet. Students are able to participate in a wide range of courses offered through Richland, through the Illinois Prairie Internet Consortium, or through the Illinois Virtual Campus. These courses are designed to be accessed from any location where the Internet is available to students. For current information, visit the Virtual Campus webpage at [www.richland.cc.il.us/vcampus/](http://www.richland.cc.il.us/vcampus/).

### Independent Study

Participation in a classroom setting is an important part of college education. However, Richland realizes that sometimes scheduling or other conflicts make attending a particular class difficult.

To request an independent study, the following conditions must be met: the course must be required for graduation or professional certification and the requested term for independent study and the term of graduation must be the same. After completing the form, the student should discuss the request with the appropriate Academic Director. If the request is granted, weekly meetings during the arranged term of the course are held between student and instructor. Only those courses included in the Catalog are available for Independent Study. "Request for Independent Study" forms are available in the appropriate division office.

### Extended Learning

Extended Learning courses are designed for students who cannot attend regularly scheduled classes because of job or family obligations. The students have fewer meetings than a regular class but must attend special orientation sessions, read more, complete more written assignments, and keep up with the schedule of work for the course, all with individual consultation with the instructor on an arranged basis. Students' eligibility for Extended Learning courses is based upon need, past work, and interviews. For further information about EL courses, call SDS, 875-7200, Ext. 267.

## Auditing a Course

Any credit class offered by Richland may be taken on an audit basis unless otherwise specified.

Students wishing to audit a class will be assessed the credit hour rate and other applicable fees and must complete an audit form in Student Records by the 10th day of the semester. Change to the grading status cannot be made after the 10th day, and a grade of AU will be assigned at the completion of the course. No credit will be awarded for auditing a course.

## Dropping a Course

Dropping a course at Richland can occur under two circumstances: Student-Initiated or Administrative.

1. Student-Initiated - A student may drop a course through the last day before final exam week of any term. A grade of "W" will be recorded for the course dropped. Students are encouraged to consult with their instructor before dropping a course.

"Change of Schedule" form may be obtained in SDS or any academic division office and must be signed by the class instructor.

Students dropping two or more courses for two consecutive terms are advised to see a counselor to establish a

reasonable academic load for the next term of attendance.

2. Administrative – A student may be administratively dropped due to non-payment of tuition and fees or for poor attendance as follows:
  - a. any time a student's attendance violates the standard set by the course instructor (as stated in the course syllabus). At midterm, the College will administratively drop students who have failed to meet the attendance standard for the course.
  - b. failure to attend the first two classes of a course.
  - c. students having unsatisfactory attendance during the period from midterm through the last regular week of class before finals may be administratively dropped.

When a student stops attending a course, he/she should not assume the College has issued an Administrative Drop. If the Administrative Drop is not issued, the student may receive an "F" for the course. Students who stop attending a class should complete the "Change of Schedule" form and have it signed by their instructor. This form must be turned in to the Student Records Office before the deadline to complete the withdrawal process.

Students who miss a class are responsible for work assigned during their absence. Instructors may, at their option, accept late work, but such work may receive a lower grade.

## Repeating a Course

Students may repeat any course taken at Richland Community College with the understanding that the earlier grade and credit hours will be replaced by the most recent, even if the most recent grade and credit hours are lower. Students should be cautioned that some colleges include all grades earned in computing grade point averages even if the course has been repeated.

## Class Attendance

Regular attendance is necessary for satisfactory college work. Richland faculty will take roll daily, at least through the midterm of the semester.

If a student is absent for one week plus one day (or less, if specified by the instructor in the course outline), his/her name may be sent to SDS. Students with unsatisfactory attendance will be sent a "stopped attending" letter. At midterm, the College will administratively drop students who have failed to meet the attendance standard as certified by the instructor. This procedure is in accordance with Illinois Community College Board policy. See Dropping a Course, page 56.

## Removal from the College or Class by Richland

The College reserves the right to remove any student from the College who is interfering with or disrupting the normal activities of the institution or the rights of others. Students removed from the College must apply for readmission through the Vice President of Student Development and Services.

Students may also be required to withdraw from a course or the College if they cannot make satisfactory academic progress despite special assistance, advising, and counseling.

## Withdrawing from a Course or the College

Students withdrawing from the College are required to settle all obligations, including money owed to the College, and must see an SDS counselor or advisor as part of the withdrawal process. Students may withdraw in person or by telephone.

Students may withdraw at any time, up to the last day of class before the final examination period of any term. A grade of "W" will be given for all current courses, if the courses are officially dropped.

“Change of Schedule” forms are available in the Student Records Office, Room C128, or SDS Office, Room C129. To withdraw by phone, call 875-7200, Ext. 267.

## Changing Program of Study

All program changes must be processed through SDS. Students who want to change their courses of study are encouraged to discuss their plans with an SDS counselor and/or other staff member such as an instructor in the new program and use the various resources in the Career Planning and Placement Center.

## Graduation

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### Graduation Day

Public commencement ceremonies for students who have earned a degree or certificate from Richland are held once a year at the end of the spring semester.

Students who have completed the graduation requirements and received the certificate or degree in the fall semester or summer session are invited to participate in the graduation ceremony.

### Applying for Graduation

When a student feels that he/she is nearing completion of the requirements for graduation from a program of study, the student is to follow the procedure outlined below to apply for graduation:

1. The student should review the requirements for graduation for the program of study, including courses taken or in progress, grade point average, and other requirements. The student may contact an SDS counselor or his/her academic advisor to assist with the review.
2. The student must fill out an Application for Graduation, which may be obtained in SDS. The form is to be filed during the term immediately preceding the term in which the student expects to graduate.
3. The completed application must be filed with the Business Office along with the \$15.00 graduation fee. (A \$15.00 fee is required for each new certificate or degree that a student applies for.) The

application will be reviewed and either approved subject to satisfactory completion of courses in progress or disapproved due to unmet requirements. A copy of the reviewed application will be returned to the student.

4. The student is encouraged to review the returned copy with an SDS counselor, his/her academic advisor, or the Dean of Admissions and Records to discuss completion of any unmet requirements.
5. If the student is unable to complete the requirements before the expected graduation date, another “Application for Graduation” must be submitted before the new term of expected graduation. The \$15.00 application fee submitted earlier will apply if the new application is for the same certificate or degree.

The Dean of Admissions and Records or any counselor in SDS can answer questions regarding the application for graduation process.

### Constitution Requirement

Illinois law requires anyone graduating from Richland with an associate’s degree to pass an examination covering American patriotism and the principles of representative government, as well as the proper use and display of the American flag.

The test also covers the Declaration of Independence, the U.S. Constitution, and the Illinois Constitution.

The requirement may be satisfied in one of two ways:

1. If the required examination was taken and passed in high school, the student's high school transcript must verify that the requirement has been met. (Holders of an Illinois GED certificate may submit an official copy of their test scores or verification from the Superintendent of the Regional Office of Education through which the GED certificate was issued); or
2. Students may obtain study material from the LRC and take the examination through Assessment Services, Room W124.

## Graduating With Two Certificates or Degrees

Richland students may work toward completion of more than one program of study if they so desire.

Students may receive all certificates for which they have completed the requirements. Only the highest award will be announced at the commencement ceremony.

In order to receive a second associate's degree, a student must

1. Complete a second area of concentration;
2. Complete all group requirements for the second degree; and
3. Earn at least ten hours beyond the first degree. (These may be made up of hours in the area of concentration, group requirements, or electives.)

A separate "Application for Graduation" must be submitted for each certificate or associate's degree.

## Graduating Transfer Students

Many students enter Richland after completing courses at other institutions. In order to give these students credit for previous college work and, at the same time, maintain Richland's standards for graduation, the following requirements must be met by transfer students in order to be given a degree or certificate:

At least 15 semester hours of an associate's degree or certificate program must be completed at Richland.

If a transfer student completes a course at Richland that is substantially the same as a course for which the student received transfer credit, the hours of transfer credit will be replaced by the hours earned at Richland.

## Earning Graduation Honors

When a student applies for graduation, all work done toward graduation will be evaluated for graduation academic honors. Students must have earned in class at Richland at least one-half or 12 hours, whichever is greater, of the credits needed for a degree or certificate in order to be considered for such honors.

Graduation academic honors are based on the student's cumulative grade point average, as follows:

### **Cumulative GPA**

3.50—3.74 .....	Honors
3.75—3.99 .....	High Honors
4.00 .....	Highest Honors

Graduation academic honors are noted on a student's transcript and at graduation.

## Effect of Changes in Program on Graduation

From time to time, Richland strengthens and updates the courses in its programs. Students should graduate under the program structure listed in the College Catalog for the year in which they complete their certificate or degree. In some cases, however, some students are nearly finished with work toward a degree when program changes are made, and graduation under the new program may be impractical if requirements have changed.

Therefore, any student may graduate under either the requirements of the current program or those of either of the two preceding College Catalogs during the time the student was enrolled.

If a student wishes to graduate under program provisions more than two College Catalogs old, the Dean of Admissions and Records reviewing the student's Application for Graduation will consult with the appropriate Dean regarding clearance for graduation.

## Effect of Previous Quarter System on Graduation

Up to the end of the summer session 1977, Richland used a quarter system and awarded quarter hours of credit instead of the current method of semesters and semester hours of credit.

Students who attended class at Richland before the Fall Semester 1977 should contact an SDS counselor or the Dean of Admissions and Records for an evaluation of the quarter hours earned.

## Transfer of Credit

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### Transfer of Credits to Other Colleges

Many Richland students continue their education at a senior college or university. In fact, the academic records of Richland transfer students at other institutions are often as good as the academic records of students who began at the senior school.

Illinois senior colleges and universities have cooperated with Richland in making the transfer of Richland students and credit hours earned smooth and easy.

Most Illinois institutions (with the exception of the University of Illinois) have made a "General Education Compact," which states that community college students who have earned an Associate in Arts (A.A.) or Associate in Science (A.S.) Degree will:

1. Meet all lower-division (freshman-sophomore) general education requirements at DePaul University, Eastern Illinois University, Millikin University, and Southern Illinois University at Edwardsville.
2. Meet all general education requirements for the baccalaureate degree at Chicago State University, Governor's State University, Greenville College, Illinois State University, MacMurray College, Northern Illinois University, Univer-

sity of Illinois at Springfield, Southern Illinois University at Carbondale, and Western Illinois University.

Thus, Richland students are guaranteed that their A.A. or A.S. Degree will receive full recognition from the schools that have subscribed to the agreement. (Some "compacts" are under review, and departmental requirements at the senior college or university level may affect some courses that the student transfers in.)

For those colleges without such an agreement, Richland students should follow the guidelines for transfer credits listed in that senior college's transfer guide or handbook.

Richland recommends that students planning to transfer meet with an SDS counselor for up-to-date information on transferring Richland credits. Students who plan to transfer to out-of-state schools or schools not covered by the General Education Compact should also contact an advisor at the transfer school.

## Illinois Articulation Initiative

Richland Community College is a participant in the Illinois Articulation Initiative (IAI), a statewide agreement that allows transfer of the completed Illinois General

Education Core Curriculum between participating institutions. Completion of the General Education Core Curriculum at any participating college or university in Illinois assures transferring students that lower-division general education requirements for an associate's or bachelor's degree have been satisfied. This agreement is in effect for students entering an associate or baccalaureate degree-granting institution as a first-time freshman in summer 1998 or thereafter.

The following codes are used to identify the general education requirement a qualifying course satisfies: IAI C (Communications), IAI F (Fine Arts), IAI H (Humanities), IAI L (Life Science), IAI M (Mathematics), IAI P (Physical Science), IAI S (Social Sciences). Check the Course Description section of this catalog (beginning on page 128) as to whether a specific Richland course qualifies. IAI information may also be found on Internet at <[www.itransfer.org](http://www.itransfer.org)>.

## Guarantee of Transfer of Credit

Richland Community College guarantees to those earning the Associate in Arts Degree or the Associate in Science Degree beginning May 1993 that their courses will transfer to Illinois state colleges or universities as identified and defined in the *Course Equivalent Guide* in effect at the time of graduation. If a Richland course is taken and successfully completed in compliance with the *Course Equivalent Guide* or Illinois Articulation Initiative (IAI) and is not accepted in transfer, Richland will reimburse the student the amount of the tuition paid at the time of taking the course. The graduate, under the agreement to enact this guarantee, will still be responsible for all costs other than the tuition specified.

### Conditions for the Guarantee:

1. Transfer of a course means the acceptance of credits for entrance at a senior institution.
2. Classes must have been taken at Richland Community College no earlier than two years before the attempt to transfer.
3. Any refund request must be made no later than two years after Richland Community College graduation.

# Instructional Programs



## Programs of Study

Richland Community College's "Open Door" policy allows anyone who believes he/she may benefit from study at the College to enroll. Once students enroll, they have two possible routes.

First, students with diversified needs and interests who are not seeking degrees may take courses in a variety of areas. While these courses may also be part of particular programs, students may select courses that best fit their goals.

Another direction for students is a program of study. A program of study leads to the awarding of appropriate degrees or certificates. Admission to a program of study requires that a student has earned a high school diploma, a High School Equivalency Certificate based on the GED Test, or meets the "ability to benefit" criteria through a recognized test approved by the U.S. Department of Education. A student enrolling in a program of study would have several options:

The Associate in Arts (A.A.) (see page 67), Associate in Science (A.S.) (see page 69), Associate in Fine Arts (A.F.A.) (see page 71), and Associate in Engineering Science (A.E.S.) (see page 73) degree programs are designed for students planning to continue their formal education at a four-year university or upper-division college to obtain a baccalaureate degree. Those planning to major in natural sciences or mathematics usually follow the A.S. program, while those in humanities or fine arts will

generally seek the A.A. degree. Those planning to major in social science may select either the A.A. or A.S. curriculum.

If the freshman and sophomore requirements cannot be satisfied within the framework of the A.A. or A.S. degree, Richland will consider the individual's eligibility for the appropriate associate's degree subject to approval of the program of study based upon the first two years of the four-year college's curriculum.

Other programs are based on occupational/career offerings and lead to Basic or Advanced Certificates in those fields or the Associate in Applied Science (A.A.S) Degree (see page 79).

General Studies programs are individually structured by each student to meet specific interests or needs and lead to the awarding of a Basic Certificate in a particular field or the Associate in Liberal Studies (A.L.S.) Degree (see page 121).

All programs are designed to stimulate personal growth by offering a basic and/or advanced understanding of the concepts essential to competence in a particular field.

All programs are also designed to provide a broad education by making students aware of the world around them, by opening and stimulating students' minds to initiate and welcome new ideas and techniques, and by providing a solid introduction to a marketable skill. To achieve these goals, all programs include courses of general interest as well as courses in an area of concentration.

## Cooperative Educational Programs with Other Community Colleges

Richland Community College has Cooperative Educational Program agreements with other Illinois community colleges that allow Richland Community College District residents to enroll in a degree and/or certificate program in a vocational-technical program not available at Richland. Students are able to enroll in such a program at the cooperating college's in-district tuition rate. The colleges and programs offered are listed below. (Individuals with questions about a particular program should call Richland's Student Development and Services office at 875-7200, Ext. 267.)

Students may take all specialized courses at the cooperating college. Related technical and general education courses required in the programs may be taken either at Richland or at the cooperating college. The cooperating college issues all degrees or certificates for successful completion of the programs. Additional information is available from the Director of Admissions at the college offering the program.

### **Programs offered for Richland District residents at Danville Community College, Danville:**

Commercial Floriculture — A.A.S.  
Ornamental Horticulture: Floral Design — Certificate  
Substance Abuse Counselor — A.A.S.

### **Programs offered for Danville District residents at Richland:**

Computer Integrated Manufacturing — A.A.S., Basic Certificate

### **Programs offered for Richland District residents at Kankakee Community College, Kankakee:**

Air Conditioning and Refrigeration — A.A.S.  
Medical Laboratory Technology — A.A.S.  
Radiologic Technology — A.A.S.

### **Programs offered for Kankakee District residents at Richland:**

Computer Integrated Manufacturing — A.A.S., Basic Certificate

### **Programs offered for Richland District residents at Lake Land College, Mattoon:**

Agriculture Business — Certificate  
Agriculture Power Technology — A.A.S., Certificate  
Agriculture Production and Management — A.A.S.  
Cosmetology — Certificate  
Cosmetology Teacher — Certificate  
Crop Production — Certificate  
Dental Hygiene — A.A.S.  
Livestock Production — Certificate  
Nanny Child Care Provider — Certificate  
Physical Therapist Assistant — A.A.S.  
Radio/TV Broadcasting — A.A.S.

### **Programs offered for Lake Land District residents at Richland:**

Biomedical Electronics — A.A.S.  
Computer Integrated Manufacturing — A.A.S., Certificate  
Fire Science — A.A.S., Certificate  
Surgical Technology — A.A.S., Certificate  
Welding — Certificate

**Programs offered for Richland District residents at Lincoln Land Community College, Springfield:**

Agriculture Business Management — A.A.S.  
Air Frame & Power Plant Mechanics — A.A.S.  
Aviation Management/Airway Science — A.A.S.  
Any health-related program, including nurse refresher course, except for the Nursing A.A.S.  
Physical Therapist Assistant — A.A.S.  
Radiography — A.A.S.

**Programs offered for Lincoln Land District residents at Richland:**

Computer Integrated Manufacturing — A.A.S., Basic Certificate  
Surgical Technology — A.A.S., Certificate

**Programs offered for Richland District residents at Parkland College, Champaign:**

Dental Assistance — Certificate  
Mass Communications: Radio-TV/Video — A.A.S.  
Occupational Therapy Assistant — A.A.S.  
Radiography — A.A.S.  
Respiratory Care — A.A.S.

**Programs offered for Heartland Community College District residents at Richland:**

Horticulture — A.A.S.  
Agricultural Industrial Processing Tech. — A.A.S.  
Agricultural Grain Elevator Management — A.A.S.  
Auto Technician – Certificate, A.A.S.  
Surgical Technology — A.A.S., Certificate

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## Baccalaureate/Transfer Programs

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### Associate in Arts

(Designed to provide two academic years of college study for transfer to a four-year university or upper-division college toward a Bachelor of Arts degree. See the *Student Transfer Handbook* for additional advice.)

1. **Group Requirements** (Area of concentration courses may be counted toward satisfaction of group requirements.):
  - a. Communications 9 semester hours
  - b. Fine Arts/Humanities (at least one course selected from each area) 11-12 semester hours
  - c. Social Science (selected from 2 or more disciplines) 11-12 semester hours
  - d. Life/Physical Science (at least one course selected from each area) 7-8 semester hours
  - e. Mathematics 3-4 semester hours
2. **Area of Concentration:**
  - a. Two or more courses completing one or more sequences in a specified subject area such as accounting, English, French, history, psychology, physical education, OR
  - b. Four or more courses in a broad field such as business, humanities, or social science for the student who does not desire to pursue a specific subject area.
3. **General Education** — 41-45 semester hours (Courses in the student's area of concentration do not count toward those requirements.)
4. **Constitution Requirement** (See page 58.)
5. **Total Credits Required** — 60 semester hours in courses numbered 100 and above. (Students transferring credit to Richland should see regulations concerning transfer students.)
6. **Cumulative Grade Point Average** — 2.00 ("C") or better for all work applicable toward the degree that was completed at Richland. (See page 55.)

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Instructional Programs

Associate in Arts (A.A.) Transfer Academic Plan

Area of Concentration \_\_\_\_\_  
Designed to provide two academic years of college study  
for transfer toward a Bachelor of Arts degree at \_\_\_\_\_  
(College or University).

General Education Requirements - 41-45 Hrs.	Course and Number	RCC	Semester and Year	Transfer	Total
<b>Communications: 3 courses (9 Hrs.)</b> Engl. 101, 102; Spch. 101 (Required) ("C" or better required for both Engl. 101 and 102 effective Summer 1999.)					
<b>Social and Behavioral Sciences: 3 or 4 courses (11-12 Hrs.)</b> (Selected from two or more disciplines.) Anthro. 110, 120, 130; Econ. 231, 232; Hist. 101, 102, 131; Pol. S. 100, 110, 120, 230; Psych. 110, 145, 150, 155, 210, 230; Socio. 110, 150, 200					
<b>Humanities/Fine Arts: 3 or 4 courses (11-12 Hrs.)</b> (Select at least one course from humanities and at least one course from fine arts.) <b>Humanities</b> - Af. Am. 101, 103, 104; Engl. 115, 124, 126, 128, 160, 201, 202, 231, 232, 251, 252; Fren. 202; Germ. 202 Hist. 111, 112, 201, 202, 270; Human. 100, 201; Phil. 100, 110, 120, 210, 215; Span. 202 <b>Fine Arts</b> - Af. Am. 101, 103; Art 100, 210, 220, 230; Drama 150; Engl. 140; Human. 100, 201; Music 100, 190					
<b>Life/Physical Science: 2 courses (7-8 Hrs.)</b> (Select at least one course from life science and at least one course from physical science including at least one laboratory course.) <b>Life Science</b> - Biol. 101, 210 <b>Physical Science</b> - Chem. 100, 131; Ea. Sci. 210, 220, 230; Phy. S. 105; Phys. 100, 101, 111, 151					
<b>Mathematics: 1 course (3-4 Hrs.)</b> Math. 110, 112, 113, 121, 122, 160, 170, 171, 190, 221					
<b>Area of Concentration</b> (See page 75 for Area of Concentration suggestions.)					
<b>Electives:</b> Must be transfer courses.					
<b>Total Hours</b> - (60 Required - Minimum of 15 hrs. at Richland)					

2.0 GPA required for all Richland degrees.

**It is strongly recommended that students consult with an academic advisor at both Richland and their transfer institution.**

*Constitution requirement must be met in order to fulfill degree requirements.* -Constitution Requirement Met ☐

## Associate in Science

(Designed to provide two academic years of college study for transfer to a four-year university or upper-division college toward a Bachelor of Science degree. See the *Student Transfer Handbook* for additional advice.)

1. **Group Requirements** (Area of concentration courses may be counted toward satisfaction of group requirements.):
  - a. Communications 9 semester hours
  - b. Fine Arts/Humanities (at least one course selected from each area) 9-10 semester hours
  - c. Social Science (selected from 2 or more disciplines) 9-10 semester hours
  - d. Life/Physical Science (at least one course selected from each area) 7-8 semester hours
  - e. Mathematics 7-8 semester hours
2. **Area of Concentration:**
  - a. Two or more courses completing one or more sequences in a specified subject area such as accounting, geography, psychology, physical education, physics, or any other specific subject area except those listed in “b” and “c” below; OR
  - b. Four or more courses, completing one or more sequences, in the specific subject areas of biology, chemistry, or mathematics; OR
  - c. Four or more courses in a broad field, other than those listed in “b” above, such as business, general science, or social science for the student who does not desire to pursue a specific subject area.
3. **General Education** — 41-45 semester hours (Courses in the student’s area of concentration do not count toward those requirements.)
4. **Constitution Requirement** (See page 58.)
5. **Total Credits Required** — 60 semester hours in courses numbered 100 and above. (Students transferring credit to Richland should see regulations concerning transfer students.)
6. **Cumulative Grade Point Average** — 2.00 (“C”) or better for all work applicable toward the degree that was completed at Richland. (See page 55.)

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Instructional Programs

Associate in Science (A.S.) Transfer Academic Plan

Area of Concentration \_\_\_\_\_  
Designed to provide two academic years of college study  
for transfer toward a Bachelor of Science degree at \_\_\_\_\_  
(College or University).

General Education Requirements - 41-45 Hrs.	Course and Number	RCC	Semester and Year	Transfer	Total
<b>Communications:</b> 3 courses (9 Hrs.) Engl. 101, 102; Spch. 101 (Required) ("C" or better required for both Engl. 101 and 102 effective Summer 1999.)					
<b>Social and Behavioral Sciences:</b> <b>3 or 4 courses (11-12 Hrs.)</b> (Selected from two or more disciplines.) Anthro. 110, 120, 130; Econ. 231, 232; Hist. 101, 102, 131; Pol. S. 100, 110, 120, 230; Psych. 110, 145, 150, 155, 210, 230; Socio. 110, 150, 200					
<b>Humanities/Fine Arts: 3 or 4 courses (11-12 Hrs.)</b> (Select at least one course from humanities and at least one course from fine arts.) <b>Humanities</b> - Af. Am. 101, 103, 104; Engl. 115, 124, 126, 128, 160, 201, 202, 231, 232, 251, 252; Fren. 202; Germ. 202 Hist. 111, 112, 201, 202, 270; Human. 100, 201; Phil. 100, 110, 120, 210, 215; Span. 202 <b>Fine Arts</b> - Af. Am. 101, 103; Art 100, 210, 220, 230; Drama 150; Engl. 140; Human. 100, 201; Music 100, 190					
<b>Life/Physical Science: 2 courses (7-8 Hrs.)</b> (Select at least one course from life science and at least one course from physical science including at least one laboratory course.) <b>Life Science</b> - Biol. 101, 210 <b>Physical Science</b> - Chem. 100, 131; Ea. Sci. 210, 220, 230; Phy. S. 105; Phys. 100, 101, 111, 151					
<b>Mathematics: 2 courses (7-8 Hrs.)</b> Math. 110, 112, 113, 121, 122, 160, 170, 171, 190, 221					
<b>Area of Concentration</b> (See page 75 for Area of Concentration suggestions.)					
<b>Electives:</b> Must be transfer courses.					
<b>Total Hours</b> - (60 Required - Minimum of 15 hrs. at Richland)					

2.0 GPA required for all Richland degrees.

It is strongly recommended that students consult with an academic advisor at both Richland and their transfer institution.

Constitution requirement must be met in order to fulfill degree requirements. -Constitution Requirement Met ☐

## Associate in Fine Arts

(Designed to provide two academic years of college study for transfer to a four-year university or upper-division college toward a Bachelor of Fine Arts degree. See the *Student Transfer Handbook* for additional advice.)

1. **Group Requirements** (Area of concentration courses may be counted toward satisfaction of group requirements.):
 

a. Communications	9 semester hours
b. Fine Arts/Humanities (selected from 2 or more disciplines)	6 semester hours
c. Social Science (selected from 2 or more disciplines)	6 semester hours
d. Life/Physical Science	7-8 semester hours
e. Mathematics	3-4 semester hours
2. **Required Art Courses** — Art 101, 102, 111, 112, 113, 210, 220, and 230.
3. **Art Electives** — 9 semester hours selected from Art 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 151, and 152.
4. **General Education** — 40-42 semester hours (Courses in the student's area of concentration do not count toward those requirements.)
5. **Constitution Requirement** (See page 58.)
6. **Total Credits Required** — 64-66 semester hours in courses numbered 100 and above. (Students transferring credit to Richland should see regulations concerning transfer students.)
7. **Cumulative Grade Point Average** — 2.00 ("C") or better for all work applicable toward the degree that was completed at Richland. (See page 55.)



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**Associate in Fine Arts (A.F.A.) Transfer Academic Plan**

Area of Concentration \_\_\_\_\_

Designed to provide two academic years of college study

for transfer toward a Bachelor of Arts degree at \_\_\_\_\_

(College or University).

General Education Requirements - 40-42 Hrs.	Course and Number	RCC	Semester and Year	Transfer	Total
<b>Communications:</b> 3 courses (9 Hrs.) Engl. 101, 102; Spch. 101 (Required) ("C" or better required for both Engl. 101 and 102 effective Summer 1999.)					
<b>Social and Behavioral Sciences:</b> (6 Hrs.) (Selected from two or more disciplines.) Anthro. 110, 120, 130; Econ. 231, 232; Hist. 101, 102, 131; Pol. S. 100, 110, 120, 230; Psych. 110, 145, 150, 155, 210, 230; Socio. 110, 150, 200					
<b>Humanities/Fine Arts:</b> (6 Hrs.) Af. Am. 101, 103, 104; Engl. 115, 124, 126, 128, 160, 201, 202, 231, 232, 251, 252; Fren. 202; Germ. 202; Hist. 111, 112, 201, 202, 270; Human. 100, 201; Phil. 100, 110, 120, 210, 215; Span. 202					
<b>Life/Physical Science:</b> 2 courses (7-8 Hrs.) (Select at least one course from life science and at least one course from physical science including at least one laboratory course.) <b>Life Science</b> - Biol. 101, 210 <b>Physical Science</b> - Chem. 100, 131; Ea. Sci. 210, 220, 230; Phy. S. 105; Phys. 100, 101, 111, 151					
<b>Mathematics:</b> 1 course (3-4 Hrs.) Math. 110, 112, 113, 121, 122, 160, 170, 171, 190, 221					
<b>Required Art Courses:</b> Art 101, 102, 111, 112, 113, 210, 220, 230					
<b>Art Electives:</b> (9 Hrs.) (Selected from the following) Art 110, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 151, 152, 160, 240, 251, 252					
<b>Total Hours</b> - (64-66 Required - Minimum of 15 hrs. at Richland)					

2.0 GPA required for all Richland degrees.

**It is strongly recommended that students consult with an academic advisor at both Richland and their transfer institution.**

*Constitution requirement must be met in order to fulfill degree requirements.* -Constitution Requirement Met ☐

## Associate in Engineering Science (A.E.S.)

(Designed to provide two academic years of college study for transfer to a four-year university or upper-division college toward a Bachelor of Science degree. To transfer as a junior into a baccalaureate engineering program, students must complete the 68-semester credit program listed below.)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
<b>Communications:</b>	
Engl. 101: Composition 1	3
Engl. 102: Composition 2	3
<b>Physical Science:</b>	
Chem. 131: General Chemistry 1	4
Chem. 132: General Chemistry 2	5
Phys. 151: Mechanics and Wave Motions	4
Phys. 152: Electricity and Magnetism	4
Phys. 153: Thermodynamics and Modern Physics	4
<b>Mathematics:</b>	
Math. 121: Calculus and Analytic Geometry 1	5
Math. 122: Calculus and Analytic Geometry 2	4
Math. 221: Calculus and Analytic Geometry 3	4
Math. 230: Differential Equations	4
<b>Computer Science:</b>	
Math 141: FORTRAN for Science and Engineering	3
<b>Engineering:</b>	
Engr. 110: Engineering Graphics (include CAD)	3
Engr. 211: Analytical Mechanics 1: Statics	3
Engr. 212: Analytical Mechanics 2: Dynamics	4
<b>Social Science/Humanities:</b>	6
Social science or humanities sequence from the list of approved, transferable electives. Econ. 231/232 sequence is strongly recommended.	
<b>Electives:</b>	5
Choose from a list of approved transfer electives. Lists may vary according to specific area of concentration.	

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Instructional Programs

Associate in Engineering Science (A.E.S.) Transfer Academic Plan

Area of Concentration \_\_\_\_\_

Designed to provide two academic years of college study for  
transfer toward a Bachelor of Science degree in engineering at \_\_\_\_\_  
(College or University).

General Education Requirements - 40-42 Hrs.	Course and Number	RCC	Semester and Year	Transfer	Total
<b>Communications:</b> 2 courses (6 Hrs.) Engl. 101, 102					
<b>Physical Science:</b> 5 courses (21 Hrs.) Chem. 131, Chem. 132, Phys. 151, Phys. 152, Phys. 153					
<b>Mathematics:</b> 4 courses (17 Hrs.) Math. 121, Math. 122, Math. 221, Math. 230					
<b>Computer Science:</b> 1 course (3 Hrs.) - Math. 141					
<b>Engineering:</b> 3 courses (10 Hrs.) Engr. 110, Engr. 211, Engr. 212					
<b>Social Science/Humanities:</b> 2 courses ( 6 Hrs.) Social Science or Humanities sequence from the list of approved, transferable electives. Econ. 231/232 sequence is strongly recommended. <b>Social and Behavioral Sciences:</b> (Selected from two or more disciplines.) Anthro. 110, 120, 130; Econ. 231, 232; Hist. 101, 102, 131; Pol. S. 100, 110, 120, 230; Psych. 110, 145, 150, 155, 210, 230; Socio. 110, 150, 200 <b>Humanities/Fine Arts:</b> (6 Hrs.) Af. Am. 101, 103, 104; Engl. 115, 124, 126, 128, 160, 201, 202, 231, 232, 251, 252; Fren. 202; Germ. 202; Hist. 111, 112, 201, 202, 270; Human. 100, 201; Phil. 100, 110, 120, 210, 215; Span. 202.					
<b>Electives:</b> 2 courses ( 5 Hrs.) Must be transfer courses					
<b>Total Hours -</b> (68 Required - Minimum of 15 hrs. at Richland)					

2.0 GPA required for all Richland degrees.

**It is strongly recommended that students consult with an academic advisor at both Richland and their transfer institution.**

Constitution requirement must be met in order to fulfill degree requirements. -Constitution Requirement Met ☐

## Area of Concentration Suggestions for Baccalaureate/Transfer Programs

Students planning to pursue a bachelor's degree with a major in one of the areas listed are offered the following suggestions regarding courses to be included during their first two years of study.

These suggestions are designed for students who have not yet selected a four-year college. In all cases, any student who has chosen the college or university to which he/she intends to transfer should consult that institution's catalog or transfer handbook in planning a program.

For each area of concentration, the customary associate's degree is designated.

### **Accounting** (A.A. or A.S.)

Area of Concentration: Acct. 101, 102; Econ. 231, 232.

Other suggested courses: Math. 160, 170, 171, 190, C.I.S. 110.

### **African-American Studies** (A.A. or A.S.)

Area of Concentration: Af. Am. 101, 102, 103, 104.

### **Agriculture** (A.S.)

Area of Concentration: Agric. 106, 120, 130, 180, 210, 230; Hort. 190.

### **Anthropology** (A.A. or A.S.)

Area of Concentration: Anthr. 110, 120, 130.

### **Art** (A.A.)

Area of Concentration: Art 101, 102, 111, 112, and at least two courses from those listed below.

Other suggested courses: Art 110, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 131, 150, 151, 152, 225, 230, 240, 251, 252.

### **Biology** (A.S.)

Area of Concentration: Biol. 101, 102, 201, 202, 210, 215, 220.

Other suggested courses: Chem. 131, 132.

### **Business** (A.A. or A.S.)

Area of Concentration: Acct. 101, 102; Bus. 231; Econ. 231, 232.

Other suggested courses: Bus. 227; C.I.S. 105 or 110; Math. 116, 160, 170, 190, and above; psychology.

### **Business - International** (A.A. or A.S.)

Area of Concentration: Acct. 101, 102; Bus. 227; Econ. 225, 231, 232; Hist. 112, 202; Pol. S. 230; C.I.S. 110.

Other suggested courses: Math 160, 170, 190.

### **Chemistry** (A.S.)

Area of Concentration: Chem. 131, 132, 201, 202.

Other suggested courses: Math. 121, 122.

### **Computer Science** (A.S.)

Area of Concentration: Biol. 101 or 210; C.S. 151, 152, 230, 270; Math. 121, 122, 210, 221; Phys. 151, 152, 153.

### **Dentistry**

See Pre-Dentistry.

### **Earth Science** (A.S.)

Area of Concentration: Ea. Sci. 210, 220, 230.

### **Economics** (A.A. or A.S.)

Area of Concentration: Econ. 231, 232.

Other suggested courses: Bus. 227; Econ. 200, 225; Math. 160, 170, 190, plus courses in sociology and political science.

### **Education**

See Teacher Education.

### **Engineering** (A.E.S.)

See Associate in Engineering Science (Page 73.)

### **English** (A.A.)

Area of Concentration: (a selection of four of the following) Engl. 115, 124, 126, 128, 140, 150, 160, 201, 202, 231, 232, 251, 252.

Other suggested courses: courses in economics, foreign language, history, literature, or political science.

**Foreign Language (A.A.)**

Area of Concentration: two years of study in the chosen language.

Other suggested courses: one sequence in United States or ancient or European history and literature courses.

**General Science (A.S.)**

Area of Concentration: Biol. 101, 102 or Chem. 131, 132 or Phys. 101, 102 or Phys. 210, 211, 212, plus three or more science courses in addition to one of the one-year sequences listed above, selected from the fields of biology, chemistry, or physics.

**History (A.A.)**

Area of Concentration: Hist. 101, 102, 105, and either Hist. 111, 112; or Hist. 201, 202; or Hist. 250, 251.

Other suggested courses: courses in economics, foreign language, history, literature, or political science.

**Journalism (A.A.)**

Area of Concentration: Journ. 101, 102, 110.

**Mathematics (A.S.)**

Area of Concentration: Math. 121, 122, 221, plus one additional mathematics course.

Other suggested courses: Chem. 131, 132; Phys. 210, 211, 212.

**Medicine**

See Pre-Medicine.

**Philosophy (A.A.)**

Area of Concentration: Phil. 100, 110, 120, 200, 210, 215, 220.

Other suggested courses: humanities and/or history courses.

**Physics (A.S.)**

Area of Concentration: Phys. 151, 152, 153.

Other suggested courses: Chem. 131, 132; Math. 121, 122, 221, 230.

**Political Science/Pre-Law (A.A. or A.S.)**

Area of Concentration: Pol. S. 100, 110, 120, 230.

Other suggested courses: Econ. 231, 232; Hist. 101, 102; Phil. 110, 130.

**Pre-Dentistry (A.S.)**

Students planning to enter dentistry school should consult the entrance requirements of the school they plan to attend.

**Pre-Forestry (A.S.)**

Area of Concentration: General Science, including Biol. 101, 102, 210; Chem. 131, 132.

Other suggested courses: Math. 117; Phys. 101; and courses in accounting, business, and economics.

Since the study of special forestry courses generally comes during the third and fourth years of a bachelor's degree program, students desiring a B.S. in forestry should select General Science as their area of concentration at Richland.

**Pre-Medicine (A.S.)**

Students planning to enter medical school should consult the entrance requirements of the institution they plan to enter.

**Pre-Veterinary (A.S.)**

For purposes of identifying an area of concentration at Richland, biology is recommended as an area of concentration.

Other suggested courses: Chem. 131, 132.

**Psychology (A.A. or A.S.)**

Area of Concentration: Psych. 110, plus two or more from the following: Psych. 130, 150, 200, 210, 250, 260, 280.

Other suggested courses: Math. 160, 170, or 190 and other social science.

**Sociology (A.A. or A.S.)**

Area of Concentration: Socio. 110, plus three or more from the following: Socio. 125, 130, 135, 141, 142, 150, 160, 200.

Other suggested courses: Econ. 200, Math. 170.

**Speech and Drama (A.A.)**

Area of Concentration: Three or more courses from Drama 150, 160, 170; Spch. 110, 210, 230.

### **Teacher Education (A.A. or A.S.)**

#### **Elementary Education**

Area of Concentration: To be selected on the basis of individual interest. Students intending to teach in elementary schools must meet state certification requirements in history, mathematics, political science, psychology, science, and speech. Courses that can help satisfy these requirements are Biol. 101, 102; Chem. 100; Ed. 100, 200; Hist. 101, 102; Math. 111, 112; Phys. S. 105; Pol. S. 110; Psych. 110, 150, 200; Spch. 101.

#### **Secondary Education**

Students intending to teach in high school should select for their area of concentration the specific area or broad field of study they are interested in teaching. Students should also complete Ed. 100.

### **Business Teacher Education**

Area of Concentration: Acct. 101, 102; Bus. 120, 231; C.I.S. 110; O.T. 132, 150, 212, 250, or as many courses as indicated appropriate in the bulletin of the four-year college at which the student expects to complete the bachelor's degree.

#### **Physical Education**

The student is encouraged to pursue a wide variety of physical education activities.

### **Other Areas of Baccalaureate Study**

The suggested baccalaureate majors listed above represent the more popular areas of probable study by community college students. Some students will desire to pursue a bachelor's degree with a major not listed. They are encouraged to determine whether Richland can provide the appropriate initial study toward their selected baccalaureate major.

## **Articulated 2+2 Degree Programs**

Articulated 2+2 programs are designed for Richland students who intend to transfer to another institution to complete a four-year degree after earning an associate's degree at Richland.

The Transfer Center and Student Development and Services provide extensive transfer information on Richland's associate degree transfer curriculum (2+2) articulated agreements with various baccalaureate institutions.

Eastern Illinois University - Industrial Technology  
 Franklin University, Columbus, Ohio - Business Administration  
 Franklin University, Columbus, Ohio - Computer Science  
 Franklin University, Columbus, Ohio - Public Safety Management  
 Franklin University, Columbus, Ohio - Management Information Systems  
 Franklin University, Columbus, Ohio - Technical Management  
 Illinois State University - Business Administration  
 Southern Illinois University - Electronics Management  
 Southern Illinois University - Information Systems Technology

## Tech Prep

Tech Prep curriculum integrates academic and technical skills into the classroom to smooth the transition from high school to higher education or the workplace. Tech Prep is a partnership between business/industry, community and the K-12 through college educational system. Tech Prep is a planned sequence of courses for grades 9-14 designed to prepare students to enter their chosen career field with the skills necessary to compete in tomorrow's global job market.

Tech Prep programs can lead to advanced placement in a community college, technical school, or apprenticeship program while preparing students for employment in high-skilled technical occupations which will dominate the workplace in the next decade.

A Tech Prep Program provides technical preparation in four occupational clusters defined by area business and industry representatives to include the following courses:

### **Allied Health and Human Services**

- Child Care Occupations
- Dental Hygiene
- Emergency Medical Technology
- Fire Science
- Food Service Management
- Law Enforcement
- Nursing
- Occupational Therapy Assistance
- Physical Therapy Assistance
- Radiography
- Respiratory Care
- Surgical Technology

### **Business and Computer Information Technology**

- Accounting
- Computer Information Systems Plus
- Computer Information Systems-Programming
- Computer Information Systems-Microcomputer Applications-Network Management
- Computer Information Systems
- Microcomputer Applications-Microcomputer Specialty
- Management

- Marketing
- Office Technology
- Supervision of Personnel

### **Industrial and Engineering Related Technology**

- Automotive Technology
- Computer Integrated Manufacturing
- Computer Service Technician
- Electronic Systems Technology
- Electronics
- Engineering Science
- Heating, Ventilation, Air Conditioning, & Refrigeration
- Industrial Drafting
- Industrial Engineering Technology
- Industrial Maintenance
- Machine Tool Processes
- Materials Management
- Mechanical Technology
- Production Control
- Welding

### **Agriculture Business/Management and Horticulture**

- Agriculture (Transfer degree)
- Grain Elevator Management
- Horticulture

A prescribed sequence of courses in any area is designed to build student competence in mathematics, science, communications and technology. Tech Prep programs use applied academics to ensure a link between school activities and the real world work, and offers students opportunities for job shadowing, and job mentoring and can lead to job placement upon program completion.

Students interested in pursuing a certificate or an A.A.S. Degree in a Tech Prep career pathway should contact the Career Counselor at (217)875-7211, Ext. 280, or notify the advisor prior to registering for classes. A Tech Prep Coordinator at (217) 875-7211, Ext. 492, is also available at Richland Community College to assist students with Tech Prep supportive services.

## Occupational and Technical Programs

Richland Community College strives to provide educational opportunities to enable individuals to become contributing members of the workforce beyond the year 2001. The workplace has changed with new work hours and work patterns due to improved telecommunications and computer technologies. Sixty-five percent of new jobs will require post-secondary education and training below the baccalaureate level, and 75% of the current workforce needs training. The information supply available doubles every five years.

The mission of the occupational and technical programs at Richland is to provide students the opportunities to choose, prepare for, and advance in their careers and vocations. This mission is accomplished by integrating technical education and academic education to provide the skills and education needed for living in a global society, competing in the workforce, and being receptive to lifelong learning.

A number of the occupational programs are articulated with four-year institutions to allow for the completion of a four-year degree in an additional two years if desired. To meet the broad range of student objectives, Richland Community College offers several types of instructional programs:

### Basic Certificate

A basic certificate is an award for satisfactory completion of a series of courses totaling 30 semester credit hours or less. Those programs that have only a basic certificate are designed to provide the necessary skills to obtain an entry-level position. For programs that have a basic certificate as part of a degree, the certificate is an award for satisfactorily completing a series of courses.

### Advanced Certificate

An advanced certificate is awarded for satisfactory completion of a series of courses or curriculum totaling 50 semester credit hours or less. This certificate is designed to provide the technical skills that would prepare an individual for initial employment in the job setting or for those currently employed and in need of advanced study.

### Associate in Applied Science

An Associate in Applied Science (A.A.S.) degree is an award for the satisfactory completion of a prescribed curriculum of 60 semester credit hours or more intended to prepare individuals for employment in a specific field. It also serves those persons already employed in the field who desire to improve their competencies and achieve an associate's degree. A number of the A.A.S. degrees have been articulated (page 77) and/or capstoned (see below) with four-year institutions for completion of a Bachelor's degree.

### Capstone Options

Some occupational programs and/or courses transfer to senior institutions although they are not designed specifically for transfer. Southern Illinois University at Carbondale offers, for example, the Capstone Option allowing students who have earned two-year occupational degrees the option of pursuing a bachelor's degree without losing credits already earned. Students planning to transfer should consult a Richland counselor or advisor for additional information.



## Graduation Requirements

Graduation requirements for the Basic Certificate or the Advanced Certificate in any occupational-oriented program are the completion of

1. The program as outlined in this Catalog. (Students transferring credit to Richland should see regulations under Admissions, page 18.)
2. Constitution Requirement. (See page 58.)
3. Cumulative Grade Point Average—2.00 (“C”) or better for all work applicable toward the certificate or degree that was pursued at the College. (See page 55.)

## Course Prerequisites

Many of the following programs are designed to serve students with no previous study or experience in the program area.

In order that students who have acquired knowledge in occupational program fields through high schools or whose work experience may benefit from that knowledge, the College recognizes such education through credit evaluation programs. (See “Credit Evaluation Programs,” page 19.) Transfer of college credit to Richland is explained under Admissions, page 18.

If any student pursuing an occupational-oriented program has a background that makes any listed course(s) inappropriate, two options are recommended:

1. The student may earn credit for the course(s) through proficiency examination(s) or advanced placement in an approved sequence; if such proficiency credit is awarded, it will shorten the total time required to complete the program.
2. If a student needs to complete a sequence of courses so that proficiency credit for one or more courses will not reduce the total time required to complete the program, he or she is encouraged to earn proficiency credit and enroll in other courses that would increase his or her competencies beyond the minimum requirements for the program.

## Course Sequences

All students enrolled in one of the certificate programs and part-time students in the A.A.S. curriculum are encouraged to pursue their respective programs by taking general and related courses along with their special interest courses rather than taking all courses in the order listed. Obviously, the appropriate prerequisite experiences should be completed prior to enrolling in a course having prerequisites.

## Group Requirements for Occupational Certificates and A.A.S. Degrees

Several programs require some study in courses that satisfy certain Group Requirements. These are subdivided into:

Business  
Communications  
Humanities/Fine Arts  
Mathematics  
Natural/Life/Physical Science  
Social Science

The following courses satisfy these Group Requirements:

### Business

Acct. 100, 101, 102, 130, 201, 202, 211  
Agric. 120  
Bus. 100, 110, 119, 120, 124, 125, 140, 145, 146, 227, 231, 232, 245, 246, 290  
C.I.S. 105, 110, 115, 120, 130, 131, 145, 161, 162, 163, 210, 220, 221, 222, 225, 245, 251, 252, 255, 261, 285, 295, 297  
C.I.M. 100  
O.T. 100, 102, 104, 105, 112, 131, 132, 150, 160, 210, 211, 212, 250

### Communications

Engl. **101, 102**, 110, 114, 220, 222  
Spch. **101**, 110, 120, 140, 210, 230

### Humanities

Af. Am. **101**, 102, 103, 104  
Engl. **115, 124, 126, 128, 140, 150, 160, 201, 202, 231, 232, 251, 252**  
Fren. **202**  
Germ. **202**  
Hist. **111, 112, 201, 202, 270**  
Human. **100, 201**  
Phil. **100, 110, 120, 200, 210, 215, 220**  
Span. **202**

### Fine Arts

Af. Am. **101, 102, 103**  
Art **100, 210, 220, 230, 240**  
Drama **150**  
Engl. **140**  
Human. **100, 201**  
Music **100, 190**

### Mathematics

Math. 104, 106, **110**, 111, **112, 113**, 116, 117, **121, 122**, 141, **160, 170, 171, 190**, 210, **221**, 230, 240

### Natural/Life/Physical Science

Agric. 104, 105, **130**  
Biol. **101**, 102, 201, 202, **210**, 220  
Chem. **100**, 110, **131**, 132, 201, 202  
Ea. Sci. **210, 220, 230**  
Eltrn. 110  
H. Ec. 110 (C.C. & E. only)  
Hort. 190  
Phy. **S. 105**, 220  
Phys. **100, 101, 102, 111, 115, 120, 151, 152, 153**

### Social Science

Anthr. **110, 120, 130**  
Econ. 140, 200, 225, **231, 232**  
Ed. 100, 101, 199, 200  
Hist. **101, 102**, 105, 120, **131**, 250, 251  
P. Rel. 100, 110, 120, 200  
Pol. **S. 100, 110, 120, 230, 290**  
Psych. 100, **110**, 130, **145, 150**, 200, **210, 220, 230, 250, 260, 280**  
Socio. 100, **110**, 125, 130, 135, 141, 142, **150, 160, 200**  
Soc. S. 199

**Bold print indicates I.A.I. approved general education classes.**

## Occupational Program Degree Requirements

Agricultural Products and Processing	
Agri/Industrial Processing Technology (A.A.S.) .....	Page 83
Grain Elevator Management (A.A.S.) .....	Page 83
Agri Professional Custom Application (Cert.) .....	Page 84
Automotive Technology (Cert., A.A.S.) .....	Page 85
Business (A.A.S., Page 87; Cert., Page 89)	
Accounting	
Management/Leadership	
Marketing	
Materials Management	
Supervision of Personnel	
CDL Truck Driver Training (Cert.) (See Transportation) .....	Page 119
Child Care and Education (Basic Cert., Adv. Cert., A.A.S.) .....	Page 90
Computer Information Systems: Programming (A.A.S.) .....	Page 91
Computer Information Systems: Microcomputer Applications (Cert., A.A.S.) .....	Page 91
CIS Plus - Certificate of Readiness (Cert.) .....	Page 93
Computer Integrated Manufacturing (Basic Cert., A.A.S.) .....	Page 94
Computer Networking (Cert.) .....	Page 95
Computer Service Technician (Cert.) .....	Page 95
Electronic Systems Technology (A.A.S.) .....	Page 96
Electronics (Basic Cert., Adv. Cert., A.A.S.) .....	Page 97
Biomedical Option (A.A.S.) .....	Page 98
Emergency Medical Technology (Basic Cert., Adv. Cert., A.A.S.) .....	Page 99
Fire Science (Basic Cert., Adv. Cert., A.A.S.) .....	Page 100
Food Service Management (Cert., A.A.S.) .....	Page 102
Graphic Arts (Cert., A.A.S.) .....	Page 103
Heating, Ventilation, Air-Conditioning, & Refrigeration (Cert.) .....	Page 104
Horticulture (A.A.S.) .....	Page 105
Turf Grass Management (Adv. Cert.) .....	Page 106
Industrial Drafting (Basic Cert., Adv. Cert., A.A.S.) .....	Page 106
Industrial Engineering Technology (A.A.S.) .....	Page 108
Industrial Maintenance (Basic Cert.) .....	Page 108
Law Enforcement (Basic Cert., Adv. Cert., A.A.S.) .....	Page 109
Machine Tool Processes (Basic Cert., Adv. Cert., A.A.S.) .....	Page 110
Mechanical Technology (A.A.S.) .....	Page 111
Nurse Assistant (Cert.) .....	Page 112
Nursing (A.D.N., A.A.S.) .....	Page 113
Office Technology (Cert., A.A.S.) .....	Page 115
Pharmacy Technician (Cert.) .....	Page 117
Surgical Technology (Cert., A.A.S.) .....	Page 117
Transportation (Basic Cert.) .....	Page 119
Welding (Basic Cert.) .....	Page 120

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

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## Accounting (See page 87.)

## Agricultural Products and Processing

### Agri/Industrial Processing Technology

**General Description:** The Agri/Industrial Processing Technology program is designed to prepare students to be employed in the agricultural food processing industry. An understanding of agriculture production and marketing issues will be helpful for students seeking employment in this field. Graduates will be working mainly inside. All organizations require leadership, management, and supervisory skills. Employers will include local food processing industries.

**Aptitudes:** An interest in working with people and with industrial machinery is necessary. Also needed are physical stamina, mechanical aptitude, and good mathematical ability.

**Outlook:** Central Illinois has a high concentration of agri/industrial technologists. Many openings will occur as experienced workers retire.

*This is an occupational training program. Some of the courses may not transfer to four-year institutions.*

### Associate in Applied Science Degree—Agri/Industrial Processing Technology

(66 Credit Hours)

(ICCB Code: AAS 0062)

Required Courses:	Cr. Hrs.
Bus. 100: Introduction to Business	3
Chem. 131: General Chemistry 1	4
Chem. 132: General Chemistry 2	5
C.I.S. 110: Business Applications on Microcomputers	3
Draft. 101: Fundamentals of Drafting	4
Econ. 231: Macroeconomics	3
Econ. 232: Microeconomics	3
Eltrn. 109: Industrial Controls	4
Eltrn. 110: Introduction to Electricity and Electronics	2
Eltrn. 111: Circuit Analysis	3
Engr. 110: Engineering Graphics	3
Engl. 101: Composition 1	3
Engl. 102: Composition 2	3
Engl. 110: Communicating in the Workplace	3
Ind. S. 100: Industrial Safety and Health	3
Math. 104: Technical Mathematics	4
Mec. S. 112: Pneumatics and Hydraulics	3
P. Rel. 100: Human Relations (or Spch. 110)	3
P. Rel. 110: Supervisory Techniques and Personnel Development	3
Phys. 115: Technical Physics	4

## Agricultural Products and Processing

### Grain Elevator Management

**General Description:** The Grain Elevator Management program is designed to prepare students to be employed as grain elevator managers. A working knowledge of issues in agriculture will be helpful to prospective employees. Graduates will be working inside and outside. Employees will be expected to work long hours during harvest season. All organizations require leadership skills, management skills, and supervisory skills. Employers will include local food processing firms, but employees may be asked to work in locations outside the Decatur area.

**Aptitudes:** An interest in working with people and industrial machinery is necessary. Also needed are physical stamina, mechanical aptitude, and good mathematical ability.

**Outlook:** Job opportunities in Central Illinois and the Midwest are excellent as this is an expanding industry. Candidates may need to relocate for job openings.

*This is an occupational training program. Some of the courses may not transfer to four-year institutions.*

**Associate in Applied Science Degree—Agricultural Products and Processing-  
Grain Elevator Management (64 Credit Hours)** (ICCB Code: AAS 0061)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Acct. 101: Principles of Accounting 1	4
Acct. 102: Principles of Accounting 2	4
Agric. 104: Fundamentals of Crop Production	3
Agric. 120: Introduction to Agricultural Economics	3
Agric. 130: Introductory Crop Science	4
Agric. 260: Marketing Agricultural Products	3
Agric. 290: Work Experience Practicum and Seminar	5
Bus. 120: Business Communications	3
C.I.S. 110: Business Applications on Microcomputers	3
Eltrn. 110: Introduction to Electricity & Electronics	2
Engl. 101: Composition 1	3
Engl. 102: Composition 2	3
Ind. S. 100: Industrial Safety and Health	3
Math. 104: Technical Mathematics	4
Phys. 115: Technical Physics	4
P. Rel. 100: Human Relations	3
P. Rel. 110: Supervisory Techniques and Personnel Development	3
Spch. 101: Principles of Speech	3
Weld. 101: Shielded Metal Arc Welding	4

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**Agri Professional Custom Application**

**General Description:** Individuals trained in the Custom Applications program will operate, repair, and maintain high tech machinery and equipment and use state-of-the art computer hardware and software. They are strong in customer relations skills and have the ability to sell. One of the fascinations for workers in this career field is the variety of activities performed throughout the year.

**Aptitudes:** Successful individuals will possess excellent verbal and written communications skills and an interest and ability in things mechanical. A high level of energy and strong critical and creative thinking skills are also required. Positive people skills are necessary.

**Outlook:** Custom Applications is one of the areas in agri-business that is catching attention because of the significant advances in the technology of the area. Many job opportunities currently exist in the Central Illinois region, and because of the industry's demand for qualified workers, too few people are available to do the work.

*This is an occupational training program. Some of the courses may not transfer to four-year institutions.*

**Certificate—Agri Professional Custom Application**  
**(37 Credit Hours)** (ICCB Code: C 061A)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Agric. 101: Care and Adjustment of Agricultural Equipment	3
Agric. 104: Fundamentals of Crop Production	3
Agric. 130: Introductory Crop Science	4
Agric. 180: Introductory Agricultural Mechanization	3
Agric. 200: Weed and Pest Control	4
Agric. 210: Introductory Soil Science	4
Agric. 230: Computer Technology in Agriculture	3
Agric. 240: GPS Applications in Agriculture	3
Agric. 255: Agric-Business Sales and Management	3
Agric. 260: Marketing Agricultural Products	3
Chem. 100: Concepts of Chemistry	4

(Suggested Elective—Agric. 241: Intro to GIS Using ArcView)

## Automotive Technology

**General Description:** The Automotive Technology Program provides students with an opportunity to obtain a solid foundation of knowledge, experience, and skills that will assist in job entry and career advancement in the automotive industry. Current automotive trends indicate that the automobile will continue to experience changes that include expanded use of electronics and computerized controls for improving engine performance, fuel efficiency, on-board diagnostics, exhaust emissions, and passenger comfort and safety. These changes will require persons knowledgeable and highly skilled in specialized areas of automotive technology.

The Automotive Technology Program has achieved master certification by the National Institute for Automotive Service Excellence (NATEF). Instruction is offered in all eight areas of ASE certification – engine repair, automatic transmission/transaxles, manual drive trains and axles, steering and suspension, brakes, electrical/electronic systems, heating and air conditioning, and engine performance. All graduates are encouraged to complete the certification process by taking the ASE certification tests.

**Aptitudes:** Students in the Automotive Technician Program need good reasoning skills and diagnostic skills. They also need good hand-eye coordination and the ability to perceive objects in two- or three-dimensional form.

**Outlook:** This is a large occupational field in Illinois that is expected to have many job openings each year. Education and experience are essential to succeed because of rapidly changing technology. *This is an occupational training program. Some of the courses may not transfer to four-year institutions.*

### Senior Automotive Repair Technician Certificate (45.5 Credit Hours)

(ICCB Code: BC 0069)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Auto. 101: Basic Theory	3.5
Auto. 102: Electrical Systems	4
Auto. 201: Suspension and Steering Alignment	4
Auto. 202: Heating and Air Conditioning	3
Auto. 203: Fuel and Emission Systems	4
Auto. 204: Engine Repair	4
Auto. 205: Manual Drive Train and Axles	4
Auto. 206: Automatic Transmissions and Transaxles	4
Auto. 207: Advanced Automotive Electronics	4
Auto. 208: Automotive Brakes	4
Auto. 209: Advanced Driveability Problem Diagnosis	4
Group Requirements/Electives(s)	3

### Automotive Service Specialist Certificate (7.5 credit hours)

(ICCB Code: 0071A )

<b>Required Courses</b>	<b>Cr. Hrs.</b>
Auto 101: Basic Theory	3.5
Auto 102: Electrical Systems	4

### Automotive Performance Specialist Certificate (19.5 credit hours)

(ICCB Code:0071B)

<b>Required Courses</b>	<b>Cr. Hrs.</b>
Auto 101: Basic Theory	3.5
Auto 102: Electrical Systems	4
Auto 203: Fuel and Emission Systems	4
Auto 207: Advanced Automotive Electronics	4
Auto 209: Advanced Driveability Problem Diagnosis	4

**Certificate—Automotive Brake, Steering, and Suspension Specialist**  
(15.5 credit hours)

(ICCB Code: 0071C)

<b>Required Courses</b>	<b>Cr. Hrs.</b>
Auto. 101: Basic Theory	3.5
Auto. 102: Electrical Systems	4
Auto. 201: Suspension and Steering Alignment	4
Auto. 208: Automotive Brakes	4

**Certificate—Automotive HVAC Specialist (10.5 credit hours)**

(ICCB Code: 0071D)

<b>Required Courses</b>	<b>Cr. Hrs.</b>
Auto. 101: Basic Theory	3.5
Auto. 102: Electrical Systems	4
Auto. 202: Heating and Air Conditioning	3

**Certificate—Automotive Engine Rebuilder (11.5 credit hours)**

(ICCB Code: 0071E)

<b>Required Courses</b>	<b>Cr. Hrs.</b>
Auto. 101: Basic Theory	3.5
Auto. 102: Electrical Systems	4
Auto. 204: Engine Repair	4

**Certificate—Automotive Transmission and Driveline Specialist**  
(15.5 credit hours)

(ICCB Code: 0071F)

<b>Required Courses</b>	<b>Cr. Hrs.</b>
Auto. 101: Basic Theory	3.5
Auto. 102: Electrical Systems	4
Auto. 205: Manual Drive Train and Axles	4
Auto. 206: Automatic Transmissions and Transaxles	4

**Associate in Applied Science Degree - Automotive Technology**  
(61.5 Credit Hours)

(ICCB Code: AAS 0071)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Acct. 100: Fundamentals of Accounting (or Acct. 101)*	3
Auto. 101: Basic Theory	3.5
Auto. 102: Electrical Systems	4
Auto. 201: Suspension and Steering Alignment	4
Auto. 202: Heating and Air Conditioning	3
Auto. 203: Fuel and Emission Systems	4
Auto. 204: Engine Repair	4
Auto. 205: Manual Drive Train and Axles	4
Auto. 206: Automatic Transmissions and Transaxles	4
Auto. 207: Advanced Automotive Electronics	4
Auto. 208: Automotive Brakes	4
Auto. 209: Advanced Driveability Problem Diagnosis	4
Auto. 290: Automotive Internship	3
C.I.S. 110: Business Applications on Microcomputers*	3
Engl. 110: Communicating in the Workplace*	3
Math 104: Technical Mathematics*	4
P. Rel. 100: Human Relations*	3

\*Students who intend to pursue a Bachelor's Degree should take the following General Education substitutions:

Engl. 101: Composition 1 in place of Engl. 110: Communicating in the Workplace  
Math. 110: Concepts of Mathematics in place of Math. 104: Technical Mathematics  
Phys. 100: Physics and Society in place of C.I.S. 110: Bus. Appls. on Microcomputers  
Psych. 110: Introduction to Psychology in place of P. Rel. 100: Human Relations  
Spch. 101: Principles of Speech in place of Acct. 100: Fundamentals of Accounting

## Business

**General Description:** The Business Instructional Area consists of an A.A.S. degree in Business with a specialization in either Accounting, Management/Leadership, Marketing, or Materials Management. Students wishing to earn the Business A.A.S. degree must complete the required business core courses, the required courses for the desired specialization, elective courses in business, and specified general education requirements. A certificate is also available with a specialization in one of the following areas: Accounting, Management/Leadership, Marketing, Materials Management, and Supervision of Personnel. *This is an occupational training program. Some of the courses may not transfer to four-year institutions.*

### Associate in Applied Science Degree—Business (62-64 Credit Hours)

(ICCB Code: AAS 038C)

#### Required Business Core Courses for

##### Accounting, Management, and Marketing:

	Cr. Hrs.
Acct. 101: Principles of Accounting 1	4
Acct. 102: Principles of Accounting 2	4
Bus. 100: Introduction to Business	3
Bus. 110: Business Mathematics	3
Bus. 120: Business Communications	3
Bus. 124: Principles of Marketing	3
Bus. 231: Business Law 1	3
Bus. 232: Business Law 2	3
Bus. 246: Fundamentals of Management	3
C.I.S. 110: Business Applications on Microcomputers	3
Econ. 231: Macroeconomics (Social Science Req.)	3
Econ. 232: Microeconomics (Social Science Req.)	3
Engl. 110: Communicating in the Workplace (Communications Req.)	3
P. Rel. 100: Human Relations (Social Science Req.)	3
Spch. 120: Business and Professional Speaking (Communications Req.)	3

#### Required Business Core Courses for Materials Management:

##### Cr. Hrs.

Acct. 100: Fundamentals of Accounting	3
Bus. 100: Introduction to Business	3
Bus. 110: Business Mathematics	3
Bus. 120: Business Communications	3
Bus. 227: International Business Management	3
Bus. 246: Fundamentals of Management	3
C.I.S. 110: Business Applications on Microcomputers	3
Econ. 231: Macroeconomics	3
Engl. 101: Composition 1 (or Engl. 110)	3
P. Rel. 100: Human Relations (Social Science Req.)	3
Spch. 101: Principles of Speech (or Spch. 120)	3
Group Requirements/Electives (Social Science, Humanities/Fine Arts, or Math or Natural/Life/Physical Science)	3

## Specializations

### Accounting

**Description:** Curriculum focuses on skills needed to enter the job market as payroll clerk, billing clerk, internal auditor, bookkeeper, junior accountant, or accounting clerk. Also, it may prepare students for transfer to a senior institution.

**Aptitudes:** This field requires the ability to work with numbers, to do detailed work with data, and to be precise while working with set standards.

**Outlook:** This is a large occupational field in Illinois. There will be many openings, primarily to replace those who leave the labor field. Most positions require good computer skills.



Required Accounting Courses:	Cr. Hrs.
Acct. 130: Tax Accounting	3
Acct. 201: Intermediate Accounting 1	4
Acct. 202: Intermediate Accounting 2	4
Acct. 211: Managerial Cost Accounting 1	3
Elective Business Courses: 3 Credit Hours selected from:	3
Bus. 125, 145, 146, 227, 245, 290; P. Rel. 110, 120, 200	

## Management/Leadership

**Description:** The program is designed to provide the student with the skills required for supervisory and mid-management positions. It is intended for those who need training for future employment and those already employed who are seeking promotion.

**Aptitudes:** People- and task-oriented skills are required. Good math skills and the ability to communicate effectively, both verbally and in writing, are necessary.

**Outlook:** This is a large occupational field in Illinois. Most openings will be in retail management and the hospitality industry.

Required Management Courses:	Cr. Hrs.
P. Rel. 110: Supervisory Techniques and Personal Development	3
P. Rel. 120: Labor Management Relations	3
P. Rel. 200: Personnel Administration	3
Elective Business Courses: 6 Credit Hours selected from:	6
Bus. 125, 145, 146, 227, 245, 290; Acct. 201, 202, 211	

## Marketing

**Description:** The program is designed to study activities involved in directing product from producer to consumer. Students prepare to work in such areas as retail and industrial marketing, sales, market research, advertising, and buying.

**Aptitudes:** Marketing careers require people who are self-motivated and have an enthusiastic manner. Good communication skills, the ability to work with others, and organizational skills are also important.

**Outlook:** Most openings in this field will be in retail management as well as in all types of sales.

Required Marketing Courses:	Cr. Hrs.
Bus. 145: Fundamentals of Retailing	3
Bus. 146: Fundamentals of Sales	3
Bus. 245: Fundamentals of Advertising and Sales Promotion	3
Elective Business Courses: 6 Credit Hours selected from:	6
Bus. 125, 227, 290; P. Rel. 110, 120, 200; Acct. 201, 202, 211	

## Materials Management

**Description:** The program is an integrated approach to planning, acquisition, conversion, flow, and distribution of production materials from the raw material state to the finished product state. This program closely follows APIX program requirements for Materials Management and prepares individuals for APIX certification testing.

**Aptitudes:** Individuals need a varied background that includes the basics of accounting, cost accounting, financial planning, economics, marketing, statistics, communications skills, and electronic data processing.

**Outlook:** This field is directly related to the growth or decline of the manufacturing industry.

Required Materials Management Courses:	Cr. Hrs.
C.I.M. 100: Introduction to Computer Integrated Manufacturing	3
C.I.M. 120: Production and Inventory Control	3
Matls. 110: Fundamentals of Materials Management	3
Matls. 120: Purchasing and Procurement Systems	3
Matls. 130: Principles of Physical Distribution	3
Matls. 210: Material Requirements Planning	3
Matls. 240: Distribution Resource Planning	3
Matls. 250: Master Planning	3
Prod. C. 130: Inspection and Quality Control	3

## Business Certificates:

Five Business Certificates include Accounting, Marketing, Management/Leadership, Materials Management, and Supervision of Personnel. A basic core of courses is common for each of these certificates, with specific required courses for each area. These are listed below.

<b>Core Courses (Required for all Business Certificates)</b>		(ICCB Code: 0037C)
<b>Required Courses:</b>		<b>Cr. Hrs.</b>
Bus. 100: Introduction to Business		3
Bus. 110: Business Mathematics		3
C.I.S. 110: Business Applications on Microcomputers		3
<b>Accounting (34 Credit Hours)</b>		
Acct. 101: Principles of Accounting 1		4
Acct. 102: Principles of Accounting 2		4
Acct. 201: Intermediate Accounting 1		4
Acct. 202: Intermediate Accounting 2		4
Bus. 125: Small Business Management		3
Bus. 227: International Business Management		3
Bus. 231: Business Law 1		3
<b>Management/Leadership (34/33 Credit Hours)</b>		
Acct. 101: Principles of Accounting 1 (or Acct. 100)		4/3
Bus. 120: Business Communications		3
Bus. 124: Principles of Marketing		3
Bus. 227: International Business Management		3
Bus. 231: Business Law 1		3
Bus. 246: Fundamentals of Management		3
P. Rel. 100: Human Relations		3
P. Rel. 120: Labor Management Relations		3
<b>Marketing (33/34 Credit Hours)</b>		
Acct. 100: Fundamentals of Accounting (or Acct. 101)		3/4
Bus. 120: Business Communications		3
Bus. 124: Principles of Marketing		3
Bus. 145: Fundamentals of Retailing		3
Bus. 146: Fundamentals of Sales		3
Bus. 227: International Business Management		3
Bus. 245: Fundamentals of Advertising and Sales Promotion		3
P. Rel. 100: Human Relations		3
<b>Materials Management (33 Credit Hours)</b>		
Bus. 227: International Business Management		3
Bus. 231: Business Law 1		3
Bus. 246: Fundamentals of Management		3
C.I.M. 120: Production and Inventory Control		3
Matls. 110: Fundamentals of Materials Management		3
Matls. 210: Material Requirements Planning		3
Matls. 250: Master Planning		3
Prod. C. 130: Inspection and Quality Control		3
<b>Supervision of Personnel (33 Credit Hours)</b>		
Econ. 231: Macroeconomics (or Econ. 140)		3
Engl. 110: Communicating in the Workplace		3
Ind. S. 100: Industrial Safety and Health		3
P. Rel. 100: Human Relations		3
P. Rel. 110: Supervisory Techniques and Personnel Development		3
P. Rel. 120: Labor Management Relations		3
Phil. 100: Critical Thinking		3
Spch. 120: Business and Professional Speaking (or Spch. 101)		3

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## Child Care and Education

**General Description:** Child Care has become a major concern in the United States. The increase in single and working parent families has created the need to provide proper and loving care to children. Richland Community College has two certificates and an A.A.S. degree in Child Care to assist interested individuals in entering this career field. These programs are designed to prepare students for employment in elementary schools, day care centers, or nursery schools. A.A.S. graduates meet State licensing standards to be a teacher in or director of a child care center for pre-school or school-age children.

**Aptitudes:** This is a career field that requires and invites special people—those who truly enjoy being with and communicating with young people. Great patience, an active sense of humor, emotional stability, and good health are required.

**Outlook:** Opportunities in child care are definitely increasing—there is a constant demand for qualified workers.

*This is an occupational training program. Some of the courses may not transfer to four-year institutions.*

### Basic Certificate—Child Care and Education (30 Credit Hours) (ICCB Code: BC 0009)

Required Courses:	Cr. Hrs.
C.C.&E. 101: Introduction to Child Care and Education	3
C.C.&E. 111: Creative Activities—Children's Literature	3
C.C.&E. 112: Creative Activities—Mathematics and Science	3
C.C.&E. 113: Creative Activities—Art, Music, and Drama	3
C.C.&E. 114: Creative Activities—Recreation	3
C.C.&E. 115: Creative Activities for Infants and Toddlers	3
C.C.&E. 210: Fundamentals of Childhood Education	3
Engl. 101: Composition I	3
Psych. 110: Introduction to Psychology	3
Psych. 150: Child Psychology	3

### Advanced Certificate (45 Credit Hours) (ICCB Code: AC 0010)

Required Courses:	Cr. Hrs.
C.C.&E. 101: Introduction to Child Care and Education	3
C.C.&E. 110: Health, Nutrition, and Safety for Young Children	3
C.C.&E. 111: Creative Activities—Children's Literature	3
C.C.&E. 112: Creative Activities—Mathematics and Science	3
C.C.&E. 113: Creative Activities—Art, Music, and Drama	3
C.C.&E. 114: Creative Activities—Recreation	3
C.C.&E. 115: Creative Activities for Infants and Toddlers	3
C.C.&E. 210: Fundamentals of Childhood Education	3
C.C.&E. 290: Work Experience Practicum and Seminar	3
Ed. 220: The Exceptional Child	3
Engl. 101: Composition I	3
Psych. 110: Introduction to Psychology	3
Psych. 150: Child Psychology	3
Socio. 200: Marriage and the Family (or Socio. 160)	3
Spch. 101: Principles of Speech	3

### Associate in Applied Science Degree (60 Credit Hours) (ICCB Code: AAS 0011)

The A.A.S. is earned by taking all courses required for the Advanced Certificate plus the following:

- C.C.&E. 102: School-Age Child Care
- C.C.&E. 103: Child Guidance
- C.C.&E. 120: Organization and Administration of the Family Day Care Home
- C.C.&E. 230: Organization and Operation of Child Care Programs
- Three (3) credit hours in Humanities/Fine Arts/ or Business
- Two (2) credit hours in electives numbered 100 or above

NOTE: During the semester prior to graduation, students must present evidence of having completed current infant/child CPR training to the RCC Child Care Advisor.

## Computer Information Systems

### Computer Information Systems: Programming

**General Description:** This A.A.S. program is designed to teach students to write, debug, and test business applications programs according to specifications. Typical job titles include computer programmer and systems analyst.

**Aptitudes:** The ability to organize ideas and data and draw conclusions, to be creative, to work with detail, to be persistent, to meet challenges and overcome obstacles, and to meet deadlines is necessary. Also important are above-average numerical and verbal abilities and ability to make decisions, to work accurately, and to pay attention to detail.

**Work Setting:** Work is usually done in offices with some work done in computer rooms. Some night and weekend work may be necessary when new programs are tested or quick changes are being made. Major employers are wholesale and retail businesses, banking and insurance firms, governmental agencies, electronics and other manufacturers, and colleges and public schools.

**Outlook:** There is a shortage of computer programmers in Central Illinois. Opportunities are greatest for those with knowledge of several programming languages.

### Computer Information Systems: Microcomputer Applications

**General Description:** This A.A.S. degree curriculum is designed to prepare students for positions involving direct use of microcomputers for business administration, decision support, and financial applications. Workers in this field are trained to identify and implement the use of application packages for business and managerial functions with substantial "hands-on" work with IBM/compatible microcomputers in a networked environment. Students who complete this sequence will be qualified to enter careers in which they function as end-users, application developers, or network managers for microcomputer systems. Typical job titles include information specialist, application developer, microcomputer specialist, PC specialist, microcomputer manager, network manager, LAN manager/administrator, and computer consultant.

**Aptitudes:** The ability to work with numbers, to do detailed work with data, to organize ideas, to be creative, and to work accurately is necessary.

**Work Setting:** Certificate and degree graduates will be prepared to enter employment in offices of all sizes using microcomputers for business. Persons who operate microcomputers for the processing of business transactions and financial reporting applications are successors to traditional bookkeepers. Major employers are wholesale and retail businesses, banking and insurance firms, governmental agencies, and manufacturing companies.

**Outlook:** Although this is a small occupation in Illinois, it is growing. There is a shortage of application professionals in Central Illinois. Network or LAN managers are particularly in demand.

## Certificates/Degrees

**Certificate:** There are three certificates in the Computer Information Systems area: 1) The Certificate in Computer Information Systems: Microcomputer Applications is designed to introduce students to the basic skills that are needed to enter the computer information systems field. 2) The CIS Plus Certificate is designed to allow students to focus their studies in a specific area either in programming or network management. 3) Computer Networking Certificate prepares the student for professional certification in Cisco Certified Network Associate (CCNA) and CompTIA Network+.

**Associate in Applied Science (A.A.S.):** The Associate in Applied Science Degrees in Computer Information Systems and Computer Information Systems: Microcomputer Applications are designed to develop initial employment competencies for persons with no previous educational preparation or employment experience in the Computer Information Systems field. It also serves those persons already employed in the field who desire to improve their competencies and achieve an associate's degree.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

**Associate in Applied Science Degree—Computer Information Systems: Programming**  
(66 Credit Hours)

(ICCB Code: AAS 0098)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Acct. 101: Principles of Accounting 1	4
Acct. 102: Principles of Accounting 2	4
C.I.S. 105: Introduction to Business Computer Systems	3
C.I.S. 110: Business Applications on Microcomputers	3
C.I.S. 131: Introduction to Visual Basic	3
C.I.S. 161: COBOL Programming 1	3
C.I.S. 162: COBOL Programming 2	3
C.I.S. 221: Database Systems	3
C.I.S. 222: Advanced Database Systems	3
C.I.S. 245: Operating Systems Utilities	3
C.I.S. 251: C Programming (or C.I.S. 262)	3
C.I.S. 255: Data Communications	3
C.I.S. 261: Introduction to CICS (or C.I.S. 163)	3
C.I.S. 285: Systems Analysis Methods	3
C.I.S. 287: Web Development (or C.I.S. 295 or C.I.S. 297)	3/5
C.I.S. 290: Work Experience Practicum	3
Econ. 231: Macroeconomics	3
Engl. 101: Composition 1 (or Engl. 110)	3
Math. 104: Technical Mathematics	4
P. Rel. 100: Human Relations	3
Spch. 101: Principles of Speech (or Spch. 120)	3

**Certificate—Computer Information Systems: Microcomputer Applications**  
(30 Credit Hours)

(ICCB Code: C 0110)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Acct. 101: Principles of Accounting 1 (or Acct. 100)	4/3
Bus. 100: Introduction to Business	3
Bus. 110: Business Mathematics	3
C.I.S. 105: Introduction to Business Computer Systems	3
C.I.S. 110: Business Applications on Microcomputers	3
C.I.S. 120: Spreadsheet Applications	3
C.I.S. 130: Word Processors	3
C.I.S. 221: Database Systems	3
C.I.S. 245: Operating Systems & Utilities	3
C.I.S. 285: Systems Analysis Methods	3

**Associate in Applied Science Degree—  
Computer Information Systems: Microcomputer Applications**  
(63 Credit Hours)

(ICCB Code: AAS 0111)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Acct. 101: Principles of Accounting 1	4
C.I.S. 105: Introduction to Business Computer Systems	3
C.I.S. 110: Business Applications on Microcomputers	3
C.I.S. 115: Introduction to Windows	3
C.I.S. 120: Spreadsheet Applications	3
C.I.S. 130: Word Processors	3
C.I.S. 220: Local Networks	3
C.I.S. 221: Database Systems	3
C.I.S. 245: Operating Systems & Utilities	3
C.I.S. 285: Systems Analysis Methods	3
C.I.S. 290: Work Experience Practicum and Seminar	3
Econ. 231: Macroeconomics	3
Engl. 101: Composition 1 (or Engl. 110)	3

Math. 104: Technical Mathematics	4
P.Rel. 100: Human Relations	3
Spch. 101: Principles of Speech (or Spch. 120)	3
General Education Elective	3

#### **Directed Elective Options:**

One of the two following options must be followed in selecting directed elective courses. This A.A.S. degree requires that 10 directed elective credit hours be selected from the courses listed within that option.

#### **Specialist Directed Electives: (Take 10 hours)**

Bus. 227: International Business Management	3
Bus. 231: Business Law 1	3
C.I.S. 210: Business Graphics	3
C.I.S. 222: Advanced Database Systems	3
C.I.S. 287: Web Development	3
C.I.S. 295: Special Advanced Projects	1-5
C.I.S. 297: Emerging Technologies	1-3

#### **Network Management Directed Electives: (Take 10 hours)**

Bus. 227: International Business Management	3
Bus. 231: Business Law 1	3
C.I.M. 100: Introduction to Computer Integrated Manufacturing	3
C.I.S. 222: Advanced Database Systems	3
C.I.S. 251: C Programming	3
C.I.S. 255: Data Communications	3
C.I.S. 287: Web Development	3
C.I.S. 295: Special Advanced Projects	1-5
C.I.S. 297: Emerging Technologies	1-3

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## **C.I.S. PLUS—Certificate of Readiness**

**General Description:** This certificate is designed for individuals who already have earned a four-year or six-year degree in any major subject area or earned a two-year degree in CIS or related area or have significant experience with computers in a work situation. Students receiving this certificate will be qualified for jobs as programmers or network managers.

**Aptitudes:** Successful individuals in this program will have the ability to organize ideas, and data and draw conclusions. They will be comfortable in environments where change is the rule rather than the exception. The nature of the jobs they will hold requires strong communications and customer service skills.

**Outlook:** Two of the strongest job outlook areas in the computer field are programmer and network manager. There are not sufficient numbers of qualified people to fill the available job openings.

### **C.I.S. PLUS—Certificate of Readiness (21 Credit Hours) (ICCB Code: 0097)**

#### **Required Courses:**

	<b>Cr. Hrs.</b>
C.I.S. 131: Introduction to Visual Basic	3
C.I.S. 285: Systems Analysis Methods	3
C.I.S. 287: Web Development (or C.I.S. 297 Emerging Technologies)	3

#### **Programming Specialty:**

(Select four courses)

C.I.S. 161: COBOL Programming 1	3
C.I.S. 162: COBOL Programming 2	3
C.I.S. 251: C Programming	3
C.I.S. 252: Advanced C Programming	3
C.I.S. 295: Special Advanced Projects	5

**Network Specialty:**

(Select four courses)

C.I.S. 141: CISCO Academy I	3
C.I.S. 142: CISCO Academy II	3
C.I.S. 143: CISCO Academy III	3
C.I.S. 144: CISCO Academy IV	3
C.I.S. 220: Local Networks	3
C.I.S. 221: Database Systems	3
C.I.S. 222: Advanced Database Systems	3
C.I.S. 245: Operating Systems & Utilities	3
C.I.M. 100: Introduction to Computer Integrated Manufacturing	3

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## Computer Integrated Manufacturing

**General Description:** The Computer Integrated Manufacturing (CIM) program permits the student to develop and upgrade skills in basic computer control of manufacturing machines, systems, and processes including the use of CNC machines, robots, programmable controllers, computer aided design (CAD), computer aided manufacturing (CAM), and material handling systems. Some of the related occupations for which this program can prepare students are manufacturing technician, manufacturing cell or center operator, engineering technician, quality control technician, and CNC machine operator. Most local manufacturers currently utilize some type of CIM automation. It is expected that CIM skills will be needed by most manufacturing employees in the near future. Major employers are large, medium, and small manufacturing firms, engineering firms, and specialty firms. The A.A.S. CIM degree is transferable to certain four-year universities for students working toward a Bachelor's Degree in Industrial Technology.

**Aptitudes:** The ability to acquire good computer skills is important as well as an ability to visualize objects in two or three dimensions, good math skills, and an aptitude for hands-on machine operation.

**Outlook:** Average growth is expected for this occupation. However, there will be many openings because of the need to replace individuals who retire.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

### Basic Certificate—Computer Integrated Manufacturing

(25 Credit Hours)

(ICCB Code: BC 0016)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
C.I.M. 100: Introduction to Computer Integrated Manufacturing	3
C.I.M. 101: Computer Aided Manufacturing (CAM) Fundamentals	3
C.I.M. 102: CNC Programming	3
C.I.M. 110: Introduction to Automated Manufacturing	3
Draft. 210: Introduction to Computer Aided Drafting-Microstation (or Draft. 215)	3
Mfg. 120: Manufacturing Processes	3
Math. 104: Technical Mathematics	4
Robot. 101: Introduction to Robotics	3

### Associate in Applied Science Degree (72 Credit Hours)

(ICCB Code: AAS 0115)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
C.I.S. 145: Personal Computers for Technicians	3
C.I.S. 251: C Programming	3
C.I.S. 255: Data Communications	3
C.I.M. 100: Introduction to Computer Integrated Manufacturing (CIM)	3
C.I.M. 101: Computer Aided Manufacturing (CAM) Fundamentals	3
C.I.M. 102: CNC Programming	3
C.I.M. 110: Introduction to Automated Manufacturing	3
C.I.M. 120: Production and Inventory Control	3
C.I.M. 130: Automated Manufacturing	3
Draft. 210: Introduction to Computer Aided Drafting-Microstation (or Draft. 215)	3
Eltrn. 109: Industrial Controls	4
Eltrn. 110: Introduction to Electricity and Electronics	2

Eltrn. 111: Circuit Analysis	3
Eltrn. 160: Digital Electronics	4
Engl. 101: Composition I	3
Mfg. 120: Manufacturing Processes	3
Math. 104: Technical Mathematics	4
Mec. S. 112: Pneumatics and Hydraulics	3
Phys. 115: Technical Physics	4
Prod. C. 130: Inspection and Quality Control	3
Robot. 101: Introduction to Robotics	3
Group Requirements/Electives	6

NOTE: Required courses can be used to meet the General Education Group Requirements.

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## Computer Networking Certificate

**General Description:** This certificate is designed to promote the education of two groups of students. For those students pursuing an Associate in Applied Science degree in Computer Information Systems with a concentration in Network Management, this certificate will enhance their employment marketability. This certificate is also designed for students wishing to invest one year in continuing adult education to acquire in-depth training in the technical field of computer networking. The person earning this certificate has completed the necessary training to pursue professional certifications for both the CompTIA Network+ and Cisco Certified Network Associate (CCNA).

**Aptitudes:** Successful individuals in this program will be able to apply the theory of Local Area Networks and Wide Area Networks as well as understand the functions of networking and internetworking devices. Individuals will have the ability to gather information, critically analyze needs, and exhibit problem-solving skills. Organization skills will be necessary as the individuals learn how to configure various network architectures physically and logically. Jobs in the computer networking fields require discipline, knowledge of technology, and strong communication skills.

**Outlook:** Network design and network management are two of the fastest growing areas in the computer field. According to recent reports, the high-tech industry yielded 27% of the growth in the GNP over the past three years. This growth has created an unprecedented demand for IT employees. Various studies put this demand at over 346,000 unfilled IT positions and 108% projected growth rate for IT employment in the year 2000.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

Certificate—Computer Networking (12 Credit Hours) (ICCB Code: 011B)

Required Courses:	Cr. Hrs.
C.I.S. 141: Cisco Network Academy I	3
C.I.S. 142: Cisco Network Academy II	3
C.I.S. 143: Cisco Network Academy III	3
C.I.S. 144: Cisco Network Academy IV	3

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## Computer Service Technician

**General Description:** The Computer Service Technician certificate prepares an individual to pass the A+ Certification (Computer Service) Exam. This certification is a nationally recognized computer service technician credential. A+ certification is a hiring criterion used by many employers. The tasks performed by computer repair technicians deal with software-related problems, computer configuration problems, and hardware compatibility issues.

**Aptitudes:** Prospective computer servicing technicians need above-average skills in computers and electronics. They should expect challenging work that requires great attention to details and keeping up with a rapidly advancing technology. The ability to solve problems clearly and to follow instructions to the letter is also needed.

**Outlook:** Many job openings in Illinois in the next few years will need workers in service industries that include computer servicing.



<b>Certificate—Computer Service Technician (7 Credit Hours)</b>		(ICCB Code: C 011A)
<b>Required Courses:</b>		<b>Cr. Hrs.</b>
Eltrn. 171: PC Hardware Systems		4
Eltrn. 172: PC Software Systems		3

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## Electronic Systems Technology

**General Description:** Industry is rapidly moving toward automated industrial systems. The age of robotics and automated industrial plants is not futuristic but current. We are now experiencing a revolution in automation of production and processing systems through electrical and electronic computer-controlled equipment. This program is designed to meet the need with extensive training in electricity, electronics, industrial controls, and programmable controllers. Industrial technicians work both in the field and at the service bench. Jobs can range from troubleshooting an industrial robot to working with 5-volt integrated circuit chips on a printed circuit board. Major employers are automated industrial plants, field service centers, technical sales, and training centers.

**Aptitudes:** Above-average skills in mathematics are necessary in challenging work that requires great attention to details and keeping up with a rapidly advancing technology. The program is designed for individuals who like hands-on training and are willing to work toward an interesting and rewarding career.

**Outlook:** In Illinois, above-average growth is expected for this occupation. Electrical and electronic technicians are among the 50 fastest growing occupations.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

<b>Associate in Applied Science Degree—Electronic Systems Technology</b>		(ICCB Code: AAS 014A)
<b>(68 Credit Hours)</b>		

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
C.I.S. 145: Personal Computers for Technicians	3
Eltrn. 109: Industrial Controls	4
Eltrn. 110: Introduction to Electricity and Electronics	2
Eltrn. 111: Circuit Analysis	3
Eltrn. 112: Electronic Devices and Circuits	5
Eltrn. 113: Industrial Controls 2	4
Eltrn. 151: Electrical Systems Troubleshooting	4
Eltrn. 160: Digital Electronics	4
Eltrn. 204: Programming and Troubleshooting Logic Controllers (PLC's)	4
Eltrn. 231: AC/DC Drives and Motion Control	3
Eltrn. 232: CNC and Motion Control Troubleshooting	3
Eltrn. 240: Introduction to Microprocessors	3
Eltrn. 290: Work Experience Practicum	3
Math. 104: Technical Mathematics* (or Math. 117)	4
Mec. S. 112: Pneumatics and Hydraulics	3
*Students who intend to pursue a Bachelor's Degree should take Math. 117 in place of Math. 104.	

### A.A.S. Group Requirements/Electives

The A.A.S. degree requires 16 more semester hours of courses numbered 100 or above with 15 of these hours selected from the areas of Communications, Humanities/Fine Arts and/or Business, and Social Science with at least 3 hours in each area. (See page 81.)

<b>Suggested Group Requirements:</b>	
Communications — Engl. 101: Composition 1	3
Humanities — Phil. 200: Symbolic Logic	3
Social Science — Econ. 140: American Economy	3
Social Science — P. Rel. 100: Human Relations	3

**Suggested Electives:**

Draft. 241: Computer Aided Drafting—Electronic	3
Eltrn. 201: Fundamentals of Process Control	3
Eltrn. 210: Advanced Electronics Devices & Circuits	3
Mfg. 120: Manufacturing Processes	3
Phys. 115: Technical Physics	4

NOTE: Required courses can be used to meet the General Education Group Requirements.

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## Electronics

**General Description:** Graduates of the A.A.S. Program in Electronics are highly skilled technicians capable of finding interesting and challenging employment in a wide variety of technical fields. The following job titles are typical of the positions in which graduates recently have been placed: computer and telecommunications field engineer, broadcast engineer, consumer electronics service technician, and radar and aviation electronics specialist. Electronics technicians work both in the field and at the service bench. Major employers include computer and business machine companies, telecommunications firms, manufacturing companies, electronic service centers, railroads, and governmental agencies.

**Aptitudes:** Prospective electronics technicians need above-average skills in mathematics. They should expect challenging work that requires great attention to details and keeping up with a rapidly advancing technology. The ability to communicate ideas clearly and to follow instructions to the letter is also needed.

**Outlook:** In Illinois, above-average growth is expected for this occupation.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

### Basic Certificate—Electronics (22 Credit Hours)

(ICCB Code: BC 0012)

**Required Courses:**

	<b>Cr. Hrs.</b>
Eltrn. 110: Introduction to Electricity and Electronics	2
Eltrn. 111: Circuit Analysis	3
Eltrn. 112: Electronic Devices and Circuits	5
Eltrn. 120: Fundamentals of Servicing	2
Eltrn. 160: Digital Electronics	4
Math. 104: Technical Mathematics (or Math. 116)	4
Elective	2

### Advanced Certificate (44 Credit Hours)

(ICCB Code: AC 0013)

**Required Courses:**

	<b>Cr. Hrs.</b>
Eltrn. 110: Introduction to Electricity and Electronics	2
Eltrn. 111: Circuit Analysis	3
Eltrn. 112: Electronic Devices and Circuits	5
Eltrn. 120: Fundamentals of Servicing	2
Eltrn. 160: Digital Electronics	4
Eltrn. 210: Advanced Electronic Devices & Circuits	3
Eltrn. 211: Pulse, Digital, & Switching Circuits	5
Eltrn. 212: Communications Systems	5
Eltrn. 240: Introduction to Microprocessors	3
Engl. 101: Composition 1	3
Math. 104: Technical Mathematics (or Math. 116)	4
Math. 117: Trigonometry (or 3 hours of Electronics electives)	3

### Advanced Certificate Electives

The Advanced Certificate requires 2 elective hours numbered 100 or above. Eltrn. 220: FCC License Preparation is recommended for students planning a career in the Communications field.

**Associate in Applied Science Degree—Electronics**  
**(67 Credit Hours)**

(ICCB Code: AAS 0014)

**A.A.S. Group Requirements/Electives**

The A.A.S. degree requires 25 more semester hours of courses numbered 100 or above with 15 of these hours selected from the areas of Communications, Humanities/Fine Arts and/or Business, and Social Science with at least 3 hours in each area. (See page 81.)

**Suggested Group Requirements:**

Communications—Spch. 110: Discussion and Group Conference	3
Humanities—Phil. 200: Symbolic Logic	3
Social Science—Econ. 140: American Economy	3
Business—C.I.S. 145: Personal Computers for Technicians	3

**Suggested Electives:**

Eltrn. 222: Advanced Electronic Servicing	4
Eltrn. 295: Electronics Internship	2-5
Math. 116: College Algebra	4
Eltrn. 220: FCC License Preparation is recommended for students planning a career in the Communications field.	
Eltrn. 295: Electronics Internship can be used as elective credit in fulfillment of the requirements for this degree.	

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**Electronics - Biomedical Option**

**General Description:** The biomedical electronics option is a specialized program offered to prepare the student for a variety of positions working with medical equipment. Upon completion of the curriculum and intensive hospital internship, the student will be well prepared to perform and document preventive and corrective maintenance on a variety of medical devices. This program will also help prepare the student for the BMET certification exam of the International Certification Commission for Clinical Engineering and Biomedical Technology (ICC).

**Aptitudes:** Prospective biomedical electronics technicians need above-average skills in mathematics. They should expect challenging work that requires great attention to details and keeping up with a rapidly advancing technology. The ability to communicate ideas clearly and to follow instructions to the letter is also needed.

**Outlook:** This is a small occupation in Illinois that is expected to grow faster than the average. Graduates may need to relocate to find job opportunities.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

**Associate in Applied Science Degree—Electronics - Biomedical Option**  
**(67 Credit Hours)**

(ICCB Code: AAS 0015)

**Required Courses:**

	<b>Cr. Hrs.</b>
Biol. 101: Concepts of Biology 1	4
Biol. 201: Human Anatomy and Physiology 1	4
Biol. 202: Human Anatomy and Physiology 2	4
Eltrn. 110: Introduction to Electricity and Electronics	2
Eltrn. 111: Circuit Analysis	3
Eltrn. 112: Electronic Devices and Circuits	5
Eltrn. 120: Fundamentals of Servicing	2
Eltrn. 160: Digital Electronics	4
Eltrn. 210: Advanced Electronic Devices & Circuits	3
Eltrn. 211: Pulse, Digital, & Switching Circuits	5
Eltrn. 212: Communications Systems	5
Eltrn. 240: Introduction to Microprocessors	3
Eltrn. 295: Electronics Internship	5
Engl. 101: Composition 1	3
Math. 116: College Algebra	4
Math. 117: Trigonometry	3

**A.A.S. Group Requirements/Electives**

The A.A.S. degree with a Biomedical Option requires 8 more semester hours of courses numbered 100 or above with 9 of these hours selected from the areas of Communications, Humanities/Fine Arts and/or Business, and Social Science with at least 3 hours in each area. (See page 81.)

**Suggested Group Requirements:**

Communications—Spch. 110: Discussion and Group Conference	3
Humanities—Phil. 200: Symbolic Logic	3
Social Science—Econ. 140: American Economy	3

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## Emergency Medical Technology

**General Description:** Emergency Medical Technology education is offered through Allied Health in cooperation with St. Mary's Hospital Emergency Medical Services. The Illinois Department of Public Health, Division of Emergency Medical Services and Highway Safety requires that a student enrolling in the Emergency Medical Technician – Basic Program be at least 18 years of age and possess a high school diploma or High School Equivalency Certificate before entry into the program.

The training program prepares individuals to provide emergency aid and basic and advanced life support in out-of-the-hospital settings to critically ill and injured persons, as well as prepare the patient for transport to the nearest medical facility. A combination of educational methods will be used including theory instruction, demonstration, and practice of life-saving skills for simulated and real emergency situations. Physicians specializing in emergency medicine, paramedics, and registered nurses who have advanced education in medical and trauma management provide instruction.

Successful completion of the Illinois Department of Public Health State Licensure Examination is required before advancing to the next level of Emergency Medical Technology training and prior to employment in each level.

**Aptitudes:** The student entering emergency medical technology must be a caring and self-disciplined individual. It requires academic knowledge, clinical expertise, and the ability to act competently under stressful situations.

**Outlook:** Job opportunities include hospitals, ambulance services, and fire or police rescue squad departments.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

### Certificate—Emergency Medical Technology-Basic—Level 1 (11.5 Credit Hours)

(ICCB Code: 2073)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Hlth. 110: Cardio Pulmonary Resuscitation	0.5
Hlth. 140: Medical Terminology	3
Hlth. 160: Emergency Medical Technician – Basic	6
Math 106: Math for Health Careers	2

### Advanced Certificate—Emergency Medical Technology–Intermediate—Level 2 (20.5 Credit Hours)

(ICCB Code: 2072)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Hlth. 110: Cardio Pulmonary Resuscitation	0.5
Hlth. 140: Medical Terminology	3
Hlth. 160: Emergency Medical Technician – Basic	6
Hlth. 161: Emergency Medical Technician – Intermediate	7
Hlth. 162: Emergency Medical Technician – Defibrillation	2
Math. 106: Math for Health Careers	2

**Associate of Applied Science Degree—Emergency Medical Technology**  
**(64.5 Credit Hours)** (ICCB Code: AAS 2071)

<b>Core Courses:</b>	<b>Cr. Hrs.</b>
Hlth. 110: Cardio Pulmonary Resuscitation	0.5
Hlth. 140: Medical Terminology	3
Hlth. 160: Emergency Medical Technician – Basic	6
Hlth. 162: Emergency Medical Technician – Defibrillation	2
Hlth. 163: Emergency Medical Technician – Paramedic 1	10
Hlth. 164: Emergency Medical Technician – Paramedic 2	10
Fire 170: Rescue/Roadway Extrication	3
Fire 250: Hazardous Materials Operations	3
<b>General Education Courses:</b>	
Biol. 101: Concepts of Biology 1	4
Engl. 101: Composition 1 (or Engl. 110)	3
Psych. 110: Introduction to Psychology	3
Socio. 110: Introduction to Sociology	3
Math. 106: Math for Health Careers	2
<b>Directed Elective:</b>	
P. Rel. 100: Human Relations (or P. Rel. 110)	3
<b>Electives:</b> (Choose 9 Credit Hours)	
Hlth. 161: Emergency Medical Technician – Intermediate	7
Social and Behavioral Sciences	2 - 6
Humanities/Fine Arts	2 - 6

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**Fire Science**

**General Description:** This program offers an in-depth study of fire science and safety with opportunities to specialize. It is designed for the pre-employment student, the employed firefighter, or the volunteer firefighter who is seeking to augment present job skills. The broad educational background prepares students for employment as highly specialized and thoroughly schooled fire science and safety technicians. In addition to the required fire science courses, students are able to select a field of specialization including fire science education, fire investigation, and emergency rescue technician. Jobs require performing heavy work indoors and outdoors for prolonged periods under dangerous conditions.

**Aptitudes:** Excellent health, physical stamina, agility, good vision, stability, mental alertness, and a mechanical aptitude are all needed. An ability to work well with others and to follow orders is important.

**Outlook:** Average employment growth is expected in Illinois. Most openings will come from a need to replace current workers. Competition is keen for firefighter positions.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

**Basic Certificate—Fire Company Officer (15 Credit Hours)** (ICCB Code: BC 017B)

<b>Required Courses:</b>	<b>Cr. Hours</b>
Fire 120: Fire Prevention Principles 1	3
Fire 140: Fire Science Instructor 1	3
Fire 200: Tactics and Strategy	3
Fire 270: Management 1	3
Fire 280: Management 2	3

**Basic Certificate—Fire Inspector (9 Credit Hours)** (ICCB Code: BC 017D)

<b>Required Courses</b>	<b>Cr. Hours.</b>
Fire 120: Fire Prevention Principles 1	3
Fire 130: Building Construction for Fire Science	3
Fire 260: Fire Investigation	3

**Basic Certificate—Fire Technician (9 Credit Hours)**

(ICC Code: BC 017C)

**Required Courses**
**Cr. Hrs.**

Fire 110: Introduction to Fire Science (Module A)	3
Fire 111: Techniques of Firefighting 1 (Module B)	3
Fire 112: Techniques of Firefighting 2 (Module C)	3

**Basic Certificate—Fireground Commander (9 Credit Hours)**

(ICC Code: BC 017E)

**Required Courses**
**Cr. Hours**

Fire 200: Tactics and Strategy	3
Fire 210: Tactics and Strategy 2	3
Fire 270: Management 1	3

**Advanced Certificate—Fire Science Technology-Specialist  
(36 Credit Hours)**

(ICC Code: AC 017A)

**Required Courses**
**Cr. Hours**

Fire 110: Introduction to Fire Science	3
Fire 111: Techniques of Firefighting 1 (Module B)	3
Fire 112: Techniques of Firefighting 2 (Module C)	3
Fire 120: Fire Prevention Principles 1	3
Fire 130: Building Construction for Fire Science	3
Fire 170: Rescue/Roadway Extrication	3
Fire 200: Tactics and Strategy	3
Fire 210: Tactics and Strategy 2	3
Fire 230: Fire Apparatus Engineer	3
Fire 250: Hazardous Materials Operations	3
Fire 270: Management 1	3
Fire 280: Management 2	3

**Associate in Applied Science Degree—Fire Science  
(61 Credit Hours)**

(ICC Code: AAS 0017)

**Required Courses:**
**Cr. Hrs.**

Engl. 110: Communicating in the Workplace	3
C.I.S. 110: Business Applications on Microcomputers	3
Fire 110: Introduction to Fire Science (Module A)	3
Fire 111: Techniques of Firefighting 1 (Module B)	3
Fire 112: Techniques of Firefighting 2 (Module C)	3
Fire 120: Fire Prevention Principles 1	3
Fire 130: Building Construction for Fire Science	3
Fire 170: Rescue/Roadway Extrication	3
Fire 200: Tactics and Strategy	3
Fire 230: Fire Apparatus Engineer	3
Fire 250: Hazardous Materials Operations	3
Fire 270: Management 1	3
Fire 280: Management 2	3
Hlth. 160: Emergency Medical Technician-Basic	6
Math. 104: Technical Mathematics (or Math. 117)	4
Psych. 100: Practical Psychology	3
Socio. 110: Introduction to Sociology (or Socio. 100)	3
Spch. 101: Principles of Speech	3

**Directed Electives:**

(Select 3 credit hours)

Fire 140: Fire Science Instructor 1	3
Fire 210: Tactics and Strategy 2	3
Fire 220: Fire Science Instructor 2	3
Fire 260: Fire Investigation	3
Fire 297: Fire Science Technologies	3

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## Food Service Management

**General Description:** This degree program is designed to prepare students for entry into the food service business at the assistant manager level. Employment opportunities are available at restaurants, hotels and resorts, hospitals, and large companies/corporations.

**Aptitudes:** A person should be energetic, enthusiastic, organized, hard working, and service oriented and like to interact with the public.

**Outlook:** There is a great need for managers in restaurants and other related businesses.  
*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

### Certificate—Level One - Industry Overview and Basic Core

(10 Credit Hours)

(ICCB Code: C 012A)

(qualifies student for waitperson positions in upscale restaurants and for lead waitperson positions)

**Required Courses**

**Cr. Hrs.**

C.I.S. 110: Business Applications on Microcomputers	3
F.S.M. 100: Managing Food Service Operations	3
F.S.M. 110: Food Service Sanitation	1
Spch. 101: Principles of Speech (or Spch. 120)	3

### Certificate—Level Two - Operations and Management

(12 Credit Hours)

ICCB Code: C 012B

Prior to receipt of Level Two Certificate, student must have received Level One Certificate (qualifies student for assistant manager duties such as scheduling, menu planning, purchasing food, dealing with employee conflicts, and employee discipline)

**Required Courses**

**Cr. Hrs.**

F.S.M. 104: Successful Hospitality Supervision	3
F.S.M. 106: Effective Food Service Marketing	3
F.S.M. 108: Management by Menu	3
F.S.M. 202: Managing Foodservice Facilities and Equipment	3

### Certificate—Level Three - Food Preparation and Service

(16 Credit Hours)

(ICCB Code: C 012C)

Prior to receipt of Level Three Certificate, student must have received Level One and Level Two Certificates (qualifies student for assistant manager jobs in food and beverage establishments, hospitals, and rest homes)

**Required Courses**

**Cr. Hrs.**

F.S.M. 102: Controlling Costs in Food Service	4
F.S.M. 200: Nutrition for the Food Service Manager	4
F.S.M. 204: Principles of Professional Cooking	5
F.S.M. 206: Managing for Profit in Bar and Beverage Service	3

### Associate in Applied Science Degree—Food Service Management

(64 Credit Hours)

(ICCB Code: AAS 0121)

**Required Courses**

**Cr. Hrs.**

Acct. 100: Fundamentals of Accounting	3
Bus. 110: Business Mathematics	3
Bus. 231: Business Law I	3
Bus. 290: Work Experience Practicum	5
C.I.S. 110: Business Applications on Microcomputers	3
Econ. 140: American Economy	3
Engl. 101: Composition I	3
F.S.M. 100: Managing Food Service Operations	3
F.S.M. 102: Controlling Costs in Food Service	4
F.S.M. 104: Successful Hospitality Supervision	3

F.S.M. 106: Effective Food Service Marketing	3
F.S.M. 108: Management by Menu	3
F.S.M. 110: Food Service Sanitation	1
F.S.M. 200: Nutrition for the Food Service Manager	4
F.S.M. 202: Managing Food Service Facilities and Equipment	3
F.S.M. 204: Principles of Professional Cooking	5
F.S.M. 206: Managing for Profit in Bar and Beverage Service	3
F.S.M. 208: Presenting Service in the Food Service Industry	3
P. Rel. 110: Supervisory Techniques & Personnel Development	3
Spch. 120: Business and Professional Speaking	3

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## Graphic Arts

**General Description:** The purpose of this program is to prepare students for employment in the graphic production and information technology industries related to the visual arts. Students completing the program will obtain a solid theoretical foundation in traditional art and design in addition to developing advanced skills with MacIntosh and PC hardware and software for quality computer graphics and design production. This A.A.S. program is designed to prepare students to find entry-level employment in advertising agencies, design studios, service bureaus, publishing companies, media production studios, freelance agencies, and other applied arts-related firms, as well as in-house art departments of manufacturing industries, retail firms, and news agencies.

**Aptitudes:** Computer Graphic Designers are required to be able to use computers to acquire, organize, analyze, and communicate information in a creatively expressive manner. Also important is the ability to self-manage and work independently to meet deadlines, as well as use visual communication in an appropriate format to persuade an audience.

**Outlook:** Computer graphics and design fields ranked at 78.4% in expected job growth in Richland's area. Opportunities are greatest for those with cross-platform knowledge in both Mac and PC.

*This is an occupational training program. Some of the courses may not transfer to four-year institutions.*

### Certificate—Graphic Arts (16.5 Credit Hours) (ICCB Code: C 2122)

Required Courses	Cr. Hrs.
Art 101: Introduction to Drawing	3
Art 110: Color Theory	3
Art 111: Introduction to Design I	3
Art 150: Introduction to the Macintosh and Graphics Programs	1.5
Art 151: Computer Graphics I	3
Art 152: Computer Graphics 2	3

### Certificate—Graphic Arts/Desktop Publishing Specialty (25.5 Credit Hours) (ICCB Code: C 2123)

The Desktop Publishing Specialty is earned by taking all courses required for the Certificate plus the following:

Required Courses	Cr. Hrs.
Art 125: Photography: Black and White	3
Art 240: History of Design	3
Art 251: Computer Graphics 3	3

### Certificate—Graphic Arts/Multimedia Specialty (25.5 Credit Hours) (ICCB Code: C 2124)

The Multimedia Specialty is earned by taking all courses required for the Certificate plus the following:

Required Courses	Cr. Hrs.
Art 160: 3-D Computer Design Multimedia	3
Art 227: Digital Photography	3
Art 251: Computer Graphics 3	3



## Associate in Applied Science Degree—Graphic Arts (61.5 to 64.5 Credit Hours)

(ICCB Code: AAS 0122)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Art 101: Introduction to Drawing 1	3
Art 110: Color Theory	3
Art 111: Introduction to Design 1	3
Art 125: Photography 1: Black and White	3
Art 127: Digital Photography	3
Art 150: Introduction to the MacIntosh and Graphics Programs	1.5
Art 151: Computer Graphics 1	3
Art 152: Computer Graphics 2	3
Art 160: 3-D Computer Design Multimedia	3
Art 230: Art History 3: Modern Art	3
Art 240: History of Design	3
Art 251: Computer Graphics 3	3
Art 252: Graphics Arts 4: Self-Promotion/Portfolio Preparation	3
Art. 290: Work Experience/Internship	2-5
Engl. 110: Communicating in the Workplace	3
Math. 110: Concepts of Mathematics	4
P. Rel. 100: Human Relations	3
Spch. 120: Business and Professional Speaking	3

<b>Directed Electives:</b>	<b>Cr. Hrs.</b>
Choose at least one business course and two additional courses from the following:	
Art 102: Introduction to Drawing 2	3
Art 112: Introduction to Design 2	3
Art 113: Figure Drawing	3
Art 126: Photography 2: Black and White	3
Bus. 100: Introduction to Business	3
Bus. 124: Principles of Marketing	3
Bus. 125: Small Business Management	3
Bus. 245: Fundamentals of Advertising and Sales Promotion	3
Draft. 215: Introduction to Computer Aided Drafting—Autocad	3

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## Heating, Ventilation, Air-Conditioning, & Refrigeration

**General Description:** Many companies lose a fortune if their heating, air conditioning, or refrigeration breaks down for even a short period of time. Grocery stores, office buildings, hospitals, labs, and many more businesses are in need of trained technicians to keep their climate control systems running efficiently. Graduates will be a valuable addition to any contractor, food wholesaler, appliance manufacturer, service/repair company, grocery chain, or retail store. The Heating, Ventilation, Air-Conditioning & Refrigeration certificate program focuses on residential air-conditioning and heating and commercial refrigeration.

**Aptitudes:** Prospective H.V.A.C.R. Technicians should expect challenging work that requires great attention to details and keeping up with a rapidly advancing technology. The ability to communicate ideas clearly and to follow instructions to the letter is also needed. The profession requires individuals to work both indoors and outdoors and at certain peak seasonal times work long hours.

**Outlook:** In the next few years, over 85,000 new openings will be created in the H.V.A.C.R. industry. Locally, between 10-15 job opportunities are expected on an annual basis.

## Certificate—Heating, Ventilation, Air-Conditioning, & Refrigeration (50 Credit Hours)

(ICCB Code: C 0058)

<b>Required Courses:</b>	<b>Cr. Hrs</b>
Bus. 119: English for Business and Technical Careers	3
Eltrn. 109: Industrial Controls	4
Eltrn. 110: Introduction to Electricity and Electronics	2

Eltrn. 111: Circuit Analysis	3
H.V.A.C. 100: Refrigerant Theory	2
H.V.A.C. 101: Refrigerant Recovery and Handling	1
H.V.A.C. 102: Refrigerant Diagnostics	2
H.V.A.C. 104: Electrical Controls 1	3
H.V.A.C. 105: Air-Conditioning and Refrigeration Diagnostic Simulation	2
H.V.A.C. 200: Tools and Piping for H.V.A.C.&R.	3
H.V.A.C. 210: Residential Air Conditioning and Refrigeration Systems	3
H.V.A.C. 215: Advanced Air Conditioning and Refrigeration Diagnostic Simulation	2
H.V.A.C. 220: Heating Systems 1-Gas and Electric	3
H.V.A.C. 221: Heating Systems 2-High Efficiency and Geothermal	3
H.V.A.C. 290: Work Experience and Seminar	5
Mfg. 100: Print Reading for Industry	2
Math. 104: Technical Mathematics	4
Mec. S. 111: Fundamentals of Pneumatics	3

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## Horticulture

**General Description:** The Horticulture Program is designed to prepare students for occupations in career areas such as landscaping, groundskeeping, and plantscaping. Typical jobs would include work in lawn and garden centers, turf management, and both the sales and management of these activities. The work setting may vary according to job interest and classification. A significant time would be spent outdoors, dealing with customers and their needs relating to lawn and garden design, plantscaping, and maintenance activities. Major employers are nurseries, professional landscape firms, golf courses, and related small businesses.

**Aptitudes:** This field requires the ability to enjoy working outdoors and to work well with people in business. Important, too, would be an appreciation of aesthetic applications to enhance the environment through efficient and complementary landscaping design techniques.

**Outlook:** This is a small occupation in Illinois, which is growing faster than the average. There is an increasing demand for landscapers as well as nursery and greenhouse managers.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

### Advanced Certificate—Turf Grass Management

(47 Credit Hrs.)

(ICCB Code: AC 0116)

**Required Courses:**

Agric. 210: Introductory Soil Science	4
Agric. 290: Work Experience Practicum & Seminar	5
Chem. 100: Concepts of Chemistry	4
C.I.S. 110: Business Applications on Microcomputers	3
Engl. 110: Communicating in the Workplace	3
Hort. 101: Turf Management	3
Hort. 103: Landscape Layout and Design	3
Hort. 104: Turf Management 2	3
Hort. 105: Turf Equipment Operation and Maintenance	3
Hort. 110: Nursery Management	3
Hort. 160: Building and Grounds Maintenance	3
Hort. 190: Plants and Society	4
O.T. 160: Office Accounting	3
P. Rel. 110: Supervisory Techniques and Personnel Development	3

Associate in Applied Science Degree—Horticulture  
(62 Credit Hrs.)

(ICCB Code: AAS 0108)

**Required Courses:**

Agric. 290: Work Experience Practicum and Seminar	5
Bus. 110: Business Mathematics	3
Bus. 125: Small Business Management	3
Engl. 110: Communicating in the Workplace	3
Hort. 101: Turf Management	3
Hort. 102: Ornamental Plant Identification and Use	3
Hort. 103: Landscape Layout and Design	3
Hort. 110: Nursery Management	3
Hort. 130: Electrical Controls	3
Hort. 140: Plant Propagation	3
Hort. 150: Greenhouse Management	3
Hort. 160: Building and Grounds Maintenance	3
Hort. 170: Plantscaping	3
Hort. 180: Small Gas Engines	2
Hort. 190: Plants and Society	4
Hort. 191: Landscape Construction and Estimating	3
Electives	3

**A.A.S. Group Requirements/Electives**

The A.A.S. degree requires that 9 or more hours of courses numbered 100 or above be selected from areas of Communications, Mathematics, and/or Natural/Life/Physical Science, and Humanities and/or Social Science with at least 3 hours in each area. (See page 81.)

Phil. 100 should be considered as the Humanities elective. Agric. 291 can be used as an elective.

NOTE: Required courses can be used to meet the General Education Group Requirements.

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## Industrial Drafting

**General Description:** The Industrial Drafting program introduces students to fundamentals of drafting, working drawing production, various media used in the drafting room, manufacturing processes, and other specialties that will enhance employment opportunities. It is designed both for persons currently employed in industry and for those desiring initial employment as an industrial drafter. The work is done indoors at all kinds of manufacturing firms.

**Aptitudes:** Drafters must be precise, accurate workers and be self-directed. They need good math skills, including geometry, and the ability to visualize objects in two and three dimensions.

**Outlook:** In Illinois, this field is growing faster than the average for all occupations.  
*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

**Basic Certificate—Industrial Drafting (13 Credit Hours)**

(ICCB Code: BC 0114)

**Required Courses:**

	<b>Cr. Hrs.</b>
Draft. 101: Fundamentals of Drafting	4
Draft. 215: Introduction to Computer Aided Drafting-Microstation	3
Draft. 220: Intermediate Computer Aided Drafting	3
Draft. 220: Advanced Computer Aided Drafting	3

**Advanced Certificate—Industrial Drafting (34 Credit Hours)**

(ICCB Code: AC 0112)

**Required Courses:**

	<b>Cr. Hrs.</b>
Draft. 101: Fundamentals of Drafting	4
Draft. 102: Industrial Drafting	4
Draft. 120: Technical Graphics	2
Draft. 210: Introduction to Computer Aided Drafting-Microstation (or Draft. 215)	3

Draft. 220: Intermediate Computer Aided Drafting	3
Draft. 295: Drafting Internship	3
Engr. 110: Engineering Graphics	3
Math. 117: Trigonometry (or Math. 104)	3

**Directed Electives:**

(Select a minimum of 6 credit hours)

Draft. 230: Advanced Computer Aided Drafting	3
Draft. 235: Advanced Solid Modeling (3-D)	3
Draft. 240: Computer Aided Drafting—Piping Systems	3
Draft. 241: Computer Aided Drafting—Electronic	3
Draft. 242: Computer Aided Drafting—Architectural/Commercial	3
Draft. 243: Computer Aided Drafting—Structural Steel Detailing	3
Draft. 244: Computer Aided Drafting—Concrete Detailing	3
Draft. 245: Computer Aided Drafting—Architectural	3

**Associate in Applied Science Degree—Industrial Drafting**  
**(63 Credit Hours)**

(ICCB Code: AAS 0113)

**Required Courses:**
**Cr. Hrs.**

C.I.S. 145: Personal Computers for Technicians	
Draft. 101: Fundamentals of Drafting	4
Draft. 102: Industrial Drafting	4
Draft. 110: Technical Design	3
Draft. 120: Technical Graphics	2
Draft. 130: Fundamentals of Tool Design Drafting	4
Draft. 210: Introduction to Computer Aided Drafting-Microstation (or Draft. 215)	3
Draft. 220: Intermediate Computer Aided Drafting	3
Draft. 230: Advanced Computer Aided Drafting	3
Draft. 295: Drafting Internship	3
Engl. 101: Composition I	3
Engl. 110: Communicating in the Workplace	3
Engr. 110: Engineering Graphics	3
Math. 117: Trigonometry (or Math. 104)	3
Phys. 115: Technical Physics	4
Spch. 101: Principles of Speech	3

**Directed Electives:**

(Select a minimum of 6 credit hours)

Draft. 235: Advanced Solid Modeling (3-D)	3
Draft. 240: Computer Aided Drafting—Piping Systems	3
Draft. 241: Computer Aided Drafting—Electronic	3
Draft. 242: Computer Aided Drafting—Architectural/Commercial	3
Draft. 243: Computer Aided Drafting—Structural Steel Detailing	3
Draft. 244: Computer Aided Drafting—Concrete Detailing	3
Draft. 245: Computer Aided Drafting—Architectural	3

**A.A.S. Group Requirements/Electives**

The A.A.S. degree requires that 3 more semester hours of courses numbered 100 or above be selected from areas of Communications, Mathematics and/or Natural/Life/Physical Science, and Humanities/Fine Arts and/or Social Science with at least 3 hours in Humanities and/or Social Science. (See page 81.)

NOTE: Required courses can be used to meet the General Education Group Requirements.

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## Industrial Engineering Technology

**General Description:** Industrial Engineering Technicians assist industrial engineers with problems involving efficient use of personnel, materials, and machines to produce goods and services. Typical job titles include planning releaser, inventory control analyst, quality assurance planner, assembly planner, time and motion analyst, production scheduler, and plant engineering technician. Industrial Engineering Technicians work indoors, but settings vary greatly depending on the manufacturing plant. Physically, the work is light. Major employers include manufacturing firms, hospitals, governmental agencies and public utilities, and construction and mining companies.

**Aptitudes:** Technicians must be able to make decisions, like to work with factual information, and have average ability to use words and numbers and to perceive objects in two- or three-dimensional form. They must be able to read blueprints and have good organizational skills.

**Outlook:** This is a very small occupation in Illinois. However, there will be many openings due to the need to replace current workers.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

### Associate in Applied Science Degree—Industrial Engineering Technology

(63 Credit Hours)

(ICCB Code: AAS 0083)

Required Courses:	Cr. Hrs.
C.I.M. 100: Introduction to Computer Integrated Manufacturing (CIM)	3
C.I.M. 102: CNC Programming	3
Draft. 101: Fundamentals of Drafting	4
Econ. 231: Macroeconomics	3
Econ. 232: Microeconomics	3
Engl. 110: Communicating in the Workplace	3
Engr. 110: Engineering Graphics	3
Ind. S. 100: Industrial Safety and Health	3
Mfg. 110: Basic Metallurgy	3
Mfg. 120: Manufacturing Processes	3
Math. 116: College Algebra	4
Math. 117: Trigonometry	3
Math. 121: Calculus and Analytic Geometry 1	5
Math. 141: FORTRAN for Science and Engineering	3
P. Rel. 100: Human Relations	3
Phys. 101: Introduction to Physics 1	4
Phys. 102: Introduction to Physics 2	4
Prod. C. 130: Inspection and Quality Control	3
Spch. 101: Principles of Speech	3

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## Industrial Maintenance

**General Description:** Industrial Maintenance workers perform a wide variety of jobs in keeping the specialized equipment of industry in operating condition by lubricating, welding, changing parts, diagnosing malfunctions, and maintaining and overhauling the machinery and equipment necessary to the operation of a particular plant. The Basic Certificate will help factory workers update their skills and make them more versatile employees, thus increasing their chances for advancement. This work is done in sites such as factories, public buildings, or hospitals.

**Aptitudes:** Industrial Maintenance workers must be good at working with their hands. They also need good math skills and the ability to read technical journals and blueprints.

**Outlook:** The outlook for Industrial Maintenance workers is directly tied to the growth or decline of manufacturing industries. In Illinois, a continued decline is expected, but the outlook in other parts of the country is much better.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

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**Basic Certificate—Industrial Maintenance (32 Credit Hours)** (ICCB Code: BC 0057)

<b>Required Course:</b>	<b>Cr. Hrs.</b>
Eltrn. 109: Industrial Controls	4
Eltrn. 110: Introduction to Electricity and Electronics	2
Eltrn. 111: Circuit Analysis	3
Mfg. 100: Print Reading for Industry	2
Math. 104: Technical Mathematics	4
Phys. 115: Technical Physics	4
Weld. 101: Shielded Metal Arc Welding	4
Elective(s)	9

Electives must be chosen from the areas of:

<b>Manufacturing Processes and Materials</b>	<b>Cr. Hrs.</b>
Mfg. 110: Basic Metallurgy	3
Mfg. 120: Manufacturing Processes	3
<b>Machine Tool Operation</b>	
Mach. 101: Machine Tool Processes 1	3
<b>Welding Processes</b>	
Weld. 102: Shielded Metal Arc Welding, Advanced	4
Weld. 190: Maintenance Welding	1.5
<b>Drafting</b>	
Draft. 101: Fundamentals of Drafting	4
Draft. 102: Industrial Drafting	4
<b>Industrial Safety and Health</b>	
Ind. S. 100: Industrial Safety and Health	3
<b>Electricity/Electronics</b>	
Eltrn. 112: Electronic Devices and Circuits	5
Eltrn. 120: Fundamentals of Servicing	2
<b>Mechanical Systems</b>	
Mec. S. 101: Mechanical Power Transmission 1	4
Mec. S. 102: Mechanical Power Transmission 2	3
Mec. S. 112: Pneumatics and Hydraulics	3
<b>Physics</b>	
Phys. 120: Basic Statics and Strength of Materials	3

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## Law Enforcement

**General Description:** Career opportunities in law enforcement, as well as upgrading skills for those currently employed in this area of specialization, are a focus of Richland's law enforcement program. This is an occupational field that offers both a terminal degree in Law Enforcement and preparation for a bachelor's degree in Criminal Justice Administration. The principal duties of Law Enforcement officers include protecting life and property, preventing crimes, investigating complaints and crimes, arresting violators, keeping accurate records, and testifying in court. Officers work indoors and outdoors with irregular hours including weekend and holiday duty. There is a high injury rate. The majority of jobs are in patrol, traffic, juvenile, probation, or detective work, but in small police departments officers work in several areas. There are also opportunities with private security and investigative firms.

**Aptitudes:** Officers need the ability to make sound judgments and rational decisions, to perform well under stress, to observe and remember details, and to communicate well both verbally and in writing. Good physical conditioning and health are required.

**Outlook:** There will be many job openings in Illinois in the next few years. Prospects are best for those with at least an associate's degree.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

# 110 Instructional Programs

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<b>Basic Certificate—Law Enforcement (20 Credit Hours)</b>	(ICCB Code: BC 0018)
<b>Required Courses</b>	<b>Cr. Hrs.</b>
Law E. 110: Introduction to Law Enforcement	3
Law E. 113: Fundamentals of Investigation and Investigative Reporting	3
Law E. 114: Criminal Law	3
Law E. 120: Motor Vehicle Laws and Traffic Control	4
C.I.S. 110: Business Applications on Microcomputers	3
Group Requirements/Elective(s)	4

<b>Advanced Certificate (47 Credit Hours)</b>	(ICCB Code: AC 0019)
<b>Required Courses:</b>	<b>Cr. Hrs.</b>
C.I.S. 110: Business Applications on Microcomputers	3
Engl. 101: Composition 1	3
Engl. 102: Composition 2	3
Law E. 110: Introduction to Law Enforcement	3
Law E. 113: Fundamentals of Investigation and Investigative Reporting	3
Law E. 114: Criminal Law	3
Law E. 120: Motor Vehicle Laws and Traffic Control	4
Law E. 200: Youth, the Law, and Police Intervention	3
Law E. 210: Law Enforcement and Community Relations	3
Law E. 211: Law Enforcement Administration	4
Pol. S. 120: Politics in States and Communities	3
Psych. 110: Introduction to Psychology	3
Socio. 110: Introduction to Sociology	3
Socio. 130: Criminology	3
Spch. 101: Principles of Speech	3
(Recommended Soc. Sci. Elective—Socio. 135: The Study of Substance Abuse or Socio. 160: Community Problems and Resources.)	

<b>Associate in Applied Science Degree (60 Credit Hours)</b>	(ICCB Code: AAS 0020)
The A.A.S. is earned by taking all courses required for the Adv. Cert. plus the courses below.	
<b>A.A.S. Group Requirements/Electives</b>	
The A.A.S. degree requires that 13 more semester hours of courses numbered 100 or above be selected from the areas of Communications, Humanities/Fine Arts and/or Business, and Mathematics and/or Natural/Life/Physical Science with at least 3 hours in each area. (See page 81.)	
NOTE: Required courses can be used to meet the General Education Group Requirements.	

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## Machine Tool Processes

*General Description:* The Machine Tool Processes Program permits students to develop and upgrade skills in basic machining including the use of the drill press, contour saw, lathe, and vertical and horizontal milling machines as well as the layout and construction of tools, gauges, jigs, fixtures, and die components. Some of the related occupations for which this program can prepare students are machine operator, machine setup, inspector, general machinist, and toolroom operator. Machine tool work is usually indoors. Some risk of injury is possible from cutting tools, moving machinery, and abrasive dust. Major employers are manufacturing firms and fabricated metals and machine shops.

*Aptitudes:* Machinists need an average ability to visualize objects of two or three dimensions, good math skills, and good hand and wrist movement and usage.

*Outlook:* There is a shortage of trained machinists in Illinois. A large number of openings will occur each year as experienced workers leave the labor force.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

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**Basic Certificate—Machine Tool Processes (18 Credit Hours)** (ICCB Code: BC 0021)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Mach. 101: Machine Tool Processes 1	3
Mach. 102: Machine Tool Processes 2	3
Mfg. 100: Print Reading for Industry	2
Mfg. 120: Manufacturing Processes	3
Math. 104: Technical Mathematics	4
Group Requirements/Elective(s)	3

**Advanced Certificate (44 Credit Hours)** (ICCB Code: AC 0022)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
C.I.M. 102: CNC Programming	3
Draft. 101: Fundamentals of Drafting	4
Ind. S. 100: Industrial Safety and Health	3
Mach. 101: Machine Tool Processes 1	3
Mach. 102: Machine Tool Processes 2	3
Mach. 201: Machine Tool Processes 3	3
Mach. 202: Machine Tool Processes 4	3
Mfg. 100: Print Reading for Industry	2
Mfg. 110: Basic Metallurgy	3
Mfg. 120: Manufacturing Processes	3
Math. 104: Technical Mathematics	4
Phys. 115: Technical Physics	4
Weld. 101: Shielded Metal Arc Welding	4

**Advanced Certificate Electives**

The Advanced Certificate requires that 2 semester hours numbered 100 or above be selected.

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**Associate in Applied Science Degree (65 Credit Hours)** (ICCB Code: AAS 0023)

The A.A.S. is earned by taking all courses required for the Adv. Cert. plus the courses below.

**A.A.S. Group Requirements/Electives**

The A.A.S. degree requires 21 more semester hours of courses numbered 100 or above with 15 of these hours selected from the areas of Communications, Humanities/Fine Arts and/or Business, and Social Science with at least 3 hours in each area. (See page 81.)

NOTE: Required courses can be used to meet the General Education Group Requirements.

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**Management/Leadership (See page 87.)**


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**Marketing (See page 87.)**


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**Materials Management (See page 87.)**


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**Mechanical Technology**

**General Description:** This program is designed to provide training for students working in the manufacturing skilled trades areas commonly described as millwrights, machine repairman, general maintenance and pipefitter. Mechanical technology workers perform a wide variety of jobs in keeping the specialized equipment of industry in operating condition by lubricating, welding, changing parts, diagnosing malfunctions, and maintaining and overhauling the machinery and equipment necessary to the operation of a particular plant. The work is done in sites such as factories, public buildings, or hospitals.

**Aptitudes:** Mechanical technology workers should be organized, dependable, and work well as part of a team. They also need good math, science, and communication skills, have the ability to solve problems, use logic, and like working with computers and electronics.

**Outlook:** There is currently a shortage of qualified employees in this industry.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*



Associate in Applied Science Degree—Mechanical Technology  
(70 Credit Hours)

(ICCB Code: AAS 0120)

<b>Required Courses:</b>	
C.I.S. 110: Business Applications on Microcomputers	3
C.I.M. 100: Introduction to Computer Integrated Manufacturing	3
Eltrn. 109: Industrial Controls	4
Eltrn. 110: Introduction to Electricity and Electronics	2
Engl. 101: Composition 1	3
Ind. S. 100: Industrial Safety and Health	3
Mach. 101: Machine Tool Processes 1	3
Mach. 102: Machine Tool Processes 2	3
Mfg. 100: Print Reading for Industry	2
Mfg. 120: Manufacturing Processes	3
Math. 104: Technical Mathematics	4
Mec. S. 101: Mechanical Power Transmission 1	4
Mec. S. 102: Mechanical Power Transmission 2	3
Mec. S. 112: Pneumatics and Hydraulics	3
Mec. S. 201: Industrial Machine Repair	2
Mec. S. 210: Industrial Pump Systems	2
Mec. S. 220: Industrial Lubrication Systems	2
Mec. S. 230: Industrial Rigging Systems	2
Mec. S. 240: Industrial Piping Systems	2
Mec. S. 250: Advanced Hydraulics	3
Mec. S. 290: Mechanical Technology Internship	4
P. Rel. 100: Human Relations	3
Phys. 115: Technical Physics	4
Weld. 195: Welding Fundamentals for Millwrights	3

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Nursing

Nurse Assistant

**General Description:** The Nurse Assistant program prepares students to provide basic nursing skills for patients and meets the requirements of the Illinois Department of Public Health Certified Nurse Assistant Certificate. The nurse assistant, under the direct supervision of a licensed nurse, functions as a member of the health care team in a long-term care facility, hospital, clinic, or home health care setting. Theory and practical application of basic nursing skills, nurse assistant ethical and legal issues, observation, reporting of patient signs and symptoms, Alzheimer’s Disease and related dementia training, emergency, and safety skills are presented. Upon successful completion of the theory, laboratory, and clinical sections, the student is eligible for the Illinois Nurse Aide Competency Evaluation Program. When the student passes the Competency Testing and meets the Health Care Worker Background Check Act - Public Act #89-197 criteria, the student is eligible for placement on the State of Illinois Nurse Aide Registry.

**Aptitude:** The nurse assistant must be a caring individual who is dependable, a good communicator, and a positive team member. The nurse assistant must be willing to care for a variety of patients.

**Outlook:** The outlook for certified nurse assistants is excellent. As the number of health care facilities and home health agencies increases, and as the population ages, the demand for nurse assistants will rise. *This is an occupational training program. Some of the courses may not transfer to four-year institutions.*

Certificate—Nurse Assistant (7 Credit Hours)

(ICCB Code: BC 0053)

<b>Required Course:</b>	<b>Cr. Hrs.</b>
Hlth. 141: Nurse Assistant Training	7

## Nursing

**General Description:** The Associate Degree Nursing (ADN) program at Richland Community College is accredited by the National League for Nursing and approved by the Illinois Department of Professional Regulation. The program is designed to prepare competent, caring, and critically thinking graduates to provide safe nursing care to clients in a variety of health care settings. The program is a combination of nursing and selected general education courses. The nursing courses consist of classroom, laboratory, and clinical experiences providing care to clients in local health care agencies. Graduates will be able to provide direct care to clients in various stages of the life cycle and manage care for individual clients as well as groups of clients. Upon satisfactory completion of the program, students will receive an Associate of Applied Science Degree and be eligible to write for the RN-National Council Licensing Examination. Graduates who pass the examination must apply to the Department of Professional Regulation for licensure as a Registered Nurse (RN).

**Aptitude:** Nursing is a demanding, challenging, and satisfying profession. It requires clinical expertise, academic knowledge, critical thinking skills, physical stamina, and personal integrity. Individuals preparing to enter nursing must be caring, self-disciplined, and committed to nursing as a goal and must have good time management and study skills.

**Outlook:** Nursing remains the largest single health profession in the U.S. Nursing offers a life-long career with many learning and employment opportunities. The current and future need for nurses will be in acute care, long-term care, and community health care agencies. The current salary for beginning registered nurses in the Richland District ranges from \$13 to \$14 per hour. Starting salaries average \$30,000-\$34,000 per year, depending on location.

*This is an occupational training program. Some of the courses may not transfer to four-year institutions.*

### Admission:

Admission to Richland Community College does not guarantee admission to the nursing program. The applicant must meet or exceed the minimum requirements to be considered for admission to the nursing program. Admission of Out-of-District students will be considered when space is available.

Applications to Richland's nursing program are available in C242 and are due by February 1. Students will be informed by letter of the action taken on their application by March 15. A new ADN class will begin Fall semester of each year.

### Admission Requirements:

Applicants must:

1. Be one of the following:
  - a. High school senior
  - b. High school graduate
  - c. G.E.D. graduate
2. Meet ONE criterion in each of the following areas:
  - a. Academic Background
    - (1) For graduates of high school, a cumulative high school GPA of 2.5 or better on a 4.0 scale and have an ACT composite of 21 and a science reasoning score of 20
    - (2) A 2.5 GPA in 15 semester hours of approved college courses (list of approved courses includes: Engl. 101, Biol. 201, 202, 220, Math. 106, Psych. 110, 145, Socio. 110, H.Ec. 200, and a Humanities elective)
    - (3) For high school seniors, an ACT composite of 21 and a science reasoning score of 20 are required as well as a cumulative high school GPA of 2.5 or better. These applicants must also have completed 3 years of English, 3 years of mathematics (including Algebra I and II and Geometry), and 3 years of science (including Chemistry and Biology) all with a "C" or better. These applicants must meet the Biology and Computer Literacy requirements before beginning the nursing program in the fall.
  - b. Chemistry
    - (1) High school chemistry with a "C" or better taken within the past 5 years
    - (2) College equivalent (Chem. 100 or above) with a "C" or better taken within the past five years
  - c. Biology
    - (1) Meet prerequisite for Biol. 201 (successful completion with "C" or better)
  - d. Computer Literacy
    - (1) Complete C.I.S. 110 or equivalent

### Admission Process:

1. Send the following to the College Admissions Office:
  - a. Completed Application for Admission to Richland Community College
  - b. Copy of high school transcript or G.E.D. certificate
  - c. Official college transcript(s) for previous college work (high school and college records from other institutions and Richland Community College academic records from earlier admissions (5 or more years ago) may be excluded from the evaluation by submitting a written request to the Nursing Coordinator. Students who make this request must have completed 15 semester hours in approved college courses within the past 5 years. The GPA from these courses will replace the ones that were excluded.)
2. Submit an "Application for Admission, Associate Degree" by no later than February 1.
3. Student selection is determined by:
  - a. Grade point average (GPA), and
  - b. A Biology GPA of 2.0 or better

Students may be conditionally accepted until admission criteria are completed.

Priority will be given to students who have completed five or more of the required general education courses and have completed at least three biology courses. All science courses must have been completed within the past five years.

Applicants who meet or exceed the minimum admission requirements and are not admitted because of lack of space shall be placed on a list for alternate admission. If an opening becomes available, students on the alternate list will be called based on their placement on the selection list. If an applicant is not admitted as an alternate for the current year, their admission application materials will be kept for one academic year. After one year, a new application form must be submitted. Consideration will be given to these applicants, but no guarantee of admission can be made.

Students who are admitted to the program must (a) return the acceptance form to the Health Science office, (b) arrange a personal interview (nursing advisor will contact you), (c) submit a completed Richland Health Record and proof of valid immunizations and/or immunity to certain diseases, (d) submit a valid Class C cardiopulmonary resuscitation (CPR) card, and (e) attend the nursing program orientation during the summer semester prior to entering the nursing program. Students who do not enroll in the orientation course will forfeit their space in the program.

Students may select a three-year (part-time) sequence by completing the general education courses before applying for admission to the nursing program.

Students must maintain a minimum cumulative GPA of 2.5 and receive a grade of "C" or better in each nursing and required biology course to remain in the program.

### Proficiency Examinations:

Nursing students may take a proficiency examination for C.I.S. 110, Math. 106, and/or Nurs. 154 with the approval of the Academic Director/Dean of the respective Divisions. Students who took science courses more than five years ago may take a proficiency examination with the approval of the Academic Director/Dean of the respective Divisions and after completing eight semester hours of credit at Richland. Students can refer to the Richland Community College Catalog, page 20, for information on the fee for the proficiency examinations.

### Licensure Examination:

Upon successful completion of all requirements for the Associate of Applied Science Degree by the graduation date, students must apply to take the National Council for Licensure Examination-Registered Nurse (NCLEX-RN). After successfully passing this examination, the graduate must then apply for a state license to practice in Illinois as a Registered Nurse. Graduating from this program does not guarantee that the graduate will become a Registered Nurse.

If there are questions about the above, students should contact the Illinois Department of Professional Regulation before program completion. The address is:

State of Illinois  
Department of Professional Regulations  
320 W. Washington  
Springfield IL 62786

## Associate in Applied Science Degree—Nursing (69 Credit Hours)

(ICCB Code: AAS 0050)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Biol. 201: Human Anatomy & Physiology 1	4
Biol. 202: Human Anatomy & Physiology 2	4
Biol. 220: Microbiology	4
Engl. 101: Composition 1	3
Hlth. 220: Nutrition and Diet Therapy	3
Humanities/Fine Arts (Elective)	3
Math 106: Mathematics for Health Careers	2
Nurs. 101: Concepts Basic to Nursing Practice	2
Nurs. 102: Fundamentals of Nursing	6
Nurs. 151: Medical-Surgical Nursing I	4
Nurs. 152: Psychiatric Mental Health Nursing	4
Nurs. 154: Pharmacological Principles for Nursing Practice	2
Nurs. 201: Medical-Surgical Nursing II	5
Nurs. 202: Family Health Nursing	5
Nurs. 251: Long-Term/Acute Care Nursing	4
Nurs. 254: Transition from Education to Practice	5
Psych. 110: Introduction to Psychology	3
Psych. 145: Human Growth and Development	3
Socio. 110: Introduction to Sociology	3

## Office Technology

**General Description:** The Office Technology Instructional Area consists of an A.A.S. Degree in Office Technology with a specialization in either medical, legal, or word processing/administrative assistant. Students wishing to earn the Office Technology A.A.S. Degree must complete the Core Courses, 14 credit hours of specialization electives, and 9 credit hours selected from group requirements. A one-year Certificate in Office Technology is also available. This program is designed to develop an efficient, valuable administrative assistant.

**Aptitudes:** Successful employees in the office technology area should be detail oriented, be highly organized, and have the ability to work with a minimum of supervision. A high tolerance for ambiguity, patience, and the flexibility to deal with change are desirable.

**Outlook:** This is a very large occupational area in Illinois that is expected to have many job openings each year. Prospects are best for those with training in several software applications.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

## Certificate—Office Technology (30 Credit Hours)

(ICCB Code: C 0043)

<b>Core Courses:</b>	<b>Cr. Hrs.</b>
Bus. 119: English for Business & Technical Careers	3
O.T. 102: Operating Systems/Windows-Office Applications	1
O.T. 104: Spreadsheet Basics-Office Applications	1.5
O.T. 105: Database Basics-Office Applications	1.5
O.T. 112: Document Formatting/Word Processing	3
O.T. 150: Records Management	3
O.T. 160: Office Accounting	3
O.T. 210: Statistical Keyboard Entry	2
O.T. 250: Professional Office Development	3
P. Rel. 100: Human Relations	3
O.T. Electives	6

Minimum typing speed of 40 NWAM for five minutes with five or fewer errors.

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## Associate of Applied Science Degree—Office Technology (60 Credit Hours)

(ICCB Code: AAS 0044)

### Core Courses:

	<b>Cr. Hrs.</b>
Bus. 119: English for Business and Technical Careers	3
Bus. 120: Business Communications	3
O.T. 102: Operating Systems/Windows-Office Applications	1
O.T. 104: Spreadsheet Basics-Office Applications	1.5
O.T. 105: Database Basics-Office Applications	1.5
O.T. 112: Document Formatting/Word Processing	3
O.T. 150: Records Management	3
O.T. 160: Office Accounting	3
O.T. 211: Advanced Word Processing	3
O.T. 212: Word Processing/Desktop Publishing Applications	3
O.T. 250: Professional Office Development	3
O.T. 251: Administrative Assistant - Work Simulation	3
P. Rel. 100: Human Relations	3
Spch. 120: Business and Professional Speaking (or Spch. 101)	3
Minimum typing speed of 50 NWAM for five minutes with five or fewer errors.	

**A.A.S. Specializations Electives** - select 14 semester hours from list below:

### Word Processing/Administrative Assistant

Bus. 100: Introduction to Business	3
Bus. 110: Business Mathematics	3
Bus. 227: International Business Management	3
Bus. 231: Business Law 1	3
Bus. 246: Fundamentals of Management	3
Bus. 290: Work Experience Practicum and Seminar	1-5
O.T. 100: Keyboarding Speed and Accuracy	1.5
O.T. 131: Speedwriting	3
O.T. 132: Shorthand/Speedwriting Transcription	3
O.T. 210: Statistical Keyboard Entry	2
O.T. 213: Print and Presentation Media	3

### Medical

Bus. 290: Work Experience Practicum and Seminar	1-5
O.T. 141: Medical Office Careers - Terminology	3
O.T. 142: Medical Office Careers - Anatomy	3
O.T. 242: Medical Office Careers - Transcription 1	3
O.T. 243: Medical Office Careers - Transcription 2	3
O.T. 245: Medical Office Careers - CPT Coding	3
O.T. 246: Medical Office Careers - Coding - ICD-9	3

### Legal

Bus. 100: Introduction to Business	3
Bus. 110: Business Mathematics	3
Bus. 227: International Business Management	3
Bus. 231: Business Law 1	3
Bus. 232: Business Law 2	3
Bus. 290: Work Experience Practicum and Seminar	1-5
O.T. 100: Keyboarding Speed and Accuracy	1.5
O.T. 131: Speedwriting	3
O.T. 132: Shorthand/Speedwriting Transcription	3
O.T. 210: Statistical Keyboard Entry	2
O.T. 230: Legal Terminology and Documents	3

### A.A.S. Group Requirements/Electives

The A.A.S. degree requires 9 semester hours selected from the areas of Communications, Humanities/Fine Arts, Social Science, Mathematics/Natural/Life/Physical Science. (See page 81.)

## Pharmacy Technician

**General Description:** Pharmacy technicians perform a variety of duties under the supervision of licensed pharmacists. They may prepare and distribute medications under the direct supervision of a pharmacist. They also perform technical and clerical duties in the operation of the pharmacy. Pharmacy technicians must be aware of the necessity for aseptic technique, cleanliness, orderliness, and accuracy in the work areas. Pharmacy technicians must be registered by the Illinois Department of Professional Regulation. National certification, by examination, is available from the Pharmacy Technician Certification Board.

**Aptitude:** Students who desire to become a pharmacy technician must like to work with details and in a scientific or laboratory-type setting. They must be able to perform pharmaceutical mathematic procedures involving weights, measurements, and conversions. They must also be computer literate and possess keyboarding skills.

**Outlook:** Job opportunities are available in community-based retail pharmacies, hospitals, home health agencies, mail order companies, compounding pharmacies, nuclear pharmacies, natural pharmacies, and with pharmaceutical companies.

### Basic Certificate – Pharmacy Technician (15 Credit Hours)

(ICCB Code: 2074)

Required Courses:	Cr. Hrs.
Hlth. 150: Pharmacology	4
Hlth.155: The Pharmacy Technician	6
Hlth. 156: Work Experience Practicum	2
Hlth. 157: Pharmacy Technician Certification Review	1
Math. 106: Mathematics for Health Careers	2

## Surgical Technology

**General Description:** The Surgical Technology Certificate/Degree program is accredited by the Commission of Accreditation of Allied Health Education Programs (CAAHEP). The Surgical Technology program prepares students to assist with patient care and related services in delivery rooms, surgery centers, and other settings that call for knowledge of asepsis by performing tasks that help to ensure safe surgical procedures. Some of those tasks include preparing all supplies, instruments, and equipment for operative procedures; passing instruments to the surgeon; and understanding of aseptic technique. The program provides classroom instruction, laboratory, and clinical experiences. Upon successful completion of the program, the graduate will receive a Certificate/Degree of Completion and become a Certified Surgical Technologist (CST) upon passing the National Certification Examination.

**Aptitude:** Surgical Technology is a demanding, challenging, and satisfying profession. It requires clinical expertise, academic knowledge, thinking skills, physical stamina, and personal integrity. Students must be physically and mentally capable of lifting supplies and instrument trays, moving heavy equipment, and lifting and moving patients. The student must possess adequate visual, hearing, and verbal communication skills.

**Outlook:** The Surgical Technology profession is expected to grow faster than the average to the year 2006. The current salary for new graduates ranges from \$10-\$12 per hour. With successful completion of the certification examination, the salary may increase. In addition, several health care providers may offer sign-on bonuses.

**Note:** The program maintains selective admissions. Prerequisites include a cumulative program GPA of 2.5 and a minimum grade of "C" in each course. In addition, students need to be eligible for Biol. 220 (or its equivalent) to enter these programs.

*This is an occupational training program. Some of the courses may not transfer to four-year institutions.*

### Admission:

Applications to Richland's Regional Surgical Technology Program are due by March 1. Students will be informed by letter of the action taken on their application by April 15. A new Surgical Technology class will begin fall semester of each year.

Admission to Richland Community College does not guarantee admission to the Surgical Technology program. The applicant must meet or exceed the minimum requirements to be considered for admission to the Surgical Technology program.

Students who are admitted to this program may take general education courses at their local college. The classroom Surgical Technology courses will be offered at Richland Community College. While enrolled at Richland Community College, the students will become in-district students. They will pay the current tuition rate and follow the same procedures regarding student services as in-district students.

### **Admission Requirements:**

Applicants must:

1. Be one of the following:
  - a. High school senior
  - b. High school graduate
  - c. G.E.D. graduate
2. Meet criterion in each of the following areas:
  - a. Academic Background
    - (1) A 2.5 or better cumulative program GPA in college and/or high school courses
  - b. Biology
    - (1) Be eligible for Biol. 220 (Microbiology) during the program's first semester
    - (2) High school students who graduate in the current year may take Biol. 101 in the junior or senior year of high school, as permitted by the College policy.
  - c. Revised PSB-Health Occupations Aptitude Test
    - (1) Pass test with a combined score of 50% or above.

### **Admission Process:**

1. Send the following to the College Admissions Office:
  - a. Completed Application for Admission to Richland Community College.
  - b. Copy of high school transcript or G.E.D. certificate.
  - c. Official college transcript(s) for previous college work (High school and college records from other institutions and Richland Community College academic records from earlier admissions (5 or more years ago) may be excluded from the evaluation by submitting a written request to the Surgical Technology Coordinator.
2. Submit an "Application for Admission to Surgical Technology" by March 1. Applications submitted after March 1 may be considered. Applications are available in C242.
3. Student selection is determined by:
  - a. Successful completion of admission requirements.
  - b. High school grade point average (GPA), and/or cumulative college GPA.

Students may be conditionally accepted until admission criteria are completed. Priority will be given to students who have completed the required general education courses. Biol. 201, 202, and 220 must have been completed within the past five years. (Exceptions must be approved by the program coordinator.)

Applicants who meet or exceed the minimum admission requirements and are not admitted because of lack of space shall be placed on a list for alternate admission. If a slot becomes available, students on the alternate list will be called based on their placement on the selection list. If an applicant is not admitted as an alternate for the current year, their admission application materials will be kept for one academic year. After one year, a new application form must be submitted. Consideration will be given to these applicants, but no guarantee of admission can be made.

### **Upon Acceptance:**

Students who are admitted to the program must (a) return the acceptance form to the Health Sciences office or Surgical Technology Coordinator, (b) arrange a personal interview with the Surgical Technology Coordinator, (c) submit to the Allied Health Coordinator a completed Richland Health Record and proof of valid immunizations and/or immunity to certain diseases, (d) submit a valid Class C cardio-pulmonary resuscitation (CPR) card.

### **Certification Examination:**

Upon successful completion of the program, students will receive a Certificate/Degree of Completion. Graduates are then eligible to apply and take the National Certifying Examination given by the Liaison Council on Certification (LCC). After successfully passing this examination, the graduate becomes a Certified Surgical Technologist (CST).

**Proficiency Examinations:**

Surgical Technology students may take a proficiency examination for Hlth. 140, Biol. 101, 201, 202, and 220 with the approval of the Academic Director/Dean of the respective Divisions. Students who took science courses more than five years ago may take a proficiency examination with the approval of the Academic Director/Dean of the respective Divisions and after completing eight semester hours of credit at Richland. Students must meet the standards of the particular division to earn credit by proficiency. Students can refer to the Richland Community College Catalog for information on the fee for proficiency examinations.

**Certificate—Surgical Technology (48 Credit Hours)**

(ICCB Code: 0055)

**Required Courses:**

	<b>Cr. Hrs.</b>
Biol. 201: Human Anatomy & Physiology 1	4
Biol. 202: Human Anatomy & Physiology 2	4
Hlth. 140: Medical Terminology	3
Surg. T. 100: Surgical Technology Orientation	2
Surg. T. 101: Surgical Technology I	6
Surg. T. 102: Surgical Technology II	7
Surg. T. 201: Surgical Technology III	13
Surg. T. 202: Work Experience Practicum	9

**Associate of Applied Science Degree (61 Credit Hours)**

(ICCB Code: 0056)

**Required Courses:**

	<b>Cr. Hrs.</b>
Biol. 201: Human Anatomy & Physiology 1	4
Biol. 202: Human Anatomy & Physiology 2	4
Biol. 220: Microbiology	4
Engl. 101: Composition I	3
Psych. 110: Introduction to Psychology	3
Hlth. 140: Medical Terminology	3
Surg. T. 100: Orientation to Surgical Technology	2
Surg. T. 101: Surgical Technology I	6
Surg. T. 102: Surgical Technology II	7
Surg. T. 201: Surgical Technology III	13
Surg. T. 202: Work Experience Practicum	9
Electives	3

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**Transportation**

**General Description:** The CDL Truck Driver (Tractor/Trailer) Training program is designed for individuals with little or no commercial driving experience. The program consists of a course that includes the Commercial Driver's License learner's permit and endorsement preparation, regulations, log books, map reading, trip planning, and complete vehicle training to prepare the individual for an entry-level position in the trucking industry. The program can be completed in four weeks by attending full time during the day, Monday through Friday. The part-time program can be completed in eight weeks and is offered during the evening, Monday through Friday. Thirty (30) hours of home study is required during the program. Full-time programs start every month. Students may register at any time.

**Aptitudes:** Truckers should enjoy working outdoors, need average manual dexterity and good eye-hand coordination and possess mechanical abilities, the ability to meet deadlines, good work ethic. Good eyesight and physical condition are also needed.

**Outlook:** Heavy trucking has the largest number of job openings in this area. There is serious to moderate shortage of qualified truck drivers.

*This is an occupational training program. Some of the courses may not transfer to four-year institutions.*

**Basic Certificate—Transportation (7 Credit Hours)**

(ICCB Code: BC 0123)

**Required Courses:**

	<b>Cr. Hrs.</b>
C.D.L. 1000: Tractor/Trailer Driver Training	7



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## Welding

**General Description:** Welding is designed to provide skill development in currently-used welding processes including flat and position welding. Additional skill development may be obtained in brazing, soldering, cutting layout, and fabrication techniques. The program prepares students for certification by ASME and AWS structural code tests. The student should develop sufficient skill to pass both the pressure and structural code tests established by the ASME standards. Welders work indoors and outdoors, often welding in awkward positions. Major employers are metal shops, construction and mining industry, and machine shops.

**Aptitudes:** Welders need average manual dexterity and eye-hand coordination, good physical condition and eyesight, and good math aptitude.

**Outlook:** Average employment growth is projected in Illinois. Most openings will result from the need to replace experienced workers who leave the labor force.

*These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

Basic Certificate—Welding (30 Credit Hours)

(ICCB Code: BC 0030)

Required Courses:	Cr. Hrs.
Draft. 101: Fundamentals of Drafting	4
Math. 104: Technical Mathematics	4
Weld. 100: Oxy-Acetylene and Plasma Arc Cutting	1.5
Weld. 101: Shielded Metal Arc Welding	4
Weld. 102: Shielded Metal Arc Welding, Advanced	4
Weld. 190: Maintenance Welding	1.5
Weld. 201: Gas Metal Arc and Flux Core Arc Welding	2
Weld. 202: Welder Certification	2
Weld. 204: Pipe Welding	4
Weld. 205: Gas Tungsten Arc Welding	3

Eligibility for Engl. 101 is a requirement for this certificate.

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## Guarantee for Technical Competency

Any student earning an Associate in Applied Science degree or certificate since May 1993 who is judged by an employer to be lacking in the technical job skills necessary for entry into the job for which the degree or certificate was designed shall be provided up to nine tuition-free credit hours of additional skill training. The graduate, under the agreement to enact this guarantee, will still be responsible for all costs other than the tuition specified.

Qualifying Conditions for the Guarantee:

1. The graduate must have earned the Associate in Applied Science degree or certificate no earlier than one year prior to the beginning date of the employment under consideration.
2. The graduate must have completed the degree within a five-year time period beginning at the point of first employment.
3. The graduate must be employed full time in a position directly related to the program of study as certified by the Vice President of Academic Affairs.
4. The employer must certify in writing that the graduate is lacking entry-level skills within 90 days of the graduate's initial date of employment.
5. The employer, graduate, division Dean, and appropriate faculty member, on the occasion of confirmed need for more training, would develop a written educational plan for retraining.
6. This guarantee does not imply that the graduate is guaranteed to pass any licensing or qualifying examination for a particular career.

## General Programs

### Associate in Liberal Studies

This degree is designed for students who desire up to two years of college study for personal development. The curriculum is also designed to provide students an opportunity to try various areas of interest and then choose a specific educational objective, such as a particular occupational program or baccalaureate-oriented associate's degree.

Both baccalaureate-oriented and occupational courses may be taken as a part of this program but must be numbered 100 or above.

1. Group Requirements: Credits
  - a. Communications Skills
  - b. Humanities/Fine Arts
  - c. Social Science
  - d. Natural/Life/Physical Science and Mathematics
2. General Electives, which may include occupational-oriented courses.
3. Constitution Requirement (See page 58.)
4. Total Credits Required in courses numbered 100 or above. (Students transferring credit to Richland should see regulations concerning transfer students.)
5. Cumulative Grade Point Average — 2.00 ("C") or better for all work applicable toward the degree that was pursued at the College. (See page 55.)

### Basic Certificate Programs

The full range of courses offered by the College is applicable to the first seven basic certificate programs. Students may develop programs that will meet their specific interests or needs.

The Basic Certificate in Personal Development is meant to serve those students who want to enroll in occupational, baccalaureate-oriented, or liberal studies programs but who need additional preparation to meet

their goals. Therefore, this program is more structured than the other seven basic certificate general studies programs.

### Basic Certificate in Community and Civic Development

The program is meant to serve those who have an interest in improving their understanding of community and civic affairs. Persons with such an interest in community and civic activities may enroll in this program even if they do not intend to receive a Certificate.

We recommend that interested individuals plan their programs with a counselor.

Graduation requirements for this Certificate are completion of

1. Sixteen semester hours of course work that complements the individual's other life experiences so as to broaden his or her perspective in community and civic activities. (Students transferring credit to Richland should see regulations under Admissions, page 18.)
2. Constitution Requirement. (See page 58.)
3. Cumulative Grade Point Average — 2.00 ("C") or better for courses numbered 080 or above and a grade of "CR" for courses numbered 079 or below that are pursued at the College and are applicable to this Certificate. (See page 55.)

### Basic Certificate in Developmental, Preparatory, or Basic Skills

The program is meant to serve those who want to develop or strengthen their abilities in the basic study skills areas, such as reading, writing, or arithmetic, which are important to daily living and/or further study. This program allows them to develop or strengthen these general skills in a less formalized program structure than is pro-

vided for the Basic Certificate in Personal Development. Persons with an interest in this area may enroll in the program even if they do not intend to receive a Certificate.

We recommend that interested individuals plan their program with a counselor.

Graduation requirements for this Certificate are completion of

1. Sixteen semester hours of course work that complements the individual's other life experiences so as to develop or strengthen general study skills. (Students transferring credit to Richland should see regulations under Admissions, page 18.)
2. Constitution Requirement. (See page 58.)
3. Cumulative Grade Point Average — 2.00 ("C") or better for courses numbered 080 or above and a grade of "CR" for courses numbered 079 or below that are pursued at the College and are applicable to this Certificate. (See page 55.)

## Basic Certificate in Health, Safety, and Environment

The program is meant to serve those who have an interest in improving their understanding of matters relating to health, safety, and environment (ecology). Persons with an interest in those fields may enroll in this program even if they do not intend to receive a Certificate.

We recommend that interested individuals plan their program with a counselor.

Graduation requirements for this Certificate are completion of

1. Sixteen semester hours of course work that complements the individual's other life experiences so as to broaden his/her perspective concerning health, safety, and environment. (Students transferring credit to Richland should see regulations under Admissions, pages 18.)
2. Constitution Requirement. (See page 58.)
3. Cumulative Grade Point Average — 2.00 ("C") or better for courses numbered 080 or above and a grade of "CR"

for courses numbered 079 or below that are pursued at the College and are applicable to this Certificate. (See page 55.)

## Basic Certificate in Homemaking

The program is meant to serve those who have an interest in developing or improving their homemaking capabilities. Persons with an interest in this area may enroll in the program even if they do not intend to receive a Certificate.

We recommend that interested individuals plan their program with a counselor.

Graduation requirements for this Certificate are completion of

1. Sixteen semester hours of course work that complements the individual's other life experiences so as to develop or strengthen general study skills. (Students transferring credit to Richland should see regulations under Admissions, page 18.)
2. Constitution Requirement. (See page 58.)
3. Cumulative Grade Point Average — 2.00 ("C") or better for courses numbered 080 or above and a grade of "CR" for courses numbered 079 or below that are pursued at the College and are applicable to this Certificate. (See page 55.)

## Basic Certificate in Improving Family Circumstances

The program is meant to serve those who have an interest in improving family life. Such an interest could range from the development of skills useful in the home to the development of psychological and/or sociological understanding. Persons with an interest in this area may enroll in the program even if they do not intend to receive a Certificate.

We recommend that interested individuals plan their program with a counselor.

Graduation requirements for this Certificate are completion of

1. Sixteen semester hours of course work that complements the individual's other life experiences so as to broaden his/her perspective to improve family life. (Students transferring credit to Richland should see regulations under Admissions, page 18.)
2. Constitution Requirement. (See page 58.)
3. Cumulative Grade Point Average — 2.00 ("C") or better for courses numbered 080 or above and a grade of "CR" for courses numbered 079 or below that are pursued at the College and are applicable to this Certificate. (See page 55.)

## Basic Certificate in Intellectual and Cultural Studies

The program is meant to serve those who have an interest in pursuing studies for their own intellectual and/or cultural development.

Richland recognizes that many persons enroll for the purpose of studying in areas not previously pursued even though they may have earned one or more college degrees. Other persons may have developed their occupational skills primarily through employment experiences and now desire to take advantage of the opportunity for intellectual and/or cultural development. Such study is for personal enrichment rather than for the purpose of development of occupational competence or the pursuit of a baccalaureate-oriented curriculum.

Those interested in pursuing work for such a purpose may enroll in this program even if they do not intend to receive a Certificate.

We recommend that interested individuals plan their program with a counselor.

Graduation requirements for this Certificate are completion of

1. Sixteen semester hours of course work that complements the individual's other

life experiences and broadens his/her intellectual and/or cultural understandings. (Students transferring credit to Richland should see regulations under Admissions, page 18.)

2. Constitution Requirement. (See page 58.)
3. Cumulative Grade Point Average — 2.00 ("C") or better for courses numbered 080 or above and a grade of "CR" for courses numbered 079 or below that are pursued at the College and are applicable to this Certificate. (See page 55.)

## Basic Certificate in Personal Development

The program is meant to serve those who want to complete courses in preparation for advanced study but who need additional preparation to meet that goal.

If, after consulting with a counselor, it is decided that the student needs additional preparatory courses, the student and counselor will design a course of study under this program. This is called a contract.

Persons with an interest in this area may enroll in the program even if they do not intend to receive a Certificate.

Those interested in this program should make an appointment early with a counselor.

Graduation requirements for this Certificate are completion of

1. Group Requirements:
  - a. Communications Skills — 4 to 6 semester hours; and
  - b. One course in at least two of three areas: Humanities/Fine Arts, Social Science or Natural/Life/Physical Science, and Mathematics — 4 to 6 semester hours. (See page 81.)
2. Total Credits Required — 16 semester hours including requirements in Item 1 above plus general electives. (Students transferring credits to Richland should see regulations under Admissions, page 18.)
3. Constitution Requirement. (See page 58.)

4. Cumulative Grade Point Average — 2.00 (“C”) or better for work applicable to the Certificate that was taken at the College. (In the event that a course numbered 079 or below is recommended by the counselor as part of the program, a grade of “CR” would be required for such a course and a 2.00 CGPA for all other work. See page 55.)

### Suggested Courses:

#### Communications Skills

- Engl. 090 - Reading and Study Skills II
- Engl. 091 - Developmental Writing II
- Engl. 101 - Composition I
- Spch. 101 - Principles of Speech

#### Social Science

- Ed. 100 - Introduction to Public Education
- Pol. S. 100 - People and Politics
- Psych. 100 - Practical Psychology
- Socio. 100 - Man, Society, and Culture

#### Natural/Life/Physical Science

- Biol. 101 - Concepts of Biology
- Chem. 100 - Concepts of Chemistry

### Mathematics

- Math. 090 - Arithmetic
- Math. 091 - Basic Algebra
- Math. 110 - Mathematical Concepts
- Math. 113 - Intro to Applied Statistics

### Humanities/Fine Arts

- Af. Am. 101 - The African-American Experience 1
- Af. Am. 102 - The African-American Experience 2
- Art 100 - Art Appreciation
- Drama 150 - Introduction to Theatre
- Music 100 - Music Appreciation
- Music 190 - Introduction to American Music
- Socio. 200 - Marriage and the Family

### Other

- P. Dev. 100 - Human Potential Seminar

*In addition to the suggested courses listed for the group requirements areas, a student may well utilize one or more other courses if his/her background is appropriate to a particular area of study. Electives may include other introductory courses not listed.*

# Course Descriptions

Course Responsibilities

The administrative responsibilities for credit courses are assigned to various Divisions within the College. Inquiries concerning courses should be directed to the Division indicated above the course prefix:

Arts and Sciences Division

Dean - Room S145A

(Accounting, African American Studies, Anthropology, Art, Business, Biology, Chemistry, Drama, Earth Science, Economics, Education, Engineering, English, French, German, Health, History, Humanities, Journalism, Leadership, Mathematics, Music, Nursing, Personnel Relations, Philosophy, Physical Education, Physical Science, Physics, Political Science, Psychology, Sociology, Spanish, Speech, Surgical Technology.)

Acct.	Leadership
Bus.	Nurs.
Econ.	P. Rel.
Ed.	SurgT.
Hlth.	

Academic Director - Room C162

(Communications, Social Science, Fine & Applied Arts)

Af. Am.	Human.
Art	Journ.
Drama	Music
Engl.	Phil.
Fren.	Pol. Sci.
Germ.	Span.
Hist.	Spch.

Academic Director - Room S119

(Mathematics, Engineering, Behavioral, Health, Physical and Life Sciences)

Anthr.	P. Ed.
Biol.	Phy. S.
Chem.	Phys.
Ea. Sci.	Psych.
Engr.	Socio.
Math.	Soc. S.

Occupational and Technical Division

Dean - Room C218

Academic Director - Room C218

(Agriculture, Automotive, Child Care, Computer Information Systems, Computer Service Technician, Computer Integrated Manufacturing, Drafting, Electronics, Fire Science, Food Service Management, Horticulture, H.V.A.C., Industrial Engineering/Technology, Law Enforcement, Manufacturing, Materials Management, Office Technology, Welding)

Agric.	H.V.A.C.
Auto.	Ind. S.
B. Con.	Law. E.
C.C.&E.	Mach.
C.I.M.	Mfg.
C.I.S.	Matls.
C.S.	Mec. S.
Draft.	O.T.
Eltrn.	Prod. C.
Fire	Robot.
F.S.M.	Weld.
Hort.	

Student Assessment, Advising, and Learning Support Services (SAALS)

Dean - Room W141

(Early Alert, Adult Education, Learning Support, Faculty Advising Program, Student Assessment and Placement, Tutoring and Tutor Certification, TRIO/Student Support Services, Perkins Program)

A.B.E.	E.S.L.
A.L.S.	G.E.D.
A.S.E.	Ed. 101

Student Development & Services (SDS)

Vice President - Room C129

(Career Development, Personal Development)

C. Dev.
P. Dev.

Lifelong Learning Division

Dean - Room SC08

(Transportation, Truck Driver Training)  
C.D.L.

## Applicability of Course to Program

Courses are offered appropriate to a wide variety of programs; consequently, not all courses are applicable to every program.

Any course numbered 100 or above is applicable to one or more but not all Associate Degree curricula and one or more but not all Certificate programs depending upon the nature of the curriculum or program. Courses numbered 099 or under may be applicable to selected Basic Certificate programs.

Also, several programs require some study of courses that satisfy certain Group Requirements, subdivided into Communications, Humanities/Fine Arts, Social Science, and Mathematics and Natural/Life/Physical Science. Occupational-oriented Associate Degree curricula require some study through Group Requirement areas, which are subdivided into Communications, Humanities and/or Business, Social Science, and Mathematics and/or Natural Science.

Following each course description is information showing the Certificate or Degree, the Group Requirement, and the Program Area of Concentration to which the course is applicable toward RCC graduation. The degrees are abbreviated: A.A.S. - Associate in Applied Science; A.E.S. - Associate in Engineering Science; A.L.S. - Associate in Liberal Studies; A.A. - Associate in Arts; A.S. - Associate in Science, and A.F.A. - Associate in Fine Arts.

## Course Titles, Hours, and Credit

Course titles include: (1) the general area of instruction for the course, which is called the course "Prefix" (for example: Acct., Math., Hist.); (2) the course number; (3) the descriptive course title (for example: Principles of Accounting 1, College Algebra, United States to 1877); and (4) the number of hours a class normally meets a week and the number of semester hours credit granted (for example: 1-4-3 would indicate 1 hour of lecture/ discussion per week and 4 hours of laboratory per week for 3 semester hours of credit.)

### Key to Course Descriptions

Below is an example of a Course Description that will serve as a Key to those descriptions that follow on pages 128-243.

*Course No.*      *Course Title*

**Acct. 100 - Fundamentals of Accounting**

*Lecture*  
*Lab*      *Credit Hrs.*  
**3 - 0 - 3**



## Accounting

### Acct. 100 - Fundamentals of Accounting

3-0-3

is designed to promote success in Acct. 101 with an emphasis on the financial statements, accounting cycle, special journals and ledgers, adjustments, accounts receivable and accounts payable, bank reconciliation, inventories, and depreciation. This course is recommended for non-business majors and small business managers. Students cannot receive credit toward graduation for both this course and O.T. 160.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### Acct. 101 - Principles of Accounting 1

4-0-4

serves as the introduction to financial accounting, including basic theory and practice as it applies to the accounting cycle and the communication of results through financial statements.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Accounting, Business, Computer Information Systems

### Acct. 102 - Principles of Accounting 2

4-0-4

(*Prerequisite: Acct. 101.*) serves as the introduction to accounting theory and practice for corporation, financial statement analysis, cost accounting, budgeting, and managerial accounting topics.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Accounting, Business, Computer Information Systems

### Acct. 130 - Tax Accounting

3-0-3

serves as an introduction to the basic concepts and procedures of federal and state income tax as they pertain to the individual taxpayer and the small business enterprise under the latest amendments to the Internal Revenue Code.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### Acct. 201 - Intermediate Accounting 1

4-0-4

(*Prerequisite: Acct. 102.*) examines accounting concepts, principles, and theory with an emphasis on the special problems that arise in applying these concepts for external reporting purposes - specifically covering the income statement, balance sheet, and all asset topics.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### Acct. 202 - Intermediate Accounting 2

4-0-4

(*Prerequisite: Acct. 201.*) examines accounting concepts, principles, and theory with an emphasis on the special problems that arise in applying these concepts for external reporting purposes - specifically covering liabilities, corporation, taxation, and financial statement analysis topics.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### Acct. 211 - Managerial Cost Accounting 1

3-0-3

(*Prerequisite: Acct. 102.*) emphasizes the managerial uses of cost accounting information for business decision-making. Topics include analysis of three elements of cost: material, labor, and overhead. Job order, standard, and process cost will be covered.

Applicable toward graduation where program structure permits:  
 Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.  
 Group Requirement - Business (A.A.S. only)  
 Area of Concentration - Not Applicable

## African-American Studies

### **Af. Am. 101 - The African-American Experience 1 (IAI: HF 906D) 4-0-4**

surveys African-American heritage from its African roots through the beginning of the civil rights movement (1954) and critically examines literature and other products of African-American culture.

Application toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities, Fine Arts

Area of Concentration - African-American Studies

### **Af. Am. 102 - The African-American Experience 2 4-0-4**

surveys African-American history from 1954 to the present, examines the prose, poetry, and drama of African-American authors of the period, and traces African-American music from ragtime through rock and soul to the present.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities, Fine Arts

Area of Concentration - African-American Studies

### **Af. Am. 103 - African-American Experience Through the Arts (IAI: HF 906D) 3-0-3**

presents a critical, aesthetic, and historical introduction to African-American music, drama, and visual arts as ethnic tradition and as part of the American cultural experience.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities, Fine Arts

Area of Concentration - African-American Studies

### **Af. Am. 104 - African-American Experience Through Literature (IAI: H3 910D) 3-0-3**

presents a critical and cultural introduction to African-American poetry and prose as ethnic tradition and as part of the American literary experience.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - African-American Studies

## Agriculture

### **Agric. 101 - Care and Adjustment of Agricultural Equipment 2-2-3**

covers the care and calibration of the equipment used in crop production. Emphasis will be placed on fertilizer, herbicide, and pesticide applicators and planting, tillage, and harvesting equipment.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Agricultural Products and Processing

### **Agric. 102 - Fundamentals of Soil Management 2-2-3**

covers the nature and properties of soils including origin, formation, and biological, chemical, and physical aspects. Basic principles of soil dynamics, texture, structure, moisture, organic matter, and soil reaction to fertilizers are considered. Emphasis is placed on soil types in Illinois and appropriate conservation practices.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Agricultural Products and Processing

## **Agric. 103 - Fundamentals of Farm Welding**

**1-6-3**

includes procedures applicable to problems encountered in farm welding. Also included is information concerning and practice with the different kinds of metals normally used in farming operations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Agricultural Products and Processing

## **Agric. 104 - Fundamentals of Crop Production**

**2-2-3**

covers production and harvesting of crops grown in this area including new varieties; common weeds, insects, and diseases; seed purity and germination; market grades of grain; and plant and seed preparation.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - Agricultural Products and Processing

## **Agric. 105 - Controlled Environment Agriculture**

**1-2-2**

is an introduction to optimized plant growth. Vegetable and ornamental crops will be produced by the students to develop a working understanding of plant growth needs; systems of environmental control; and plant nutrition, disease control, harvesting and marketing implications of the system.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - Agricultural Products and Processing

## **Agric. 106 - Introductory Animal Science (IAI: AG 902)**

**3-2-4**

teaches principles of livestock production, including animal products, breed identification, livestock selection, genetics and reproduction, nutrition and ration formulation, anatomy and physiology, and livestock management practices.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - Agricultural Products and Processing

## **Agric. 120 - Introduction to Agricultural Economics (IAI: AG 901)**

**3-0-3**

establishes an understanding of economic principles and their application to agricultural problems while studying the role of agriculture in United States and in world economics.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Agricultural Products and Processing

## **Agric. 121 - Agriculture Commodity Marketing I**

**1.5-0-1.5**

is designed to help farmers develop marketing skills by determining production costs and understanding the cash and futures markets, to conduct a technical analysis of the markets, and to use these principles to develop a marketing plan for their own operation.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Agricultural Products and Processing

## **Agric. 130 - Introductory Crop Science (IAI: AG 903)**

**3-2-4**

acquaints students with the field of agronomy. Emphasis is placed on the importance, origin, growth, and distribution of food crop plants. Consideration is given to ecological and cultural aspects.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - Agricultural Products and Processing

## **Agric. 180 - Introductory Agricultural Mechanization (IAI: AG 906)**

**2-2-3**

presents principles and applications of agricultural mechanization with emphasis on soil and water conservation, farm power, farm electrification, and farm structures.

Applicable toward graduation where program structure permits:  
 Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.  
 Group Requirement - Not Applicable  
 Area of Concentration - Agricultural Products and Processing

**Agric. 185 - Mobile Hydraulic Systems** 2-4-4

teaches the fundamentals of hydraulics and provides training in component functions and their applications and equipment. Methods of testing and repair will be practiced on farm and industrial equipment.

Applicable toward graduation where program structure permits:  
 Certificate or Degree - All Certificates, A.A.S., A.L.S.  
 Group Requirement - Not Applicable  
 Area of Concentration - Agricultural Products and Processing

**Agric. 187 - Off-Highway Equipment Air Conditioning and Heating** 0-2-1

is a study of air conditioning/heating components and their functions. Service and maintenance techniques will be developed using farm tractors, combines, and off-highway equipment.

Applicable toward graduation where program structure permits:  
 Certificate or Degree - All Certificates, A.A.S., A.L.S.  
 Group Requirement - Not Applicable  
 Area of Concentration - Agricultural Products and Processing

**Agric. 200 - Weed and Pest Control** 3-2-4

covers the safety and handling of approved agricultural pesticides. Special emphasis will be placed on herbicides for corn and soybeans. Students will develop the ability to select pesticides, formulate mixes, and apply materials in a safe and approved manner.

Applicable toward graduation where program structure permits:  
 Certificate or Degree - All Certificates, A.A.S., A.L.S.  
 Group Requirement - Not Applicable  
 Area of Concentration - Agricultural Products and Processing

**Agric. 210 - Introductory Soil Science (1A1: AG 904)** 3-2-4

(*Prerequisite: Chem. 100 or 110.*) introduces the nature, properties, and use of soil. Emphasis is given to the chemical, physical, and biological properties of soil.

Applicable toward graduation where program structure permits:  
 Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.  
 Group Requirement - Not Applicable  
 Area of Concentration - Agricultural Products and Processing

**Agric. 220 - Farm Accounting** 3-0-3

is a course for the study of systematic recordkeeping and accounting principles useful in analyzing farming and farm-related operations. Included is inventory control, depreciation, taxes, financing, balance sheet, cash flow, and profit and loss statement.

Applicable toward graduation where program structure permits:  
 Certificate or Degree - All Certificates, A.A.S., A.L.S.  
 Group Requirement - Not Applicable  
 Area of Concentration - Agricultural Products and Processing

**Agric. 230 - Computer Technology in Agriculture** 2-2-3

deals with the use of microcomputers and programmable calculators on the farm or in agri-business. Emphasis will be placed on the applications of software available for use in the area of agriculture. Students will also be exposed to the mechanics of writing computer programs. Time will be allocated for the student's use of the computer in addition to time spent during regular class hours.

Applicable toward graduation where program structure permits:  
 Certificate or Degree - All Certificates, A.A.S., A.L.S.  
 Group Requirement - Not Applicable  
 Area of Concentration - Agricultural Products and Processing

**Agric. 240 - GPS Applications in Agriculture** 2-2-3

(*Prerequisite: Agric. 230 or CIS 110 or equivalent skills.*) introduces students to global positioning equipment hardware and use. Class time will be spent in outdoor laboratory settings dealing with practical applications in agriculture using the monitor and receiver of a GPS unit. Students will utilize personal and laptop computers to transfer the gathered information to a geographic information system for data processing, analysis, and decision making in agriculture business settings.

Applicable toward graduation where program structure permits:

Certificate or Degree – All Certificates, A.A.S., A.L.S.

Group Requirement – Not Applicable

Area of Concentration – Agricultural Products and Processing

## **Agric. 241 - Intro to GIS Using ArcView**

**2-2-3**

(*Prerequisite: Agric 230 or C.I.S. 110 or permission of the instructor.*) explains the fundamental process of Geographic Information Systems (GIS) using ArcView software. File formats, database management, spatial analysis, and manipulation of data are discussed. Students will also be exposed to geo-referenced data from mapping and yield monitor data.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - AgriBusiness

## **Agric. 250 - Fundamentals of Farm Management**

**3-0-3**

consists of applications of economic principles to organization and management of a farm business. Also covered are size of business, choice of enterprise, timing of production, farm labor utilization, leases, and farm business records.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Agricultural Products and Processing

## **Agric. 255 – Agri-Business Sales and Management**

**3-0-3**

provides the basic principles of agri-business operations including advertising, sales, personnel management, public relations, office management, finance, and regulations.

Applicable toward graduation where program structure permits:

Certificate or Degree – All Certificates, A.A.S., A.L.S.

Group Requirement – Not Applicable

Area of Concentration – Agricultural Products and Processing

## **Agric. 260 - Marketing Agricultural Products**

**3-0-3**

consists of demand, supply, and distribution of farm products; nature of production; the marketing system; and marketing of farm products. Also included are problems in pricing, in choosing outlets, and in reducing the costs and increasing the efficiency of agricultural marketing.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Agricultural Products and Processing

## **Agric. 290 - Work Experience Practicum & Seminar**

(Variable Credit) **1-20-5**

(*Prerequisite: Sophomore standing. Must complete an application for enrollment and submit it to the Occupational and Technical Academic Director 30 days or more prior to the first day of registration for the semester during which the student desires to participate in this course. Applications are available from the Occupational and Technical Division.*) affords the student in an Agricultural Products and Processing program the opportunity to apply principles learned in other courses to the work situation by employment in or observation of a business, industry, or agency. Employment or observation activities are coordinated with the student's course work. One of the requirements of this course will be a one-hour-per-week seminar to be arranged for the maximum convenience of the students. Credit is determined at enrollment based on the ratio of five or more hours per week in the employment setting for a regular-length semester for one semester hour of credit. Credit is variable, ranging from 1-5 credits. The course may be repeated for a maximum accumulation of five semester hours of credit.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Agricultural Products and Processing

## **Agric. 291 - Advanced Work Experience Practicum & Seminar** (Variable Credit) **1-20-5**

(*Prerequisite: Agric. 290.*) affords students in an Agricultural Products and Processing program, through involvement in the challenges and rewards of the real work environment and performance of

specific work activities, the opportunity to become aware of their abilities and strengths while learning an employer's procedures and expectations. Credit is variable ranging from 1-5 credits.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Agricultural Products and Processing

## Anthropology

### **Anthr. 110 - Introduction to Cultural Anthropology (IAI: S1 901N)**

**3-0-3**

(*Prerequisite: eligibility for Engl. 101.*) is an introductory anthropology course that discusses the more common lifeways that humans use to adapt to their particular physical and social environments. Examples from contemporary and past societies from around the world will be used to provide the students with a broader perspective of their own culture. Various aspects of world cultures to include religion, technology, kinship, political and economic systems, and change are discussed to understand how and why culture works and sometimes fails.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Anthropology

### **Anthr. 120 - Introduction to Physical Anthropology (IAI: S1 902)**

**3-0-3**

(*Prerequisite: eligibility for Engl. 101.*) is an introductory physical anthropology course that deals with human physical and cultural change throughout the course of history. Archaeological data and techniques are discussed as a way of providing information on human change through time. Studies of human and non-human behavior are discussed to point out the effects and consequences of change.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Anthropology

### **Anthr. 130 - Introduction to Archaeology (IAI: S1 903)**

**3-0-3**

(*Prerequisite: eligibility for Engl. 101.*) is designed to introduce majors and non-majors to anthropology through the use of archaeological data, concepts, methods, and goals. Emphasis is placed upon New World archaeological data.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Anthropology

## Art

### **Art 100 - Art Appreciation (IAI: F2 900)**

**3-0-3**

examines the various styles of painting, sculpture, and other visual media with an historical overview.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Fine Arts

Area of Concentration - Not Applicable

### **Art 101 - Introduction to Drawing 1**

**1-5-3**

acquaints the student with the basic concepts and practice of drawing including the study of line, form, space, value, and composition. Subject matter will include still life arrangements and other projects.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

### **Art 102 - Introduction to Drawing 2**

**1-5-3**

(*Prerequisite: Art 101.*) continues exercises from still life arrangements and other projects. Black and white as well as color media are used.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

### **Art 110 – Color Theory**

**3-0-3**

*(Prerequisite: Art 111 and 150.)* provides an in-depth examination of color as it applies to design, composition, and use on the computer. The class is an introduction to fundamentals of color systems, principles of color harmony, color theories, and color media with an emphasis on using color for creative experimentation and expression.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

### **Art 111 - Introduction to Design 1**

**1-5-3**

offers the student orientation in the principles and practice of two-dimensional designing using various media and dealing with the elements of line, color, balance, value, and form.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

### **Art 112 - Introduction to Design 2**

**1-5-3**

*(Prerequisite: Art 111.)* involves the study and practice of three-dimensional design and exploration of various tools, materials, and techniques.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

### **Art 113 - Figure Drawing 1**

**1-5-3**

*(Prerequisite: Art 101, 102, 111, or 112 or concurrent enrollment in any one of these courses.)* introduces the student to the drawing of the human figure with activities involving techniques, anatomy, and design in varied media.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

### **Art 114 - Figure Drawing 2**

**1-5-3**

*(Prerequisite: Art 113.)* continues activities involving techniques, anatomy, and design in various media of drawing the human figure.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

### **Art 115 - Printmaking 1**

**1-5-3**

introduces the student to creative explorations in the media of monoprint, linoleum block cut prints, and wood block prints.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

### **Art 116 - Printmaking 2**

**1-5-3**

*(Prerequisite: Art 115.)* introduces the student to an exploration of the silkscreen print technique.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

**Art 117 - Painting 1****1-5-3**

introduces the student to the approaches, media, and techniques of painting as a medium of expression.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirements - Not Applicable

Area of Concentration - Art

**Art 118 - Painting 2****1-5-3**

*(Prerequisite: Art 117.)* continues exploration of the approaches, media, and techniques of painting as a medium of expression.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirements - Not Applicable

Area of Concentration - Art

**Art 119 - Sculpture 1****1-5-3**

introduces the student to three-dimensional spatial concerns in various sculptural materials. Various fundamental techniques are explored.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

**Art 120 - Sculpture 2****1-5-3**

*(Prerequisite: Art 119.)* offers further work in various three-dimensional materials. Attention is given to personal and individual problem-solving.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

**Art 121 - Ceramics 1****1-5-3**

is an introduction to various hand-building techniques, decorative methods, and firing processes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

**Art 122 - Ceramics 2****1-5-3**

*(Prerequisite: Art 121.)* is a continuation of various hand-building techniques, decorative methods, and firing processes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

**Art 123 - Watercolor 1****1-5-3**

introduces the student to approaches, techniques, and media of transparent and opaque water-soluble paints.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

**Art 124 - Watercolor 2****1-5-3**

*(Prerequisite: Art 123.)* continues the approaches, techniques, and media of transparent and opaque water-soluble paints.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art



## **Art 125 - Photography 1: Black and White**

**1-4-3**

introduces the student to photography, covering fundamentals of camera, studio, and darkroom techniques. (Students must supply their own fully manual 35mm cameras. Refer to equipment list for the class.) A fifty-minute laboratory period per week is required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

## **Art 126 - Photography 2: Black and White**

**1-4-3**

(*Prerequisite: Art 125 or evaluation of portfolio.*) is a continuation of Art 125. It offers further study and experimentation with camera, studio, and darkroom techniques. A fifty-minute laboratory period per week is required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

## **Art 127 - Digital Photography**

**1-5-3**

(*Prerequisite: Art 111.*) provides an introduction to the mechanics of making a color image and the use of basic photo manipulation tools to enhance that image for final output. Techniques using both computer and hand skills will be explored as they pertain to the Prepress/Publication fields.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

## **Art 131 - Advanced Ceramics 1**

**0-6-3**

(*Prerequisite: Art 121.*) is a continuation of ceramics with the emphasis on use of the potter's wheel and the building techniques, decorative methods, and firing processes of wheel-thrown work.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

## **Art 150 - Introduction to the MacIntosh and Graphics Programs**

**1-1-1.5**

introduces the student to the MacIntosh operating system and to fundamentals of computer graphics software. Students will gain experience with system hardware and software and various input and output devices and learn file management, printing, and the basics of producing and editing images in several graphics software programs.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

## **Art 151 - Computer Graphics 1**

**1-5-3**

(*Prerequisite: Art 111 or 150.*) introduces the student to the fundamentals of using the computer as a fine arts and graphic design tool. Effective design concepts and individual expression will be emphasized, as well as acquiring skills necessary to master various drawing, painting, and layout software.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement: Not Applicable

Area of Concentration: Art

## **Art 152 - Computer Graphics 2**

**1-5-3**

(*Prerequisite: Art 151.*) is an intensive study of computer painting, drawing, photo manipulation, and layout software to produce design pieces for a variety of uses. Fundamentals of layout, symbol, packaging, and advertising design are investigated.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement: Not Applicable

Area of Concentration: Art

**Art 160 - 3-D Computer Design/Multimedia**
**1-5-3**

(*Prerequisite: Art 111.*) covers a broad spectrum of computer graphics applications as they pertain to 3-D modeling and animation applications as well as multimedia authoring. Students will study the basics of three-dimensional design on the computer, sound editing, and video and animation editing, as well as scripting for a final presentation.

Applicable toward graduation where program structure permits:

Certificate or Degree – All Certificates and All Degrees

Group Requirement — Not Applicable

Area of Concentration — Art

**Art 210 - Art History 1: Ancient through Medieval (IAI: F2 901)**
**3-0-3**

is an introductory course in art history from prehistoric times through the Egyptian, Greek, Roman, Early Christian, Medieval, Romanesque, and Gothic periods.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement – Fine Arts

Area of Concentration - Art

**Art 220 - Art History 2: Renaissance-Rococo (IAI: F2 902)**
**3-0-3**

is an introductory course in art history from early Renaissance art and architecture through Baroque, Rococo, Neoclassicism, Impressionism, and Modern art.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Fine Arts

Area of Concentration - Art

**Art 225 - Photography 3: Color**
**1-5-3**

(*Prerequisite: Art 125 or evaluation of portfolio.*) introduces the processes of making color transparencies and prints. It familiarizes the student with the mechanics of processing a color image. Various assignments stress aesthetic and technical qualities.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees.

Group Requirement - Not Applicable

Area of Concentration - Art

**Art 230 - Art History 3: Modern Art (IAI: F2 902)**
**3-0-3**

is an introductory course in the art history of the 20th century.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Fine Arts

Area of Concentration - Art

**Art 240 - History of Design**
**3-0-3**

(*Prerequisite: Art 111, 112, and 150.*) is an introductory course in art history as it pertains to the field of design from its origins to the present.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Fine Arts

Area of Concentration - Art

**Art 251 - Computer Graphics 3**
**1-5-3**

(*Prerequisite: Art 152.*) provides advanced visual communication using computer graphics to produce advertising and layout designs for complex publications, including web publishing. Students will also study the history of advertising, media types, and advertising strategies.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement: Not Applicable

Area of Concentration: Art

**Art 252 - Graphics Arts 4: Self Promotion/Portfolio Preparation**
**1-5-3**

(*Prerequisite: Art 251.*) guides the student in preparing a professional computer graphics portfolio. This is a capstone course that covers portfolio content, self promotion, job market analysis, comparison of full-time and freelance work and strategies in approaching studios, agencies or corporations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

## **Art 290-Work Experience/Internship**

**1-20-5**

*(Prerequisite: sophomore or second semester standing in Graphic Arts.)* allows the student pursuing a degree in Graphic Arts the opportunity to apply the principles learned course work to the work situation through employment. The participating student will be paid an hourly wage by the employer with such wage to be at least equal to the prevailing minimum wage. Internships are competitive, and students will be required to interview for internship positions. Credit for this internship is determined at enrollment based on the ratio of five hours per week in the job setting for each semester hour for credit over a 16-week semester.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Art

# Automotive Technology

## **Auto. 101—Basic Theory**

**3-1-3.5**

provides an overview of basic automotive skills and terminology. Students will learn definitions of common automotive terms, proper care and use of tools, and safety precautions and procedures in the shop. In addition, the course provides a general introduction to automotive components and principles, including the engine, its parts and their functions; fuel systems; batteries and cranking systems; ignition systems; suspension, steering, and brakes; manual and automatic transmissions and heating and air conditioning; electrical systems and principles.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Automotive Technology

## **Auto. 102—Electrical Systems**

**1-6-4**

is for students with basic automotive and/or electrical knowledge. It covers operations and principles of the electrical and electronic components in the automobile. Students will also learn practical applications in the basic diagnosis and repair of automotive electrical systems. Topics include batteries, electrical and electronic devices, AC and DC charging systems, ignition systems, instruments and accessories, and troubleshooting.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Automotive Technology

## **Auto. 201—Suspension and Steering Alignment**

**1-6-4**

introduces the more advanced automotive student to the components and functions of suspension equipment, steering equipment, and braking systems. Classroom work and practical applications provide knowledge and hands-on experience with equipment and operations such as front and rear suspension; shock absorbers; manual and power steering; wheels and tires; wheel alignment and balance; various brake types; antilock braking systems; and brake diagnosis, service, and inspection.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Automotive Technology

## **Auto. 202—Heating and Air Conditioning**

**1-4-3**

covers functions and components of automotive heating and air conditioning systems. Students will learn the fundamental operations of cooling systems, heating and ventilating systems, and refrigeration systems. Safety precautions, diagnostic procedures, and cleaning and inspection are also covered.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Automotive Technology

### **Auto. 203—Fuel and Emission Systems**

1-7-4

(*Prerequisite:* Auto. 102.) introduces the advanced student to the functions and components of advanced fuel injection and turbo and super charging. Through classroom work and hands-on applications, students will become familiar with the following equipment and operations: turbochargers and superchargers; gasoline, diesel and propane fuels; fuel supply systems; carburetors; fuel injection systems and injectors; gasoline and diesel fuel injection components; exhaust systems; and emission controls and modifications. Students will also be introduced to diagnostic and performance testing procedures.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Automotive Technology

### **Auto. 204—Engine Repair**

1-7-4

covers the diagnostic processes and actual procedures of engine repair. Students learn troubleshooting techniques, service tips, safety rules, and repair methods in the classroom and in hands-on experiences. Topics include basic engine components; engine systems, classifications, and measurements; force and pressure; energy, work and power; externally mounted parts; lubrication systems and principles; cooling systems and principles; and overall engine diagnosis and service procedures.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Automotive Technology

### **Auto. 205—Manual Drive Train and Axles**

1-6-4

covers the terms and components related to manual drive trains and axles. Students will study principles and operations of manual transmissions, learning equipment, terms, and safety procedures. Course also includes information on diagnosis and service, cleaning, and inspection.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Automotive Technology

### **Auto. 206—Automatic Transmissions and Transaxles**

1-6-4

introduces the student to the terms and components involved in maintenance and service of automatic transmissions. Students will study the basic parts and operation of automatic transmissions, including safety tips, service, and diagnostic procedures.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Automotive Technology

### **Auto. 207—Advanced Automotive Electronics**

1-6-4

(*Prerequisite:* Auto. 102.) teaches the advanced diagnostic and analytical skills that are needed to service today's high tech, electronically controlled vehicles properly. Students will study electrical and electronic fundamentals, measurement devices, electron and current flow, schematic diagram reading, semiconductors, various transistors and their uses, electronic control modules, and dashboard instruments.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Automotive Technology

### **Auto. 208—Automotive Brakes**

1-6-4

teaches the advanced diagnostic and analytical skills that are needed to service today's high tech, electronically controlled anti-lock brake systems properly. Topics include brake types (design and application), braking principles, hydraulic brake systems, power brakes, disc brakes, drum brakes, electric brakes, anti-lock braking systems, and testing and diagnosis of brake systems.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Automotive Technology

## **Auto. 209—Advanced Driveability Problem Diagnosis**

**1-7-4**

*(Prerequisite: Auto. 102, 203, and 207 or permission of instructor.)* teaches advanced diagnostic and analytical skills that are needed to service today's high tech, computer-controlled engine management systems properly. Students will learn intake and fuel system design and application, exhaust and emission systems, carburetors, fuel injection, ignition systems and problem diagnosis, computerized engine controls and circuits, and engine performance diagnosis and troubleshooting. Lab work includes examination, analysis, and diagnosis of various vehicles.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Automotive Technology

## **Auto 290 - Automotive Internship**

**0-15-3**

*(Prerequisite: Auto 101, 102, and at least two additional Automotive Technology courses)* provides a student in the Automotive Technology program the opportunity to apply the knowledge and skills learned in other courses to the workplace. The suitability of the work setting will be determined by consultation with the Automotive Coordinator and the prospective employer. Credit awarded will depend upon the number of hours worked each week. Each semester hour of credit will correspond to five hours per week of employment up to a maximum of three credit hours. Payment of an hourly wage to the intern will be at the option of the employer. Interns will be required to keep a daily log of their activities and to write a report detailing their work study experiences at the end of the semester.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Automotive Technology

# Biology

## **Biol. 101 - Concepts of Biology 1 (IAI: L1 900L)**

**3-2-4**

*(Prerequisite: eligibility for Engl. 101.)* is an introduction to basic principles of biology with emphasis on the biochemistry, structure, function, and organization of cells. Topics include scientific method, cellular respiration, photosynthesis, cellular reproduction, molecular and classical genetics, and an introduction to evolution and ecology. This course includes lecture and laboratory classes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Life Science

Area of Concentration - Biology, General Science

## **Biol. 102 - Concepts of Biology 2**

**3-2-4**

*(Prerequisite: successful completion ["C" or better grade] of Biol. 101.)* is a continuation of Biology 101 with an emphasis on organismal biology or biodiversity. Structure and function of major groups of microorganisms, fungi, animals, and plants are introduced. Evolutionary trends and ecological relationships are observed in the increasing complexity of life from microorganisms to vertebrates and angiosperms. Laboratories include microscope work, field work, and the dissection of representative invertebrates and vertebrates. This course includes lecture and laboratory classes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - Biology, General Science

## **Biol. 201 - Human Anatomy and Physiology 1**

**3-2-4**

*(Prerequisite: successful completion ["C" or better grade] of Biol. 101 or successful completion of Biol. 101 proficiency exam.)* is a study of tissues and the integumentary, skeletal, nervous, and muscular systems of the human body, emphasizing the relationship between structure and function. This course includes lecture and laboratory classes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - Biology, General Science

### **Biol. 202 - Human Anatomy and Physiology 2**

**3-2-4**

*(Prerequisite: successful completion ["C" or better grade] of Biol. 201 or successful completion of Biol. 101 proficiency exam.)* is a continuation of Biol. 201, covering the circulatory, lymphatic, respiratory, digestive, urinary, reproductive, and endocrine systems. This course includes lecture and laboratory classes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - Biology, General Science

### **Biol. 210 - Environmental Biology (IAI: L1 905L)**

**3-2-4**

*(Prerequisite: eligibility for Engl. 101.)* teaches a foundation of basic ecological principles which leads to an examination of current issues of environmental concern. Lectures will include such topics as air/water/soil pollution, overpopulation, extinction, deforestation, global warming, and ozone depletion. Laboratory exercises will include indoor experiments, outdoor field studies, and visits to local facilities of environmental concern.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Life Science

Area of Concentration - Biology, General Science

### **Biol. 215 - Wilderness Biology**

**1-4-3**

is taught at a remote location during a week long trip and provides a general overview of a wide variety of biological topics including ecology, environmental biology, and natural history as they apply to a particular region. Fieldwork includes the collection, identification, and classification of regional plants and animals; observation and analysis of the various ecosystems of the area; and discussion of the interaction between the nonliving and living components of the various ecosystems encountered.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Science (A.A.S. only)

Area of Concentration - Biology, General Science

### **Biol. 220 - Microbiology**

**3-2-4**

*(Prerequisite: successful completion ["C" or better grade] of Biol. 101.)* is an introductory course in the principles of microbiology and their application to medicine, agriculture, sanitation, and industry. Training in laboratory technique pertinent to the field is included.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - Biology, General Science

## **Building Construction**

### **B. Con. 210 - Mechanical and Electrical Building Service Systems**

**2-2-3**

introduces the study of the materials and equipment used in the mechanical and electrical service systems of buildings. The student is provided with information on how a modern building operates. This information enables the student to make reasonable preliminary selection of necessary mechanical and electrical equipment. Topics covered include illumination, heat gain and loss, heating systems, sewage disposal, electrical sources, and materials. Students will visit buildings to observe the service systems and equipment so that they may be better able to realize the relationship of these elements to the building as a whole.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Maintenance

## Business

**Bus. 100 - Introduction to Business****3-0-3**

provides insights into the structure and organization of the enterprise system, marketing, management, legal environment, and the financial obligations and implications that a business carries with it.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

**Bus. 110 - Business Mathematics****3-0-3**

covers basic applications of mathematics in the business world. Students develop understandings of these processes as they relate to general business applications.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

**Bus. 119 - English for Business and Technical Careers****3-0-3**

*(Prerequisite: eligibility for Engl. 090/091.)* is designed to review the principles of grammar, punctuation, capitalization, spelling, pronunciation, meaning, and choice of words frequently used in business. The ability to communicate effectively is the main requirement for obtaining, performing, and advancing in any business or technical career.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

**Bus. 120 - Business Communications****3-0-3**

*(Prerequisite: Bus. 119 or eligibility for Engl. 101)* applies standard English to business communication documents. While completing written assignments using electronics technology, students become proficient in organizing and composing business letters, memorandums, reports, and e-mail messages. The course also includes an overview of oral, interpersonal, and intercultural business communication.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Teacher Education and Business

**Bus. 124 - Principles of Marketing****3-0-3**

*(Prerequisite: completion of or concurrent enrollment in Bus. 119 or eligibility for Engl. 101.)* is a fundamental course describing the business activities involved in product planning, pricing, promoting, and distributing want-satisfying goods and services. Other topics include market segmentation, consumer motivation and behavior, and legal influences. Marketing cases are used to illustrate current principles and techniques and to enhance development of managerial skills.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

**Bus. 125 - Small Business Management****3-0-3**

includes principles for successful management of a small business, such as the general functions of management, problems of initiating the business, financial and administrative control, marketing programs and policies, business operations, and legal and governmental relationships.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

**Bus. 140 - Keyboarding for Information Processing (on computers)****1-1-1.5**

*(No previous keyboarding skills required. Recommended course for Business, Computer Information Systems, Law Enforcement, and Office Technology students and all students needing keyboard skills.)* is a beginning keyboarding course designed to teach the touch system of keyboarding using proper

techniques on the alpha/numeric keyboard on microcomputers. Speed and accuracy are developed. Previous typing is not a requirement.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **Bus. 145 - Fundamentals of Retailing**

**3-0-3**

covers problems of store location, layout, organization, employment, training, merchandising, management, and investment control as well as current trends in retailing. Emphasis is placed on developing solutions to actual business problems using the case study method.

Applicable toward graduation where program structure permits:

Certificate or Degree - A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **Bus. 146 - Fundamentals of Sales**

**3-0-3**

is a practical course that deals with the sales process (prospecting, preapproach, presentation or demonstration, trial close, answering questions and meeting objections, close, follow-up), consumer motivation, ethics in selling, and selling as a career. Role playing, sales demonstrations, and critiques of sales demonstrations allow the student the opportunity to apply selling skills.

Applicable toward graduation where program structure permits:

Certificate or Degree - A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **Bus. 227 - International Business Management**

**3-0-3**

introduces the student to the global business and its interrelationships in the United States economy. The objective is to expose the student to an understanding of how foreign countries work in the marketplace and how these economies impact upon our business environment.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **Bus. 231 - Business Law 1**

**3-0-3**

introduces the student to the legal system. Emphasis is placed on principles and sources of law, business ethics, torts, contracts, agency, personal and real property, bailments, wills, and estates. Case analysis is the main method of presentation.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Business (A.A.S. only)

Area of Concentration - Business Teacher Education

### **Bus. 232 - Business Law 2**

**3-0-3**

*(Prerequisite: Bus. 231 or equivalent competencies.)* is a continuation of Bus. 231. Topics discussed are sales, commercial paper, credit transactions, anti-trust laws and other government regulations, partnerships, and corporations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **Bus. 245 - Fundamentals of Advertising and Sales Promotion**

**3-0-3**

includes coverage of the economic and social role of advertising, customer research, selection of advertising appeals, media decisions, and the creative process. Specific media to be studied are newspaper, magazine, radio, TV, direct mail, and outdoor advertising. Students will work on an advertising campaign during the semester.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable



## 144 Course Descriptions

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### Bus. 246 - Fundamentals of Management

3-0-3

includes analysis of administrative, staff, and operating management in business. Management principles and techniques are explored. Basic factors such as objectives, policies, leadership, organizational structures, procedures, and controls are studied.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### Bus. 290 – Work Experience Practicum and Seminar

(Variable Credit) 1-20-5

(*Prerequisite: sophomore standing.*) affords the student in a(n) Accounting/Business, Computer Information Systems, or Office Technology Program the opportunity to apply principles learned in other courses to the work situation by employment in or observation of activities necessary for the operation of a business, industry, or agency. Employment or observation activities are coordinated with the student's course work. One of the requirements of this course will be a one-hour-per-week seminar to be arranged for the maximum convenience of the student. Credit is determined at enrollment based on the ratio of five or more hours per week in the employment setting for a regular-length semester for one semester hour of credit. The course may be repeated for a maximum accumulation of five semester hours of credit. Students planning to enroll in this course must complete an application for enrollment and submit it to the Occupational and Technical Academic Director 30 days or more prior to the first day of registration for the semester during which the student desires to participate in this course. Applications are available in the Occupational and Technical Division office.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### Bus. 295 - Special Advanced Projects

1-20-5

(*Prerequisite: Students seeking A.A.S. degree or certificate in Business/Accounting, C.I.S., or O.T., who have completed at least 40 credit hours of college work or approval of appropriate instructional team.*) is an individual or group project course that allows the student the opportunity to work on an advanced level in his/her major area of Business Program study.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

## Career Development

### C. Dev. 112 - Career Planning and Development

3-0-3

provides the student with a presentation of career development and career decision-making as a lifelong process and an introduction and discussion of the relationship of individuals to the world of work. Students will practice their approach to decision-making in personal, academic, and career planning. Students will explore values, skills, interests, and abilities as they relate to the world of work. Job search techniques, resumé development, cover letters, and interviewing skills will be developed as a part of the course. (Students may not receive credit for C. Dev. 112 and P. Dev. 109, 110, and/or 111.)

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## Chemistry

### Chem. 100 - Concepts of Chemistry (IAI: P1 902L)

3-2-4

(*Prerequisite: eligibility for Math. 098.*) examines fundamental concepts of chemistry, both theoretical and practical. Course content includes the following: measurement, atomic structure, chemical bonding, stoichiometry, the three states of matter, solutions, and acids and bases. The topic of chemical equilibrium is also introduced. The course is designed as an introduction to chemistry. It may be used as a prerequisite for Chem. 131 or to satisfy the requirement for a one-semester laboratory science course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - Not Applicable

### Chem. 110 - Survey of Organic Chemistry

3-4-5

(*Prerequisite: Chem. 100 with "C" or better grade.*) is a survey course in organic chemistry. Topics include the structure and identification of simple organic molecules, functional group classifications, preparative synthetic reactions, and biochemical applications. This course is recommended for nursing and allied health professionals.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - General Science

### Chem. 131 - General Chemistry 1 (IAI: P1 902L)

3-3-4

(*Prerequisite: Math. 116 and either (1) one year of high school chemistry with "B" or better grade or (2) Chem. 100 with "B" or better grade.*) is the first part of a two-semester college-level general chemistry course. Topics include measurement, stoichiometry, thermochemistry, atomic structure, chemical bonding, molecular structure, the three states of matter (gas, solid, liquid), and solutions.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - Chemistry, General Science

### Chem. 132 - General Chemistry 2

3-4-5

(*Prerequisite: Math. 116 with Math. 121 strongly recommended and Chem. 131 with "B" or better grade.*) is the second part of a two-semester college-level general chemistry course. Topics include chemical kinetics, chemical equilibrium, reactions in solutions, chemical thermodynamics, electrochemistry, nuclear chemistry, and the descriptive chemistry of metals and non-metals.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - Chemistry, General Science

### Chem. 201 - Organic Chemistry 1

3-6-5

(*Prerequisite: Chem. 132 or equivalent competencies.*) is the first of a two-semester chemistry series. Topics include a review of atomic and molecular theory, the nomenclature, synthesis, and reactions of alkanes, cycloalkanes, alkenes, alkynes, alkyl halides, alcohols, ethers, and unsaturated systems. Also, stereoisomerism, an introduction to reaction mechanisms, and synthetic techniques are included. Two 3-hour lab periods per week are conducted with an emphasis on synthesis of organic compounds. This course is recommended for chemistry and biology majors and students entering programs in medicine, chiropractic, dentistry, pharmacy, or related areas.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - Chemistry, General Science

### Chem. 202 - Organic Chemistry 2

3-6-5

(*Prerequisite: Chem. 201 or equivalent competencies.*) is a continuation of Chem. 201. Topics studied include nomenclature, synthesis and reactions of aromatic hydrocarbons, phenols, organometallics, amines, carbonyl compounds, carboxylic acids and derivatives, and biomolecules, with an introduction to the physical methods of structure identification. The study of reaction mechanisms and synthetic methods is continued from the first course. Two 3-hour lab periods per week are conducted with an emphasis on qualitative analysis and instrumental methods of analysis, including nuclear magnetic resonance spectroscopy, infrared spectroscopy, and gas chromatography. Chem. 202 is recommended for chemistry and biology majors and students entering programs in medicine, chiropractic, dentistry, pharmacy, or related areas.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - Chemistry, General Science

## Child Care and Education

### C.C.& E. 101 - Introduction to Child Care and Education

2-2-3

*(Prerequisite: eligibility for Engl. 090/091.)* offers an introduction to the child care and education field with emphasis on the history of child care, the variety of operations, services, facilities, career opportunities, and basic child development principles. The laboratory includes field studies in a variety of child care centers. Reading of periodical articles is required to introduce the student to child care and the authors and publications of the profession.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Child Care and Education

### C.C.& E. 102 - School-Age Child Care

2-0-2

*(Prerequisite: eligibility for Engl. 090/091.)* is a course introducing the individual caring for children five years to twelve years of age in a before- and after-school setting. Basic concepts of physical, intellectual, emotional, and social development of this age group are introduced. How this service is provided is discussed. Appropriate curriculum, environment, and activities are explored by the students through semester projects and class activities.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Child Care and Education

### C.C.& E. 103 - Child Guidance

1-0-1

will address typical characteristics and needs of children ages 0-5 and will provide a broad range of practical, effective, and flexible guidance strategies based on tested theories. Workable steps will be devised for creating cooperative, respectful relationships with young children.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Child Care and Education

### C.C.& E. 110 - Health, Nutrition, and Safety for Young Children

3-0-3

*(Prerequisite: eligibility for Engl. 090/091.)* is designed to provide an overview of current concepts in the fields of health, nutrition, and safety with emphasis on meeting children's needs in group settings and in accordance with licensing standards. Topics include community health issues, appropriate curriculum for nutrition needs, first aid and emergency practice, reporting policies, and choices for healthy lifestyle.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Natural Science (C.C.&E. only)

Area of Concentration - Child Care and Education

### C.C.& E. 111 - Creative Activities - Children's Literature

2-2-3

*(Prerequisite: eligibility for Engl. 090/091.)* explores basic concepts of reading and telling stories and suggests methods of encouraging the child's creativity in the language arts. An important part of this course concerns the selection and use of materials appropriate for the level of comprehension associated with the different stages of mental, physical, and emotional development of the individual child. Particular emphasis in this course is on language development. T.B. test, fingerprint, and background check are required before the lab portion of the class begins and within 30 days of the first day of class. (If for any reason the background check and T.B. test are not completed, the student will be unable to attend the lab.)

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Child Care and Education

### C.C.& E. 112 - Creative Activities - Mathematics and Science

2-2-3

*(Prerequisite: eligibility for Engl. 090/091.)* explores basic concepts of mathematics and science and suggests methods for encouraging the child's creativity in these areas. An important part of the course concerns the identification of those concepts appropriate to the different levels of mental, physical, and

emotional development of the individual child. Hands-on experience supports this basic concept. T.B. test, fingerprint, and background check are required before the lab portion of the class begins and within 30 days of the first day of class. (If for any reason the background check and T.B. test are not completed, the student will be unable to attend the lab.)

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Child Care and Education

### **C.C.& E. 113 - Creative Activities - Art, Music, and Drama** 2-2-3

*(Prerequisite: eligibility for Engl. 090/091.)* explores basic concepts of art, music, and drama and suggests methods for encouraging the child's participation and creativity in those areas. Included during the course are discussions of the various activities associated with different stages in the mental, physical, and emotional development of the individual child and the use of these art forms to increase the child's social abilities. Emphasis is on small motor activities. Through book reports the student is introduced to various authors and child development theories. T.B. test, fingerprint, and background check are required before the lab portion of the class begins and within 30 days of the first day of class. (If for any reason the background check and T.B. test are not completed, the student will be unable to attend the lab.)

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Child Care and Education

### **C.C.& E. 114 - Creative Activities - Recreation** 2-2-3

*(Prerequisite: eligibility for Engl. 090/091.)* explores basic concepts of structured and unstructured play and suggests methods for encouraging the child's creativity in those areas. An important part of the course concerns appropriate play activities associated with the different levels of mental, physical, and emotional development of the individual child. Also included within the course are selection, construction, and maintenance of the equipment related to these activities. Emphasis is on large motor activities. The laboratory includes observation and designing of outdoor and indoor play areas. T.B. test, fingerprint, and background check are required before the lab portion of the class begins and within 30 days of the first day of class. (If for any reason the background check and T.B. test are not completed, the student will be unable to attend the lab.)

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Child Care and Education

### **C.C.& E. 115 - Creative Activities for Infants and Toddlers** 2-2-3

*(Prerequisite: eligibility for Engl. 090/091.)* explores activities suitable for children under two years of age. An important part of the course concerns the identification of those concepts appropriate to the development of the individual child. Lab includes observation of infants and toddlers. T.B. test, fingerprint, and background check are required before the lab portion of the class begins and within 30 days of the first day of class. (If for any reason the background check and T.B. test are not completed, the student will be unable to attend the lab.)

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Child Care and Education

### **C.C.&E. 120 - Organization and Administration of the Family Day Care Home** 3-0-3

*(Prerequisite: eligibility for Engl. 090/091.)* provides knowledge and skills needed to run a family day care home: setting up a day care home, business management and administrative skills, and child development principles as applicable to home day care, the community, and the parents.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Child Care and Education

## **C.C.& E. 210 - Fundamentals of Childhood Education**

**3-0-3**

*(Prerequisite: eligibility for Engl. 090/091 and completion of C.C.&E. 101 or permission from the Child Care and Education Coordinator.)* offers an overview of the methods and procedures used in childhood education programs. Topics covered include curriculum, program planning, role of the teacher, use of materials and equipment, techniques of classroom management, and meeting the needs of individual children. The student needs either several of the C.C.& E. activity courses or equivalent knowledge to succeed in curriculum and program planning.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Child Care and Education.

## **C.C. & E. 230 - Organization and Operation of Child Care Programs**

**4-0-4**

*(Prerequisite: eligibility for Engl. 090/091 and completion of C.C.&E. 101 or permission from the Child Care and Education Coordinator.)* is designed to develop the knowledge and skills in administration and supervision for persons presently engaged in the administration of child care programs as well as for those who aspire to do so. Principles and practices, organization and supervision of staffs, budgets, record keeping, filing, office equipment usage, and legal responsibilities are studied. Equipment and plant operation are topics also included.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Child Care and Education

## **C.C.&E. 290 – Work Experience Practicum and Seminar**

**(Variable Credit) 1-10-3**

*(Prerequisite: Eligibility for Engl. 090/091 and completion of a sufficient portion of the total program to justify a learning experience in the employment setting and permission of the Dean or a faculty member in the program.)* affords the student in a Child Care and Education program the opportunity to apply the principles learned in other courses to the work situation through employment in or observation of activities necessary for the operation of a child care agency. Employment or observation activities are coordinated with the student's course work. One of the requirements of this course will be a one-hour-per-week seminar to be arranged for maximum convenience of the student. Credit is determined at enrollment based on the ratio of five or more hours per week in the employment setting for a regular-length semester for one semester hour of credit. The course may be repeated for a maximum accumulation of three semester hours of credit. Students planning to enroll in this course must request an application from the Child Care Coordinator 30 days or more prior to the first day of registration for the semester during which the student desires to participate in this course. Practicum assignments are allowed in the Richland Learning Child Care Center and any center working on NAEYC accreditation. Each student serving a practicum in a licensed child care center must furnish current proof of a physical examination including a statement of his/her physical and emotional ability to work with children. Proof of a current T.B. check and background check are also required. The cost of the physical exam and T.B. check are the student's responsibility.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Child Care and Education

# Computer Information Systems

## **C.I.S. 105 - Introduction to Business Computer Systems**

**2-2-3**

is designed for Computer Information Systems majors and business transfer students. Computer concepts, terminology, equipment, programming, and systems analysis and applications as they relate to computers of all sizes in business are surveyed. Computer programs through arrays are written and executed in the BASIC language on Windows/Intel-based microcomputers.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **C.I.S. 110 - Business Applications on Microcomputers**

2-2-3

introduces students to the concepts and applications of operating systems, word processing, spreadsheets, databases, the Internet and presentation software. Students will receive hands-on lab experience using IBM-compatible equipment. Topics will include exposure to software for each of the areas of study and how to evaluate software and hardware.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **C.I.S. 115 - Introduction to Windows**

3-0-3

*(Prerequisite: previous IBM-compatible experience or C.I.S. 110.)* introduces students to Microsoft Windows. Topics include pull-down menus, Windows utilities, running of multiple applications and sharing data between applications, Program Manager, File Manager, and system customization. Intensive lab experiences are involved.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **C.I.S. 120 - Spreadsheet Applications**

3-0-3

*(Prerequisite: C.I.S. 110.)* teaches the use of current spreadsheet software. Students learn to prepare data or text for processing, complete entries, validate entries, use appropriate menus or commands, and obtain desired results. Students learn data management, file, and graph commands. How to write macros is also covered. This course provides intensive lab experiences on the Windows/Intel-based microcomputer.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **C.I.S. 130 - Word Processors**

3-0-3

*(Prerequisite: C.I.S. 110.)* provides hands-on experience using a major word processor. The student will learn how to create, edit, format, print, save, and retrieve as well as learn to use headers, footers, automatic page numbering, fonts, superscript/subscript, merge, spell check, search and replace, thesaurus, glossary, sort, merge, summary sheets, style sheets, library, and integrating data from other packages. This course provides intensive lab experiences on the Windows/Intel-based microcomputer.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **C.I.S. 131 - Introduction to Visual Basic**

2-2-3

*(Prerequisite: experience with microcomputers using Windows and familiarity with fundamentals of computer programming or consent of Academic Director of Occupational and Technical Division.)* includes object-oriented, event-driven programming; VB forms, controls, projects, and properties; multifunction applications; multiple document interface; programming for a multi-tasking environment; use of dynamic link libraries (DLLs); dynamic data exchanges (DDEs); object linking and embedding (OLEs); and programming applications to display, edit, and update databases by use of the data access object.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **C.I.S. 141 - CISCO Network Academy I (pending ICCB approval)**

2-2-3

provides foundational education in local networking and internetworking, as well as specific training using Cisco technology. The course prepares an individual for the Comp TIA Network+ professional certification exam and, likewise, is the first of four preparation courses for the Cisco Certified Network Associate (CCNA) exam. Topics include networks and layered communications, network service layers of OSI model, networking device, IP addressing, basic routing protocols, media and network design, topology, structured cabling, electrical issues in networking, and basic network management.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Networking

### **C.I.S. 142 - CISCO Network Academy II (pending ICCB approval)**

**2-2-3**

*(Prerequisite: CIS 141 with a grade of "C" or better)* continues to build foundational education in local networking and internetworking, as well as specific training using Cisco technology. This is the second of four preparation courses for the Cisco Certified Network Associate (CCNA) exam. Topics include the OSI model, Wide Area Networks (WAN), routing concepts, router components and implementation (including installation, configuration and troubleshooting), Cisco IOS software, TCP/IP, IP addressing, and routed and routing protocols.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Networking

### **C.I.S. 143 - CISCO Network Academy III (pending ICCB approval)**

**2-2-3**

*(Prerequisite: CIS 142 with a grade of "C" or better)* continues to build foundational education in local networking and internetworking, as well as specific training using Cisco technology. This is the third of four preparation courses for the Cisco Certified Network Associate (CCNA) exam. Topics include the network switching, virtual networks, network design, additional routing protocols, access lists, and IPX.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Networking

### **C.I.S. 144 - CISCO Network Academy IV (pending ICCB approval)**

**2-2-3**

*(Prerequisite: CIS 143 with a grade of "C" or better)* continues to build foundational education in local networking and internetworking, as well as specific training using Cisco Technology. This course is the final course for preparation for the Cisco Certified Network Associate (CCNA) exam. Topics include wide area networking (WAN), WAN design, WAN presence and connectivity with PPP, ISDN, frame relay and other telecomm services and techniques, and extensive review in preparation for the CCNA examination.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Networking

### **C.I.S. 145 - Personal Computers for Technicians**

**3-0-3**

*(Prerequisite: eligibility for Engl. 101 and for Math. 091.)* is an introductory course for students majoring in technical areas such as electronics, CAD/CAM, CIM, and drafting. In addition to basic computer concepts, file-handling commands, and disk processing commands, most other areas of MS DOS are also covered, including directories, batch files, and file management.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **C.I.S. 161 - COBOL Programming 1**

**3-1-3**

*(Prerequisite: successful completion of C.I.S. 105 or approval of the Academic Director of Occupational and Technical Division.)* emphasizes essentials of structured COBOL programming. Students will write programs using sequential files to print reports from a single input file covering many business applications. Headings, calculations, decisions, totals, control breaks, and data validation are covered. Intensive lab experiences are involved using Windows/Intel-based microcomputers.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **C.I.S. 162 - COBOL Programming 2**

**3-1-3**

*(Prerequisite: C.I.S. 161.)* Single and multi-level table processing, sequential file and random access updates are covered. This course provides an introduction to random access files, sorting and on-line programming. Intensive lab experiences are involved using IBM-compatible microcomputers.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **C.I.S. 163 - COBOL Programming 3**

**2-2-3**

*(Prerequisite: CIS 162)* offers lab experiences in subprogramming, comprehensive file updating, involving both sequential and random access, advanced sorting techniques, and advanced on-line programming.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **C.I.S. 210 - Business Graphics**

**3-0-3**

*(Prerequisite: previous IBM-compatible experience or C.I.S. 110.)* teaches the use of graphics software to create charts, import/export data, and slide shows. Other topics include editing, printing, drawing, annotating, and using get/save/remove charts as well as using the spelling checker and resizing/repositioning charts. This course provides intensive lab experiences on the Windows/Intel-based microcomputer.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **C.I.S. 220 - Local Networks**

**3-0-3**

*(Prerequisite: C.I.S. 110 or approval of the Academic Director of Occupational and Technical Division.)* presents concepts of LANs and practical experience. Topics include topology, protocols, transmission media, and local network hardware and software. Course provides hands-on experience installing and maintaining server-based and peer networks.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **C.I.S. 221 - Database Systems**

**3-0-3**

*(Prerequisite: C.I.S. 110.)* teaches the use of microcomputers to provide information useful in making business decisions. It allows for entry of data and retrieval of formatted information. This course provides intensive lab experiences on the Windows/Intel-based microcomputer.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **C.I.S. 222 - Advanced Database Systems**

**3-0-3**

*(Prerequisite: C.I.S. 221 with a grade of "B" or better.)* focuses on database design, comparative database management systems, SQL, distributed database, client-server processing, application generators, and exporting and importing between database systems, word processors, and spreadsheets.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **C.I.S. 245 - Operating Systems & Utilities**

**3-0-3**

*(Prerequisite: C.I.S. 110.)* centers on the Windows command line. This course covers programs that expand and extend the function of the operating system and deals with manipulating and organizing files and media and the maintenance of the operating system.



Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

## **C.I.S. 251 - C Programming**

**2-2-3**

*(Prerequisite: C.I.S. 105 and Math. 098.)* introduces C programming for students who want to learn the C language to write programs for MS-DOS environments. Students study the syntax and structure of C programs, introduce standards and styles for producing understandable C programs, and examine elements of the language, including fundamental data types, variable declaration, expressions, operators, control statements, pointers, arrays, strings, I/O, functions, parameters, structures, and libraries. This course provides intensive lab experiences on the Windows/Intel-based microcomputer.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

## **C.I.S. 252 - Advanced C Programming**

**2-2-3**

*(Prerequisite: C.I.S. 251 or approval of the Academic Director of Occupational and Technical Division.)* provides a more in-depth view of C++. This course takes a look into Object Oriented Programming. It includes a study of classes, function and operation overloading, inheritance, virtual functions, polymorphism, and C++'s I/O Library. This course provides intensive lab experiences on the Windows/Intel-based microcomputer.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

## **C.I.S. 255 - Data Communications**

**3-0-3**

*(Prerequisite: a previous course in Computer Information Systems.)* is a study of 1) hardware of communications systems: terminal devices, data transmission techniques, switching processors, multiplexors, concentrators, front-end processors, network architectures; 2) software in data communications systems: data representation codes, modes of data transmission including asynchronous and synchronous transmission; and 3) the evolving state of the data communications industry.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

## **C.I.S. 261 - Introduction to CICS**

**3-1-3**

*(Prerequisite: C.I.S. 162 with grade of "B" or approval of the Academic Director of Occupational and Technical Division.)* introduces the student to a teleprocessing monitor, CICS. The student learns command-level programming with COBOL. Map designing, inquiry and file maintenance programs, debugging, and test plans are taught. The objective is to acquire practical experience writing on-line interactive programs.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

## **C.I.S. 285 - Systems Analysis Methods**

**3-0-3**

*(Prerequisite: C.I.S. 105.)* is an introductory course in systems analysis and design for business data processing. The course includes comparative analysis of business systems, file design, documentation, feasibility studies, system implementation, controls, and security.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### C.I.S. 287 - Web Development

3-0-3

(Prerequisite: C.I.S. 115 or O.T. 102 or experience with Windows-based applications and familiarity with the Internet and the World Wide Web.) presents concepts of Web-based Internet development using basic HTML, Java Script, and Java. Students will be provided with a thorough introduction to Java and related technologies and shown how they can use them to add new functionality to their Web offerings.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### C.I.S. 290 - Work Experience Practicum

(Variable Credit) 1-20-5

(Prerequisite: sophomore standing, a minimum of 24 CIS course hours and approval of the Academic Director of Occupational and Technical Division) affords the student in Computer Information Systems Program the opportunity to apply principles learned in other courses to the work situation by employment in or observation of activities necessary for the employee to succeed in the workplace. Employment or observation activities are coordinated with the student's course work. A one-hour per week seminar (time to be arranged for the convenience of the student) is a requirement of this course and for which the student receives one credit hour. Credit for hours worked by the student is determined at enrollment based on the ratio of five hours of work each week throughout the semester for each semester hour of credit. Students wishing to enroll in this course must complete an application for enrollment and submit it to the Academic Director of Occupational and Technical Division 30 days prior to the start of the semester the student wishes to be enrolled in. Applications are available in the Occupational and Technical Division office.

Applicable toward graduation where program structure permits:

Certificate or Degree - All certificates, A.A.S., A.L.S.

Group Requirements - CIS (A.A.S. only)

Area of Concentration - Not applicable

### C.I.S. 295 - Special Advanced Projects

(Variable Credit) 1-20-5

(Prerequisite: minimum of 40 credit hours of college course work and approval of CIS instruction team) provides individuals or groups of students an opportunity to work on a specific project - real or simulated - under the guidance of a faculty mentor. Students are required to present a written proposal to the CIS instructional team for their consideration. Students and the team will meet to discuss specific objectives, timelines, credit to be allowed, success criteria, and other topics. A faculty mentor will be identified at this time.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirements - Business (A.A.S. only)

Area of Concentration - Not Applicable

### C.I.S. 297 - Emerging Technologies

(Variable credit) 1-0-1 to 3-0-3

is a special topics courses that introduces and discusses current and emerging technologies as they relate to business, industry, and the public sector communities. This course may be repeated twice only if topic areas are different. A maximum of three credit hours may be used toward a C.I.S. A.A.S. Degree.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

## Computer Integrated Manufacturing

### C.I.M. 100 - Introduction to Computer Integrated Manufacturing (CIM)

3-0-3

(Prerequisite: eligibility for Engl. 101.) relies heavily upon plant visits, visiting lecturers, and demonstrations to give the student a firsthand view of today's manufacturing with CIM hardware, software, and CIM-trained personnel. Topics covered include CIM as it applies to the integration of people, processes, and information at all levels from order entry to automated manufacturing to shipping and billing. Also covered are the production hardware issues and technology used in CIM

applications. Reference to JIT, TQM, and statistical process control are used for a complete view of manufacturing today. Students interested in either management or process applications will benefit from the course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business

Area of Concentration - Computer Integrated Manufacturing, Industrial Engineering Technology, Industrial Production Technology, Materials Management, Production Control, Supervision of Personnel

### **C.I.M. 101 - Computer Aided Manufacturing (CAM) Fundamentals**

**2-2-3**

*(Prerequisite: Mfg. 100 and C.I.M. 102 or equivalent competencies.)* is a course that makes use of a commercial software package to provide the student with hands-on experience in CAM techniques. Various two-dimensional and three-dimensional surfaces are modeled and modified to produce images of desired machined products. Editing of the graphical images is practiced in laboratory experiments. Tool path modeling is simulated, and tolerance of the part is checked in software as a learning tool for proper machining of the product. The machine code for creating the part on a computer numerical controlled machine is generated.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Integrated Manufacturing

### **C.I.M. 102 - CNC Programming**

**2-2-3**

*(Prerequisite: Mfg. 120 or concurrent enrollment in Mfg. 120 or equivalent competencies.)* is a hands-on course in the programming of computer numerical controlled machines including lathes and vertical milling machines. The student will experience the correct sequence of CNC programming utilizing computer-aided manufacturing software, graphic modeling software, tool path checking, code generation, and manual code verification. Machine operation will include proper fixturing, feed rates, torques, machine parameters, and machine maintenance.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Integrated Manufacturing

### **C.I.M. 110 - Introduction to Automated Manufacturing**

**2-2-3**

*(Prerequisite: C.I.M. 102 and Robot. 101 or concurrent enrollment in C.I.M. 102 or equivalent competencies.)* is a hands-on course in the design and configuration of computer controlled automatic manufacturing equipment consisting of automatic storage and retrieval systems, conveyors, robots, lathes, mills, and vision inspection systems. The computer control system for the automation hardware will be programmed to perform the manufacturing of various case studies of high volume production tasks. Simulation of the manufacturing configuration and cycle times will be employed in the design and documentation phase of the projects. Each project will result in an operating automated production system.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Integrated Manufacturing

### **C.I.M. 120 - Production and Inventory Control**

**3-0-3**

provides the student with experience in production and inventory control techniques. Lectures on the principles of inventory management starting from sales forecasts through production scheduling and just-in-time delivery are practiced in experiments on operating automatic manufacturing equipment. Production control in a computer-integrated manufacturing environment will expose the student to order scheduling, tracking, costing, data collecting, and quality tracking. Real-time control of production case studies will be investigated.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Integrated Manufacturing

### C.I.M. 130 - Automated Manufacturing

2-2-3

(*Prerequisite: C.I.M. 110 or equivalent competencies.*) is a course in automation that utilizes an operating manufacturing system to emphasize inspection of parts and the refinements necessary to improve quality. Vision systems are employed for inspection and are interfaced to the operating manufacturing system. Custom software for graphical display and control of the process is written to enhance the computer integration of the manufacturing process. Automation projects are designed from specifications through the manufacturing to the final inspection.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Integrated Manufacturing

## Computer Science

### C.S. 151 - Computer Science I

3-2-4

(*Prerequisite: Math. 116 or concurrent enrollment or equivalent competencies*) is the first of a two-course sequence. This course is designed to introduce students to top-down structured problem solving, algorithm development, and procedural and data abstraction. Topics include selection, repetition, sequence control structures; program design, development, test, and documentation; coding style, readability and maintainability; and array, record and file manipulation. This course uses a high-level block-structured programming language, such as C, Java, or Eiffel.

Applicable for graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Science

### C.S. 152 - Computer Science II

3-2-4

(*Prerequisite: C.S. 151 with "C" or better grade*) is the second of a two-course sequence. This course is designed to prepare students for large-scale program and system design and implementation. Topics include introductions to abstract data types; to data structures such as files, sets, pointers, lists, stacks, queues, trees, and graphs; to program verification and complexity analysis; to recursion; to dynamic concepts such as memory, scope and block structures; to string processing including searching and sorting; and to Object Oriented Programming. This course uses a high-level block-structured and object-oriented programming language, such as C++, Java, or Eiffel.

Applicable for graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Science

### C.S. 230 - Computer Organization

3-2-4

(*Prerequisite: C.S. 151*) Computer Organization is designed to introduce students to the underlying hardware and software architecture of modern digital computers. Topics include von Neumann model processor architecture; I/O and memory; machine and assembly language; numeric representation and binary arithmetic; data and flow control; digital circuits and logic; and emerging models.

Applicable for graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Science

### C.S. 270 - Data Structures

3-2-4

(*Prerequisite: C.S. 152*) presents a more advanced descriptive and analytical study of data structures and algorithms, building on previous studies in Computer Science. Topics include algorithmic paradigms such as divide-and-conquer, greedy, dynamic, and back-tracking; recurrence relations; complexity analysis such as big oh, big omega, big theta, and little oh; graph, sorting, searching, and string processing algorithms; advanced ADTs such as sets, graphs, heaps, and hash tables; random number generation and prediction. Data Structures projects are developed in a high-level block-structured object-oriented programming language and environment, such as Visual C++, Visual Basic, Java/J++, or Eiffel.

Applicable for graduation where program structure permits:  
Certificate or Degree - All Certificates, A.A.S., A.L.S., A.S.  
Group Requirement - Not Applicable  
Area of Concentration - Computer Science

### Drafting

#### **Draft. 101 - Fundamentals of Drafting**

2-4-4

is an introductory course involving drafting techniques, sketching, lettering, orthographic projection, sectioning, primary auxiliary projections, and dimensioning as well as some geometric construction.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.  
Group Requirement - Not Applicable  
Area of Concentration - Industrial Drafting

#### **Draft. 102 - Industrial Drafting**

2-4-4

(*Prerequisite: Draft. 101 or equivalent competencies.*) includes secondary auxiliaries, dimensioning, detail and assembly drawings, threads and fasteners, revolutions, and diametric projections. Attention will also be given to symbols and shop processes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.  
Group Requirement - Not Applicable  
Area of Concentration - Industrial Drafting

#### **Draft. 110 - Technical Design**

2-2-3

introduces the student to the principle of design. The student will develop individual creative/analytical problem-solving skills and apply them to a team problem-solving approach. These concepts will be developed through the construction of a project.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.  
Group Requirement - Not Applicable  
Area of Concentration - Industrial Drafting

#### **Draft. 120 - Technical Graphics**

1-3-2

(*Prerequisite: Draft. 101 or equivalent competencies.*) introduces the student to pictorial drawings and drafting room practices. Pipe drafting principles and practices are covered.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.  
Group Requirement - Not Applicable  
Area of Concentration - Industrial Drafting

#### **Draft. 130 - Fundamentals of Tool Design Drafting**

2-4-4

(*Prerequisite: Draft. 101.*) introduces the principles of jig, fixture, and die designing. The course also includes drawing machine layouts for conventional and N.C. machines. Emphasis is placed on proper location and clamping of parts for all types of machining.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.  
Group Requirement - Not Applicable  
Area of Concentration - Industrial Drafting

#### **Draft. 210 - Introduction to Computer Aided Drafting-Microstation**

2-3-3

(*Prerequisite: Draft. 101 or equivalent competencies.*) provides the basic knowledge of computer aided drafting (CAD). The student learns to use the computer aided drafting system to draw 2-D mechanical drawings. This system uses graphics, terminals, digitizers, microcomputer, and plotter as drafting tools. Note: Credit cannot be received for both Draft. 210 and Draft. 215 when working toward an A.A.S. Degree. One may be used for an elective.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.  
Group Requirement - Not Applicable  
Area of Concentration - Industrial Drafting

**Draft. 215 - Introduction to Computer Aided Drafting—Autocad** 2-3-3

(*Prerequisite: Draft. 101 or equivalent competencies.*) introduces the student to the principles of computer aided drafting using Autocad CAD software. After completing this course, the student should be able to demonstrate knowledge of the following: A) the components of computer aided drafting, B) application of geometric principles in creating a 2-D drawing, C) the creation of completed 2-D drawings with dimensions, D) storage and retrieval of drawings from a common database, and E) plotting drawings to scale from the screen and the database. Note: Credit cannot be received for both Draft. 210 and Draft. 215 when working toward an A.A.S. Degree. One may be used for an elective.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Drafting

**Draft. 220 - Intermediate Computer Aided Drafting** 2-3-3

(*Prerequisite: Draft. 210 or Draft. 215.*) provides the knowledge to create advanced 2-D and basic 3-D drawings on the computer aided drafting system.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Drafting

**Draft. 230 - Advanced Computer Aided Drafting** 2-3-3

(*Prerequisite: Draft. 220.*) provides the knowledge to create advanced 3-D drawings. These drawings include wire frame models as well as models with surfaces and shading.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Drafting

**Draft. 235 – Advanced Solid Modeling (3-D)** 2-3-3

(*Prerequisite: Draft. 230 or equivalent skills.*) provides the student with the knowledge to create advanced 3-D solid model designs using parameter IC modeling procedures. These procedures includes the use of the following: sketching and constraining profiles, creating complex shapes, creating work planes, adding features by editing, creating multiple views from a model, creating assemblies, and construction of a bills of materials.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Drafting

**Draft. 240 - Computer Aided Drafting—Piping Systems** 2-3-3

(*Prerequisite: Draft. 220.*) introduces the student to the principles of industrial pipe drawing on a CAD system. The student will be able to demonstrate knowledge of pipe fittings, valves and instrumentation, PI & D diagrams, pumps, tanks, and general piping equipment.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Drafting

**Draft. 241 - Computer Aided Drafting—Electronic** 2-3-3

(*Prerequisite: Draft. 220 or Eltrn. 203.*) introduces the student to the principles of electronic drafting using a CAD system. The student will be able to demonstrate knowledge of the following: A) the components of a CAD system as used for electronic drafting, B) the understanding and drawing of basic electronic diagrams on the CAD system, C) the understanding and drawing of electronic symbols and components on the CAD system, and D) the drawing and understanding of basic electronic circuits on the CAD system.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Drafting

**Draft. 242 - Computer Aided Drafting—Architectural/Commercial** **2-3-3**  
*(Prerequisite: Draft. 210 or 215 and Draft. 244.)* will allow the student to design and develop residential and industrial electrical drawings on the CAD system.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Drafting

**Draft. 243 - Computer Aided Drafting —Structural Steel Detailing** **2-3-3**

*(Prerequisite: Draft. 220.)* introduces the student to structural steel detailing using a CAD system. Steel frame terminology, typical details, framing plans, and working drawings are covered so that the student will have the understanding and experience of creating structural steel drawings using the CAD system.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Drafting

**Draft. 244 - Computer Aided Drafting—Concrete Detailing** **2-3-3**

*(Prerequisite: Draft. 220.)* provides the student the experience in preparing working drawings for reinforced concrete structures using a CAD system. Principles of reinforced concrete are introduced to provide the student with a background in the standards and the conventions of logical detailing.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Drafting

**Draft. 245 - Computer Aided Drafting—Architectural** **2-3-3**

*(Prerequisite: Draft. 220.)* includes the development and execution of a complete set of architectural working drawings using the CAD system. These drawings will include floor plans, elevations, foundation, plot plan, and wall sections.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Drafting

**Draft. 295 - Drafting Internship** **0-15-3**

*(Prerequisite: Draft. 101, 102, 120, 210/215, 220, 243, and 244. Must complete an application for enrollment and submit it to the internship instructor at the time of registration. Applications are available from the Occupational and Technical Division.)* provides the student with the opportunity to use the skills acquired from the industrial drafting program in a workplace setting. The internship will also allow the student to acquire additional knowledge from the work place. The internship work will be in the student's desired career area and must provide a source of learning. Students will be required to keep an accurate record of their activities and to write a report on their work study experience at the end of the internship. Credit for the practicum is based on 15 hours per week in the job setting for a 15-week semester.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Drafting

## Drama

**Drama 150 - Introduction to Theatre (IAI: F1 907)** **3-0-3**

is an introduction to the appreciation of theatre as an art form. At least eight plays are read and analyzed. Production values and the physical theatre are studied. The course includes background reading, lectures, reading of literature, and the discussion of the history of theatre.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Fine Arts

Area of Concentration - Speech and Drama

### Drama 160 - Theatre Production

(Variable Credit) 1-4-1 to 3

has as its primary activity the production of a complete play, including the analysis of script, interpretation, casting, rehearsal, and performance. Students may participate in four areas: 1) acting, assistant directing, and stage management; 2) set construction and lighting; 3) costuming, property construction, and make-up; and 4) publicity and program construction. The student is expected to stress one of the four areas and assist in one other. The course may be repeated. A student may enroll in and receive credit for this course a maximum of four times to have an opportunity to emphasize a different area during each enrollment.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Speech and Drama

### Drama 170 - Introduction to Acting

2-2-3

is a study of the interpretative function and technique of the actor. Students are introduced to the principles of acting theory and are provided the opportunity to practice acting as a part of this course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Speech and Drama

## Earth Science

### Ea. Sci. 210 - Physical Geography (IAI: P1 909L)

3-2-4

(*Prerequisite: eligibility for Engl. 101.*) offers an introductory study of the natural environment and is designed to develop an understanding of the earth and its environments as the home of man. It concentrates on the forces of change that produce the physical settings with which man must deal. A systematic approach is used with a de-emphasis on the mathematics and physics function.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - Earth Science

### Ea. Sci. 220 - Introduction to Physical Geology (IAI: P1 907L)

3-2-4

(*Prerequisite: eligibility for Engl. 101.*) is an introductory course to the study of the solid earth to include the earth building processes, landforms and the processes that shape landforms, rocks and minerals, and the use of topographic maps. It is recommended that Ea. Sci. 210 be taken prior to this course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - Earth Science

### Ea. Sci. 230 - Introduction to Weather and Climate (IAI: P1 905L)

3-2-4

(*Prerequisite: eligibility for Engl. 101.*) is an introductory course to the study of weather and climate designed for science and non-science majors who want a basic understanding of weather terminology, atmospheric conditions, global climates, and climatic changes. Ea. Sci. 210 should be taken prior to this course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - Earth Science

## Economics

### Econ. 140 - American Economy

3-0-3

(*Prerequisite: eligibility for Engl. 101.*) is a general survey course of economics introducing the student to macro- and microeconomic theory in a one-semester course. Topics discussed include the price system and resource allocation, business cycles, economic development, national income, price levels, fiscal policy, money and banking, labor and business organization, market models, and



international economics. The course is not designed for students majoring in business, economics, or programs requiring Econ. 231 and 232 or for students who have completed Econ. 231 and 232.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Not Applicable

## **Econ. 200 - Economics of Social Issues**

**3-0-3**

(*Prerequisite: eligibility for Engl. 101.*) is a study of selected topics in economics. The course consists of the survey and evaluation of major economic issues confronting the United States and the global economy. Specific issues considered will vary with the economic times. Topics that may be considered are environmental issues, employment/unemployment, energy, taxes, stagflation, world hunger, social programs, federal budget deficits, public policy issues, international economics, and U.S. trade policy.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Not Applicable

## **Econ. 225 - Comparative Economic Systems**

**3-0-3**

(*Prerequisite: eligibility for Engl. 101.*) compares the similarities between various economies through an examination of systems of various countries/regions, including the former Soviet Union, China, Japan, Europe, Pacific Rim, and other economies. The course also includes the trade-off between efficiency and equity, economic freedom and economic order, and market-oriented systems versus planned economic systems.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Economics, International Business

## **Econ. 231 - Macroeconomics (IAI: S3 901)**

**3-0-3**

(*Prerequisite: eligibility for Engl. 101.*) is an introduction to the study of general economic principles. Such topics as economic systems, demand and supply, business organizations, gross national product, unemployment, inflation, fiscal policy, monetary policy, interest rates, and business cycles are discussed. Macroeconomics and current economic topics are emphasized.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Business, Economics, International Business, Social Science

## **Econ. 232 - Microeconomics (IAI: S3 902)**

**3-0-3**

(*Prerequisite: Econ. 231.*) is a continuation of the study of general economic principles. Such topics as elasticity, production costs, consumer demand, perfect and imperfect competition, agriculture, labor unions, social problems, and alternative economic systems are discussed. Microeconomics and current economic topics are emphasized.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Business, Economics, International Business, Social Science

# Education

## **Ed. 100 - Introduction to Public Education**

**3-0-3**

is designed for students considering a career in teaching and for laymen who wish to become better informed about the foundations of American education. The course reviews changing concepts in public education in America and examines the duties and responsibilities of the classroom teacher. Discussion of current issues and problems in education is included.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Teacher Education: Elementary-Secondary

**Ed. 101 - The Community of Higher Education**

**3-0-3**

is designed to introduce and foster a mature understanding of learning, its importance, its methodologies, and its applications. Specifically, the course will entail reading, viewing, and discussion of selected readings. These will provide the opportunity for application of academic success strategies introduced through the text and class activities. The course has been organized around the concept of community: 1) the RCC community, 2) the broader academic community, and 3) the community beyond college.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates and A.A.S. degrees
- Group Requirement - Social Science (AAS and certificates only)
- Area of Concentration - Not Applicable

**Ed. 199 – Topics in Education**

**1-0-1**

(*Prerequisite: Engl. 101.*) provides the student an opportunity to participate in a comprehensive discussion of a topic dealing with a contemporary issue in education. The course requires no prior depth of knowledge, but it is expected that the student has a particular interest in the seminar topic. (Repeatable)

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates and All Degrees
- Group Requirement - Social Science (A.A.S. only)
- Area of Concentration - Teacher Education: Elementary-Secondary

**Ed. 200 - Educational Psychology**

**3-0-3**

(*Prerequisite: Psych. 110.*) examines the application of psychological principles to education. Special emphasis is placed on understanding growth and development, the learning process, motivation, intelligence, evaluation, measurement, creativity, and the impact of culture on learning styles. The course requires formal classroom field experience to be arranged with the instructor. A student may not receive credit for both Ed. 200 and Psych. 200.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates and All Degrees
- Group Requirement - Social Science (A.A.S. only)
- Area of Concentration - Teacher Education: Elementary-Secondary

**Ed. 220 - The Exceptional Child**

**3-0-3**

(*Prerequisite: eligibility for Engl. 090/091.*) focuses on the following children: the mentally impaired, the gifted, the visually impaired, the hearing impaired, the emotionally disturbed, the speech impaired, the physically impaired, the health impaired, and those at risk. Each area of study will include a historical background, a study of the characteristics, nonbiased assessment methods, and information about specialized services and educational adaptations.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates and All Degrees
- Group Requirement - Not Applicable
- Area of Concentration - Child Care and Education

## Electronic Systems Technology/Electronics

**Eltrn. 101 - Basic Electricity-AC**

**.5-1-1**

is designed for those with no previous training in electronics. Fundamental concepts, terminology, and mathematical tools required to understand basic AC circuits are presented. Lab sessions follow in parallel, familiarizing students with test equipment, components, and safe laboratory procedures.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates, A.A.S., A.L.S.
- Group Requirement - Not Applicable
- Area of Concentration - Electronics

**Eltrn. 102 - Basic Electricity-DC**

**.5-1-1**

is designed for those with no previous training in electronics. Fundamental concepts, terminology, and mathematical tools required to understand basic DC circuits are presented. Lab sessions follow in parallel, familiarizing students with test equipment, components, and safe laboratory procedures.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronics

## **Eltrn. 109 - Industrial Controls**

**3-3-4**

*(Prerequisite: Eltrn. 110 or concurrent enrollment in Eltrn. 110 or H.V.A.C. 104.)* is a hands-on class and includes a study and application of Industrial Controls in actual circuit applications. This course will start at a beginning level and take the student through advanced manual and automatic electromechanical controls with some exposure to solid state devices and programmable controllers.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronic Systems Technology

## **Eltrn. 110 - Introduction to Electricity and Electronics**

**1-3-2**

*(Prerequisite: Math. 091 or equivalent competencies.)* is a laboratory-oriented course in the fundamentals of electricity and electronics beginning with the basic concepts of electrical and magnetic forces, charge, voltage, current, resistance, and power. It also provides familiarization with the basic electronic systems, circuits and components, and methods of representation utilizing block diagram and schematic diagrams. Measurement techniques and use of laboratory instruments are emphasized.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - Electronics

## **Eltrn. 111 - Circuit Analysis**

**2-2-3**

*(Prerequisite: Eltrn. 110 and Math. 091 or concurrent enrollment or equivalent competencies.)* begins with definitions of voltage source, current source, and equivalent circuit. The loop, node, branch, ladder methods, Thevenin theorem, and superposition theorem used in circuit analysis are also covered. The RC and RL time constants are defined, and their applications are introduced. Both inductive reactance and capacitive reactance are defined, and impedance is discussed in terms of complex variables and phasors. Series and parallel resonance circuits are studied.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronics

## **Eltrn. 112 - Electronic Devices and Circuits**

**3-4-5**

*(Prerequisite: Eltrn. 110 and 111.)* begins with the study of basic semiconductor physics with emphasis on the theory of operation of solid state devices including diodes, transistors, and integrated circuits. As electronic devices are introduced, basic electronic circuits are studied, including power supplies, amplifiers, and oscillators. Measurement and breadboarding techniques and use of laboratory instruments are emphasized.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronic Systems Technology, Electronics

## **Eltrn. 113 - Industrial Controls 2**

**3-3-4**

*(Prerequisite: Eltrn. 109.)* is a laboratory-oriented class and includes a study of programmable controllers, DC motors, single-phase motors, solid state control devices, SCRs and Triacs, photoelectric and proximity control, reduced voltage starting techniques, and AC inverters and DC drives.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronic Systems Technology

## **Eltrn. 120 - Fundamentals of Servicing**

**1-3-2**

*(Prerequisite: completion of or concurrent enrollment in Eltrn. 112.)* is a laboratory-oriented course designed to acquaint the student with systematic procedures for locating problems in the basic electronic circuits and systems. Proper use of instruments in testing components and tracing signals

through circuits and systems is emphasized. The student is also introduced to the various sources and proper use of technical service data and is instructed in the proper use of the small hand tools commonly used in electronic repair work, including soldering and desoldering devices. Electronic assembly techniques are emphasized by requiring each student to participate in a construction project during the semester. A tool kit required for this course will cost approximately \$75.00.

Applicable toward graduation where program structure permits:

Certificate or Degree - A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Electrician Apprenticeship Program

### **Eltrn. 140 - Solid State Fundamentals for Electricians**

**1-3-2**

*(Prerequisite: Eltrn. 110 and 111.)* presents an overview of solid state devices and systems, including fiber optics, integrated circuits, and light-activated components. The course is designed for electricians, students, and others who have some basic knowledge of electricity. Component and system construction, operation, installation, and service are emphasized. Various practical applications are presented throughout the course as they relate to temperature, light, speed, and pressure control.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronics

### **Eltrn. 151 - Electrical Systems Troubleshooting**

**2-4-4**

*(Prerequisite: Eltrn. 109.)* introduces the student to the methods and equipment used to maintain, troubleshoot, and repair industrial electrical systems. Topics include the effective use of test equipment, various approaches to troubleshooting electrical systems, a review of electrical motor theory, and preventive maintenance of electrical systems. Application portions of the National Electrical Code are included. Safe work habits are emphasized throughout the course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronic Systems Technology

### **Eltrn. 160 - Digital Electronics**

**2-4-4**

*(Prerequisite: Eltrn. 110 and 111.)* is a laboratory-oriented course that emphasizes analytical reasoning and basic digital design using the standard integrated circuits that are used in industry today. The student will become proficient at using the symbols and procedures that are the standard in manufacturers' data manuals and industrial settings. Topics include numbering systems and codes, digital electronic signals and switches, basic logic gates, inverting logic gates, Boolean Algebra and reduction techniques, Exclusive-Or and Exclusive-Nor gates, code converters, multiplexers and demultiplexers, and logic families and their characteristics.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronic Systems Technology, Electronics

### **Eltrn. 171 - PC Hardware Systems**

**3-2-4**

prepares an individual for the PC hardware component portion of the A+ Certification exam. The course covers computer architecture, microprocessors, memory, storage, video, modems, printers, local area networks, electrical theory, and portable computers. This course, along with Eltrn. 172, prepares a student for the A+ Certification exam.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Service Technician

### **Eltrn. 172 - PC Software Systems**

**2-2-3**

*(Prerequisite: Eltrn. 171.)* prepares an individual for the PC software component portion of the A+ Certification exam. The course covers the computer startup process, MS-DOS overview, device drivers, batch files, hard disk setup, MS-DOS setup, MS-DOS optimization, Microsoft Windows family, Windows 3.1 setup, and Windows 95, 98, 2000 upgrade. This course, along with Eltrn. 171, prepares a student for the A+ Certification exam.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Service Technician

## **Eltrn. 201 - Fundamentals of Process Control**

**2-2-3**

*(Prerequisite: Eltrn. 109 and Math. 104 or equivalent competencies.)* is a hands-on class that gives a broad perspective on industrial measurement and control. It addresses the basic principles and concepts of flow, pressure, level, and temperature measurement. Students will learn the essential components of automatic control systems, including the function and operation of control valves, principles and applications of PID controllers (pneumatic and electronic), and importance of controller tuning.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronic Systems Technology

## **Eltrn. 202 - Advanced Digital Electronics**

**2-2-3**

*(Prerequisite: Eltrn. 160.)* is a laboratory-oriented course that includes the following topics: flip-flops and registers, practical considerations for digital design, counter circuits and applications, shift registers, multivibrators, interfacing to the analog world, semiconductor memory, and programmable arrays. The course concludes with the construction of an individual project using digital principles.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronic Systems Technology

## **Eltrn. 203 - Programmable Controllers**

**2-2-3**

*(Prerequisite: Eltrn. 109 or previous motor control experience.)* is a laboratory-oriented course that utilizes an Allen Bradley PLC 2/16 processor and the IBM PS-2 Model 30 computer with ICOM ladder logic software for programming. Topics include relay type instructions, timer, counters, sequencers, arithmetic functions, files, shift registers, block functions, analog input and output, and troubleshooting.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronic Systems Technology

## **Eltrn. 204 - Programming and Troubleshooting Logic Controllers (PLC's)**

**3-2-4**

*(Prerequisite: Eltrn. 109 or previous motor control experience.)* is a hands-on course that utilizes the Allen Bradley PLC 5/15 processor and ICOM programming software. Topics include memory organization, I/O addressing, relay instructions, timers and counters, data manipulation, math functions, subroutines, sequencers, files, bit shifting, block transfer, and program troubleshooting.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronic Systems Technology

## **Eltrn. 210 - Advanced Electronic Devices & Circuits**

**2-2-3**

*(Prerequisite: Eltrn. 112.)* is a continuation of Eltrn. 112 (Electronic Devices and Circuits). Devices studied include Bipolar Power Transistors, Field Effect Transistors (small signal and power types), Operational Amplifiers, and Linear Integrated Circuits. Both the theory of operation of these devices and their typical circuit applications are covered. Special emphasis is given to Operational Amplifiers and their applications in negative feedback circuits. An introduction to Integrated Circuit manufacturing technology and a thorough treatment of discrete and IC Sinusoidal Oscillators are also provided. Extensive use of computer-assisted instruction is used to supplement the lectures and traditional hands-on laboratory sessions.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronics

### Eltrn. 211 - Pulse, Digital, & Switching Circuits

3-4-5

*(Prerequisite: Eltrn. 112.)* begins with applications of diodes, transistors, and other semiconductors operating in the switching mode. Topics include wave shaping circuits (clippers, clampers, Schmitt triggers, differentiators and integrators), SCRs, TRIAC's Unijunction Transistors, and other thyristors. Applications to DC and AC power control and relaxation oscillators are also covered. Also included are triggered multivibrators, counters, shift registers, memory circuits, various digital display devices, digital speech synthesis, stepper motors, switching type regulators, switching power supplies, and analog-to-digital and digital-to-analog Converters. A project utilizing the building blocks covered in the course is required of each student. Computer simulations of digital circuits and other instructional computer activities are used throughout the course. Use of Logic analyzers, digital oscilloscopes, and other digital test equipment is covered in the lab sessions.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronics

### Eltrn. 212 - Communications Systems

3-4-5

*(Prerequisite: Eltrn. 210 or equivalent competencies as determined by the Academic Director of the Occupational and Technical Division.)* covers the theory of AM and FM communication systems and their applications to radio, television, and satellite communication. Topics include AM and FM receivers, transmitters, antennas, transmission lines, and wave propagation. Each student builds, tests, and aligns a complete AM and FM stereo receiver. Students also design, build, and test a directional antenna and learn to use the College's antenna test range. An introduction to television broadcasting and TV receivers is also included. Using an Earth station in the electronics lab, students also work with fully operational communications satellites of both the geostationary and low Earth Orbit types commonly used in modern communication systems.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronics

### Eltrn. 220 - FCC License Preparation

3-0-3

*(Prerequisite: Eltrn. 212.)* is a specialized course designed to prepare students for passing the examination given by the Federal Communications Commission for the General Radiotelephone Operator License. The course is suggested for students planning to enter the field of commercial communications, avionics, marine radio and radar, or broadcast engineering. Interested persons who do not have the formal prerequisites are invited to consult with a member of the electronics teaching staff.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronics

### Eltrn. 222 - Advanced Electronic Servicing

3-3-4

*(Prerequisite: Eltrn. 120 and completion of or concurrent enrollment in Eltrn. 212.)* is a continuation of Eltrn. 120 (Fundamentals of Servicing). In this course the student will learn to apply the systematic troubleshooting procedures learned previously to advanced electronic systems. Eltrn. 222 is divided into four modules, each lasting four weeks. Each of these modules will be taught by a specialist in one of the four areas covered by the course. These areas include (1) audio components and compact disc players, (2) personal computers and networks, (3) VCRs and TVs, and (4) commercial communications, including mobile radio and pagers. There is a heavy emphasis on practical, hands-on experience with modern electronic products and test equipment. The same tools required for Eltrn. 120 are used.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronics

## **Eltrn. 231 – AC/DC Drives and Motion Control**

**2-2-3**

(*Prerequisite: Eltrn. 109 and concurrent enrollment in Eltrn. 204 or previous motor control experience.*) introduces the student to the methods and equipment used to maintain, troubleshoot, and repair AC and DC drive systems, closed loop servo drives, and motion control systems. Topics include the effective use of test equipment, various approaches to troubleshooting drive systems, servo systems, an overview of electrical motor theory, position and speed feedback devices, and closed loop control. Safe work habits are emphasized throughout the course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration – Electronic Systems Technology

## **Eltrn. 232 – CNC and Motion Control Troubleshooting**

**2-2-3**

(*Prerequisite: Eltrn. 204.*) introduces the student to the methods and equipment used to maintain, troubleshoot, and repair Computer Numerical Controls. Topics include the effective use of test equipment, various approaches to troubleshooting CNC's, and a review of motion control theory and PLC's. Safe work habits are emphasized throughout the course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration – Electronic Systems Technology

## **Eltrn. 240 - Introduction to Microprocessors**

**2-2-3**

(*Prerequisite: Eltrn. 160 or Eltrn. 211.*) is a specialized course introducing three general areas: hardware, software, and troubleshooting. Special emphasis is placed on how microprocessor systems function and how to maintain them. Microprocessor hardware and software is used for most lab activities. Lab sessions include troubleshooting and repair with topics to include signature analysis and use of logic analyzers. Students may also be expected to write simple programs for purposes of troubleshooting and maintenance.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronic Systems Technology, Electronics

## **Eltrn. 250 - Electrician Internship**

**0-10-2**

(*Prerequisite: admittance into the Electrician Apprenticeship program.*) has been developed and established as the on-the-job component of the Electrician Apprenticeship program. The on-the-job component will consist of work relating to the wiring of residential, commercial, industrial, and/or specialized electrical systems. All of the on-the-job work-related activities will be performed under the direct supervision of a journeyworker.

Applicable toward graduation where program structure permits:

Certificate or Degree—A.A.S.

Group Requirement—Not Applicable

Area of Concentration—Electrician Apprenticeship Program

## **Eltrn. 251 - Electrician Internship**

**0-10-2**

(*Prerequisite: Eltrn. 250.*) has been developed and established as the on-the-job component of the Electrician Apprenticeship program. The on-the-job component will consist of work relating to the wiring of residential, commercial, industrial, and/or specialized electrical systems. All of the on-the-job work-related activities will be performed under the direct supervision of a journeyworker.

Applicable toward graduation where program structure permits:

Certificate or Degree—A.A.S.

Group Requirement—Not Applicable

Area of Concentration—Electrician Apprenticeship Program

## **Eltrn. 252 - Electrician Internship**

**0-10-2**

(*Prerequisite: Eltrn. 251.*) has been developed and established as the on-the-job component of the Electrician Apprenticeship program. The on-the-job component will consist of work relating to the wiring of residential, commercial, industrial, and/or specialized electrical systems. All of the on-the-job work-related activities will be performed under the direct supervision of a journeyworker.

Applicable toward graduation where program structure permits:

Certificate or Degree—A.A.S.

Group Requirement—Not Applicable

Area of Concentration—Electrician Apprenticeship Program

### Eltrn. 253 - Electrician Internship

0-10-2

(*Prerequisite: Eltrn. 252.*) has been developed and established as the on-the-job component of the Electrician Apprenticeship program. The on-the-job component will consist of work relating to the wiring of residential, commercial, industrial, and/or specialized electrical systems. All of the on-the-job work-related activities will be performed under the direct supervision of a journeyworker.

Applicable toward graduation where program structure permits:

Certificate or Degree—A.A.S.

Group Requirement—Not Applicable

Area of Concentration—Electrician Apprenticeship Program

### Eltrn. 254 - Electrician Internship

0-10-2

(*Prerequisite: Eltrn. 253.*) has been developed and established as the on-the-job component of the Electrician Apprenticeship program. The on-the-job component will consist of work relating to the wiring of residential, commercial, industrial, and/or specialized electrical systems. All of the on-the-job work-related activities will be performed under the direct supervision of a journeyworker.

Applicable toward graduation where program structure permits:

Certificate or Degree—A.A.S.

Group Requirement—Not Applicable

Area of Concentration—Electrician Apprenticeship Program

### Eltrn. 290 - Work Experience Practicum

(Variable Credit) 1-20-5

(*Prerequisite: completion of Eltrn. 109, 110, and 111 in the Electronic Systems Technology Program.*) allows the student pursuing a degree in Electronic Systems Technology the opportunity to apply the principles learned in first-semester course work to the work situation through employment. The individual participating in the practicum will be paid an hourly wage by the employer with such wage to be at least equal to the prevailing minimum wage. One of the requirements of this program will be a one-hour-per-week seminar. Credit for this practicum is determined at enrollment based on the ratio of five hours per week in the job setting for a 16-week semester for each semester hour of credit.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronic Systems Technology

### Eltrn. 295-Electronics Internship

(Variable Credit) 1-20-5

(*Prerequisite: sophomore standing in Electronics.*) is an on-the-job experience course where the student will be placed in a job related to his or her career goals. The work setting selected will be determined by consultation with the student's faculty advisor and the prospective employer. Students will be required to interview for their internship position. Credit received will depend on the number of hours worked each week but must range between two and five credit hours. Each semester hour of credit will correspond to five hours per week of employment up to a maximum of five credit hours. Students will be required to attend a weekly seminar to be scheduled at the convenience of the student. Payment of an hourly wage will be at the option of the employer. Students will be required to keep an accurate record of their activities and to write a report on their work study experiences at the end of the semester. The work supervisor's reports will be a major factor in determining the student's final grade.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronics

## Engineering

### Engr. 100 - Introduction to Engineering

1-0-1

(*Prerequisite: eligibility for Engr. 101 or concurrent enrollment in Engr. 090 and 091.*) provides students with an orientation to engineering. Topics addressed in the course include the history of engineering; current disciplines/specializations within the field; design and analytical thinking



processes used by engineers; ethical, moral, and legal responsibilities of engineers; and educational requirements beyond the associate's degree. This course includes classroom instruction, guest speakers, and team design projects.

Applicable for graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Engineering

## **Engr. 110 - Engineering Graphics**

**1-4-3**

(*Prerequisite: Draft. 101 or permission of the instructor.*) is designed for pre-engineering students and includes shop terms and processes, geometry of engineering drawing, working drawings, intersections and developments, advanced projection systems, use and construction of graphs, charts and monographs, and design problems and applications.

Applicable for graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Engineering, Drafting

## **Engr. 211 - Analytical Mechanics 1: Statics**

**2-2-3**

(*Prerequisite: Phys. 151 and Math. 122 and concurrent enrollment in or completion of Math. 221.*) introduces basic concepts concerning force systems as applied to particles and rigid bodies in static equilibrium. Vector methods and calculus are used to examine two- and three-dimensional systems such as trusses, beams, and frames. Topics include resultants of force systems, moments of inertia, couples, distributed forces, center of mass, analysis of structures, and friction.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - General Science, Physics, Mathematics, Engineering

## **Engr. 212 - Analytical Mechanics 2: Dynamics**

**3-2-4**

(*Prerequisite: Engr. 211 or concurrent enrollment in or completion of Math. 221.*) applies elements of vector calculus to two- and three-dimensional motion of a particle and of a rigid body. Topics include kinematics, kinetics, absolute and relative motion, translation, rotation, Newton's laws of motion, work and energy, power, and impulse and momentum.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - General Science, Physics, Mathematics, Engineering

# English

## **Engl. 088 - Reading and Study Skills 1**

**2-2-3**

is designed to help the student improve basic reading and study skills through developmental exercises. It is required for students testing below the 21st percentile on the English Placement Test and below 34 on the Reading Comprehension portion of the Stanford Diagnostic Reading Test.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to other studies

Area of Concentration - Preparatory to other studies

## **Engl. 089 - Developmental Writing 1**

**2-2-3**

is designed for those students who desire or need additional preparation in English composition prior to taking Engl. 091. The course reviews those elements of mechanics and grammar necessary in all writing and provides intensive practice in construction of sentences and paragraphs. Much of the writing is done in a supervised laboratory setting.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to other studies

Area of Concentration - Preparatory to other studies

### Engl. 090 - Reading and Study Skills 2

2-2-3

is designed to help the student improve basic reading and study skills through developmental exercises. It is strongly recommended for students who score within the 22nd percentile through 39th percentile on Richland's English Placement Test or SAT Verbal or a composite score of 19 or below on the ACT (English and Reading).

Applicable toward graduation where program structure permits:

- Certificate or Degree - Basic Certificates
- Group Requirement - Preparatory to other studies
- Area of Concentration - Preparatory to other studies

### Engl. 091 - Developmental Writing 2

2-2-3

prepares students for classes in which college-level writing is required. The course reviews mechanics and grammar basic to all writing and requires intensive practice in construction of sentences, paragraphs, and short themes. Much of the writing is done in a supervised laboratory setting.

Applicable toward graduation where program structure permits:

- Certificate or Degree - Basic Certificates
- Group Requirement - Preparatory to other studies
- Area of Concentration - Preparatory to other studies

### Engl. 101 - Composition 1 (IAI: C1 900)

3-0-3

(*Prerequisite: one of the following: 1) successful completion of Engl. 090/091; 2) score of 40th percentile or above on (a) ACT English and Reading, (b) SAT Verbal, 3) a satisfactory score on Richland's English Placement Test; or 4) evidence of equivalent competencies.*) is a basic course in college writing. Students write and revise essays of a 500-word minimum according to several basic rhetorical organizational patterns. Qualities of writing to be achieved include clarity, coherence, unity, and conciseness. Special attention will be paid to persuasive writing, including the diction, logic, and persona appropriate to such writing.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates and All Degrees
- Group Requirement - Communications
- Area of Concentration - Not Applicable

### Engl. 102 - Composition 2 (IAI: C1 901)

3-0-3

(*Prerequisite: Engl. 101.*) is the conclusion of the first-year, college-level writing program. Students learn to recognize various levels of formality and to develop a style of writing appropriate for a formal research paper. All elements of research are taught: choosing a topic, focusing on a thesis, locating and evaluating varied sources, organizing materials, writing and documenting the text, and revising.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates and All Degrees
- Group Requirement - Communications
- Area of Concentration - Not Applicable

### Engl. 110 -Communicating in the Workplace (IAI: C1 901)

3-0-3

(*Prerequisite: eligibility for Engl. 101.*) provides instruction and practice in the preparation of reports appropriate for business and industry. Various rhetorical strategies for identifying and reaching particular audiences are presented. Students learn all aspects of preparing reports: choosing a topic, identifying a primary audience, completing various kinds of research, which may include phone or personal interviews, surveys, letters, and questionnaires, organizing materials, writing and documenting the text, revising, designing graphics appropriate to the text, and as needed, creating glossaries and appendices to the text.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates and All Degrees
- Group Requirement - Communications (A.A.S. only)
- Area of Concentration - Production Control, Supervision of Personnel, Welding

### Engl. 114 - Comprehensive Speed Reading

1-2-2

is designed to improve the student's reading rate while maintaining a high level of comprehension. The course is designed for students who have been able to function effectively with their present reading rate and level of comprehension but who now desire to learn to read faster. This course may not be taken concurrently with Engl. 090.

## 170 Course Descriptions

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Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Communications (A.A.S. only)

Area of Concentration - Not Applicable

### **Engl. 115 - Introduction to Literature (IAI: H3 900)**

**3-0-3**

introduces students to the careful reading, discussion, and written analysis of literature. Students read and discuss poetry, fiction, and drama. The course also includes practice in the skills necessary to write about literature.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

### **Engl. 124 - Introduction to Fiction (IAI: H3 901)**

**3-0-3**

(*Prerequisite: eligibility for Engl. 101 or completion of Engl. 115.*) introduces students to the careful reading, discussion, and written analysis of short stories and novels. Students learn the use of various critical methods in examining the elements, aims, and effects of fiction.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

### **Engl. 126 - Introduction to Poetry (IAI: H3 903)**

**3-0-3**

(*Prerequisite: eligibility for Engl. 101 or completion of Engl. 115.*) introduces students to the reading, discussion, and written analysis and understanding of poetry through the study of techniques, themes, and some major poets of the English and American tradition.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

### **Engl. 128 - Introduction to Drama (IAI: H3 902)**

**3-0-3**

(*Prerequisite: eligibility for Engl. 101 or completion of Engl. 115.*) introduces students to the reading, discussion, and written analysis of plays. Students read representative plays of the Western tradition from those of early Greece to recent American productions, studying dramatic conventions, techniques, and themes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

### **Engl. 140 - Introduction to Film Art (IAI: F2 905)**

**2-2-3**

(*Prerequisite: eligibility for Engl. 101 or completion of Engl. 115.*) examines the aesthetic and cultural qualities of film as a contemporary art form. By viewing and discussing a variety of films, students will become familiar with the unique properties of cinematic art along with the qualities it shares with other art forms. In addition, the place of film in American culture and society is explored.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Fine Arts

Area of Concentration - Not Applicable

### **Engl. 150 - Topics on Literature**

**3-0-3**

(*Prerequisite: eligibility for Engl. 101 or completion of Engl. 115.*) examines a selected topic or movement through careful reading, discussion, and written analysis of representative works of literature. The course content will vary each time it is offered. This course may be repeated once with a different topic.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - English

**Engl. 160-Literature and Gender (IAI: H3 911D) [3-0-3]**

(*Prerequisites: eligibility for Engl. 101 or successful completion of English 115.*) introduces students to literary works written by major women writers or about women through reading, discussion, and written analysis. Students are also exposed to historic, educational, and social trends that relate to women and the impact of women on these same trends. Emphasis may be placed on specific genres or groups of writers, such as women of color.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirements - Humanities

Area of Concentration - English

**Engl. 201 - American Literature to 1900 (IAI: H3 914) 3-0-3**

(*Prerequisite: Engl. 101 or 124 or 126 or 128 or 140 or 150.*) is a historical survey of American literature from its beginning to 1900. Some of the authors read are Poe, Emerson, Thoreau, Hawthorne, Melville, Twain, Whitman, and Dickinson. Particularly examined are the cultural and political milieus of the periods in which this literature was created.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

**Engl. 202 - American Literature in the 20th Century (IAI: H3 915) 3-0-3**

(*Prerequisite: Engl. 101 or 124 or 126 or 128 or 140 or 150.*) is a historical survey of American literature from 1900 to the present. Some of the authors read are Frost, Hemingway, Faulkner, Cummings, Eliot, Stevens, Baldwin, Bellow, Plath, and Walker.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

**Engl. 220 - Introduction to Creative Writing 3-0-3**

(*Prerequisite: Engl. 101 or equivalent competencies.*) offers instruction and practice in writing fiction and poetry. Students learn the main critical and structural approaches to these genres. Students produce a set amount of writing in each genre, and more in a chosen genre and discuss student work in class. The work must be creative and also mechanically acceptable. Students learn about acceptable manuscript practices and market opportunities.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Communications (A.A.S. only)

Area of Concentration - English

**Engl. 222 - Advanced Creative Writing 3-0-3**

(*Prerequisite: Engl. 220 or equivalent competencies.*) offers students the opportunity to develop advanced skills in one of the genres presented in Engl. 220. Each student will be expected to produce a significant body of writing such as a collection of poems, a full-length play, a major part of a novel, or a collection of short stories.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Communications (A.A.S. only)

Area of Concentration - English

**Engl. 231 - Masterpieces of Western Literature 1 (IAI: H3 906) 3-0-3**

(*Prerequisite: Engl. 101 or 124 or 126 or 128 or 140 or 150.*) is a selective survey of European literature in translation from its beginnings to the Renaissance. Stressed are the permanence and the current relevance of this literature. The course deals with such works and authors as the Bible, Homer, Virgil, Dante, Cervantes, and Rabelais.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

## **Engl. 232 - Masterpieces of Western Literature 2 (IAI: H3 907) 3-0-3**

(*Prerequisite: Engl. 101 or 124 or 126 or 128 or 140 or 150.*) is a selective survey of European literature in translation from the Renaissance to the present. Stressed are parallels and relationships between this literature and that of the English-speaking world. The course includes writings by Voltaire, Goethe, Dostoevsky, Tolstoy, Ibsen, Kafka, and Sartre.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

## **Engl. 251 - English Literature to 1800 (IAI: H3 912) 3-0-3**

(*Prerequisite: Engl. 101 or 124 or 126 or 128 or 140 or 150.*) is a selective historical survey of English literature from its beginnings to 1800. Some of the authors read are Chaucer, Spenser, Shakespeare, Milton, Dryden, Swift, Pope, and Johnson. Emphasis is on the interpretation of each work, the cultural context in which it was created, and the present relevance of the work.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

## **Engl. 252 - English Literature: 19th and 20th Centuries (IAI: H3 913) 3-0-3**

(*Prerequisite: Engl. 101 or 124 or 126 or 128 or 140 or 150.*) is a selective survey of English literature from the beginning of the Romantic era, through the Victorian period, and into the twentieth century. Some of the authors read are Wordsworth, Keats, Tennyson, Browning, Conrad, Yeats, Lawrence, Joyce, Auden, Hughes, and Larkin.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

# Fire Science

## **Fire 110 - Introduction to Fire Science (Module A) 3-0-3**

is a basic introduction to the history and philosophy of fire protection and includes fire behavior, self-contained breathing apparatus, ladders operation, fire hose and appliances, personal safety, and portable extinguishers.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

## **Fire 111 - Techniques of Firefighting 1 (Module B) 3-0-3**

is designed to teach and to develop the knowledge and manipulative skills needed by the firefighter. This course includes water supply operations, fire streams, ventilation techniques, rescue operations, emergency medical care, forcible entry techniques, overall operations, and building construction.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

## **Fire 112 - Techniques of Firefighting 2 (Module C) 3-0-3**

is designed to expand the knowledge to a higher skill level. This course includes communications, sprinkler systems, salvage operations, fire prevention activities, rope operations, and hazardous materials awareness.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

**Fire 120 - Fire Prevention Principles 1****3-0-3**

is a course required of eligible candidates pursuing Fire Officer I certification. This course is designed to meet the needs of individuals who are expanding their knowledge about fire department operations within the fire service.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

**Fire 130 - Building Construction for Fire Science****3-0-3**

analyzes methods of building construction including types of construction materials, principles of construction, fire-resistant features of materials, a study of life-safety methods of construction, and an introduction to building codes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

**Fire 140 - Fire Science Instructor 1****3-0-3**

meets the guidelines of the Office of the State Fire Marshal to qualify fire service personnel to conduct training and educational courses for the fire service. This course is designed to give students the knowledge and ability to teach from prepared materials that are predominantly skills-oriented.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

**Fire 150 - Fire Protection Systems****3-0-3**

studies the required standards for water supplies, protection systems, automatic sprinklers, and extinguishing systems and various automatic signaling and detection systems.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

**Fire 170 - Rescue/Roadway Extrication****2-2-3**

is designed to develop student skills in the use of extrication techniques needed to perform rescue, extrication, and hazardous control functions. This course qualifies students for state certification as a Roadway Extrication Specialist.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

**Fire 200 - Tactics and Strategy****3-0-3**

is an introduction to the basic principles and methods associated with fire ground operations as required of the company officer. The course emphasizes size-up, fire ground operations, pre-fire planning, and engine company and truck company operations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

**Fire 210 - Tactics and Strategy 2****3-0-3**

is designed for the fire officer who is responsible for commanding a fire or emergency operation involving multiple companies. Areas covered are strategic concepts in firefighting, responsibilities of command officers, multi-company operations, high rise operations, disasters, and critical incident stress.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

### **Fire 220 - Fire Science Instructor 2**

**3-0-3**

emphasizes teaching formalized lessons from materials prepared by the instructor including relating information from one lesson or class to the next. This course qualifies the student for certification as Fire Instructor 2.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

### **Fire 230 - Fire Apparatus Engineer**

**3-0-3**

is designed for those beginning the operation of fire pumps and those who wish to expand their knowledge in pump operations. Practical evolution of pump operations will be performed. This course qualifies the student for certification as a Fire Apparatus Engineer.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

### **Fire 250 - Hazardous Materials Operations**

**3-0-3**

is designed to provide the basic skills needed to evaluate and work defensively at an incident involving the release of hazardous materials. The student will understand the relevance of standard operating guidelines and how they play a role in hazardous materials operations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

### **Fire 260 - Fire Investigation**

**3-0-3**

covers techniques and procedures for the investigation of fires. This course includes determining the cause and origin of fire, fire behavior, detection of arson, investigation techniques, and the legal aspects of arson investigation.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

### **Fire 270 - Management 1**

**3-0-3**

is designed to acquaint the student with the role of the company officer and provides an introduction to basic management theories, practices, and functions. This course is a requirement for Fire Officer I.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

### **Fire 280 - Management 2**

**3-0-3**

is designed to acquaint the student with the principles of communications and group dynamics as they relate to the company officer. This course is a requirement for Fire Officer I.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

### **Fire 297 - Fire Science Technologies**

**(Variable Credit) 1-0-1 to 3-0-3**

*(Fire fighting experience or previous Fire Science course recommended)* offers an introduction to what is current and what is coming in fire science practice and technology. Specific topics will change to reflect the state of the art. Three credit hours may be used as directed electives in A.A.S. Fire Science Degree.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Fire Science

## Food Service Management

### F.S.M. 100 - Managing Food Service Operations 3-0-3

*(Prerequisite: eligibility for Engl. 101)* includes a study and application of restaurant operations, the menu, cost control and financial matters, legal issues and the restaurant staff, training employees and equipping the kitchen, fundamentals of marketing and purchasing, customer service, laws and regulations, and sanitation as related to food service management.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Food Service Management

### F.S.M. 102 - Controlling Costs in Food Service 4-0-4

*(Prerequisite: eligibility for Engl. 101)* includes a study and application of food cost control, beverage operation and sales, and labor cost control as related to food service management.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Food Service Management

### F.S.M. 104 - Successful Hospitality Supervision 3-0-3

*(Prerequisite: eligibility for Engl. 101)* includes a study and application of the supervisor's function, effective communication and motivation, recruiting and hiring employees, orienting and training employees, evaluating and disciplining employees, planning, decision making and delegating in the food service management.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Food Service Management

### F.S.M. 106 - Effective Food Service Marketing 3-0-3

*(Prerequisite: eligibility for Engl. 101)* includes a study and application of marketing in the food service industry, marketing planning, information and research, understanding hospitality consumers, advertising and promotion, hospitality group sales, menu design, and pricing strategies in the food service management industry.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Food Service Management

### F.S.M. 108 - Management by Menu 3-0-3

*(Prerequisite: eligibility for Engl. 101)* includes a study and application of the food service industry, developing the menu and cost controls, menu pricing, mechanics and analysis, the liquor menu and planning a healthy menu, the menu and purchasing, production and service, and computers and finances in menu planning in the food service management industry.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Food Service Management

### F.S.M. 110 - Food Service Sanitation 1-0-1

is a course designed for food service operators and management. The course covers techniques for protecting food from contamination in storage, preparation and service, cleaning and sanitizing, pest control, cleanliness of facilities and equipment, sanitation and the customer, personnel training, and detailed procedures for self-inspection by the food service manager.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Food Service Management



## **F.S.M. 200 - Nutrition for the Food Service Manager** **4-0-4**

*(Prerequisite: eligibility for Engl. 101)* includes a study and application of nutrients, carbohydrates, lipids, introduction to protein, vitamins, water, minerals, nutritional menu planning for the life cycle and for weight management, menu planning for vegetarians and for better health, nutritious menu planning and recipe development, and marketing nutrition in the food service management industry.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Food Service Management

## **F.S.M. 202 - Managing Food Service Facilities and Equipment** **3-0-3**

*(Prerequisite: eligibility for Engl. 101)* includes a study and application of project planning, food service design and maintenance, work area design and equipment layout, equipment options and functions, facilities engineering, interior design and layout in the food service management industry.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Food Service Management

## **F.S.M. 204 - Principles of Professional Cooking** **2-6-5**

*(Prerequisite: eligibility for Engl. 101)* includes a study, application, and overview of professional cooking to include stocks, sauces, and soups, meat, poultry, and fish, vegetables, grains, salads, sandwiches, breakfast foods, garnishes, international recipes, and baking in the food service management industry.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Food Service Management

## **F.S.M. 206 - Managing for Profit in Bar and Beverage Service** **3-0-3**

*(Prerequisite: eligibility for Engl. 101)* includes a study, application, and closer look at beverages to include beer, wine, spirits and non-alcoholic beverages, equipping the beverage operation, the clean and sanitary beverage operation, staffing the beverage operation, managing promotions, costs, and profits, the effects of alcohol on the body, liability laws that affect business, policies, procedures, and techniques in managing responsible alcohol service in the food service management industry.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Food Service Management

## **F.S.M. 208 - Presenting Service in the Food Service Industry** **3-0-3**

*(Prerequisite: eligibility for Engl. 101)* takes students from the necessary historical overview of service up to the contemporary professional server. Table service and customer service are balanced for a comprehensive look at service in various industry segments and the manager's key role.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Food Service Management

## **French**

### **Fren. 101 - Beginning French 1** **4-0-4**

is an introduction to contemporary French, including oral practice, listening and reading comprehension, and the grammar necessary for spoken and written expression. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours. Together with Fren. 102, it is designed for students with no previous study of French and also is the appropriate first college course for students who have accumulated fewer than five quality points for high school French or those whose prior study of French was completed more than five years ago regardless of earned quality points.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Foreign Language

### **Fren. 102 - Beginning French 2**

**4-0-4**

*(Prerequisite: Fren. 101 or five to eleven quality points for high school French completed within the past five years.)* is a continuation of Fren. 101. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Foreign Language

### **Fren. 201 - Intermediate French 1**

**4-0-4**

*(Prerequisite: Fren. 102 or 12 to 14 quality points for high school French completed within the past five years.)* includes readings in French, intensive aural-oral practice, and review of grammar and writing skills. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Foreign Language

### **Fren. 202 - Intermediate French 2 (IAI: H1 900)**

**4-0-4**

*(Prerequisite: Fren. 201 or 15 or more quality points for high school French completed within the past five years.)* is a continuation of Fren. 201, with increased attention to composition and conversation. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - Foreign Language

## **German**

### **Germ. 101 - Beginning German 1**

**4-0-4**

includes elementary grammar, pronunciation, and reading of graded texts. The aural-oral approach is utilized toward acquiring skills in speaking, understanding, and reading German. Together with Germ. 102, it is designed for students with no previous study of German and also is the appropriate first college course for students who have accumulated fewer than five quality points for high school German or those whose prior study of German was completed more than five years ago, regardless of earned quality points. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Foreign Language

### **Germ. 102 - Beginning German 2**

**4-0-4**

*(Prerequisite: Germ. 101 or five to eleven quality points for high school German completed within the past five years.)* is a continuation of Germ. 101. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Foreign Language

### **Germ. 201 - Intermediate German 1**

**4-0-4**

*(Prerequisite: Germ. 102 or 12 to 14 quality points for high school German completed within the past five years.)* includes reading of intermediate texts (Novellen and essays) and a review of grammar utilizing aural-oral practice in the classroom and laboratory. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

## 178 Course Descriptions

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Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Foreign Language

### **Germ. 202 - Intermediate German 2 (IAI: H1 900)**

**4-0-4**

*(Prerequisite: Germ. 201 or 15 or more quality points for high school German completed within the past five years.)* is a continuation of Germ. 201, with increased attention to composition and conversation. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - Foreign Language

## Health

### **HIth. 035 - Activity Program Director Course**

**2-1-2**

is an introduction to activity programming for persons working with residents of long-term care facilities. The content meets the thirty-six (36)-hour basic orientation training required of activity directors. Topics include philosophy, coordination, communication skills, organizational structure, and evaluation techniques.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Development and/or Review of Vocational Skills

### **HIth. 100 - First Aid Training**

**1-0-1**

will train students in lifesaving and first aid techniques. Students will be able to differentiate between emergency care and first aid treatment. Topics to be covered include life-threatening conditions - airway obstruction, shock, asthma, bleeding, diabetes, drowning, electric shock, head injuries, poisoning; non life-threatening conditions - abrasions, minor skin wounds, bites, blisters, bruises, burns, eye injuries, fractures, frostbite, heat exhaustion/stroke, nosebleeds, seizures, splinters, sprains, tick bites, tooth emergencies; and written emergency plans and procedures.

Applicable toward graduation where program structure permits:

Certificate or Degree- Not Applicable

Group Requirement- Not Applicable

Area of Concentration- Not Applicable

### **HIth. 110 - Cardio Pulmonary Resuscitation**

**0.5-0-0.5**

will train students for Basic Life Support (BLS) Health Care Provider CPR Certification according to Emergency Cardiac Care Guidelines established by the American Heart Association. Performance skills must be passed for barrier devices, AED Training, Adult - One Rescuer CPR, Adult - Two Rescuer CPR, Adult - FBAO Management: Conscious, Adult - FBAO Management: Unconscious, Child - FBAO Management: Unconscious, Infant CPR, Infant FBAO Management: Conscious, and Infant FBAO Management: Unconscious.

Applicable toward graduation where program structure permits:

Certificate or Degree- Not Applicable

Group Requirement- Not Applicable

Area of Concentration- Not Applicable

### **HIth. 111 - Introductory Seminar on Alcoholism**

**2-0-2**

will prepare the alcohol health professional and interested people to deal with the problems of alcoholics. The course includes an overview of alcoholism, pharmacology, the progression of the disease process, and a review of special populations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Alcoholism

### HLth. 115 - Introduction to Health Careers

1-0-1

is designed to train students to become familiar with and learn about the many allied health occupations and the organizational structure within the health care delivery system. Students will learn about various career descriptions, educational requirements, job skills, job availability, and career hierarchy. Students will evaluate health careers most suited to their individual interests, abilities, and goals.

Applicable toward graduation where program structure permits:

- Certificate or Degree - Not Applicable
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

### HLth. 120 - Wellness and Healthful Living

3-0-3

is designed to provide students with concepts and skills for wellness and healthful living. Students will learn about past and current health trends, as well as new health discoveries that will have an effect on health care in the future. The course covers the topics of physical health, emotional health, intellectual health, nutrition, social health, relationships, communicable diseases, substance abuse, emergency care, death and dying, community health programs, and environmental issues relating to optimal health.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates and All Degrees
- Group Requirement - Not Applicable
- Area of Concentration - Teacher Education

### HLth. 130 - Phlebotomy

4-3-5

*(Prerequisite: high school diploma or GED certificate and approval of the Allied Health Coordinator.)* studies (a) phlebotomy techniques including venipuncture, dermal puncture, special procedures techniques; (b) medicolegal, infection control, and safety aspects of the profession; and (c) anatomy, physiology, and terminology of the body systems. Clinical experiences provide the opportunity to use phlebotomy techniques including communication and additional skills needed by a phlebotomist in the clinical setting.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Basic Certificates, A.A.S.
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

### HLth. 140 - Medical Terminology

3-0-3

focuses on vocabulary used in medicine, nursing, and other allied health occupations. Students will learn structures, functions, and terms related to diagnosis, pathology, and treatments for each body system. This course is recommended for students entering all Health Science programs.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates, A.A.S., A.L.S.
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

### HLth. 141 - Nurse Assistant Training

5-4-7

*(Prerequisite: high school diploma or GED certificate, at least 17 years of age, pass the Health pretest in English and Math, and approval of the Allied Health Coordinator.)* is designed to give the student who desires employment as a nurse assistant or orderly training in the basic nursing skills. The course provides 142 hours of approved Illinois Department of Public Health course instruction in classroom work and clinical experience. Classroom work will consist of 92 hours, and clinical assignment will consist of 50 hours. Upon successful completion of both theory and clinical sections, the student receives a certificate of completion. To become fully certified and placed on the Nurse Aide Registry in Illinois, students must also take and pass the State's approved Competency Evaluation, for an additional fee.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Basic Certificates in General Studies except Personal Development
- Group Requirement - Not Applicable
- Area of Concentration - Basic Certificate in Development

## **Hlth. 142 - Homemaker/Home Health Aide**

**1-0-1**

is designed to provide skills needed to give personal care and to perform homemaker services in the home. Concepts and skills will be presented for various stages of the life cycle; the newborn infant, childhood and adolescence, young and middle adulthood, and late adulthood; and the ill and the disabled at any stage.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Basic Certificates in General Studies except Personal Development
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

## **Hlth. 143 - Alzheimer's Disease and Related Dementia Training**

**1-0-1**

is designed to prepare the student to care for the Alzheimer's Disease or related dementias clients. It will cover normal aging, Alzheimer's Disease and related dementias, communication techniques, activity programming, nutrition, family and caregiver role, community resources, and support resources for the family/caregiver.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Basic Certificates in General Studies except Personal Development
- Group Requirement - Not Applicable
- Area of Concentration - Basic Certificate in Development

## **Hlth. 145 - Health Unit Coordinator**

**6-1-6**

*(Prerequisite: high school diploma or GED certificate, pass the Health pretest in English and Math; concurrent enrollment in or completion of C.I.S. 110 with a grade of "C" or better, or computer/office competency experience as verified by employer(s) and approved by Allied Health Coordinator.)* trains students in the concepts and skills which will prepare them for employment in a hospital, long-term care facility, or physician's office. Part one of the course is theory presentation. It includes medical terminology, introduction to disease, introduction to pharmacology, study of body systems, communication skills, medical ethics, legal responsibilities, the patient's medical record, transcription of physician orders and medical orders, and the general operation of a health unit. Part two of the course is a practicum. Both parts, theory and practicum, must be successfully completed in order to pass the course.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Basic Certificates in General Studies except Personal Development
- Group Requirement - Not Applicable
- Area of Concentration - Basic Certificate in Development

## **Hlth. 150 - Pharmacology**

**4-0-4**

*(Prerequisite: completion of, with a grade of "C" or above, or co-enrollment in Math 106)* is designed to present an introduction to pharmacology concepts and drug classifications. Each drug classification is presented as it applies to anatomy, physiology, and the disease-state concepts. Descriptions of leading drugs and their administration and specific uses are included.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates, A.A.S., A.L.S
- Group Requirement - Not Applicable
- Area of Concentration - Pharmacy Technician

## **Hlth. 155 - The Pharmacy Technician**

**6-0-6**

*(Prerequisite: Hlth. 150 with a grade of "C" or above and Math 106 with a grade of "C" or above.)* is a review of health care and pharmacy, past and present. Course will include requirements for technician certification, drug regulations and controls, and pharmaceutical terminology. This course will contain training on filling a prescription, routes and formulations, parenterals, compounding, basic biopharmaceutics, factors affecting drug activity, references used, inventory management, financial issues, and various areas of pharmaceutical care including community pharmacy, institutional pharmacy, and other environments.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates, A.A.S., A.L.S
- Group Requirement - Not Applicable
- Area of Concentration - Pharmacy Technician

**Hlth. 156 – Work Experience Practicum**
**1-3-2**

(*Prerequisite: Hlth. 150 with a grade of “C” or above, completion of or co-enrollment in Hlth. 155 with a mid-term grade of “C” or above, and with faculty approval.*) provides students the opportunity to apply the knowledge and skills learned in Pharmacology and Pharmacy Technician courses to the work place. The students are assigned to complete a rotation of work experiences in several working environments available to a Pharmacy Technician. This course assists the students with transition from school to work.

Applicable toward graduation where program structure permits:

Certificate or Degree – All Certificates, A.A.S., A.L.S

Group Requirement – Not Applicable

Area of Concentration – Pharmacy Technician

**Hlth. 157 – Pharmacy Technician Certification Review**
**1-0-1**

(*Prerequisite: Hlth. 155 with a grade of “C” or above and Hlth. 156 with a grade of “C” or above.*) is designed to prepare the student who has completed the pharmacy technician course to take the national certification examination.

Applicable toward graduation where program structure permits:

Certificate or Degree – All Certificates, A.A.S., A.L.S

Group Requirement – Not Applicable

Area of Concentration – Pharmacy Technician

**Hlth. 160 - Emergency Medical Technician - Basic**
**5-3-6**

(*Prerequisite: 18 years of age, high school diploma or GED certificate, satisfactory scores on the Richland Reading Test, and Hlth. 110 or current BLS Health Care Provider CPR Certification.*) is based upon the goals and training experiences mandated by the U.S. Department of Transportation. It is the Department's approved 110-hour curriculum and 20 hours clinical at the Resource Hospital Emergency Room for training Emergency Medical Technicians (EMTs). The student trained in this course is EMT-Basic. Upon successful completion of the course, the student will be eligible to take the State test for an EMT-Basic license for an additional fee.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development and A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

**Hlth. 161 - Emergency Medical Technician - Intermediate**
**5-6-7**

(*Prerequisite: EMT-B license.*) is based on the goals and training experiences mandated by the Division of Emergency Medical Services and Highway Safety. This course includes roles and responsibilities, patient assessment, examination, and care, medications, venipuncture, and medical emergencies. Upon completion, the student will be eligible to take the State testing for an EMT-I license for an additional fee.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development and A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

**Hlth. 162 - Emergency Medical Technician - Defibrillation**
**2-0-2**

(*Prerequisite: EMT-I.*) is based on the goals and training experiences mandated by the Division of Emergency Medical Services and Highway Safety. This course includes roles and responsibilities, cardiovascular anatomy and physiology and assessment, electrocardiography, cardiovascular treatment skills, and endotracheal intubation.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development and A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## **HLth. 163 - Emergency Medical Technician - Paramedic 1**

**8-6-10**

(*Prerequisite: EMT-B license and valid Illinois driver's license.*) is based on the State standards mandated by the Department of Emergency Medical Services and Highway Safety. This course includes legal aspects, medical terminology, communications, documentation, pharmacology, body systems, EKGs, and ACLS.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development and A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## **HLth. 164 - Emergency Medical Technician – Paramedic 2**

**6-12-10**

(*Prerequisite: EMT-B license, successful completion of HLTH 163-EMT-Paramedic 1 and valid Illinois driver's license.*) continues the EMT-Paramedic training leading to eligibility to take State testing for EMT-Paramedic license for an additional fee. The course is based on the State standards mandated by the Department of Emergency Medical Services and Highway Safety. Topics include diabetes, thermoregulation, body systems, anaphylaxis, water and radiation emergencies, substance abuse, obstetrics, pediatrics, mental health, and mass casualty treatment.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development and A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## **HLth. 200 - Advanced First Aid Training**

**2-2-3**

(*Prerequisite: HLTH 100*) will train students in comprehensive first aid techniques and Basic Life Support. Topics include basic anatomy and physiology of body systems, victim assessment, emergency care for life-threatening and non life-threatening conditions, activation of the Emergency Medical Services (EMS) system, and general principles of lifting and moving a victim.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## **HLth. 220 – Nutrition and Diet Therapy**

**3-0-3**

is designed for students in health care professions and food service programs. It includes fundamentals of nutrition, maintenance of health through good nutrition, diet therapy, and food preparation.

Applicable toward graduation where program structure permits:

Certificate of Degree – All Certificates and All Degrees

Group Requirement – Not Applicable

Area of Concentration – Dietetic Assistant/Technician, Allied Health and Nursing

## **HLth. 250 - Rehabilitation Nursing Course**

**5-0-5**

(*Prerequisite: currently licensed LPN or RN*) is designed to enable the nurse to define the concept and philosophy of rehabilitation nursing, identify the role and responsibilities of the nurse in the rehabilitation process, identify aspects of the aging process, and utilize basic principles and practices of restorative nursing within the framework of the nursing process. This course is accepted by the Illinois Department of Public Health, Office of Health Care Regulation, as meeting the criteria for licensure standards of Skilled and Intermediate Nursing Care Facilities. Certificate of completion will be awarded to students upon successful completion.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

# Heating, Ventilation, Air Conditioning, & Refrigeration

## **H.V.A.C. 100 - Refrigerant Theory**

**2-0-2**

is an entry-level course designed to teach students the principles and laws of thermal dynamics, refrigerant types and properties, characteristics of heat transfer, and refrigerant in a working system. With a background in theory and transfer and refrigerant characteristics, the student will learn how to

calculate a proper working system successfully, diagnose any deviation in system performance, and then initiate the proper refrigerant repairs.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - H.V.A.C.

### **H.V.A.C. 101 - Refrigerant Recovery and Handling**

**1-0-1**

*(Prerequisite: H.V.A.C. 100 or concurrent enrollment in H.V.A.C. 100.)* is designed to teach students EPA rulings for the proper care, handling, and disposal of various types of refrigerant. Each student will take an exam for EPA certification at the end of the course and will receive certification within three weeks from the EPA-approved test center. This certification is issued upon completion of 75 % in Class A, Class B, Class C, and Universal technician. A student must successfully pass the Class A, Class B technician test for completion of the course. A Class C completion with the first two classes will qualify the student for a Universal Technician Certificate.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - H.V.A.C.

### **H.V.A.C. 102 - Refrigerant Diagnostics**

**1-2-2**

*(Prerequisite: H.V.A.C. 101 ["C" or better grade] or concurrent enrollment in H.V.A.C. 101.)* is an in-depth study of refrigerant system diagnostics. The student will practice system performance calculations on paper and computer simulators. Lab sessions will include hands-on training with air-conditioning units. These units will be used for diagnostics, system evacuation, and system charging.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - H.V.A.C.

### **H.V.A.C. 104 - Electrical Controls 1**

**2-2-3**

*(Prerequisite: Eltrn. 110 and Eltrn. 111.)* is a lecture- and lab-oriented program using a variety of instructional methods including lectures, demonstrations, and hands-on lab activities. The program begins with a review of basic electrical principles and troubleshooting using volt, ohm, and milli-amp meters. The student is introduced to many controls used throughout the industry and will demonstrate proper troubleshooting and repair techniques. Some of these controls are high and low voltage thermostats, high and low pressure controls, solenoids, electronic time delays, ambient compensators, motor protectors, relays, and solid state temperature sensors (thermostats). Basic motors will be presented including their electrical diagrams and incorporated into the schematics. As the students progress, they will learn how to draw the schematic representations of these components, demonstrate the proper operation of these controls by hands-on wiring, and diagnose system failure through problem-solving techniques.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - H.V.A.C.

### **H.V.A.C. 105 - Air-Conditioning and Refrigeration Diagnostic Simulation**

**1-2-2**

*(Prerequisite: H.V.A.C. 104 ["C" or better grade] or equivalent competencies.)* is a lecture- and lab-oriented program using computer simulations, lectures, demonstrations, and hands-on activities. The program begins with a review of basic computer operation and software instructions. The student is introduced to many simulations used to demonstrate equipment failures both electrical and mechanical, thus exposing the student to a wide variety of technical problems. This diversity will increase the student's ability to diagnose and demonstrate proper troubleshooting and repair techniques in the shortest possible time. The simulators present a visual representation of a working system chosen by the instructor. The student will then call upon the different diagnostic tools and equipment available including electrical diagrams. The student will select a possible repair and enter that into the computer. As students progress, they will learn in great detail how air conditioners and refrigeration systems work or, rather, how they do not work. They must demonstrate the proper operation and diagnostic skills through logical problem-solving techniques.



Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - H.V.A.C.

## **H.V.A.C. 200 - Tools and Piping for HVAC&R**

**1-4-3**

*(Prerequisite: successful completion of H.V.A.C. 102 ["C" or better grade].)* begins with tools and measuring techniques used in the HVAC&R and maintenance trades. Through lab assignments and classroom instruction the student will demonstrate skills in tool identification, proper use of tools, and measuring applications. The student will then be introduced to different types and uses of tubing and pipe, fittings, bends, and assembling techniques. This will include copper, aluminum, steel, brass, black and galvanized iron pipe, and PVC pipe. The student is exposed to soldering and welding and trained in torch safety and the many soldering techniques used in the trades. This will include soft soldering, silver brazing, and aluminum soldering and conclude with oxyacetylene cutting, welding, and brazing.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - H.V.A.C.

## **H.V.A.C. 210 - Residential Air Conditioning and Refrigeration Systems**

**2-2-3**

*(Prerequisite: successful completion of H.V.A.C. 105 ["C" or better grade].)* is a lecture- and lab-oriented program using lectures, demonstrations, and hands-on activities. The program begins with a review of basic refrigeration principles such as superheat, subcool, and TD. The student is introduced to various refrigeration units and their electrical controls through lab assignments and classroom instruction. As the student progresses, he or she will demonstrate skills in identifying and repairing refrigeration components unique to residential refrigeration, air conditioning, and light commercial refrigeration equipment. Many types of equipment are utilized for infield simulations. Residential and light commercial equipment utilized to demonstrate equipment failures within the electrical, mechanical, and refrigerant systems. This exposes the student to a wide variety of technical problems encountered on the job. This diversity increases the student's ability to diagnose accurately and demonstrate proper repair techniques on a wide range of equipment. Examples of equipment types can include domestic refrigerators, freezers, and window air conditioners, light commercial reach-in refrigerators and freezers, ice machines, beverage dispensers, and water coolers.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - H.V.A.C.

## **H.V.A.C. 215 - Advanced Air Conditioning and Refrigeration Diagnostic Simulation**

**1-2-2**

*(Prerequisite: successful completion of Eltrn. 109 and H.V.A.C. 210 ["C" or better grade] or concurrent enrollment in H.V.A.C. 210.)* is a lecture- and lab-oriented program using advanced computer simulations, lectures, demonstrations, and hands-on activities. The program begins with a review of basic computer operation and software instructions. The student is introduced to many simulations used to demonstrate equipment failures within the electrical, mechanical, and refrigerant systems, thus exposing the student to a wide variety of advanced technical problems. This diversity will increase the student's ability to diagnose and demonstrate proper troubleshooting and repair techniques in the shortest possible time. The simulators present a visual representation of a working system chosen by the instructor. The student will then call upon the different diagnostic tools and equipment available including electrical diagrams. The student will select a possible repair and enter that into the computer. As the student progresses, he or she will learn in great detail how commercial air conditioners and refrigeration and heat pump systems work or, rather, how they do NOT work. The student must demonstrate the proper operation and diagnostic skills through logical problem solving techniques.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - H.V.A.C.

**H.V.A.C. 220 - Heating Systems 1-Gas and Electric****2-2-3**

(*Prerequisite: successful completion of Eltrn. 109 ["C" or better grade].*) is a lecture- and lab-oriented program using lectures, demonstrations, and hands-on activities. The program begins with a review of basic electron theory and principles of gases. The student will be introduced to air filtration, distribution, balancing, humidification, residential heat loads and ductwork design. The student is then introduced to gas furnaces (standard and high efficiency) and electric heating units, including controls, applications, and unique installation designs. Through lab assignments and classroom instruction the students will demonstrate their skills in identifying, repairing, and ladder diagramming the components unique to gas and electric furnaces. Several types of equipment and simulators are utilized for infield simulations. Residential equipment is utilized to demonstrate equipment failures within the electrical, mechanical, and gas systems. The course concludes with light commercial load calculations and system design.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - H.V.A.C.

**H.V.A.C. 221 - Heating Systems 2-High Efficiency and Geothermal****2-2-3**

(*Prerequisite: successful completion of H.V.A.C. 220 ["C" or better grade]*) is a lecture- and lab-oriented program using lectures, demonstrations, and hands-on activities. The program begins with a review of basic electron theory and principle of gasses. The student will be introduced to gas furnaces (high efficiency) and electric heat pump units, including controls, applications, and unique installation designs. Through lab assignments and classroom instruction the student will demonstrate skills in identifying, repairing, and ladder diagramming the components unique to gas furnaces and geothermal heat pumps. Several types of equipment and simulators are utilized for infield simulations. Residential equipment is utilized to demonstrate equipment failures within the electrical, mechanical, and gas systems. The course concludes with a cost study comparing gas and electric heating and standard efficiency systems to high efficiency gas and electric heating systems.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - H.V.A.C.

**H.V.A.C. 290-Work Experience and Seminar (Variable Credit)****1-20-5**

(*Prerequisite: grade of "C" or better in Eltrn. 109, H.V.A.C. 220, and Bus. 119.*) exposes the student to a wide variety of work experiences and professional skills that only job site training can provide. This work must be related directly to the Heating, Ventilating, Air Conditioning, and Refrigeration trade as set forth in the National Skills Standards and MAVCC Standards used in the development of the HVAC&R program. One of the requirements of this course is a one-hour-per-week seminar to be arranged for maximum convenience of the student and employer. Credit is determined at enrollment based on the ratio of five hours per week in the employment setting for a regular-length semester for one semester hour of credit.

Applicable toward graduation where program structure permits:

Certificate or Degree—All Certificates, A.A.S., A.L.S.

Group Requirement—Not Applicable

Area of Concentration—H.V.A.C.

## History

**Hist. 101 - United States to 1877 (IAI: S2 900)****4-0-4**

(*Prerequisite: eligibility for Engl. 101.*) covers the development of the United States from the colonial era through the Reconstruction period after the Civil War. Particular attention is given to the founding of the Colonies, Puritan thought and culture, Anglo-French rivalry, the political and economic background of the War of Independence, the formation of the American government, the Federalists, the Jeffersonians, the settlement of the West, Jacksonian democracy, "Manifest Destiny," sectional issues, the Civil War, and Reconstruction.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - History, Social Science

## **Hist. 102 - United States since 1877 (IAI: S2 901)**

**4-0-4**

*(Prerequisite: eligibility for Engl. 101.)* surveys industrialization and urbanization, the Progressive Era, the background and American entry into World Wars I and II, the Depression, the New Deal, Cold War diplomacy, and domestic issues since World War II. The course will also examine the roles of women and minority peoples in our culture.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - History, Social Science

## **Hist. 105 - History of Illinois**

**3-0-3**

*(Prerequisite: eligibility for Engl. 101.)* is a survey of Illinois history from the earliest times to the present. Topics covered include Indian cultures, Illinois under French and British rule, early statehood, settlement patterns, Land of Lincoln, growth of industrial and urban power, Progressivism, World Wars I and II, the New Deal, and post-World War II problems and growth.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - History, Social Science

## **Hist. 111 - European Civilization through the Reformation (IAI: H2 901)**

**4-0-4**

*(Prerequisite: eligibility for Engl. 101.)* consists of a survey of European civilization from earliest times through Greece, the Roman Empire, the Middle Ages, the Renaissance, and the Reformation with particular emphasis on the development of Western thought, religion, art, culture, law, and government.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - History

## **Hist. 112 - European Civilization: The Modern Era (IAI: H2 902)**

**4-0-4**

*(Prerequisite: eligibility for Engl. 101.)* examines the impact of intellectual, artistic, technological, and political developments from the rise of absolutist monarchies in the 17th century to the present day. Particular emphasis is given to the Enlightenment, Liberalism, the growth of Nationalism, the Industrial Revolution, Imperialism, World Wars I and II, and the decline of Colonialism. Attention is also given to major artistic, musical, and literary trends.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - History

## **Hist. 120 - History of the Middle East**

**3-0-3**

*(Prerequisite: eligibility for Engl. 101.)* examines the history of the Middle East from the Ottoman era to the present day. The course includes the impact of imperialism and colonialism and will emphasize major religious, social, economic, political, and cultural elements of the contemporary Middle East.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - History

## **Hist. 131 - History of Latin America (IAI: S2 911N)**

**3-0-3**

*(Prerequisite: eligibility for Engl. 101.)* examines the major social, political, economic, and international events of 19th and 20th century Latin America.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - History

### Hist. 201 - The Origin and Development

of Imperial China and Japan (IAI: H2 903N)

4-0-4

(*Prerequisite: eligibility for Engl. 101.*) surveys early Chinese and Japanese history, religion, philosophy, art, and literature. China's "golden age" and Japanese feudalism are covered, and special emphasis is placed on how present-day East Asian attitudes and beliefs were originally formulated. Meets third world course requirements.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - History

### Hist. 202 - Modern East Asia (IAI: H2 903N)

4-0-4

(*Prerequisite: eligibility for Engl. 101.*) provides a survey of China's and Japan's entry into the modern world. The last 300 years are surveyed, but particular emphasis is placed on Japan's transition from feudalism to Asia's industrial leader and China's evolution from empire to Communism. Meets third world course requirements.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - History

### Hist. 250 - History of Land Warfare

3-0-3

(*Prerequisite: eligibility for Engl. 101.*) examines the nature of war from ancient Greece to the present day with emphasis on the modern era. While the study of military weapons and tactics is stressed, social and political influence in military affairs is also analyzed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - History

### Hist. 251 - American Military History

3-0-3

(*Prerequisite: eligibility for Engl. 101.*) examines the evolution of the American military and the wars in which it fought. The attitudes of the American people and government before and during each war are an integral part of the course.

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - History

### Hist. 270 - History of Non-Western Civilization: China (IAI: H2 903 N)

4-0-4

provides a survey of China's premodern and modern culture/society and its entry into the modern world. The last 250 years are surveyed, but particular emphasis is placed on China's cultural modernization evolution from empire through Communism. Meets third world course requirements.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - History

## Horticulture

### Hort. 101 - Turf Management

2-3-3

emphasizes general types of turf grasses, their growth habits, and the establishment of turf. Fertilizers, diseases, insects, weeds, and some turf equipment are included.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Horticulture

### Hort. 102 - Ornamental Plant Identification and Use

2-3-3

identifies commonly used ornamental trees, shrubs, and vines. In addition, their special growth and moisture requirements and their uses in a landscape plan are emphasized.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Horticulture

### **Hort. 103 - Landscape Layout and Design**

**2-3-3**

*(Prerequisite: Hort. 102.)* emphasizes cost, specifications, land and plant material calculations, and layout design of specific landscape areas. Skills of surveying are introduced as they are needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Horticulture

### **Hort. 104 - Turf Management 2**

**2-3-3**

*(Prerequisite: Hort. 101 or previous turf experience.)* covers certain topics related to the care and production of fine turf. Among the topics are irrigation systems, weed control, and the more advanced aspects and practices for the growth of fine turf grass.

Applicable toward graduation where program structure permits:

Certificate or Degree - Turf Grass Management

Group Requirement - Not Applicable

Area of Concentration - Horticulture

### **Hort. 105 - Turf Equipment Operation and Maintenance**

**2-3-3**

*(Prerequisite: Hort. 101 or previous turf experience.)* will cover topics related to the maintenance and operation of turf equipment.

Applicable toward graduation where program structure permits:

Certificate or Degree - Turf Grass Management

Group Requirement - Not Applicable

Area of Concentration - Horticulture

### **Hort. 110-Nursery Management**

**2-2-3**

examines the critical production issues and marketing principles of nursery management.

Applicable toward graduation where program structure permits:

Certificate or Degree—All Certificates, A.A.S., A.L.S.

Group Requirement—Not Applicable

Area of Concentration—Horticulture

### **Hort. 130 - Electrical Controls**

**2-2-3**

covers the basics of electrical wiring, electric motors, and the area of electrical controls such as systems for irrigation, timing, mist propagation, timed lighting, and electrical monitoring used in greenhouses, nurseries, and turf areas.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Horticulture

### **Hort. 140 - Plant Propagation**

**2-2-3**

*(Prerequisite: Hort. 190 or consent of instructor.)* is designed to familiarize the student with the most widely used techniques in the production of woody plant material. Topics of discussion include propagation, structures, media, disease control, and types of propagation, including budding, grafting, cutting, seeding, layering, and tissue culturing.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Horticulture

### **Hort. 150 - Greenhouse Management**

**2-2-3**

includes a study of greenhouse construction and operation. Special emphasis is given to temperature, light, soils, gases, nutrition, and the growth of bedding plants.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Horticulture

- Hort. 160 - Building and Grounds Maintenance** 2-2-3  
 covers the principles of heating, air conditioning, and lawn and landscape maintenance.  
 Applicable toward graduation where program structure permits:  
 Certificate or Degree - All Certificates, A.A.S., A.L.S.  
 Group Requirement - Not Applicable  
 Area of Concentration - Horticulture
- Hort. 170 - Plantscaping** 2-2-3  
 emphasizes installation, maintenance, and management of interior plantscapes. Topics include plant lighting, planting, watering, acclimatizing, cultural problems, containers, installation, and maintenance contracts.  
 Applicable toward graduation where program structure permits:  
 Certificate or Degree - All Certificates, A.A.S., A.L.S.  
 Group Requirement - Not Applicable  
 Area of Concentration - Horticulture
- Hort. 180 - Small Gas Engines** 1-2-2  
 develops the ability to maintain, adjust, and repair two- and four-stroke cycle single and multiple cylinder engines under 25 HP. Proper use of tools and testing equipment is included.  
 Applicable toward graduation where program structure permits:  
 Certificate or Degree - All Certificates, A.A.S., A.L.S.  
 Group Requirement - Not Applicable  
 Area of Concentration - Agricultural Products and Processing
- Hort. 190 - Plants and Society** 3-2-4  
 provides a general background in horticulture plant growth and development. Areas include the production, utilization, and marketing of fruits, vegetables, ornamentals, floriculture, landscaping, turf, and nursery.  
 Applicable toward graduation where program structure permits:  
 Certificate or Degree - All Certificates and All Degrees  
 Group Requirement - Natural Science (A.L.S. and A.A.S. only)  
 Area of Concentration - Horticulture
- Hort. 191 - Landscape Construction and Estimating** 2-2-3  
 emphasizes the techniques and materials used in landscape construction. Students will also learn to use standard practices in estimating the costs of landscape construction projects.  
 Applicable toward graduation where program structure permits:  
 Certificate or Degree - All Certificates, A.A.S., A.L.S.  
 Group Requirement - Not Applicable  
 Area of Concentration - Horticulture

## Humanities

- Human. 100 - Introduction to the Arts** (IAI: HF 900) 3-0-3  
 examines types of art such as music, film, theater, painting, sculpture, literature, and architecture as illustrating the values, capacities, and achievements of human beings. Various approaches to viewing, discussing, and writing about the arts are stressed.  
 Applicable toward graduation where program structure permits:  
 Certificate or Degree - All Certificates and All Degrees  
 Group Requirement - Humanities/Fine Arts  
 Area of Concentration - Not Applicable
- Human. 201 - Humanities Honors Seminar** (IAI: HF 900) 3-0-3  
*(Prerequisite: completion of or concurrent enrollment in English 101 and either admission to the Honors Opportunities Program or a 3.0 G.P.A. and permission of the instructor.)* has the student practice interpreting works of art, literature, and music. Various contexts for this interpretation will be used each time the course is offered, such as an emphasis of the historical period, the aesthetic analysis of the works, the cultural and philosophical background, or the relationships with the lives of the creators. This context will be specified each term the course is offered.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities/Fine Arts

Area of Concentration - Not Applicable

### Industrial Safety

#### Ind. S. 100 - Industrial Safety and Health

3-0-3

investigates the principle causes of accidents in business and industry. It also is designed to increase supervisory awareness of methods of accident prevention and industrial hygiene. Each student receives instruction in first aid and CPR.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Machine Tool Processes, Supervision of Personnel

### Journalism

#### Journ. 101 - News Writing

3-0-3

(*Prerequisite: eligibility for Engl. 101 and typing ability.*) introduces the students to basic techniques of news writing and news gathering with experience in the gathering, writing, and rewriting of news copy.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Journalism

#### Journ. 102 - News Reporting

3-0-3

(*Prerequisite: Journ. 101.*) continues study and practice in writing and gathering news with added emphasis on editing, information sources, interviewing, and page make-up. The goals of accuracy, comprehensiveness, and appropriate interpretation are applied to investigative and interpretive reporting of public affairs.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Not Applicable

Area of Concentration - Journalism

#### Journ. 110 - Introduction to Mass Media

3-0-3

(*Prerequisite: eligibility for Engl. 101.*) examines the mass media of our society: newspapers, magazines, radio, and television. The course treats the development of the media to their present forms, the process and theory of mass communications, and issues arising from the present state of mass media, such as "new journalism," "protected sources," and freedom of the press.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Journalism, Speech

### Law Enforcement

#### Law E. 110 - Introduction to Law Enforcement

3-0-3

(*Prerequisite: eligibility for Engl. 101 and permission of the Academic Director of Occupational and Technical Division.*) introduces the student to the philosophy and history of law enforcement and criminal justice. An overview of crime and police problems, organization and jurisdiction of local, state, and federal enforcement agencies, review of court systems, and procedures from incident to final disposition are included. Consideration also is given to professional career opportunities and necessary qualifications.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Law Enforcement

### **Law E. 113 - Fundamentals of Investigation and Investigative Reporting 3-0-3**

*(Prerequisite: eligibility for Engl. 101.)* includes the fundamentals of investigation, crime scene search and recording, collection and presentation of physical evidence, basic photography, scientific aids, sources of information, interviewing, follow-up, and case preparation. The course also emphasizes report writing.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Law Enforcement

### **Law E. 114 - Criminal Law 3-0-3**

*(Prerequisite: eligibility for Engl. 101.)* introduces law as it applies to crimes against persons, property, and the state. It includes the elements of crimes, criminal law procedures in Illinois, and federal agency jurisdiction.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Law Enforcement

### **Law E. 120 - Motor Vehicle Laws and Traffic Control 4-0-4**

*(Prerequisite: eligibility for Engl. 101.)* covers the laws relating to traffic and vehicles, traffic regulations and procedures, agencies involved in traffic control, techniques and methods of police patrol, fundamentals of crash investigation, and the responsibilities of the officer.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Law Enforcement

### **Law E. 200 - Youth, the Law, and Police Intervention 3-0-3**

*(Prerequisite: eligibility for Engl. 101 and completion of Socio. 110, Psych. 110, and Law E. 110.)* covers all aspects of police contact with today's juvenile. Emphasis is on the social/psychological courses of delinquency, incorrigible behavior, and child abuse/neglect, as well as police, court, and social agency intervention in these matters. A study of the pertinent laws and contemporary youth problems in the community is involved.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Law Enforcement

### **Law E. 210 - Law Enforcement and Community Relations 3-0-3**

*(Prerequisite: eligibility for Engl. 101.)* studies the whole function of the law enforcement officer and the ways in which the officer portrays an image to the entire community. The course considers the role and responsibility of the law enforcement agency in crime prevention, everyday relationships with the public, assistance to persons needing help, and public information. Ethics, courtesy, and impartiality as tools necessary in gaining public support and confidence are emphasized.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Law Enforcement

### **Law E. 211 - Law Enforcement Administration 4-0-4**

*(Prerequisite: eligibility for Engl. 101.)* emphasizes the basic principles of administration and management. It provides study of the types of law enforcement organizational structure as well as the responsibilities and interrelationships of administrative, line, and staff services. Budgeting, planning, position classification, disciplinary methods, and manpower distribution are also considered. The course also examines the major law enforcement commissions of this century to include their impact on professionalization of the service.



Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Law Enforcement

### **Law E. 290 – Work Experience Practicum and Seminar (Variable Credit) 1-25-6**

*(Prerequisite: eligibility for Engl. 101 and approval of the Academic Director of Occupational and Technical Division after presentation of a goals statement by the student.)* affords the student in a Law Enforcement program the opportunity to apply the principles learned in other courses to the work situation through employment in or observation of activities necessary for the operation of a law enforcement agency. Employment or observation activities are coordinated with the student's course work. One of the requirements of this course will be a one-hour-per-week seminar to be arranged for maximum convenience of the student. Credit is determined at enrollment based on the ratio of five or more hours per week in the employment setting for a regular-length semester for one semester hour of credit. The course may be repeated for maximum accumulation of six semester hours of credit. Students planning to enroll in this course must complete an application for enrollment and submit it to the Academic Director of Occupational and Technical Division 30 days or more prior to the first day of registration for the semester during which the student desires to participate in this course. Applications are available in the Occupational and Technical Division Office.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Law Enforcement

## Leadership

### **Leadership 150 - Leadership Development 3-0-3**

*(Prerequisite: eligibility for Engl. 101.)* is an extensive exploration of leadership skills, with an emphasis on materials from the humanities, especially literature, philosophy, and film. Typical subjects for discussion include leadership styles, delegation of authority, ethics and leadership, conflict resolution, and creativity in decision making. Core materials for the course come from the Phi Theta Kappa leadership development program, and the course is taught by certified instructors.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## Machining

### **Mach. 101 - Machine Tool Processes 1 1-4-3**

provides an introduction to machining metals and the principles of measurement. Also, the student receives instruction in measuring and layout. Introductory training begins on micrometer and vernier tools, dial indication instruments, and gauge blocks. The course includes tool grinder, metal lathe, band saws, drill press, twist drills, boring tools, screw threads, and taps and dies. Related topics such as bench work, the use of hand tools, elementary heat treatment of metals, and elementary tool grinding are a part of the course. Shop safety is covered in every operation.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Machine Tool Processes

### **Mach. 102 - Machine Tool Processes 2 1-4-3**

*(Prerequisite: Mach. 101 or equivalent competencies.)* provides additional experience in elementary machine shop processes. Milling machines are introduced with the operations of milling vertical and horizontal surfaces. The horizontal milling machine and dividing heads are also introduced. The students begin tool and cutter grinding using various types of mill cutters. Measurement and layout on milling machines are a part of the course along with the cutting of spur, bevel gears, and racks. Shop safety is covered in every operation.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Machine Tool Processes

### **Mach. 201 - Machine Tool Processes 3**

**1-4-3**

(*Prerequisite: Mach. 102 or equivalent competencies.*) provides additional experience in grinding and grinding machines. A study of various types of abrasives with their uses is included. Types of grinding covered include tool, drills and reamers, end mills, mill cutters, tool bits, thread chasers, surface, outside and inside, and precision. Attention is given to heat treatment of metals and case hardening. Shop safety is covered in every operation.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Machine Tool Processes

### **Mach. 202 - Machine Tool Processes 4**

**1-4-3**

(*Prerequisite: Mach. 201 or equivalent competencies.*) provides the opportunity for the student to be involved in introductory tool and die and/or special projects. In the tool and die study, the student will make a fixture, die, or tooling. The student will build or fabricate a major metal working project using all the equipment in the machine shop. Shop safety is covered in every operation.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Machine Tool Processes

## **Manufacturing**

### **Mfg. 100 - Print Reading for Industry**

**1-2-2**

provides experiences in reading industrial prints and some sketching of orthographic and pictorial drawings. Topics covered include the interpretation of detail and assembly drawings; auxiliary views; sections, dimensions, and tolerances; lists of materials; notes; drawing change systems; threads; callouts for machine processes; positional and form tolerances; gears; splines; NC documents; and sheet metal, welding, and control diagrams.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Maintenance, Machine Tool Processes

### **Mfg. 110 - Basic Metallurgy**

**3-0-3**

introduces the basics of metal structures with mechanical, physical, and chemical properties related to plain carbon steel. Emphasis is on terminology. Further study includes effects of heating and cooling on steel, the way metals bend or deform, and the principles of metal testing methods.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **Mfg. 120 - Manufacturing Processes**

**3-0-3**

is designed to give a basic understanding of the various processes used in manufacturing. It explores theoretical and practical application of the processes, including welding, machining, casting, forging, basic metallurgy, steel making, non-ferrous materials, and testing principles. Field trips are used to demonstrate the processes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## Materials Management

### **Matls. 110 - Fundamentals of Materials Management**

**3-0-3**

provides an introduction and overview of the field of materials management. Topics include objectives, benefits, relationships with other functions, organization, planning, customer order servicing, inventory management, production control, purchasing, receiving and stores, material handling, physical distribution, and computer applications.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **Matls. 120 - Purchasing and Procurement Systems**

**3-0-3**

studies the role of purchasing on the materials cycle, organization under centralized and decentralized philosophy, and legal aspects of the function in setting prices, terms and contracts, planning purchases, make-buy-or-lease analysis, environmental considerations, principles of effective competition, negotiation, finding qualified suppliers, measuring performance, and reducing costs. Value analysis, cost analysis, and business ethics are also studied.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **Matls. 130 - Principles of Physical Distribution**

**3-0-3**

*(Prerequisite: Matls. 110 or appropriate business experience.)* is concerned with the movement of goods from production to delivery to distribution channel intermediaries. Attention is focused upon distribution channels, traffic management, warehousing, inventories, organization, control, and communication. Heavy emphasis is given to distribution design and distribution system analysis.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **Matls. 170 - Traffic and Transportation**

**3-0-3**

*(Prerequisite: Matls. 110 or appropriate business experience.)* provides an overview of transportation systems and the impact on cost, service, and inventory that each system can develop. Brief exposure to the methods of calculating costs in various modes and routings and operational aspects of the transportation function are offered to enable the materials manager to better understand and evaluate available alternatives.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **Matls. 210 - Material Requirements Planning**

**3-0-3**

*(Prerequisite: Matls. 140 or C.I.M. 120 or appropriate business experience.)* demonstrates the importance to modern materials management of computer-based Material Requirements Planning (MRP) systems, which focus on the use of MRP systems to reduce inventories, set priorities, initiate orders, set purchasing requirements, and develop a master production schedule.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **Matls. 220 - Advanced Production Control**

**3-0-3**

*(Prerequisite: Matls. 160 or Prod. C. 130 or appropriate business experience.)* considers production forecasting, shop loading, capacity planning, shop floor control techniques, short-interval scheduling, and job shop versus continuous-flow systems. Further attention is devoted to material requirements planning.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **Matls. 230 - Advanced Purchasing**

**3-0-3**

(*Prerequisite: Matls. 120 or appropriate business experience.*) is a continuation of Matls. 120. Emphasis is given to the managerial aspects of purchasing, contract negotiations and administration, and speculative purchasing.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **Matls. 240 - Distribution Resource Planning**

**3-0-3**

(*Prerequisite: Matls. 110 or appropriate business experience.*) ties together physical distribution with manufacturing. It presents concepts on how distribution resource planning can help achieve improvements in customer service, reductions in inventory levels, and reductions in the cost of operating a physical distribution network. Topics covered include "Push Versus Pull" distribution approaches, DRP and master production scheduling, transportation planning, scheduling DRP in the retail/wholesale sector, and justifying and implementing a DRP system.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **Matls. 250 - Master Planning**

**3-0-3**

(*Prerequisite: Matls. 110 or appropriate business experience.*) brings the demand and supply sides of production into equilibrium. The relationships between the functions of forecasting, order service, demand planning and control, production planning, master production scheduling, final assembly scheduling, and shipping scheduling are presented.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## **Mathematics**

**All mathematics courses that are prerequisites for other mathematics courses must be completed with a "C" or better grade if they are to be used as prerequisites.**

### **Math. 087 - General Mathematics Skills**

**3-2-4**

is designed to teach basic operations with whole numbers, fractions, and decimals. The concepts of estimation, rounding off, percents, ratio and proportion, and measurement are discussed. Problem solving and simple average problems will be introduced.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **Math. 090 - Pre-Algebra**

**4-0-4**

(*Prerequisite: both of the following: (1) Math. 087 or satisfactory score on the mathematics placement exam, and (2) eligibility for Engl. 101 or concurrent enrollment in Engl. 090.*) is designed to teach the use of fractions, mixed numbers, and decimal numbers in any and all operations. It is also designed to teach procedures for solving simple word problems. The concepts of area, percent, ratio, and order of operations are introduced. The beginning concepts of algebra are practiced thoroughly. Some of the basic concepts of spatial geometry including pyramids, spheres, and cones are integrated in the course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## Math. 091 - Basic Algebra

4-0-4

*(Prerequisite: both of the following: (1) Math. 090 or satisfactory score on the mathematics placement exam, and (2) eligibility for Engl. 101 or concurrent enrollment in Engl. 090 and Engl. 091.)* is a concentrated study of the topics in Beginning Algebra. The topics include the real number system, first degree equations, signed numbers, integer exponents, elementary graphing, products and quotients of algebraic expressions, systems of linear equations in two variables, radicals and quadratic equations, scientific notation, ratio problems, percent, and variation. A thorough discussion is presented on applied (word) problems with strong emphasis on identifying word problems by type and learning the procedures for each type. Algebraic methods are used in geometry problems, concentrating on finding the areas and perimeters of two-dimensional geometric figures.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## Math. 094 - Pre-Algebra and Basic Algebra

5-0-5

*(Prerequisite: all of the following: (1) satisfactory score on the mathematics placement exam, (2) eligibility for Engl. 101 or concurrent enrollment in Engl. 090 and Engl. 091 and (3) permission of the instructor before registering.)* is a concentrated study of the topics in Math. 090 (Pre-Algebra) and Math. 091 (Basic Algebra). The topics include the real number system, first degree equations, signed numbers, integer exponents, elementary graphing, products and quotients of algebraic expressions, systems of linear equations in two variables, radicals and quadratic equations, scientific notation, ratio problems, percent, variation, and unit conversion. A thorough discussion is presented on applied (word) problems with strong emphasis on identifying word problems by type and learning the procedures for each type. Successful completion of this course prepares the student for Math. 098 and Math. 104. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## Math. 095 - Basic Geometry

4-0-4

*(Prerequisite: both of the following: (1) Math. 091 or satisfactory score on the mathematics placement exam, and (2) eligibility for Engl. 101 or concurrent enrollment in Engl. 090 and Engl. 091.)* introduces topics such as lines and plane and solid figures with concepts of congruence, similarity, symmetry, and logic.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## Math. 097 - Basic and Intermediate Algebra

5-0-5

*(Prerequisite: all of the following: (1) satisfactory score on the mathematics placement exam, and (2) eligibility for Engl. 101 or concurrent enrollment in Engl. 090 and 091 and (3) permission of the instructor before registering.)* includes an intense and thorough instruction in algebraic topics common to the Basic and Intermediate Algebra developmental courses taught at the college level that meet the standards set by the Illinois Mathematical Association of Community Colleges. The course is designed for the student who has completed two years of the study of algebra in high school and has successfully completed a geometry course. The pace of the course is doing the equivalent of Math. 091 and Math. 098 in one five-hour course. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## Math. 098 - Intermediate Algebra

4-0-4

*(Prerequisite: all of the following: (1) Math. 091 or 094 or satisfactory score on the mathematics placement exam, (2) Math. 095 or one year of high school geometry, and (3) eligibility for Engl. 101 or concurrent enrollment in Engl. 090 and 091.)* is designed for (1) students who have successfully completed two years of high school algebra or (2) students who need to review Intermediate Algebra

concepts. The topics include real numbers, polynomials, rational expressions, equations, inequalities, problem solving, complex numbers, systems of equations, graphing, functions, relations, exponents, and logarithms. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

#### **Math. 104 - Technical Mathematics**

**4-0-4**

*(Prerequisite: both of the following: (1) Math. 091 or 094 or satisfactory score on the mathematics placement exam and (2) eligibility for Engl. 101 or concurrent enrollment in Engl. 090 and Engl. 091.)*

includes the following topics: whole numbers, common fractions, decimal fractions, percents, measure, bar and line graphs, introductory algebra, signed numbers, basic algebraic operations, simple equations, complex equations, ratio and proportion, introduction to plane geometry, angular measure, angular geometric principles, triangles, similar figures, polygons, circles, areas of common polygons, areas of circles, sectors, segments, and ellipses, prisms and cylinders and their volumes, surface areas, and weights, pyramids and cones, spheres and composite objects and their volumes, surface areas, and weights, introduction to trigonometric functions, trigonometric functions with right triangles, practical applications with right triangles, law of sines, and law of cosines.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Mathematics

Area of Concentration - Industrial Maintenance, Machine Tool Processes

#### **Math. 106 - Mathematics for Health Careers**

**2-0-2**

*(Prerequisite: eligibility for Math. 091.)* includes a review of fractions, decimals, and percents; the household, apothecaries', and metric systems of measurement; ratio and proportion; rate of flow of intravenous fluids; drugs measured in units; stock solutions; application problems; pediatric dosage formulas; insulin dosages; and milliequivalents.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Mathematics

Area of Concentration - Nursing

#### **Math. 110 - Concepts of Mathematics (IAI: MI 904)**

**4-0-4**

*(Prerequisite: all of the following: (1) Math. 098 or 097 or satisfactory score on the mathematics placement exam, (2) Math. 095 or one year of high school geometry, and (3) eligibility for Engl. 101.)* provides an overall view of mathematics for students whose primary interests are not in engineering or the physical sciences. The course is designed to fulfill general education requirements. It is not designed as a prerequisite for any other college mathematics courses. The course focuses on mathematical reasoning and the solving of real-life problems, rather than on routine skills and appreciation. Three or four topics are studied in depth, with a least three chosen from the following list: geometry, counting techniques and probability, graph theory, logic/set theory, mathematical modeling, mathematics of finance, game theory, linear programming and statistics. A graphing calculator is required. Credit cannot be received in both Math. 110 and Math. 111.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Not Applicable

#### **Math. 111 - Mathematics for Elementary School Teaching 1**

**4-0-4**

*(Prerequisite: all of the following: (1) Math. 098 or 097 or satisfactory score on the mathematics placement exam, and (2) Math. 095 or one year of high school geometry, and (3) eligibility for Engl. 101.)* includes the language of sets and their application to elementary mathematics; mathematical reasoning and problem solving; history of numeration; work in bases other than ten; whole numbers and operations; integers and rational numbers; decimals, irrational numbers, and elementary number theory; calculators and applications; the language and nature of deductive and inductive logic in mathematics; and an introduction to statistics. Some of the issues underlying elementary school mathematics are analyzed. Credit cannot be received in both Math. 110 and Math. 111. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics (A.A.S. only)

Area of Concentration - Teacher Education - Elementary

## **Math. 112 - Mathematics for Elementary School Teaching 2 (IAI: M1 903) 3-0-3**

*(Prerequisite: Math. 111 or equivalent competencies and eligibility for Engl. 101.)* is a continuation of Math. 111. Topics include geometry and geometric figures, probability and statistics, graphing, measurement, and basic computer literacy. Students are introduced to some of the current literature, innovations, methods, and proposals for the modern elementary mathematics curriculum. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Teacher Education - Elementary

## **Math. 113 - Introduction to Applied Statistics (IAI: M1 902) 4-0-4**

*(Prerequisite: all of the following: (1) Math. 098 or 097 or satisfactory score on the mathematics placement exam, and (2) Math. 095 or one year of high school geometry, and (3) eligibility for Engl. 101.)* is a beginning level course for the student in elementary applied statistics. Topics include basic statistical principles, graphic presentation, descriptive measures of central tendency, dispersion and location, inferential statistics and hypothesis testing, analysis and inference of linear correlation, and coefficient and slope of regression line. Students will apply statistical concepts to real-world situations. Current technology will be utilized in examining statistical information. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Not Applicable

## **Math. 116 - College Algebra 4-0-4**

*(Prerequisite: all of the following: (1) Math. 098 or 097 or satisfactory score on the mathematics placement exam, (2) Math. 095 or one year of high school geometry, and (3) eligibility for Engl. 101.)* is a concentrated study of the topics traditionally found in College Algebra. The topics include a quick and intense review of the topics from Intermediate Algebra, including real numbers, algebraic expressions, polynomials, equations, problem solving, complex numbers, and graphing. Major topics include functions, exponential and logarithmic functions, matrices, polynomial equations, inequalities, introduction to analytic geometry, conic sections, systems of equations, mathematical induction, and the binomial theorem. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics (A.A.S. only)

Area of Concentration - Not Applicable

## **Math. 117 - Trigonometry 3-0-3**

*(Prerequisite: all of the following: (1) Math. 098 or 097 or satisfactory score on the mathematics placement exam, (2) Math. 095 or one year of high school geometry, and (3) eligibility for Engl. 101.)* helps students develop skills sufficiently to write and use the definition of trigonometric functions; sketch the graph of the trigonometric functions; prove identities; solve trigonometric equations; learn and then apply the law of the sines and cosines; learn how to write a complex number in trigonometric form and find all the roots of a complex number; learn polar coordinates system and the graphs of some simple equations in polar; learn about conic sections (rectangular & polar), vector (applications & operations), and the exponential and logarithmic functions with applications and modeling. A calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics (A.A.S. only)

Area of Concentration - Mathematics

**Math. 121 - Calculus and Analytic Geometry 1 (IAI: M1 900)**

5-0-5

(*Prerequisite: successful completion of both Math. 116 and Math. 117 or satisfactory score on the mathematics placement exam.*) begins with a review of algebra; then the idea of limits and continuity is introduced. With the knowledge of limits and continuity the student develops the concept of the derivative (including exponential, logarithmic, and inverse trigonometric functions) and its applications. At the end, the student studies the antiderivative of elementary functions.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Mathematics, Engineering

**Math. 122 - Calculus and Analytic Geometry 2 (IAI: M1 900)**

4-0-4

(*Prerequisite: Math. 121 or equivalent competencies.*) includes the different methods of integration. Students study L'Hôpital's Rule, sequences and series, infinite series, power series, Taylor series, conic sections, polar coordinates, and parametric equations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Mathematics, Engineering

**Math. 141 - FORTRAN for Science and Engineering**

2-2-3

(*Prerequisite: Math. 121 or equivalent competencies as approved by the Academic Director for Mathematics.*) teaches the student reading and writing proficiency in FORTRAN on microcomputers. Top down programming, documentation, subroutines and functions are the tools used to teach the usual three structures of good programming. The data types, integer, real, double precision, complex, character, arrays, and logical, are taught in conjunction with the data, parameter, if-then-else, do-while, do-until, and do- (counter) statements. Scientific problem solving is emphasized leading to numerical methods including data analysis, curve fitting, root solving, systems of linear equations, and numerical differentiation and integration.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics (A.A.S. only)

Area of Concentration - Mathematics, Engineering

**Math. 160 - Finite Mathematics (IAI: M1 906)**

4-0-4

(*Prerequisite: Math. 116 or equivalent competencies.*) is an introductory level course covering mathematical ideas needed by students of business management, social science, or biology. The topics include sets and counting, functions, introduction to probability and statistics, interest and annuities, matrix theory, linear systems, and linear programming. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Not Applicable

**Math. 170 - Introduction to Statistics (IAI: M1 902)**

4-0-4

(*Prerequisite: Math. 160.*) is a beginning level course for students in the business, social, or behavioral sciences or for anyone who can use a working knowledge of statistics. The course includes descriptive statistics, probability, probability distributions, hypotheses with testing on different parameters of a population, comparison of two populations on a single parameter, regression analysis, goodness of fit, contingency table, ANOVA, and sampling and simulation. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Not Applicable

**Math. 171 - Concepts of Statistics (IAI: M1 902)**

4-0-4

(*Prerequisite: Math. 116.*) presents descriptive statistics, probability, probability distributions, hypotheses with testing on different parameters of a population, comparison of two populations on a single parameter, regression analysis, goodness of fit, contingency table, ANOVA, and sampling and simulation. Students from various areas - business, education, engineering, and social science - can effectively benefit from this course. A graphing calculator is required.



Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Not Applicable

### **Math. 190 - Calculus for Business and Social Science (IAI: M1 900)**

**4-0-4**

*(Prerequisite: successful completion of Math. 116 or satisfactory score on the mathematics placement exam.)* is an introductory calculus course for the non-mathematics major. The course includes sequences, limits, differentiation and integration of polynomials, and exponential and logarithmic functions with applications to business and social science. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Not Applicable

### **Math 210 - Discrete Mathematics**

**4-0-4**

*(Prerequisite: Math 121 or concurrent enrollment.)* provides an overall view of mathematics for students whose primary interests are in computer science and mathematics. The course is designed to fulfill requirements for computer science and mathematics majors preparing to transfer to a four-year institution. This course focuses on mathematical reasoning and the solving of real-life problems rather than on routine skills. Mathematical modeling and projects are included as part of the course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Degrees

Group Requirement - Mathematics

Area of Concentration - Mathematics, Computer Science

### **Math. 221 - Calculus and Analytic Geometry 3 (IAI: M1 900)**

**4-0-4**

*(Prerequisite: Math. 122 or equivalent competencies.)* begins with the rectangular coordinate system in three-dimensional space, vectors, and operations with vectors. Lines, planes, quadric surfaces, spherical and cylindrical coordinates, vector-valued functions, curvature, Kepler's Laws of Planetary Motion, partial derivatives, relative extrema of functions of two or more variables, centroid, LaGrange Multipliers, and multiple integrals in different coordinate systems are introduced. At the end, students will learn integrals of functions over a curve or a surface, Green's theorem, the divergence theorem, and Stoke's theorem.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Mathematics, Engineering

### **Math. 230 - Differential Equations**

**4-0-4**

*(Prerequisite: Math. 122 or equivalent competencies.)* begins with some definitions and terminology and mathematical models used in a differential equations course. First-order and higher-order differential equations, along with the methods of solutions and their applications, are introduced. Modeling with higher-order, Laplace transform, and systems of linear first-order differential equations are covered. At the end, students learn series solutions of linear equations. Numerical methods are covered throughout the course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics (A.A.S. only)

Area of Concentration - Mathematics, Engineering

### **Math. 240-Introduction to Linear Algebra**

**3-0-3**

*(Prerequisite: successful completion of Math. 122.)* is an introductory course in vectors, matrices, vector spaces, and linear transformations. The concepts discussed in this course not only serve as an introduction to the more abstract courses a mathematics or engineering student meets at the junior-senior level but also have many useful applications outside of mathematics. The course begins with a review of algebra, followed by a study of vectors, vector spaces and subspaces, linear transformations, linear dependence and independence, basis and dimension, rank of a matrix, kernel and range, eigenvalues and eigenvectors, diagonalization, and applications of concepts covered in an introductory linear algebra course. If time permits, the student will learn additional topics such as least squares fitting to data, applications to differential equations, angle and orthogonality in inner product spaces, and quadratic surfaces.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics (A.A.S. only)

Area of Concentration - Mathematics

## Mechanical Systems

### Mec. S. 101 - Mechanical Power Transmission 1

3-2-4

*(Prerequisite: Math. 091 and eligibility for Engl. 101.)* provides experiences dealing with fundamentals of mechanical power transmission systems and related machine components used in processing and manufacturing industries. Topics covered include power belting, pulleys and drive arrangements, chain drives, shafting, dynamic shaft seals, and disc and shoe brakes. The student works with handbooks, manufacturers' catalogs, and trade literature in solving power transmission problems.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Maintenance

### Mec. S. 102 - Mechanical Power Transmission 2

3-0-3

*(Prerequisite: Mec. S. 101 and eligibility for Math. 091 or approval of instructor.)* provides additional experiences dealing with mechanical power transmission systems. Topics covered include selection of bearing types including sliding bearings, ball and roller bearings, lubricants, couplings, clutches, gear drives, speed reducers, and conveyor drive systems. The student works with handbooks, manufacturers' catalogs, and trade literature in solving power transmission problems.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Maintenance

### Mec. S. 110 - Fundamentals of Hydraulics

2-2-3

*(Prerequisite: Math 091 and eligibility for Engl. 101)* provides experiences dealing with fundamentals of hydraulics. Topics covered include principles of work, force, and energy as applied to fluid power systems. Also included are schematics, symbols, fluids, filters, strainers, reservoirs, accumulators, pumps, piping, tubing, hose, valves, activating devices, cylinders, and hydraulic motors. Planned maintenance and troubleshooting of fluid power systems are covered through the use of lecture-demonstrations and field trips to a variety of industrial settings that utilize fluid power systems. The student works with handbooks, manufacturers' catalogs, and trade literature in solving fluid power problems.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Maintenance

### Mec. S. 111 - Fundamentals of Pneumatics

2-2-3

provides experiences dealing with fundamentals of pneumatics. Topics covered include principles of work, force, and energy as applied to fluid power systems. Also included are schematics, symbols, filters, strainers, air line oilers, pumps, piping, tubing, hose, valves, activating devices, cylinders, air motors, air compressors, and air treatment. Planned maintenance and troubleshooting of fluid power systems are covered through the use of lecture-demonstration and field trips to a variety of industrial settings that utilize pneumatics systems. The student works with handbooks, manufacturers' catalogs, and trade literature in solving pneumatics power problems by using pneumatic trainers.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Industrial Maintenance

### Mec. S. 112 - Pneumatics and Hydraulics

2-2-3

*(Prerequisite: eligibility for Math. 091.)* is a hands-on course in the fundamentals of pneumatic and hydraulic systems. Topics covered include the principles of work, force, energy and flow, and their relationships in linear displacement systems. The student also learns schematics, symbols, and

notation used in pneumatic and hydraulic systems. Cylinders and accumulators and various common fluid power components are used in laboratory experiments. Planned maintenance and troubleshooting are discovered through the experiments.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Computer Integrated Manufacturing

### **Mec. S. 201-Industrial Machine Repair**

**1-2-2**

*(Prerequisite: Mec. S. 102 and eligibility for Math. 091 or approval of instructor.)* provides lectures and lab experiences dealing with machine tools, related machine components, and equipment used in industry. Topics covered include safety, basic leveling, alignment, machine geometry, ball screws, machine ways, gib adjustment, and conveyors. Students will become proficient in the operation, design, and maintenance of machine tools using industry standard components on trainers.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration – Mechanical Technology

### **Mec. S. 210 – Industrial Pump Systems**

**1-2-2**

*(Prerequisite: Mec. S. 102, Mec. S. 112, and eligibility for Math. 091 or approval of instructor.)* develops the basic competencies in non-hydraulic pumps. Pump types include non-hydraulic centrifugal, positive displacement, and turbine pumps. The students demonstrate the theory and operation of each of the pump types. Students troubleshoot, dismantle, and rebuild different types of pumps. Topics include pump installation and operation; pump safety; performance; elements of pump efficiency; pump selection and design consideration; and preventative maintenance.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration – Mechanical Technology

### **Mec. S. 220 – Industrial Lubrication Systems**

**1-2-2**

*(Prerequisite: Mec. S. 102 and eligibility for Math. 091 or approval of instructor.)* provides lectures and lab experiences in the areas of machine lubrication. Student will become proficient in types of lubricants, the different lubrication systems used on machines and understand the operation of different lubrication systems and there components. Topics covered include single and dual line lubrication systems; progressive central lubrication systems; the operation of air over oil, oil mist, and oil spray systems; the function of lubrication system monitoring, control, system selection, and system maintenance. Students will become proficient in the operation, design, and maintenance of lubrication systems using industry standard components on trainers.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration – Mechanical Technology

### **Mec. S. 230 – Industrial Rigging Systems**

**1-2-2**

*(Prerequisite: Mec. S. 102 and eligibility for Math. 091 or approval of instructor.)* provides lectures and lab experiences on the safe methods of using fiber ropes, wire ropes, synthetic slings, and chains. Knowledge of rigging and fabrication is demonstrated by structural lab experiences. Topics covered include structural steel designation, fabrication joints, layout basics, chain and accessories, strength of materials, sling angles, leveling, and alignment. The basics on crane and hoist maintenance are also covered using trainers.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration – Mechanical Technology

### **Mec. S. 240 – Industrial Piping Systems**

**1-2-2**

*(Prerequisite: Mec. S. 102 and eligibility for Math. 091 or approval of instructor.)* covers the basic information about piping systems. It introduces the student to the basic components of a piping system and the different types of materials. Students get experience laying out and fabricating piping systems.

Topics include identifying fittings, pipe threading, piping schematics, plastic pipe, tubing, hoses, and valve maintenance. Students will become proficient in the operation, design, and maintenance of piping systems using industry standard components on trainers.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration – Mechanical Technology

### **Mec. S. 250 – Advanced Hydraulics**

**2-2-3**

(*Prerequisite: Mec. S. 112 and eligibility for Math. 091 or approval of instructor.*) provides lectures and lab experiences in the areas of advanced industrial hydraulics. Students demonstrate knowledge of industrial hydraulic circuits and components using a complete operating hydraulic system. Topics covered include hydraulic circuit design, causes of component failure, and troubleshooting with hydraulic circuit drawings. Students become proficient in the operation, construction, and rebuild of pumps, valves, cylinders, accumulators, and pressure control valves.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration – Mechanical Technology

### **Mec. S. 290 – Mechanical Technology Internship**

**1-15-4**

(*Prerequisite: completion of or concurrent enrollment in*) of all degree-required technical courses and approval of the instructor. This course should be taken in the last semester before graduation.) provides the student with the opportunity to use the skills acquired from the mechanical technology program in an industrial workplace setting. The internship also allows the student to acquire additional knowledge from the work place. The internship work will be 15 hours per week of employment and must provide a source of learning. This internship requires the student to participate in the daily activities of a mechanical maintenance department. These activities will be varied, and the student will be exposed to several different types of meaningful experiences.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration – Mechanical Technology

## **Music**

### **Music 100 - Music Appreciation (IAI: F1 900)**

**3-0-3**

includes the various periods and styles of music with minimum attention to theory and harmony. The course requires listening to live and recorded performances. It is designed for students who do not intend to major in music.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Fine Arts

Area of Concentration - Music

### **Music 101 - Class Piano 1**

**2-0-2**

provides group instruction for those who have little or no previous experience playing the piano, including non-keyboard music majors and elementary education majors as well as others. Materials are used that correlate basic keyboard skills to musicianship. Activities include reading popular, folk, and serious music, transposing, harmonizing, improvising, writing, and playing by ear.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Music

### **Music 102 - Class Piano 2**

**2-0-2**

(*Prerequisite: Music 101 or consent of the instructor.*) is a continuation of Class Piano 1. Topics include chord inversions, seventh chords, pedaling, and various scales. Activities include reading popular, folk, and serious music, transposing, harmonizing, improvising, writing, and playing by ear. Materials correlate skills to musicianship.

## 204 Course Descriptions

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Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Music

### **Music 103 - Theory and Ear Training 1**

**3-2-4**

along with Music 104 provides instruction in the rudiments of music: scales, intervals, triads; rhythm and melody in singing, writing, playing, and dictation; diatonic harmony including analysis and partwriting; and sight singing and ear training correlated with the rhythmic, melodic, and harmonic activity.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Music

### **Music 104 - Theory and Ear Training 2**

**3-2-4**

(*Prerequisite: Music 103.*) is a continuation of Music 103.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Music

### **Music 110 - Orchestra**

**0-5-1**

is designed for students who have the proficiency and wish to participate in orchestra. It is open to all students with registration subject to an audition. Members must attend all rehearsals and concerts. The course may be repeated for credit a maximum of four times.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Music

### **Music 120 - Band**

**0-6-1**

is open to all students with registration subject to an audition. Marching is stressed during the football season. Members must attend all rehearsals and concerts. This course may be repeated for credit a maximum of four times.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Music

### **Music 130 - Chorus**

**0-2-1**

provides an opportunity to perform major choral works and public concerts. The course is open to all students with registration subject to an audition. Members must attend all rehearsals and concerts. The course may be repeated for credit a maximum of four times.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Music

### **Music 140 - Small Ensemble**

**0-2-1**

provides an opportunity for study and performance of musical works written for smaller instrumental and vocal ensembles. Students must be nominated by their band or orchestra instructor. Students enrolled in this course are required to present at least one public performance during the term. The course may be repeated for credit a maximum of four times.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Not Applicable

Area of Concentration - Music

### **Music 190 - Introduction to American Music (IAI: F1 904)**

**3-0-3**

studies the origins, growth, and significance of the music of the United States as a distinctive art form derived from the nation's pluralistic culture. The course includes some listening to recorded performances and involves such types of music as classical, religious, folk, jazz, and pop. It is designed for students who do not plan to major in music.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Fine Arts

Area of Concentration - Music

### Music 201 - Class Piano 3

2-0-2

*(Prerequisite: Music 102 or consent of the instructor.)* is a continuation of Class Piano 2. Topics include various scales, harmonizing using primary chords in minor keys, teaching technical exercises and studies, and solo repertoire. Activities include reading popular, folk, and serious music, transposing, harmonizing, improvising, writing, and playing by ear.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Music

### Music 202 - Class Piano 4

2-0-2

*(Prerequisite: Music 201 or consent of the instructor)* is a continuation of Class Piano 3. Topics include various scales and modes, harmonizing using substitute chords and secondary dominants, seventh chords qualities, technical exercises and studies, and solo repertoire. Activities include reading popular, folk, and serious music, transposing, harmonizing, improvising, writing, and playing by ear.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Music

## Nursing

### Nurs. 101 - Concepts Basic to Nursing Practice

2-0-2

*(Prerequisite: admission to Associate Degree Nursing Program, concurrent enrollment in Nurs. 102, completion of or concurrent enrollment in Biol. 201, Hlth. 220, and Psych. 110, or approval of the Nursing Coordinator.)* describes the roles of the Associate Degree Nursing graduate as provider of care, manager of care, and member of the profession. It introduces the program's conceptual framework for nursing practice: system theory, stress, adaptation, responses to illness, nursing process, legal/ethical issues, critical thinking, caring, teaching, and learning. It outlines the role of the nurse in promoting, maintaining, and restoring health and in assisting clients and families with adaptation to health problems. Issues related to the inherent worth, dignity, and choice of each individual regardless of race, ethnic group, age, or gender are also identified.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Nursing

### Nurs. 102 - Fundamentals of Nursing

3-9-6

*(Prerequisite: concurrent enrollment in Nurs. 101, completion of or concurrent enrollment in Biol. 201, Hlth. 220, and Psych. 110, or approval of the Nursing Coordinator.)* utilizes the nursing process and human needs as the framework for introducing basic nursing skills. Nursing skills are presented as the primary focus for meeting needs related to safety, principles of therapeutic communication, hygiene, comfort, mobility, fluid and electrolytes, ambulation, nutrition, elimination, medication administration, sepsis, and infection control. Sixteen hours of this course are devoted to physical assessment as a means of data gathering. The adult client as a consumer of health care and the hospital as one of several health care delivery systems are topics for discussion and observation. Clinical experiences allow students to provide direct care for adult clients in a hospital setting, using the nursing process.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Nursing

## **Nurs. 151 - Medical-Surgical I**

**2-6-4**

*(Prerequisite: Nurs. 101, Nurs. 102, Hlth. 220, Biol. 201, and Psych. 110, concurrent enrollment in Nurs. 152 and Nurs. 154, completion of or concurrent enrollment in Biol. 202, and Math. 106, or approval of the Nursing Coordinator.)* studies (a) the utilization of the nursing process and critical thinking to manage clients with alterations in the integumentary, urinary, and gastrointestinal systems; (b) the nursing management of clients experiencing surgery; and (c) the role of the nurse in the management of cell injury, inflammation, fluids, and electrolytes. Clinical nursing and physical assessment skills are emphasized. Clinical experiences provide opportunities to use the nursing process, communication, critical thinking, and decision making in caring for adults in hospital settings.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Nursing

## **Nurs. 152 - Psychiatric Mental Health Nursing**

**2-6-4**

*(Prerequisite: Nurs. 101, Nurs. 102, Hlth. 220, Biol. 201, and Psych. 110, concurrent enrollment in Nurs. 151, and Nurs. 154, completion of or concurrent enrollment in Biol. 202, and Math. 106, or approval of the Nursing Coordinator.)* applies the nursing process and critical thinking to the management of psychiatric and mental health problems in clients and families. Emphasis is placed on the interactive nature of clients with their environment and the use of various treatment modalities, communication, and relationship skills to manage clients with alterations in mental health. Clinical experiences provide opportunities to use the nursing process, therapeutic communication, and critical thinking. Students plan and administer care to individuals and small groups.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Nursing

## **Nurs. 154 - Pharmacological Principles for Nursing Practice**

**2-0-2**

*(Prerequisite: RN, LPN, or Nurs. 101, Nurs. 102, Hlth. 220, Biol. 201, and Psych. 110, concurrent enrollment in Nurs. 151, and Nurs. 152, completion of or concurrent enrollment in Biol. 202 and Math. 106, or approval of the Nursing Coordinator.)* presents an overview of the basic drug knowledge nurses need for safe and effective drug administration. The action, characteristics, and adverse effects of drugs classified by body systems are studied. The nursing process is applied to drug therapy.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Nursing

## **Nurs. 160 - Intravenous Therapy Techniques for LPN's**

**2-0.5-2**

*(Prerequisite: LPN license or approval of the Nursing Coordinator.)* introduces the LPN to the techniques, complications, and special problems of peripheral intravenous therapy. The course teaches the students to perform the following activities under the supervision of a registered nurse: perform a venipuncture, monitor and regulate intravenous fluid rates, observe client for local reactions, add non-medicated solutions to existing lines, change peripheral intravenous tubings and dressings, discontinue intravenous therapy, and monitor existing transfusions and blood components. This course includes laboratory and clinical experiences.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificate

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## **Nurs. 200 - Cardiovascular Assessment**

**1-0-1**

*(Prerequisite: RN, LPN, or EMT license, or approval of the Nursing Coordinator.)* presents a systematic method for gathering subjective and objective data related to the physical assessment of the cardiovascular system of adults and geriatric clients. The purposes of the course are to (a) review the anatomy and physiology of the cardiovascular system; (b) provide knowledge of normal findings and deviations from normal findings; (c) identify methods and techniques used to examine cardiovascular functioning; and (d) provide opportunities to practice assessment techniques in a laboratory setting.

Applicable toward graduation where program structure permits:

Certificate or Degree - A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Nursing

### **Nurs. 201 - Medical-Surgical Nursing II**

**3-6-5**

*(Prerequisite: Nurs. 151, Nurs. 152, and Nurs. 154, completion of or concurrent enrollment in Biol. 220 and Engl. 101, or approval of the Nursing Coordinator.)* applies the nursing process and critical thinking to the care of adult and geriatric clients with alterations in immune, respiratory, endocrine, cardiovascular, and hematologic systems. Assessment and nursing skills are emphasized. Situations are provided to challenge decision making and exercise sound judgments. Clinical experiences occur in a variety of health care settings.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Nursing

### **Nurs. 202 - Family Health Nursing**

**3-6-5**

*(Prerequisite: Nurs. 201, Nurs. 251, Biol. 220, and Engl. 101, concurrent enrollment in Nurs. 254, completion of or concurrent enrollment in Psych. 145, Socio. 110, and Humanities elective, or approval of the Nursing Coordinator.)* examines issues relevant to the promotion of sexual and reproductive health throughout the life span and the management of developmental needs and health problems that may occur from infancy through adolescence. The nursing process and critical thinking are applied to the management of clients and families from preconception through adolescence and to clients with diseases of breasts and the reproductive system. Individual and group teaching, assessment, and nursing skills are emphasized. Clinical experiences in clinics, hospitals, and selected community agencies are provided.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Nursing

### **Nurs. 203 - LPN Bridge Course**

**6-2-7**

*(Prerequisite: Illinois LPN license or license pending, Biol. 201, Biol. 202, Hlth. 220, Psych. 110, Psych. 145, and Math 106, or approval of the Nursing Coordinator.)* presents the philosophy of Associate Degree Nursing and provides the nursing knowledge, cognitive and clinical skills from Nursing 101, 102, 151, 202 that allow the transition of LPN's into the Associate Degree Nursing program. This course focuses on the nursing process, critical thinking, the teaching and learning process, physical assessment, fluid and electrolytes, and the management of alterations in the renal system, burns, and selected gastrointestinal dysfunctions. The nursing process and critical thinking are applied to the management of clients and families from preconception through adolescence and to clients with diseases of breasts and the reproductive system. Critical nursing skills related to these content areas are validated in both laboratory simulations and clinical experiences. Students must receive a "C" or better to pass this course. Upon successful completion of this course and paying the appropriate fee for credit by advanced placement, students will receive credit for Nursing 101, 102, 151, and 202.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Nursing

### **Nurs. 210 - Health Assessment in Nursing**

**3-0-3**

*(Prerequisite: RN or LPN license or Biol. 201, Biol. 202, and Nurs. 251, or approval of the Nursing Coordinator.)* presents a systematic method for collecting subjective data and for performing a physical assessment. The content is organized around the developmental stages, from infancy to old age, and the systems approach. The purposes of the course are to provide (a) knowledge about assessment data needed for each system and the skill necessary for assessment and (b) an opportunity to perform the skills necessary for a complete assessment. The focus of this course is on normal findings along with basic information about common and important abnormal findings.



Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Nursing

### **Nurs. 215 - Registered Nurse First Assist**

**3-1-4**

*(Prerequisite: RN with experience in the Operating Room.)* trains professional nurses to become skilled, efficient surgical assistants. In addition to intraoperative behaviors used by the operating room nurse, those unique to the first assistant include handling tissue, using instruments, suturing, and providing hemostasis. The intent of this course is to provide capable nurse assistants when physicians are not available.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Nursing

### **Nurs. 251 - Long-Term/Acute Care Nursing**

**2-6-4**

*(Prerequisite: Nurs. 151, Nurs. 152, Nurs. 154, and Nurs. 201, completion of or concurrent enrollment in Biol. 220 and Engl. 101, or approval of the Nursing Coordinator.)* focuses on the use of the nursing process and critical thinking to manage adult and geriatric clients with alterations in neurological, musculoskeletal, and oncological functioning in both acute and long-term health care delivery systems. Students gain clinical experience in oncology care, acute care, and geriatric care. Students develop insight about the effects of an aging population as it relates to health care delivery systems. Emergency room and critical care experiences are also included in the clinical rotation.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Nursing

### **Nurs. 254 - Transition from Education to Practice**

**2-9-5**

*(Prerequisite: Nurs. 201, Nurs. 251, Engl. 101, and Biol. 220, concurrent enrollment in Nurs. 202, completion of or concurrent enrollment in Socio. 110 and Humanities elective, or approval of the Nursing Coordinator.)* introduces nursing students to the work setting by involving them in as many situations common to everyday clinical practice as possible while providing support and guidance from a nurse preceptor and instructor. Students work one eight-hour day and/or evening shift per week, provide direct care to a group of clients, and manage care given by other health care workers. The course presents concepts and issues pertinent to the effective entry into nursing practice. Students are prepared to perform in their expected role, in regard to leadership, time management, and patient care management. The concepts of conflict management, accountability, quality assurance, employment, the health care delivery systems, diagnosis-related groups, and legal/ethical issues are also discussed. Opportunities and challenges related to lifelong learning and professional responsibilities are identified.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Nursing

## **Office Technology**

### **O.T. 100 - Keyboarding Speed and Accuracy**

**1-1-1.5**

*(Prerequisite: touch-keyboarding skills of 20 net words a minute.)* is designed to improve speed and accuracy on 1- to 5-minute timed writings using the touch-keying technique. Skill level range is 20 to 50 plus WAM. Students entering this class must have previously developed minimal keyboarding proficiency. There will be no keyboarding presentation. This course is suggested for Office Technology majors in conjunction with or prior to O.T. 111 - 212 or by those needing to fulfill degree or job-related keyboard speed and accuracy requirements. Although this course may be repeated, students may receive credit only once.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirements - Business (A.A.S. only)

Area of Concentration - Business Teacher Education

**O.T. 102 - Operating Systems/Windows-Office Applications** 1-0-1

*(Students should have some computer experience prior to enrollment.)* introduces students to using a graphical user interface operating system and finding help from documentation.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirements - Business (A.A.S. only)

Area of Concentration - Business Teacher Education

**O.T. 104 - Spreadsheet Basics-Office Applications** 1-1-1.5

*(Students should take O.T. 102 prior to enrollment.)* introduces students to basic spreadsheet applications using microcomputers. Course focuses on designing and creating spreadsheets, applying data to them, and making adjustments as requested. Students also learn commonalities and differences between contemporary spreadsheet software packages.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirements - Business (A.A.S. only)

Area of Concentration - Business Teacher Education

**O.T. 105 - Database Basics-Office Applications** 1-1-1.5

*(Students should take O.T. 102 prior to enrollment.)* introduces students to basic database features used in designing, creating, saving, editing, sorting, querying, and preparing and printing reports as well as finding help with database features.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirements - Business (A.A.S. only)

Area of Concentration - Business Teacher Education

**O.T. 107 - Word MOUS (Microsoft Office User Specialist) Proficient** 2-0-2

introduces students to word processing features covered on the MOUS Word Proficient certification test. These features cover processing and editing text, formatting characters and paragraphs, placing and aligning text, tab setting options, page numbering, creating headers and footers, working with document sections, using styles and templates, generating outlines, creating documents for Internet/Intranet, writing tools, creating columns and tables, managing files, using draw, and printing documents and envelopes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirements - Not Applicable

Area of Concentration - Not Applicable

**O.T. 110a - Introduction to Internet** 1-0-1

*(Students should take O.T. 101 prior to this course or have some computer experience.)* introduces the student to accessing the Internet, sending and receiving electronic mail, reading and posting to news groups, accessing Internet resources, and searching the Internet for information.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirements - Business (A.A.S. only)

Area of Concentration - Business Teacher Education

**O.T. 112 - Document Formatting/Word Processing** 2-2-3

*(Prerequisite: Bus 140 or OT 100 or touch-key minimum skills of 25 NWAM for three minutes)* helps students learn and develop efficient skills in producing business and personal documents using word processing concepts and applications. Students learn to create, edit, print, and maintain documents in a computerized word processing office environment.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Business Teacher Education

## O.T. 131 - Speedwriting

3-0-3

(*Prerequisite: Bus. 119 or eligibility for Engl. 101 or concurrent enrollment in Bus. 119.*) is based on longhand and phonetics and is designed to provide students with a quick, easy-to-learn method of writing that is easy to read. Recommended for students who desire to take legible, rapid notes and master SuperWrite skills in a reasonably short time.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Office Technology

## O.T. 132 - Shorthand/Speedwriting Transcription

2-2-3

(*Prerequisite: O.T. 131.*) is designed to increase speed and accuracy to a minimum of 80 wpm with 95% accuracy.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Teacher Education, Office Technology

## O.T. 141 - Medical Office Careers-Terminology

3-0-3

is designed to provide the student with a knowledge of the meaning of word parts, pronunciation, and correct spelling of medical terms. Special emphasis is placed on the medical terminology as it relates to the human body.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## O.T. 142 - Medical Office Career-Anatomy

3-0-3

(*Prerequisite: O.T. 141 or permission of the Academic Director of Occupational and Technical Division.*) is a lecture course dealing with an introduction to the principles of anatomy and physiology. In association with each body system, common pathological conditions are also covered. This course is recommended for persons interested in allied health professions such as medical coding, transcription, or other medical clerical positions. This is a non-lab course, and a science background is not required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## O.T. 150 - Records Management

3-0-3

(*Prerequisite: Bus. 140 or equivalent touch-typing competencies.*) introduces students to records and information management systems including issues in planning, creating, managing, and controlling both paper and electronic records. A hands-on introduction to basic database computer technology and terminology is provided, and career opportunities in the field of records management are discussed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. Only)

Area of Concentration - Business Teacher Education

## O.T. 160 - Office Accounting

3-0-3

emphasizes the use of accounting in keeping financial records with special emphasis on the income statement, balance sheet, and statement of owner's equity. The course allows students to become familiar with payroll calculations, banking procedures, and petty cash operations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

## O.T. 210 - Statistical Keyboard Entry

1-2-2

(*Prerequisite: minimum touch-typing speed of 35 NWAM.*) provides students with a functional knowledge of electronic calculator and entry-level skills in data entry on the microcomputer. It also emphasizes speed development and accuracy in entering data with realistic production jobs and keyboarding exercises. Major emphasis is on numeric entry.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Not Applicable

### **O.T. 211 - Advanced Word Processing**

2-2-3

(*Prerequisite: O.T. 112 or equivalent competencies.*) is designed to present advanced word processing applications on microcomputers. Some of these processes include mail merge, sorting, macros, outlining, column layout, tables, and styles.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Business Teacher Education

### **O.T. 212 - Word Processing/Desktop Publishing Applications**

2-2-3

(*Prerequisite: O.T. 211 or equivalent competencies.*) is a continued development of word processing applications on microcomputers. Some of these processes include basic typography, design, desktop publishing, graphics, and creating newsletters, brochures, and booklets.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Business Teacher Education

### **O.T. 213 - Print and Presentation Media**

2-2-3

(*Prerequisite: O.T. 211 or equivalent competencies.*) introduces students to the development and production of professional presentation materials including graphic design techniques, color, layout, and design principles. Students will create a variety of presentation materials such as overhead transparencies, 35mm slide presentations, computer-projected presentations, and multimedia presentations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. only)

Area of Concentration - Business Teacher Education

### **O.T. 230 - Legal Terminology and Documents**

1-3-3

(*Prerequisite: O.T. 112 and Bus. 119 or eligibility for Engl. 101.*) is a specialized course designed to acquaint students with legal terminology, definitions, and formatting of legal documents.

Applicable toward graduation where program structure permits:

Certificate or Degree - All certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **O.T. 242 - Medical Office Careers-Transcription 1**

1-3-3

(*Prerequisite: O.T. 112 and 141*) provides experience in transcribing a variety of medical reports from machine dictation. Speed and accuracy are emphasized. A review of terminology is provided.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **O.T. 243 - Medical Office Careers-Transcription 2**

1-3-3

(*Prerequisite: O.T. 242.*) emphasizes the development of speed and accuracy of machine transcription. The course involves transcription of reports given by physicians in general offices, clinics, and hospitals.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirements - Not Applicable

Area of Concentration - Not Applicable

### **O.T. 245 - Medical Office Careers-CPT Coding**

2-2-3

(*Prerequisite: O.T. 142 or permission of Academic Director of Occupational and Technical Division.*) is designed to provide students with a knowledge of preparing and encoding medical information about a patient and to provide such information on the appropriate reporting documents.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirements - Not Applicable

Area of Concentration - Not Applicable

### **O.T. 246 - Medical Office Careers-Coding—ICD-9**

**2-2-3**

(*Prerequisite: O.T. 142 or permission of Academic Director of Occupational and Technical Division.*) focuses on the ICD-9 System of medical coding and is designed to provide students knowledge and practical experience encoding patient medical records into appropriate reporting documents.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirements - Not Applicable

Area of Concentration - Not Applicable

### **O.T. 250 - Professional Office Development**

**3-0-3**

(*Prerequisite: O.T. 112 or equivalent competencies.*) is designed to place emphasis on new technology, the global economy, increased diversity of the workforce, and the changing skills demanded in the workforce. Crucial attributes include oral and written communication skills, teamwork skills, critical thinking skills, and adaptability skills. Demonstrating a positive, professional image while producing business documents with interruptions is a necessity.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Business (A.A.S. Only)

Area of Concentration - Business Teacher Education

### **O.T. 251 - Administrative Assistant - Work Simulation**

**2-2-3**

(*Prerequisite: completion of 22 credit hours of O.T. courses to include O.T. 250 and concurrent enrollment or completion of O.T. 212.*) is designed to provide students an opportunity to demonstrate competence in the Illinois State Skills Standards for the Administrative Support Cluster which are required for graduation with an A.A.S. Degree in Office Technology. The course is designed to challenge students with realistic office simulations and projects. Students work for a virtual organization requiring them to put into practice the administrative, communication, and technological skills required for success in the workforce. O.T. 251 is the capstone course in the A.A.S. Office Technology degree program and is designed to exercise students' technical skills, and their ability to work successfully in a team environment, to demonstrate learning and thinking skills, and to develop individual resourcefulness.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Business Teacher Education

## **Personal Development**

### **P. Dev. 100 - Human Potential Seminar**

**0-2-1**

is a structured, positive group process. Its goals are increasing awareness of the student's present value system, personal achievements, and strengths and relating this awareness to plans for the future. Activities are aimed toward enhancing regard for oneself and others.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **P. Dev. 101 - Orientation**

**1-0-1**

provides motivation, access to inner resources as well as college and community resources, and specific, practical study skills and coping strategies to help each student take control of his or her lifelong self-education and personal development, which can lead to personal and academic success.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

**P. Dev. 109 - How to Market Yourself**

**1-0-1**

is a self-esteem and introspective course that helps students to understand their own personal strengths and skills capabilities so they can better present themselves to prospective employers. (Students may not receive credit for C. Dev. 112 and P. Dev. 109, 110, and/or 111.)

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

**P. Dev. 110 - Career Exploration**

**0-2-.5**

provides the individual with an opportunity to explore his or her interests, values, abilities, and other significant factors as they relate to vocational choice and the world of work. Various tests, career materials, guest speakers, and group discussion sessions are used to assist the individual in making educational and career plans. (Students may not receive credit for C. Dev. 112 and P. Dev. 109, 110, and/or 111.)

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

**P. Dev. 111 - Job Preparation**

**1-0-1**

is designed to teach effective job search techniques to students. Students prepare a resumé and cover letter, prepare for an interview, practice interviewing skill, and organize a job search. The course includes a review of current job search literature. (Students may not receive credit for C. Dev. 112 and P. Dev. 109, 110, and/or 111.)

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## Personnel Relations

**P. Rel. 100 - Human Relations**

**3-0-3**

*(Prerequisite: successful completion of Bus. 119 or eligibility for Engl. 101.)* explores the fundamentals of human relations in all fields of everyday life. Study includes interpersonal relationships in both the work and home environment. The course is designed to improve the student's understanding of individual behavior and group dynamics. Topics covered include communication skills, assertiveness, setting goals, interviewing, cooperation, and handling conflict. Class activities are used to illustrate various human relations skills.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Not Applicable

**P. Rel. 110 - Supervisory Techniques and Personnel Development**

**3-0-3**

is designed for practicing or potential first-line supervisors and/or managers who hold or expect to hold up to middle-level management positions. The course consists of a survey of basic management concepts in proper combination to assist the individual to diagnose situations encountered by supervisors in their day-to-day activities, to analyze problems, and to work toward solutions. The course emphasizes human relations, motivation, conference leading, leadership training, and the basic managerial functions.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Not Applicable

**P. Rel. 120 - Labor Management Relations**

**3-0-3**

is designed to aid union members and persons currently employed or who desire employment in management positions to obtain a deeper understanding of union-management relations. It includes the history and development of the labor movement, labor laws, union structure, collective bargaining, arbitration, and administration of the collective bargaining agreement.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Not Applicable

### **P. Rel. 200 - Personnel Administration**

**3-0-3**

studies the blending of the needs of the individual with the needs of the organization. Study is made of personnel decisions, the impact of training on future performance, performance evaluation and human resource accounting, and motivating performance in an organizational setting. Current issues in personnel, such as women, minorities, and the disadvantaged, are also investigated.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Not Applicable

## Philosophy

### **Phil. 100 - Critical Thinking (IAI: H4 906)**

**3-0-3**

*(Prerequisite: eligibility for Engl. 101.)* develops the student's ability to identify and correct faulty reasoning, to distinguish between scientific and pseudoscientific reasoning, and to reason according to elementary valid argument patterns. Throughout the course, students examine and evaluate examples of good and bad reasoning and construct several extended arguments of their own on a variety of topics.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - Philosophy

### **Phil. 110 - Introduction to Philosophy (IAI: H4 900)**

**3-0-3**

*(Prerequisite: eligibility for Engl. 101.)* surveys the major methods and systems of philosophy through discussion of questions such as what is really real, what is truth, does God exist, why is there evil in the world, and how should moral issues be resolved. Students are encouraged to formulate their own answers to such questions through reading, discussion, and logical argument.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - Philosophy

### **Phil. 120 - Introduction to Ethics (IAI: H4 904)**

**3-0-3**

*(Prerequisite: eligibility for Engl. 101.)* surveys major systems for distinguishing right and wrong conduct such as divine command theory, utilitarianism, and natural law theory. Attention is also given to issues such as the free will/determinism debate, ethical relativism, and selected contemporary moral issues such as abortion, euthanasia, and capital punishment. Students are encouraged to formulate their own responses to ethical issues through reading, discussion, and logical argument.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - Philosophy

### **Phil. 200 - Symbolic Logic**

**3-0-3**

*(Prerequisite: eligibility for Engl. 101.)* surveys the basic elements of deductive reasoning on which the logic of fields such as data processing, electronics, algebra, and geometry are based. Topics include translation from English to symbolic notation, rules of deduction, techniques for proving validity and invalidity of arguments, and basic quantification. The course is useful as preparation for academic and technical fields using deductive logic and as a powerful tool for sound reasoning in any area. It assumes no mathematical or technical background.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Philosophy

**Phil. 210 - Introduction to World Religions (IAI: H5 904N) 3-0-3**

*(Prerequisite: eligibility for Engl. 101.)* surveys the major religions of the world in order to promote an understanding of the variety of religious beliefs. Major religions studied include Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, and Islam. The course may also include other religious traditions, if time permits.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - Philosophy

**Phil. 215 - Asian Philosophy (IAI: H4 903N) 3-0-3**

*(Prerequisite: eligibility for Engl. 101.)* surveys the basic philosophical aspects of Hinduism, Buddhism, Confucianism, and Taoism as a means of expanding the student's understanding of Eastern culture. Emphasis is on concepts of knowledge, reality, and ethics. Meets third world course requirements.

Applicable toward graduation where program permits:

Certificate or Degree - All Certificates and Degrees

Group Requirement - Humanities

Area of Concentration - Philosophy

**Phil. 220 - Current Issues in Ethics 3-0-3**

*(Prerequisite: eligibility for Engl. 101.)* examines selected topics from the fields of professional and business ethics, bio-medical ethics, environmental ethics, ethics of public policy, and other fields of current interest to moral philosophers. Emphasis is on providing students with experience in thinking about moral issues currently encountered in professional and private life.

Applicable toward graduation where program permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Philosophy

## Physical Education

**Note: Students may repeat P.Ed. 100 and/or 110, 114, 120, or 214 up to three times for credit. A maximum of four credit hours in P.Ed. may be counted toward graduation. After four credit hours P.Ed. classes may be taken on an audit basis or through the Lifelong Learning Non-Credit option.**

**P.Ed. 100 - Aerobics 0-2-1**

is a low impact and/or step aerobics activity class designed to improve health and fitness, to increase energy levels, and to minimize stress. The class is coeducational and will meet the needs of all adults and levels of aerobic fitness from the beginner to the more advanced.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

**P.Ed. 110 - Personal Fitness 0-2-1**

is a class designed to emphasize the student's body development based on his or her abilities and fitness goals. The course uses stationary bicycles, treadmills, and stairclimbers along with universal weight machines and free weights.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

**P.Ed. 111 - Basketball 0-2-1**

is an activity course designed to provide instruction and practice of the basic skills used in playing the game of basketball. Special emphasis is placed on rules interpretation, skill development, and strategies.



Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## **P.Ed. 112 - Volleyball**

**0-2-1**

is an activity course designed to provide instruction and practice of the basic skills used in playing the game of volleyball. Instruction includes terminology and rules interpretation, skill development of the set, serve, block, and the spike as well as the playing of the game.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## **P.Ed. 113 - Badminton**

**0-2-1**

is an activity course designed to provide instruction in the basic skills of playing badminton. Special emphasis is placed on singles and doubles play, rules interpretation, terminology, and game strategy.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## **P.Ed. 114 - Golf - Beginners**

**0-2-1**

is an activity course designed to provide instruction in the basic skills used in the playing of golf. Special emphasis is placed on rules interpretation, terminology, and practice using the various clubs. Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## **P.Ed. 115 - Tennis**

**0-2-1**

is an activity course designed to provide instruction in the basic skills used in the playing of tennis. Singles and doubles play, rules interpretation, terminology, and various tennis strokes will be emphasized.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## **P.Ed. 116 - Flag Football**

**0-2-1**

is an activity course designed to provide instruction in the playing of flag football. Emphasis is placed on rules interpretation, team play, and game strategy.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## **P.Ed. 117 - Soccer**

**0-2-1**

is an activity course designed to provide instruction and techniques in the playing of soccer. Team play, rules interpretation, and game strategy is emphasized.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## **P.Ed. 118 - Racquetball**

**0-2-1**

is a course designed to provide instruction and to play the game of racquetball. Emphasis is placed on strategy, singles, and doubles play, rules, and special strokes.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

**P.Ed. 120 - Personal Defense**

**0-2-1**

is a course designed to provide students with basic self-defense skills, either in the form of generic self-defense training, or in the form of one of the various martial arts schools such as jujutsu, judo, aikido, or karate. In addition to physical self-defense skills, students will develop basic skills in awareness, self-control, avoidance of physical confrontations, and defusing imminent physical confrontations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Physical Education

**P. Ed. 121-Bowling**

**0-2-1**

is a basic skills class to introduce students to bowling as a lifetime activity. Repeatability – 3 times.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

**P. Ed. 122-Softball**

**0-2-1**

is designed for students who wish to compete in softball at the intercollegiate athletic level. Repeatability – 3 times.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

**P. Ed. 140-Beginning Ballet**

**0-2-1**

is designed to help students to understand the ballet technique used in barre exercises, center floor work, and dance combinations and is concerned with correct body alignment of students and their basic understanding of ballet terminology. Course may be repeated two times for a total of two accrued credits.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

**P. Ed. 145-Beginning Jazz Dance**

**0-2-1**

is designed to help students to understand jazz technique used in warm-up exercises at the barre and in the center, center floor work, combinations, and dance routines and to help their basic understanding of jazz terminology. Course may be repeated one time for a total of two accrued credits.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

**P. Ed. 160-Beginning Swimming**

**0-2-1**

is designed to aid the non-swimmer in acquiring such fundamental skills as floating, treading water, bobbing, elementary crawl strokes, and the elementary backstroke.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

**P. Ed. 161-Intermediate Swimming**

**0-2-1**

(Prerequisite: P.Ed. 160 or equivalent swimming skills as evaluated by the instructor.) is designed for the novice swimmer. Emphasis is placed on improving the crawl stroke, the sidestroke, and the breaststroke. Each student's endurance should improve considerably by the completion of this intermediate swimming course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## P. Ed. 162 - Advanced Swimming

0-2-1

(Prerequisite: P. Ed. 161 or equivalent swimming skills as evaluated by the instructor.) allows the student to improve his/her ability to use all basic swimming strokes. Emphasis is on safety, endurance, timing, and water games. Water safety involving boats is included.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## P. Ed. 163-Lifeguard Training

0-2-1

(Prerequisite: Ed. 162 or equivalent swimming skills as evaluated by the instructor.) offers the American Red Cross principles and techniques of lifesaving. Instruction is given in water safety, accident prevention, defense mechanisms, and the ability to assist and rescue others. Upon successful completion of the course, the student will be eligible for certification as a lifeguard by the American Red Cross.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## P.Ed. 214 - Golf - Intermediate

0-2-1

is designed to continue to develop the fundamental skills necessary to swing a golf club and to apply those skills strategically to improve play on the golf course.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

## P.Ed. 215 - Wilderness Camping

0-4-2

provides, beginning with preparatory handouts and readings intended to familiarize the student with the skills, risks, and regulations associated with wilderness camping, a general overview of trip planning, equipment and clothing selection and packing, along with food selection and packaging. Field work will provide for hands-on learning experiences in primitive camping skills, food preparation, wilderness safety and survival, map reading, and backpacking.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

# Physical Science

## Phy. S. 105 - Physics and Astronomy (IAI: P9 900L)

3-2-4

(Prerequisite: eligibility for Engl. 101 and completion of Math. 091 ["C" or better grade].) is a laboratory course designed for non-science or education majors. The students are introduced to the fundamental topics of astronomy, including an introduction to the night sky, the prominent constellations, planets, stars, and galaxies, cosmology, the Big Bang, and the ultimate fate of the universe. In addition, students are introduced to the scientific method and its development from early Aristotelian physics, through Galileo and Newtonian physics, up to the modern physics of Einstein and the 20th Century. Real-world applications and experiments with planetarium computer programs are used to illustrate the concepts and material of interest to the course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - Not Applicable

## Phy. S. 220 - Physical Science

3-2-4

(Prerequisite: admission to Honors Opportunities Program, eligibility for Math. 121, and two years of high school science, including one year of physics or chemistry or equivalent.) is an honors seminar and laboratory providing qualified students an opportunity to examine a variety of topics normally

presented in separate courses. The course emphasizes the interdisciplinary nature of science and mathematics. The unifying theme is atomic theory, an abstract, mathematical model of the structure of matter that has profound implications for the conduct of science.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - Not Applicable

## Physics

### Phys. 100 - Physics and Society (IAI: P1 901) 4-0-4

(*Prerequisite: eligibility for Engl. 101 and completion of Math. 091 ["C" or better grade].*) is an elementary course that emphasizes principles and applications of mechanics, heat, sound, and electricity. The course is presented with an emphasis on observations with descriptions being used to illustrate basic problem-solving principles and laws, with students learning to solve problems applying these principles and laws. Both the subject material and the illustrations used in the course are drawn from common experiences.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/ Physical Science

Area of Concentration - General Science

### Phys. 101 - Introduction to Physics 1 (IAI: P1 900L) 3-2-4

(*Prerequisite: successful completion of Math. 098 ["C" or better grade] or equivalent competencies and eligibility for Engl. 101.*) is the first physics laboratory course introducing students to contents and methods useful for careers in engineering, bio-medicine, physics, or mathematics. It is an algebra-based study of the physical world, covering topics such as mechanics, matter, work, energy, rotational dynamics, and sound. Student experiments in the laboratory are used to illustrate the concepts studied in the lecture and practiced in the problems. This course is also a useful introduction for students who have not had physics in high school but are planning on taking the engineering physics sequence starting with Phys. 151.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - General Science

### Phys. 102 - Introduction to Physics 2 3-2-4

(*Prerequisite: successful completion of Phys. 101 ["C" or better grade] or equivalent competencies and eligibility for Engl. 101.*) is the second laboratory course introducing students to contents and methods useful for careers in bio-medicine, physics, or mathematics. It is an algebra-based study of the physical world, covering topics such as electricity and magnetism, optics, wave interactions, and atomic and nuclear physics. Student experiments in the laboratory are used to illustrate the concepts studied in the lecture and practiced in the problems.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - General Science

### Phys. 111-Nuclear Weapons and Society (IAI: P1 901L) 4-0-4

(*Prerequisite: successful completion ["C" or better] of Math. 091 and eligibility for Engl. 101.*) is an elementary physics course designed for non-science-oriented students who are interested in how science has affected the course of human events and the development of our society, especially in the latter half of the 20th century. Specifically, the course explores the development of atomic and nuclear weapons and their impact on society. Students learn of the development of modern physics from the early models of the atom through the discovery of nuclear fission, Einstein's theories of relativity, the first controlled nuclear chain reactions, the first atomic bomb, boosted atomic bombs, and thermo-nuclear fusion devices. In addition, students cover the development of peaceful uses of nuclear technology, such as nuclear fission energy, the race for nuclear fusion power, nuclear medicine, and

industrial uses of nuclear technology. Finally, the students also study the aftermath of the Cold War: the clean up of nuclear weapon sites and the control of nuclear arms. While studying all of these topics, the students learn of the interactions of physics and society.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - General Science

### **Phys. 115 - Technical Physics**

**3-2-4**

(*Prerequisite: Math. 091 or equivalent competencies.*) is a laboratory course with physics applications for technology students. Subjects include mechanics, machines, matter, sound, and heat.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Natural Science

Area of Concentration - Industrial Maintenance, Machine Tool Processes

### **Phys. 120 - Basic Statics and Strength of Materials**

**3-0-3**

(*Prerequisite: Phys. 115 or equivalent competencies.*) introduces students to the study of forces on elastic members. Basic theory of the stress-strain relationship, basic flexure, shear and deflection, and column and beam loading is emphasized. Students work basic applied mechanics problems in designing basic footings, bearing walls, connections, columns, and beams.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Natural Science

Area of Concentration - Not Applicable

### **Phys. 151 - Mechanics and Wave Motions (1A1: P2 900L)**

**3-2-4**

(*Prerequisite: Math. 121 or equivalent, Math. 122 or equivalent or concurrent enrollment, and one year of high school physics or Phys. 101.*) is a laboratory course designed for students who plan to major in the field of engineering, physics, or mathematics. It is a calculus-based study of the physical world, introducing students to such topics as vectors, motion, force, work, energy, momentum, torque, and simple harmonic motion.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - General Science, Physics

### **Phys. 152 - Electricity and Magnetism**

**3-2-4**

(*Prerequisite: Phys. 151 or equivalent competencies and Math. 122 or concurrent enrollment.*) is the second semester of the laboratory courses designed for students who plan to major in the field of engineering, physics, or mathematics. It is a calculus-based study of the physical world, introducing students to such topics as electric charges, electric potential, capacitance and dielectrics, current and resistance, direct current circuits, magnetic fields, magnetic forces, inductance, magnetic properties of matter, electromotive forces, alternating currents, and electromagnetic waves.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - General Science, Physics

### **Phys. 153 - Thermodynamics and Modern Physics**

**3-2-4**

(*Prerequisite: Phys. 152 or equivalent competencies and Math. 122 or concurrent enrollment.*) is the third semester of the laboratory courses designed for students who plan to major in the field of engineering, physics, or mathematics. It is a calculus-based study of the physical world, introducing students to such topics as optics, the nature and properties of light, reflection, refraction, lenses and optical instruments; temperature, transfer of heat, thermal properties of matter, and the laws of thermodynamics; atoms, electrons and protons, the structure of the atom and the nucleus, radioactive decay and an introduction to nuclear physics.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural Science (A.A.S. only)

Area of Concentration - General Science, Physics

## Political Science

### Pol. S. 100 - People and Politics (IAI: S5 903) 3-0-3

provides a basic introduction to what politics is all about. It looks at why we think and feel as we do about politics and politicians and better informs the student about his/her own and other governmental systems. It also introduces the student to specific political concepts such as the ideologies of democracy, socialism, and communism. Leading political personalities of our time are discussed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Not Applicable

### Pol. S. 110 - American National Government (IAI: S5 900) 3-0-3

(*Prerequisite: eligibility for Engl. 101.*) uses a contemporary approach to American political behavior by viewing the forces that shaped our constitution, modern attitudes of liberalism and conservatism, the role played by political parties and the independent voter, Congress and the impact of special interest groups on that body, the modern presidency, and the important role the media plays in modern politics. Current topics of political interest are discussed throughout this course. This course is required for state teacher certification.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Political Science, Social Science

### Pol. S. 120 - Politics in States and Communities (IAI: S5 902) 3-0-3

(*Prerequisite: eligibility for Engl. 101.*) is a brief introduction into the history of state and local governments with emphasis on modern decision-making at the state and local level. Special consideration is given to current problems of modern urban America, including the topics of taxes, attempts to cut waste, pollution, and crime, and how government can effectively serve the needs of citizens without excessive cost. In addition, this course better acquaints the student with his/her own local political environment through guest lectures, possible field trips to local and state seats of power, and other related experiences in the field.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Political Science, Social Science

### Pol. S. 230 - Issues in International Relations (IAI: S5 904N) 3-0-3

(*Prerequisite: eligibility for Engl. 101.*) is an introduction to the politics of the international arena of world power relationships. Emphasis is on current issues such as the development of nations into world powers, global economic factors, warfare and arms control as devices in international politics, and the concept of policy by crisis. This course depends greatly on contemporary international events for case study material and class discussions.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Political Science, Social Science

### Pol. S. 290 - Internship in Political Science/Government Up to 3 credit hrs.

(*Prerequisite: eligibility for Engl. 101 and instructor approval.*) involves participation in a work/learning experience in an area of political science under the joint supervision of the College and the government internship sponsor. Internship objectives are individually identified for each student involved, and a paper of substantial quality is required in which the student discusses the internship experience. For 1 hour of credit, 5 hours of internship per week are required. This course may not be repeated for credit.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Political Science, Social Science

## Production Control

### Prod. C. 130 - Inspection and Quality Control

3-0-3

deals with precision measurement and statistical quality control. Precision measurement is based on the knowledge of how measuring instruments can and should be used, including their advantages and limitations. Students are introduced to a variety of modern measuring tools. A portion of the course is devoted to the basics of statistical methods used in quality control. Applications and exercises are presented in the use of control charts; selection, use, and protection of sampling plans; and the types of information revealed by an analysis of data. Included in the course are field trips to local plants with up-to-date precision measuring laboratories.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Production Control

## Psychology

### Psych. 100 - Practical Psychology

3-0-3

is designed for students to develop a basic understanding of human behavior and the factors that influence human behavior and psychological development. Practical applications of psychological theories and research will be used to understand and explain psychological issues that most individuals experience. Topics include childhood, adulthood, aging, sexuality, schooling, career choices, stress, and health. Students who have earned credit for Psych. 110 may not register for this course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Not Applicable

### Psych. 110 - Introduction to Psychology (IAI: S6 900)

3-0-3

(*Prerequisite: eligibility for Engl. 101.*) examines major psychological approaches to the study of human behavior and mental processes. It includes topics on the biological bases of behavior, learning, motivation, personality, stress, mental illness, memory, and perception.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Psychology, Social Science

### Psych. 130 - Psychology of Gender

3-0-3

(*Prerequisite: Psych. 100 or 110 or equivalent introductory Psychology course.*) is designed to increase students' knowledge and appreciation of the biological, psychological, and social origins and implications of gender differences as well as the similarities between the genders.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Psychology, Social Science

### Psych. 145 - Human Growth and Development (IAI: S6 902)

3-0-3

(*Prerequisite: Psych. 110*) covers the interaction and development of human physical, intellectual, and psychosocial behavior from conception through old age. Similarities and differences in physical, social, emotional, and cognitive development at various stages of the life cycle are studied.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Psychology, Social Science

### Psych. 150 - Child Psychology (IAI: S6 904)

3-0-3

(*Prerequisite: Psych. 110.*) examines the behavioral development of the individual from conception through early adolescence. Consideration is given to the effects of psychological, social, and biological factors on that development.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Psychology, Social Science, Teacher Education - Elementary/  
Secondary

### **Psych. 155 – Adolescent Development**

**3-0-3**

(*Prerequisite: Psych. 110.*) examines the biological, cognitive, and psychosocial development during the adolescent years. Research methods, research findings, and psychological theory will be used to study adolescent development. Topics to be covered include family relationships, friendships, relationships, education and school experiences, career exploration, college, adjustment, identity, intimacy and sexuality, health issues, mental health problems, stress and coping, and moral development.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Psychology, Social Science, Teacher Education - Secondary

### **Psych. 200 – Educational Psychology**

**3-0-3**

(*Prerequisite: Psych. 110.*) examines the application of psychological principles to education. Special emphasis is placed on understanding growth and development, the learning process, motivation, intelligence, evaluation, measurement, creativity, and the impact of culture on learning styles. The course requires formal classroom field experience to be arranged with the instructor. A student may not receive credit for both Ed. 200 and Psych. 200.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Psychology, Social Science, Teacher Education - Elementary/  
Secondary

### **Psych. 210 – Social Psychology (IAI: S8 900)**

**3-0-3**

(*Prerequisite: Psych. 110.*) studies the ways in which individuals are influenced by others. Topics include research methods, attitude development, person perception, interpersonal attraction, aggression, and group behavior.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Psychology, Social Science

### **Psych. 220 – Psychology of Death and Dying**

**3-0-3**

(*Prerequisite: Psych. 100 or Psych. 110.*) examines the psychological aspects of death and the dying process by focusing on the existential problem of dying and on the interaction between the dying person and the significant figures during the last phase of one's own death and the deaths of others, including an evaluation of some of the methods of dealing with the dying patient. It investigates the psychological dynamics involved in those who are left behind (the bereaved) by the dying person.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Psychology, Social Science

### **Psych. 230 – Psychology of Aging (IAI: S6 905)**

**3-0-3**

(*Prerequisite: Psych. 100 or 110.*) is a study of the psychological aspects of aging. This course offers theoretical framework relating to the aging process, as well as scientific information regarding the patterns of behavior and attitude formation relating to the aging process. It examines the psychological needs and sociological adjustment mechanisms of the aged. Included in the course is a review of psychological disorders of adults and the aged.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Psychology, Social Science



### **Psych. 250 - Human Sexuality**

**3-0-3**

(*Prerequisite: Psych. 110.*) examines the physiological, psychological, and social dimensions of human sexuality. Topics to be covered include genetic and environmental influences on sexual development, effects of motivation and emotion on sexual behavior, sex-role identification, variations of sexual behavior, sexual abuse, and AIDS and other sexually transmitted diseases.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Psychology, Social Science

### **Psych. 260 – Theories of Personality**

**3-0-3**

(*Prerequisite: Psych. 110.*) examines the classical theories of personality as outlined by major theorists of psychology. In addition to covering the basic concepts, the course also examines the origins, development, assumptions, and implications of each theory.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Psychology, Social Science

### **Psych. 280 - Abnormal Psychology**

**3-0-3**

(*Prerequisite: Psych. 110.*) provides a description of abnormal behavior and an introduction to a variety of therapeutic approaches. Selected topics include a review of all major mental illnesses, including symptoms, proposed causes, statistics, and therapeutic treatments and interventions.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Psychology, Social Science

## **Robotics**

### **Robot. 101 - Introduction to Robotics**

**2-2-3**

(*Prerequisite: C.I.M. 100 or equivalent competencies as determined by the Academic Director of Occupational and Technical Division.*) provides an overview of the current robotics industry beginning with a brief history and an introduction to the basic terms used in the field. The course classifies robots by geometry, power source, application, path control, and intelligence and includes operation of different types of end effectors, robot controllers, and system sensors. Also covered in the class are the operation, installation, and maintenance of low technology robot systems, including operation and programming of programmable logic controllers as they apply to robotic control systems. Operation and programming of high-technology servo-robotics, including servo-hydraulic and electric robot systems, are major topics of the course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Electronic Systems Technology, Computer Integrated Manufacturing

## **Social Science**

### **Soc. S. 199 - Topics/Issues in the Social Sciences**

**1-0-1**

provides the students an opportunity to participate in comprehensive discussion of a topic dealing with contemporary issue(s) in the social science (psychology, sociology, economics, history, political science, and public affairs.) The course requires no prior depth of knowledge, but it is expected that the student has a particular interest in the seminar topic.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Not Applicable

## Sociology

### Socio. 100 - People, Society, and Culture

3-0-3

is designed to provide an opportunity for students to develop a basic understanding of how culture, society, and groups in which they live and participate affect their lives. The course also can serve as a foundation for those who wish to familiarize themselves with fundamental concepts about behavior of people in groups prior to beginning a formal study of sociology. Students who have earned credit for Socio. 110 should not register for this course except upon special approval of the Academic Director of Arts and Sciences and may receive credit toward graduation for only one of these two courses.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Not Applicable

### Socio. 105 - Domestic Violence and Intervention Techniques

2-0-2

is an overview of historical and societal attitudes toward domestic violence issues. Emphasis is on cycles of violence, abusive family patterns, crisis intervention, advocacy skills, and applicable state laws.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Social Science, Sociology

### Socio. 110 - Introduction to Sociology (1Al: S7 900)

3-0-3

(*Prerequisite: eligibility for Engl. 101.*) provides a basic introduction to the discipline of sociology. The course explores the basic perspectives and methods of sociological inquiry, the relationships between man, his society, and his culture, and the concept of social organizations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Social Science, Sociology

### Socio. 125 - Parenting

3-0-3

(*Prerequisite: one college-level course in sociology or psychology.*) is the study of contemporary issues and trends in parenting. Topics include the nature of parenting; parent-child relationships through various developmental stages; parental guidance of child's personal, social, and educational growth; the influence of different family structures on children; and trends in social attitudes toward children and families.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Social Science, Sociology/Psychology

### Socio. 130 - Criminology

3-0-3

(*Prerequisite: eligibility for Engl. 101.*) is an introduction to criminology and includes basic concepts, coverage of the major criminological theories, and a brief look at the criminal justice system and the forms of crime. Special attention is given to white-collar crime.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Social Science, Sociology

### Socio. 135 - The Study of Substance Abuse

3-0-3

(*Prerequisite: eligibility for Eng. 101.*) is the social-psychological study of the characteristics of substance abuse and the ramifications for society.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Social Science, Sociology/Psychology

### **Socio. 141 - Introduction to Social Work**

**1-10-3**

provides the student with an opportunity to become familiar with contemporary social work practice. This course includes observing the community services available, studying the methods used in the helping relationship, and applying the problem-solving approach to individual, family, and community problems.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Social Science, Sociology

### **Socio. 142 - Social Service Field Experiences**

**1-10-3**

(*Prerequisite: completion of Socio. 141 and permission of the Academic Director for Sociology or the class instructor.*) provides the student with an undergraduate practicum in social work. The student will work a minimum of 8-10 hours per week in an assigned social agency. One lecture hour includes evaluation of resources, referral and follow-up activity, awareness of unmet needs, and development of new resources when and where needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Social Science, Sociology

### **Socio. 150 - Social Problems (IAI: S7 901)**

**3-0-3**

(*Prerequisite: Socio. 110.*) provides exploratory studies of contemporary social problems using the concepts and techniques of sociological inquiry. Possible topics include alienation, population, drugs, work and leisure, poverty, aging, war, the environment, the sexual revolution, extremism and dissent, and technological progress.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Social Science, Sociology

### **Socio. 160 - Community Problems and Resources**

**3-0-3**

(*Prerequisite: Socio. 100, 110, or 141.*) is an examination of selected community problems such as child abuse, aging, poverty, physical and mental health care, and substance abuse and of the local community resources that exist for the purpose of alleviating these problems.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Social Science, Sociology

### **Socio. 200 - Marriage and the Family (IAI: S7 902)**

**3-0-3**

(*Prerequisite: Socio. 110 or Psych. 110.*) examines patterns of dating, courtship, and marriage with consideration given to the relationship between parents, children, and other members of the family unit.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Social Science, Sociology

### **Socio. 210 - Sociology of Deviant Behavior (Pending ICCB approval)**

**3-0-3**

(*Prerequisite: Socio. 100.*) explores causes and forms of deviant behavior. Topics covered include juvenile delinquency, substance abuse and related problems, violent crime, white-collar crime, victimless crime, and mental illness. Major sociological research and theory are reviewed and applied to explain deviant behavior.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Sociology

## Spanish

### Span. 101 - Beginning Spanish 1

4-0-4

integrates the acquisition of basic Spanish by the communicative approach employing cultural materials. Together with Span. 102, it is designed for students with no previous study of Spanish and also is the appropriate first college course for students who have accumulated fewer than five quality points for high school Spanish and/or those whose prior study of Spanish was completed more than five years ago regardless of earned quality points. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Foreign Language

### Span. 102 - Beginning Spanish 2

4-0-4

(*Prerequisite: Span. 101 or five to 11 quality points for high school Spanish completed within the past five years.*) is a continuation of Span. 101. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Foreign Language

### Span. 198 - Selected Topics in Spanish: ICISP Summer Study Abroad

4-0-4

(*Prerequisite: six quarters or four semesters of college or four years of high school Spanish or consent of instructor and acceptance into the ICISP Summer Study Abroad Program.*) is specifically designed to address topics which necessitate a broader scope, a greater depth, and fuller assimilation of the course methods and materials. The student may take this course three times for credit as long as a different topic is selected. The topic is specified in the subtitle of the course listed in the class schedule.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Foreign Language

### Span. 201 - Intermediate Spanish 1

4-0-4

(*Prerequisite: Span. 102 or 12 to 14 quality points for high school Spanish completed within the past five years.*) includes a wider range of reading selections than previous courses. Grammatical structure is reviewed, expanded, and incorporated in a communicative approach. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Foreign Language

### Span. 202 - Intermediate Spanish 2 (IAI: H1 900)

4-0-4

(*Prerequisite: Span. 201 or 15 or more quality points for high school Spanish completed within the past five years.*) is a school continuation of Span. 201, with increased attention to composition and conversation. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - Foreign Language

## Speech

### **Spch. 101 - Principles of Speech (IAI: C2 900) 2-2-3**

(*Prerequisite: eligibility for Engl. 101.*) instructs students in the fundamentals of the public speaking situation and provides students with an opportunity to build poise and confidence through practice. Units of study include listening, communication theory, and informative and persuasive speaking. Laboratory time is provided to allow additional opportunities for student presentations and discussions.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Communications

Area of Concentration - Not Applicable

### **Spch. 110 - Discussion and Group Conference 2-2-3**

examines the nature and effects of interpersonal communication in small groups. Major areas of study include effective leadership and participation in groups, problem-solving and decision-making discussion, conference planning, and parliamentary procedure. Students plan, lead, participate in, and evaluate discussions.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Communications (A.A.S. only)

Area of Concentration - Speech and Drama

### **Spch. 120 - Business and Professional Speaking 2-2-3**

develops and polishes the student's communication skills for business and professional use. Self-inventories are combined with interviewing, group dynamics, listening, negotiating, and conflict resolution as well as practice in specific public speaking situations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Communications (A.A.S. only)

Area of Concentration - Speech and Drama

### **Spch. 140 - Forensic Activities 0-2-1**

(*Prerequisite: Spch. 101 or consent of instructor.*) provides opportunities for students to perform in actual communications situations in the community and/or interscholastic speech competition. This course may be taken a maximum of four times for credit.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Communications (A.A.S. only)

Area of Concentration - Speech and Drama

### **Spch. 210 - Oral Interpretation of Literature 2-2-3**

(*Prerequisite: Spch. 101.*) emphasizes oral communication as a means of understanding, appreciating, and experiencing literature. Students learn theory and performance techniques through in-class presentations of a variety of literary forms. In addition to individual performances, each student will help plan and participate in a readers' theatre production.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Communications (A.A.S. only)

Area of Concentration - Speech and Drama

### **Spch. 230 - Readers' Theatre (Group Interpretation) 2-2-3**

(*Prerequisite: Spch. 210 or consent of instructor.*) involves the compilation from the three basic genres of literature (prose, poetry, and drama) of a script on a common theme. Each selection is analyzed for character, plot, theme, and dramatic movement. The students will then develop oral interpretation skills in an effort to present this performance in one of several audience settings, i.e., college, community, and/or competition.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Communications (A.A.S. only)

Area of Concentration - Speech and Drama

## Surgical Technology

### Surg.T. 100 – Surgical Technology Orientation

2-0-2

*(Prerequisite: admission to Surgical Technology Certificate and/or A.A.S. program, completion of or concurrent enrollment in Biol. 220, Engl. 101, Hlth. 140, and Psych. 110, or approval of the Surgical Technology Coordinator.)* introduces and provides an orientation for students to the history of surgical technology, the surgical team members, hospital management, and the physical aspects of the operating room. Basic patient care concepts, and issues concerning ethical, moral, and legal responsibilities are addressed. This introductory course includes classroom instruction and field trips to affiliate hospital facilities.

Applicable toward graduation where program structure permits:

Certificate or Degree – Certificate

Group Requirement – Not Applicable

Area of Concentration – Surgical Technology

### Surg.T. 101 - Surgical Technology I

[4-6-6]

*(Prerequisite: Surg.T. 100 or approval of the Surgical Technology Coordinator or concurrent enrollment in or completion of Biol. 201 with a “C” or better.)* presents the basic patient care concepts, asepsis, and the surgical environment. Students are introduced to the fundamentals of surgical procedural techniques. A basic survey of pharmacology and its application in surgery are discussed. This course includes classroom and laboratory instruction with observational clinical experiences in the operating room.

Applicable toward graduation where program structure permits:

Certificate or Degree - Certificate

Group Requirement - Not Applicable

Area of Concentration - Surgical Technology

### Surg.T. 102 - Surgical Technology II

4-9-7

*(Prerequisite: Surg.T. 101 or approval of the Surgical Technology Coordinator.)* presents the basic patient care and safety concepts, asepsis and the surgical environment, and surgical procedures. The surgical procedures include general surgery, gastrointestinal, and obstetrics-gynecology. Students are introduced to laser use, endoscopic technique, and drainage systems and tubes. With supervision, students participate in the perioperative care of surgical clients, using the concepts and skills presented in this course.

Applicable toward graduation where program structure permits:

Certificate or Degree - Certificate

Group Requirement - Not Applicable

Area of Concentration - Surgical Technology

### Surg.T. 201 – Surgical Technology III

[8-15-13]

*(Prerequisite: Surg.T. 102 or approval of the Surgical Technology Coordinator; concurrent enrollment in or completion of Biol. 202 with a “C” or better.)* studies the objectives, the role of the surgical technologist, and sequence of the following surgical procedures: genitourinary, ophthalmic, ear, nose, throat, plastic, orthopedic, neurological, thoracic, vascular, and cardiovascular. With supervision, students participate in the perioperative care of surgical clients, using the concepts and skills presented in this course.

Applicable toward graduation where program structure permits:

Certificate or Degree - Certificate

Group Requirement - Not Applicable

Area of Concentration - Surgical Technology

### Surg.T. 202 - Work Experience Practicum

[2-21-9]

*(Prerequisite: Surg.T. 201 or approval of the Surgical Technology Coordinator.)* affords students the opportunity of applying the knowledge and skills learned in other courses to the realities of the work world. This course introduces students to the world of work and assists them with the transition from school to work. Students' assignments at the surgical facility provide full-shift experiences in the routines and practices of the surgical facilities. Students are introduced to skills for getting and keeping a job. Students also prepare for the certification process.

Applicable toward graduation where program structure permits:

- Certificate or Degree - Certificate
- Group Requirement - Not Applicable
- Area of Concentration- Surgical Technology

### **Surg.T. 290 – Internship in Surgical Technology [1-20-5]**

*(Prerequisite: permission of the instructor.)* allows the student pursuing a degree in Surgical Technology the opportunity to apply the principles learned in the course work to the work situation through employment. In addition, the internship also allows the student to acquire additional knowledge from the work place. The participating student will be paid an hourly wage by the employer, and it will consist of 16-20 hours per week of employment over the semester.

Applicable toward graduation where program structure permits:

- Certificate or Degree – All Certificates and Degrees
- Group Requirement – Not Applicable
- Area of Concentration – Surgical Technology

## **Theatre (See Drama)**

## **Transportation**

### **C.D.L. 1000 – Tractor/Trailer Driver Training 3.5-7-7**

*(Prerequisite: ability to read and write the English language, 18 years or older, physically meet Federal Department of Transportation guidelines, possession of a valid driver's license at time of registration, and approval of the CDL Admissions Coordinator.)* is designed for individuals with little or no commercial driving experience. Included in the course are the Commercial Driver's License learner's permit and endorsement preparation, regulations, log books, map reading, trip planning, and complete vehicle training to prepare the individual for an entry-level position in the trucking industry. Administration of the Class A road test will be performed by Illinois Secretary of State personnel. Awarding of a certificate to the student will be made upon successful completion of the course. Repetition of portions of the courses can be made at no cost to the student, if required.

Applicable toward graduation where program structure permits:

- Certificate or Degree – All Basic Certificates
- Group Requirement – Not Applicable
- Area of Concentration – Not Applicable

## **Welding**

### **Weld. 100 - Oxy-Acetylene and Plasma Arc Cutting 0-3-1.5**

is designed to prepare students to perform oxy-acetylene and plasma arc cutting for production and maintenance work.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates, A.A.S., A.L.S.
- Group Requirement - Not Applicable
- Area of Concentration - Welding

### **Weld. 101 - Shielded Metal Arc Welding 2-6-4**

*(Prerequisite: Weld. 100 or equivalent competencies.)* is designed to prepare students to perform production welding, millwright work, and general maintenance welding.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates, A.A.S., A.L.S.
- Group Requirement - Not Applicable
- Area of Concentration - Welding

### **Weld. 102 - Shielded Metal Arc Welding, Advanced 0-8-4**

*(Prerequisite: Weld. 101 or equivalent competencies.)* is designed to prepare students to perform A.S.M.E. code welds in the 2-G, 3-G, and 4-G positions. This class prepares students for pipe welding.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates, A.A.S., A.L.S.
- Group Requirement - Not Applicable
- Area of Concentration - Welding

**Weld. 190 - Maintenance Welding**
**0-3-1.5**

(*Prerequisite: Weld. 100 and Weld. 101 or equivalent competencies.*) is designed to prepare students to perform basic industrial maintenance welds. These welds include oxy-acetylene brazing and soldering, arc welding of cast iron, and arc air cutting and gouging.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Welding

**Weld. 195 – Welding Fundamentals for Millwrights**
**1-4-3**

introduces students to the basic welding processes commonly used in the mechanical maintenance areas where critical or certified welds are not required. The students learn the basic theory and application of the welding processes. The students become competent in flat position welding using the shielded metal arc welding and gas metal arc welding processes. Students also develop the basic ability to perform the following: oxy-acetylene welding and cutting; soldering and brazing; pipe repair welding; basic heat treat methods; periodic and preventative maintenance measures on welding equipment; and welding safety.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration – Mechanical Technology

**Weld. 201 - Gas Metal Arc and Flux Core Arc Welding**
**0-4-2**

is designed to prepare students to perform A.S.M.E. code welds in the 1-G and 2-G positions using the GMAW and FCAW processes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Welding

**Weld. 202 - Welder Certification**
**0-4-2**

(*Prerequisite: Weld. 102, Weld. 201 and Weld. 204 or equivalent competencies.*) is designed to prepare students to perform A.S.M.E. code welds on plate in the 3-G and 4-G positions and pipe in the 6-G position.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Welding

**Weld. 204 - Pipe Welding**
**0-8-4**

(*Prerequisite: Weld. 102 and Weld. 205 or equivalent competencies.*) allows students to develop the skills to weld pipe in 2-G, 5-G, and 6-G positions using the shielded metal arc welding process. The weld testing in this class is done in accordance with A.W.S. and A.S.M.E. standards.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Welding

**Weld. 205 - Gas Tungsten Arc Welding**
**0-6-3**

(*Prerequisite: Weld. 101 or equivalent competencies.*) is designed to prepare students to perform maintenance and production welding using the gas metal arc process.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Welding



## Adult Education Courses

**All Adult Education classes (A.B.E., A.S.E., E.S.L., A.L.S.) may be repeated up to three (3) times.**

### Adult Basic Education - Beginning Level

**A.B.E. 010 - Basic Reading 1** (Variable Credit) 2-2-.5 to 4

is designed for adult readers with a reading level of 0-5.9 who want to improve their reading comprehension. Individualized or small group instruction is offered for each student with consideration given to individualized needs. Adult reading material is provided for the class. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development  
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.B.E. 011 - Basic Reading 2** (Variable Credit) 2-2-.5 to 4

is designed for adult readers with a reading level of 0-5.9 who want to improve their reading comprehension and writing skills. Individualized or small group instruction is offered for each student with consideration given to their individualized needs. Adult reading material is provided for the class. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development  
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.B.E. 012 - Basic Reading 3** (Variable Credit) 2-2-.5 to 4

is designed for adult readers with a reading level of 0-5.9 who want to improve their reading comprehension, writing, and communication skills. Individualized or small group instruction is offered for each student with consideration given to individualized needs. Adult reading material is provided for the class. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development  
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.B.E. 013 - Intermediate Reading 1** (Variable Credit) 2-2-.5 to 4

is designed for adult readers with a reading level of 6-8.9 who want to improve their reading comprehension, writing, and communication skills. Individualized or small group instruction is offered for each student with consideration given to individualized reading needs. Adult reading material is provided for the class. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development  
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.B.E. 020B - Responsive Parenting (Effective Learning)** 1-0-1

is designed to give parents reading at or below the 0-5.9 level ideas for dealing with the developmental needs of their children under five. Topics covered include helping children learn, setting limits, and parent-child communication. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development  
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.B.E. 020I - Responsive Parenting (Effective Learning)** 1-0-1

is designed to give parents reading at or below the 6-8.9 level ideas for dealing with the developmental needs of their children under five. Topics covered include helping children learn, setting limits, and parent-child communication. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.B.E. 021B - Parent Participation (Classroom Involvement) 1-0-1**

involves parents reading at or below an 0-5.9 level and their children under five in a lapsit. Parents and children learn together through activities designed to encourage interactive play. Emphasis is placed on language development and the parent-child relationship. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.B.E. 021I - Parent Participation (Classroom Involvement) 1-0-1**

involves parents reading at or below the 6-8.9 level and their children under five in a lapsit. Parents and children learn together through activities designed to encourage interactive play. Emphasis is placed on language development and the parent-child relationship. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.B.E. 022B - Self-Esteem for the Family 1-0-1**

is designed to give parents reading at or below the 0-5.9 grade level tools they need to support their child in school. They will be empowered to communicate with school staff, support school programming, and encourage their child's school success. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.B.E. 022I - Self-Esteem for the Family 1-0-1**

is designed to give parents reading at the 6-8.9 level the tools they need to support their child in school. They will be empowered to communicate with school staff, support school programming and encourage their child's school success. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.B.E. 023B - Parents as Reading Partners 1-0-1**

is designed to give parents reading at or below the 0-5.9 grade level instruction and experience for reading aloud to children of various ages. Parents are taught to read aloud to infants, toddlers, preschoolers, primary grade children, and intermediate grade children. Appropriate child development issues are explored and reading techniques adapted for the different age levels. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.B.E. 023I - Parents as Reading Partners 1-0-1**

is designed to give parents reading at the 6-8.9 level instruction and experience for reading aloud to children of various ages. Parents are taught to read aloud to infants, toddlers, preschoolers, primary grade children, and intermediate grade children. Appropriate child development issues are explored and reading techniques adapted for the different age levels. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

### **A.B.E. 024B - Practical Parenting**

**1-0-1**

is designed to give parents reading at the 0-5.9 level instruction in dealing with issues that pose daily challenges to parents and their children. Parents focus on what works and what doesn't in dealing with their children and their everyday demands. Parents keep a journal of their own experiences, and at each class session, several children's books related to the course topics are presented and distributed to parents. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

### **A.B.E. 024I - Practical Parenting**

**1-0-1**

is designed to give parents reading at 6-8.9 level instruction in dealing with issues that pose daily challenges to parents and their children. Parents focus on what works and what doesn't in dealing with their children and their everyday demands. Parents keep a journal of their own experiences, and at each class session, several children's books related to the course topics are presented and distributed to parents. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

### **A.B.E. 025B - Behavior Management**

**1-0-1**

is designed to give parents reading at the 0-5.9 level the opportunity to explore the issues that affect how children learn acceptable behavior. Promoting respect for self and others and dealing constructively with negative behavior are discussed. A variety of views on discipline are shared. Parents will keep a journal of their personal experiences for class discussion. At each session, children's books related to the topics are presented and distributed to the parents. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

### **A.B.E. 025I - Behavior Management**

**1-0-1**

is designed to give parents reading at the 6-8.9 level the opportunity to explore the issues that affect how children learn acceptable behavior. Promoting respect for self and others and dealing constructively with negative behavior are discussed. A variety of views on discipline are shared. Parents will keep a journal of their personal experiences for class discussion. At each session, children's books related to the topics are presented and distributed to the parents. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

### **A.B.E. 030B - Job Skills 1**

**(Variable Credit) 1-0-.5 to 4**

is a course designed for adults reading at the 0-5.9 grade level in which employment skills and job search skills are presented and discussed. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - Not Applicable

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **A.B.E. 030I - Job Skills I**

**(Variable Credit) 1-0-.5 to 4**

is a course designed for adults reading at the 6-8.9 level in which employment skills and job search skills are presented and discussed. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - Not Applicable

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

**A.B.E. 031B - Job Skills 2**

**(Variable Credit) 1-0-.5 to 4**

is a course designed for adults reading at the 0-5.9 level in which skills to obtain a job and to retain a job, the attitudes toward work, fellow employees, and the employing institution are reviewed. This course is offered tuition free.

Applicable toward graduation where program structure permits:

- Certificate or Degree - Not Applicable
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

**A.B.E. 031I - Job Skills 2**

**(Variable Credit) 1-0-.5 to 4**

is a course designed for adults reading at the 6-8.9 level in which skills to obtain a job and to retain a job, the attitudes toward work, fellow employees, and the employing institution are reviewed. This course is offered tuition free.

Applicable toward graduation where program structure permits:

- Certificate or Degree - Not Applicable
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

**A.B.E. 032B - Job Skills 3**

**(Variable Credit) 1-0-.5 to 4**

is designed for adults reading at the 0-5.9 grade level who wish to review and enhance their reading, writing, and math skills in preparation for job specific or employment training. This course is offered tuition free.

Applicable toward graduation where program structure permits:

- Certificate or Degree - Not Applicable
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

**A.B.E. 032I - Job Skills 3**

**(Variable Credit) 1-0-.5 to 4**

is designed for adults reading at the 6-8.9 level who wish to review and enhance their reading, writing, and math skills in preparation for job-specific or employment training. This course is offered tuition free.

Applicable toward graduation where program structure permits:

- Certificate or Degree - Not Applicable
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

**A.B.E. 040B - Integrated A.B.E. Study Skills**

**(Variable Credit) 1-0-.5 to 4**

is designed for adults with a reading level comparable to the 0-5.9 grade level who need integrated instructional review in reading, writing, arithmetic, and other basic skills. Individualized, small group instruction and computer-assisted learning are offered for each student with consideration given to individualized basic skills needs. This course is offered tuition free.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Basic Certificates in General Studies except Personal Development
- Group Requirement - Not Applicable
- Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.B.E. 040I - Integrated ABE Study Skills**

**(Variable Credit) 1-0-.5 to 4**

is designed for adults reading at the 6-8.9 level who need integrated instructional review in reading, writing, arithmetic, and other basic skills. Individualized, small group instruction and computer-assisted learning are offered for each student with consideration given to individualized basic skills needs. This course is offered tuition free.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Basic Certificates in General Studies except Personal Development
- Group Requirement - Not Applicable
- Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.B.E. 075 - Pre-beginning General Educational**

**Development**

**(Variable Credit) 1-0-.5 to 4**

is designed for adults with a reading level of 0-5.9 who need to prepare for General Educational Development coursework. Emphasis in the course is placed on basic reading, writing, and math skills. A placement test is required prior to enrollment. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

### **A.B.E. 076 - Pre-General Educational Development 1 (Variable Credit) 4-0-.5 to 4**

is designed for adults with a reading level of 6 - 8.9 who want to prepare for General Educational Development coursework. Emphasis in the course is placed on basic reading, writing, and arithmetic skills. A placement test is required prior to enrollment. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

### **A.B.E. 077 - Pre General Educational Development 2 (Variable Credit) 4-0-.5 to 4**

is designed for adults with a reading level of 6-8.9 who want to prepare for General Educational Development coursework. Emphasis is placed on reading, writing, and mathematics. A placement test is required prior to enrollment. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All basic certificates in general studies except personal development

Group Requirement - Not Applicable

Area of Concentration - Basic certificate in developmental, preparatory or basic skills

### **A.B.E. 078 - General Educational Development 3 (Variable Credit) 4-0-.5 to 4**

is designed for adults with a reading level of 6-8.9 who want to prepare for General Educational Development coursework. Emphasis in the course is placed on basic reading, writing, and mathematics skills. A placement test is required prior to enrollment. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

## Adult Secondary Education

### **A.S.E. 020A - Responsive Parenting (Effective Learning) 1-0-1**

is designed to give parents reading at or above the 9th level instruction for dealing with the developmental needs of their children under five. Topics covered will include helping children learn, setting limits, and parent-child communication. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

### **A.S.E. 021A - Parent Participation (Classroom Involvement) 1-0-1**

is designed for parents reading at or above the 9th level and their children in a lapsit. Parents and children learn together through activities designed to encourage interactive play. Emphasis is placed on language development and the parent-child relationship. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

### **A.S.E. 022A - Self-Esteem for the Family 1-0-1**

is designed to give parents reading at or above the 9th level the tools they need to support their child in school. They will be empowered to communicate with school staff, support school programming and encourage their child's school success. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.S.E. 023A - Parents as Reading Partners**

**1-0-1**

is designed to give adults reading at or above the 9th level instruction and experience for reading aloud to children of various ages. Parents are taught to read aloud to infants, toddlers, preschoolers, primary grade children, and intermediate grade children. Appropriate child development issues are explored and reading techniques adapted for the different age levels. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.S.E. 024A - Practical Parenting**

**1-0-1**

is designed for parents reading at 9+ level instruction in dealing with issues that pose daily challenges to parents and their children. Parents focus on what works and what doesn't in dealing with their children and their everyday demands. Parents keep a journal of their own experiences, and at each class session, several children's books related to the course topics are presented and distributed to parents. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.S.E. 025A - Behavior Management**

**1-0-1**

is designed for parents reading at the 9+ level the opportunity to explore the issues that affect how children learn acceptable behavior. Promoting respect for self and others and dealing constructively with negative behavior are discussed. A variety of views on discipline are shared. Parents will keep journals of their personal experiences for class discussion. At each session, children's books related to the topics are presented and distributed to the parents. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.S.E. 030A - Job Skills 1**

**(Variable Credit) 1-0-.5 to 4**

is a course in which employment skills and job search skills are presented and discussed. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.S.E. 031A - Job Skills 2**

**(Variable Credit) 1-0-.5 to 4**

is a course designed for adults reading at or above the 9th level in which skills to obtain a job and to retain a job, the attitudes toward work, fellow employees, and the employing institution are discussed. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.S.E. 032A - Job Skills 3**

**(Variable Credit) 1-0-.5 to 4**

is designed for adults reading at or above the 9th level who wish to review and enhance their reading, writing, and math skills in preparation for job specific or employment training. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**A.S.E. 040A - GED Test Review Individualized Study**

**(Variable Credit) 1-0-.5 to 4**

is designed for adults with a reading level at or above the 9th level who need a review of test preparation skills and a specific overview of the General Education Development test (GED) to include the areas of writing skills, social studies, science, interpreting literature and the arts, and mathematics.

Individualized, small group and computer-assisted learning is offered for each student with consideration given to individualized instructional needs. Simulated and predictive testing is included. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

### **A.S.E. 071 - Classroom Anxiety Reduction**

**1-0-1**

provides instruction that will help reduce the effect of performance-related classroom anxieties such as test anxiety. Class provides activities to reduce tension and improve classroom performance. Topics include study and test taking skills, coping and relaxation exercises, and stress management. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

### **A.S.E. 079 - General Educational Development 4**

**(Variable Credit) 4-0-.5 to 4**

is designed to help individuals reading at or above the 9th level to prepare for the GED test through a review of reading, writing, and mathematics skills. A placement test is required for enrollment in the course. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

## **English as a Second Language**

### **E.S.L. 081 - Pre-Beginning**

**(Variable Credit) 1-2-.5 to 4**

is for students who function minimally in English. The course content covers beginning structure, pronunciation, vocabulary building, and limited reading and writing skills. The primary objective of the course is to help the students develop a basic comprehension of the English language. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

### **E.S.L. 082 - Beginning**

**(Variable Credit) 1-2-.5 to 4**

is for students who have minimal experience and/or instruction in English. The course content covers beginning structure, pronunciation, vocabulary building, and reading and writing skills. The primary objectives of the course is to provide repetitive practice toward a meaningful and communicative use of the English language. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

### **E.S.L. 083 - Intermediate**

**(Variable Credit) 1-2-.5 to 4**

is for students who have some experience and/or instruction in English. The course content reviews basic structure and pronunciation skills, continues vocabulary building, and devotes equal time to reading, speaking, and writing skills. The primary objectives of the course are to review and refine basic skills and to promote purposeful communication both in and out of the classroom. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

**E.S.L. 084 - Advanced**

**(Variable Credit) 1-2-.5 to 4**

is for students who have considerable experience and/or instruction in English. The course content includes review, advanced refinement, and expansion of listening, reading, speaking, and writing skills. The primary objective of the course is to provide opportunities for the student to develop confidence to use English proficiency in his/her everyday life, specifically to succeed in personal, work, and education-related experiences. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

## Applied Learning Skills (ALS)

**A.L.S. 090A - Diagnostic Module for Reading, Writing,  
and English as a Second Language**

**1-0-1**

is designed to screen, test, and place students in the appropriate A.L.S. module. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirements - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 090B - Diagnostic Module for Math/Technology/Science**

**1-0-1**

is designed to screen, test, and place students in the appropriate math, technology, or science A.L.S. module. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirements - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 091A - Proportions, Ratios, Decimals, and Percents**

**1-0-1**

is a concentrated study designed for students who want to learn or improve skills in proportions, ratios, decimals, and percents. Instruction is individualized based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirements - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 091B - Operations of Signed Numbers and Combining Like Terms**

**1-0-1**

is designed for students who want to learn or improve their skills in operations of signed numbers and combining like terms. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirements - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 091C - Solving Linear Equations and Inequalities**

**1-0-1**

is designed for students who want to learn or improve their skills in solving linear equations and inequalities. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirements - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 091D - Geometry of Plane Figures and Solids**

**1-0-1**

is designed for students who want to learn or improve their skills necessary to solve geometric problems involving complex figures. This module is directly related to Math 090 and Math 091. The student is required to analyze figures, determine appropriate formulas of perimeter, area, volume, and surface area and then appropriately compute the volume or surface area of a figure. Individualized instruction is based on student skill level and goals.



Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

### **A.L.S. 091F - Operations of Fractions and Mixed Numbers**

**1-0-1**

is designed for students who want to improve their skills in working with fractions. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

### **A.L.S. 091G - Operations of Decimals**

**1-0-1**

is designed for students who want to improve their skills in working with decimals. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

### **A.L.S. 091H - Measurement Systems (English-Metric)**

**1-0-1**

is designed for students who want to improve their skills in working with metric and English measurements. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

### **A.L.S. 091I - Factoring**

**1-0-1**

is designed for students who want to improve factoring skills to prepare for a math course. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

### **A.L.S. 091J - Solving Advanced Equations & Inequalities**

**1-0-1**

is designed for students who want to improve their skills in the solving techniques for advanced equations. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

### **A.L.S. 091K - Coordinate Graphing**

**1-0-1**

is designed for students who want to improve their skills in coordinate graphing. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

### **A.L.S. 091L - Solving Systems of Equations & Inequalities**

**1-0-1**

is designed for students who want to improve their skills in solving systems of equations with two or three variables by three different methods. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 091M - Advanced Coordinate Graphing**

**1-0-1**

is designed for students who want to improve their skills in graphing conic sections. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 091N - Inequalities and Absolute Value**

**1-0-1**

is designed for students who want to improve their skills in working with inequalities and absolute value. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 091P - Radicals and Rational Exponents**

**1-0-1**

is designed for students who want to improve their skills in working with radicals and rational exponents. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 092A - Introduction to Word Processing for Composition Course**

**1-0-1**

is designed to introduce students to word processing skills necessary for composition courses at Richland. Students will review the keyboard and learn to set up, retrieve, save, and print a document as well as learn other skills such as running spell check, blocking and moving text, and other formatting skills. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 093A - ESL: Listening Preparation For The TOEFL: Short Conversation**

**1-0-1**

is designed for advanced students of English as a second language who want to improve their listening skills in order to prepare for the short conversations, Part A, section of the Test of English as a Foreign Language (TOEFL). Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 093B - ESL: Listening Preparation For The TOEFL: Longer Conversation**

**1-0-1**

is designed for advanced students of English as a second language who want to improve their listening skills in order to prepare for the longer conversations, Part B, section of the Test of English as a Foreign Language (TOEFL). Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 093C - ESL: Preparation For The TOEFL: Idioms**

**1-0-1**

is designed for advanced students of English as a second language who want to improve their skills in recognizing and understanding idioms in order to prepare for the listening and reading sections of the Test of English as a Foreign Language (TOEFL). Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

- A.L.S. 093D - ESL: Listening Preparation For The TOEFL: Lectures/Talks** 1-0-1  
 is designed for advanced students of English as a second language who want to improve their listening skills in order to prepare for the lectures/talks, Part C, section of the Test of English as a Foreign Language (TOEFL). Individualized instruction is based on student skill level and goals.  
 Applicable toward graduation where program structure permits:  
     Certificate or Degree - Basic Certificates  
     Group Requirement - Preparatory to Other Studies  
     Area of Concentration - Preparatory to Other Studies
- A.L.S. 093E - ESL: Preparation For The TOEFL: Tenses And Special Grammar** 1-0-1  
 is designed for students who want to improve written verb forms. Individualized instruction is based on student skill level and goals.  
 Applicable toward graduation where program structure permits:  
     Certificate or Degree - Basic Certificates  
     Group Requirement - Preparatory to Other Studies  
     Area of Concentration - Preparatory to Other Studies
- A.L.S. 093F - ESL: Preparation For The TOEFL: Reading Comprehension-Content Areas** 1-0-1  
 is designed for students who want to improve reading comprehension in the content areas. Individualized instruction is based on student skill level and goals.  
 Applicable toward graduation where program structure permits:  
     Certificate or Degree - Basic Certificates  
     Group Requirement - Preparatory to Other Studies  
     Area of Concentration - Preparatory to Other Studies
- A.L.S. 093G - ESL: Preparation for TOEFL: Adjectives and Adverbs** 1-0-1  
 is designed for advanced students of English as a second language who want to improve their ability to recognize and understand situations which require adjectives and adverbs in order to prepare for the listening section and the structure and written expression section of the Test of English as a Foreign Language (TOEFL). Individualized instruction is based on student skill level and goals.  
 Applicable toward graduation where program structure permits:  
     Certificate or Degree - Basic Certificates  
     Group Requirement - Preparatory to Other Studies  
     Area of Concentration - Preparatory to Other Studies
- A.L.S. 093H - ESL: Preparation for TOEFL: Inverted Word Order** 1-0-1  
 is designed for advanced students of English as a second language who want to improve their ability to recognize and understand situations which require inverted word order in order to prepare for the listening section and the structure and written expression section of the Test of English as a Foreign Language (TOEFL). Individualized instruction is based on student skill level and goals.  
 Applicable toward graduation where program structure permits:  
     Certificate or Degree - Basic Certificates  
     Group Requirement - Preparatory to Other Studies  
     Area of Concentration - Preparatory to Other Studies
- A.L.S. 094A - Basic Comprehension I** 1-0-1  
 is designed for students who want to improve their reading comprehension and word attack skills in order to prepare for English 088. Individualized instruction is based on student skill level and goals.  
 Applicable toward graduation where program structure permits:  
     Certificate or Degree - Basic Certificates  
     Group Requirement - Preparatory to Other Studies  
     Area of Concentration - Preparatory to Other Studies
- A.L.S. 094B - Study Skills I** 1-0-1  
 is designed for students who want to improve in their study skills and habits in order to prepare for English 088. Individualized instruction is based on student skill level and goals.  
 Applicable toward graduation where program structure permits:  
     Certificate or Degree - Basic Certificates  
     Group Requirement - Preparatory to Other Studies  
     Area of Concentration - Preparatory to Other Studies

**A.L.S. 094C - Speed Reading****1-0-1**

is designed for students who want to improve their reading rate while maintaining comprehension.

Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 094D - Basic Comprehension II****1-0-1**

is designed for students who want to extend their reading ability to cover necessary skills for college reading success. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 094E - Improving Vocabulary Skills****1-0-1**

is designed for students who want to improve their vocabulary skills. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 095A - Sentence Structure I****1-0-1**

is designed for students who want to improve skills in basic sentence structure. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. - 095B - Phrases and Clauses****1-0-1**

is designed for students who want to improve skills in phrases and clauses and sentence variety.

Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 095C - Standard Punctuation: The Comma****1-0-1**

is designed for students who want to improve their use of the comma in order to write more clearly.

Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 095D - Basic Verb Review****1-0-1**

is designed for students who want to improve the identification and use of various verb forms as well as understanding reasons for using particular tenses. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**A.L.S. 097A - The Living World****1-0-1**

is designed for students who want to improve their science vocabulary and analysis skills. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

## 244 Course Descriptions

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### **A.L.S. 097B - Basic Chemistry For Biology**

**1-0-1**

is designed for students who want to improve chemistry skills needed for biological science classes. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

### **A.L.S. 097C - Diffusion And Osmosis**

**1-0-1**

is designed for students who want to improve their understanding of the process of diffusion and osmosis. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

### **A.L.S. 103A - Research And APA Documentation**

**1-0-1**

is designed for students who want to improve their research skills using the American Psychological Association (APA) documentation format. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

# Advisory Committees & College Staff

Agriculture Advisory Committee

Tom Bressner .....	Assumption Grain Coop .....	Assumption
David Brown .....	Farmer .....	Warrensburg
Jerry Coffey .....	CornBelt FS .....	Decatur
Dale Ford .....	PC Limited .....	Decatur
Stuart Hawbaker .....	University of IL Extension Service .....	Decatur
Norman Jordan .....	Farmer .....	Niantic
Jerry Kuykendall .....	Ag Instructor (Retired) .....	Maroa
George Moore .....	Farmer .....	Blue Mound
Robert Mooth .....	Tate & Lyle (Retired) .....	Decatur
Duane Noland .....	State Senator .....	Decatur
Marilyn Parker .....	Macon Co. Soil & Water Conservation Dist. ....	Decatur
Randy Prince .....	Macon County Farm Bureau .....	Decatur
Emmett Sefton .....	Farmer .....	Dalton City
Frank Thorp .....	Thorp Seed Company/Golden Harvest Seeds .....	Clinton
Jerry Weigel .....	ExSeed Genetics, LLC .....	Decatur

Automotive Advisory Committee

Dan Bentson .....	Rainbow Automotive .....	Decatur
Bill Carroll .....	Carroll Automotive Machine .....	Decatur
Brian Caudill .....	Crown Olds/Toyota .....	Decatur
Jimmy Devereux .....	Available Auto Parts .....	Decatur
Joey Devereux .....	Available Auto Parts .....	Decatur
Keith Gooding .....	Bud Leach Garage .....	Decatur
Larry Grischow .....	Bob Ridings .....	Decatur
Dave Hoffman .....	Crossroads Ford .....	Springfield
Kevin Hollingsead .....	Miles Chevrolet .....	Decatur
James Kitchens .....	Jim’s Garage .....	Decatur
Jesse Miller .....	J & M Equipment Repair .....	Decatur
Mark Moore .....	Wendell’s Transmission .....	Decatur
Marvin Murphy .....	Murphy’s Performance .....	Clinton
Bill Schumacher .....	Tallman Pontiac Cadillac .....	Decatur
Wanda Wiseman .....	Big A Auto Parts .....	Decatur

Child Care Advisory Committee

Shana Cole .....	New Horizons Child Care .....	Decatur
Jan Doty .....	Wee Folk, Inc. ....	Decatur
Lazetta Farnham .....	Richland Community College .....	Decatur
Diane Friend .....	Decatur Day Care .....	Decatur
Earleen Hartrich .....	Catholic Charities .....	Decatur
Alice Huebner .....	Richland Community College .....	Decatur
Sandy Miller .....	Anna Waters Headstart .....	Decatur
Betty Ryan .....	Decatur Area Technical Academy .....	Decatur
Diane Shipley .....	Richland Community College .....	Decatur
Bonnie Hubbel .....	First United Methodist Child Care .....	Decatur
Amy Steck .....	Kids ‘n Fitness .....	Decatur
Barb Harting .....	Mt. Calvary Lutheran Preschool .....	Decatur

## CDL Advisory Committee

Mike Beck .....	McDaniel Trucking .....	Moweaqua
Chris Bickett .....	CDL Training Services, Inc. ....	Decatur
Monica Chandler .....	CDL Training Services, Inc. ....	Maroa
Joe Connally .....	CDL Training Services, Inc. ....	Paris
Tom Hall .....	Benson Creamery .....	Decatur
Debra Kraft .....	Kraft Express .....	Decatur
Cathy Sebok .....	Richland Community College .....	Decatur

## Computer Graphics Advisory Committee

Michael Carr .....	Jones and Thomas, Inc. ....	Decatur
Eric Hector .....	Heroic Age Studios .....	Mt. Zion
Patrick McLane .....	Illinois Wesleyan University .....	Bloomington
Alan Thursby .....	Video-Tech Media Services, Inc. ....	Decatur
Ed Walker .....	Millikin University .....	Decatur

## Computer Information Systems Advisory Committee

Max Burgstahler .....	Decatur Public Schools .....	Decatur
Dick Davis .....	Caterpillar, Inc. ....	Decatur
Steven Bowman .....	Tate & Lyle .....	Decatur
Max Dillahunt .....	Levi, Ray & Shoup, Inc. ....	Springfield
Connie Houser .....	May, Cocagne & King .....	Decatur
Mona Howe .....	Illinois Power Company .....	Decatur
Kent Howell .....	Illinois Power Company .....	Decatur
Cecelia Kehoe .....	Bridgestone/Firestone .....	Decatur
Ted Motsinger .....	Nims Associates, Inc. ....	Decatur
Bruce Nims .....	Nims Associates, Inc. ....	Decatur
James Slade .....	Tate & Lyle .....	Decatur
Jason Wickline .....	Nims Associates, Inc. ....	Decatur

## Computer Integrated Manufacturing Advisory Committee

Nevin Alwardt .....	Mueller Company .....	Decatur
Ron Born .....	HIS/Airfloat Systems .....	Decatur
Arnold Banning .....	Caterpillar, Inc. ....	Decatur
Dan Boomer .....	Caterpillar, Inc. ....	Decatur
Andrew Hagerman .....	Hagerman & Company .....	Mt. Zion
Bob Hauskins .....	Illini Precision Machining .....	Decatur
Ernie Marsh .....	Zexel Illinois, Inc. ....	Decatur
David Martin .....	Caterpillar, Inc. ....	Decatur
Ted Norbits .....	Caterpillar, Inc. ....	Decatur
Bob Seidler .....	Mueller Company .....	Decatur
Bob Wabel .....	Wabel Tool .....	Decatur
John Wagner .....	Decatur Pattern Works .....	Decatur
Victor Zolecki .....	Expert Technical Services, Inc. ....	Decatur



Drafting Advisory Committee

Robert Cox .....	Decatur Area Technical Academy .....	Decatur
Bob Dean .....	Blank Wesselink Cook & Associates .....	Decatur
Mike Herron .....	United Theory, Inc. ....	Forsyth
Paul Kelly .....	Zexel Illinois, Inc. ....	Decatur
Paul Mills .....	BGM Engineering .....	Decatur
Dale Rasmussen .....	WVP Corporation .....	Decatur
Larry Ryterski .....	Caterpillar, Inc. ....	Decatur
Sid Sherwood .....	Internet Decatur .....	Decatur
Don Cutthill .....	Illinois Power Company .....	Decatur

Electronics Advisory Committee

Jeff Berger .....	Buchanan Communications .....	Mt. Zion
Hal Campbell .....	WAND-TV .....	Decatur
Tom Gentry .....	FAA .....	Springfield
Bill Hemrich .....	Norfolk Southern Corporation .....	Deatur
Jerry Johnson .....	International Control Services .....	Decatur
Frank Konwinski .....	WSOY Radio .....	Decatur
Dave Martin .....	Caterpillar .....	Decatur
Pam Martin .....	ComWorks .....	Decatur
Pat McBride .....	K's Merchandise .....	Decatur
Bob Metz .....	P & M Communications .....	Decatur
Rick Neely .....	Midwest Visual .....	Decatur
David Peckham .....	MCI Telecommunications Corporation .....	Decatur
Scott Phillips .....	Decatur Memorial Hospital .....	Decatur
Ken Renfro .....	KW Renfro, Inc. ....	Macon
Andy Roberts .....	Andy's Electronics .....	Decatur
Brett Thompson .....	Decatur Area Technical Academy .....	Decatur

Electronics- Biomedical Advisory Committee

Greg Bean .....	Carle Hospital .....	Urbana
Marcia Carter .....	St. Mary's Hospital .....	Decatur
Duane Gebke .....	Decatur Memorial Hospital .....	Decatur
Dwight Hill .....	Bromenn Medical Center .....	Bloomington
Bill Parr .....	St. Mary's Hospital .....	Decatur
Scott Phillips .....	GE Medical Systems .....	Decatur
William Skarupa .....	Decatur Memorial Hospital .....	Decatur

Electronic Systems Technology Advisory Committee

Arnold Banning .....	Caterpillar, Inc. ....	Decatur
Jim Bundy .....	ADM .....	Decatur
Marvin Carter .....		Decatur
Andrew Gross .....	Caterpillar .....	Decatur
Ed Harper .....	Bodine Electric .....	Decatur
Dick Haun .....	Internet Decatur .....	Decatur
Gary Kilmartin .....	Buchanan Enterprises .....	Mt.Zion
Steve Marker .....	Expert Technical Services, Inc. ....	Decatur
Frank Matheny .....	PlastiPak .....	Champaign
Jerry Johnson .....	International Control Services, Inc. ....	Decatur
Randy Wooten .....	Mueller Co. ....	Decatur

## Emergency Medical Technician (EMT) Advisory Committee

Les Albert .....	Decatur Fire Department .....	Decatur
Brookie Beck .....	Moweaqua Ambulance Service .....	Moweaqua
Natalie Beck .....	Herald and Review .....	Decatur
David Burkam .....	Decatur Ambulance Service .....	Decatur
Carol Dodson .....	St. Mary's Hospital .....	Decatur
Tony Dowell .....	Decatur Ambulance Service .....	Decatur
Mark Hunter .....	Decatur Ambulance Service .....	Decatur
Toby Jackson .....	Sullivan Fire Department .....	Sullivan
Larry Landrus .....	Decatur Ambulance Service .....	Clinton
Karen Schneller .....	Decatur Memorial Hospital .....	Decatur
Tony Vespa .....	Decatur Fire Department .....	Decatur
Harold White .....	Decatur Ambulance Service .....	Lovington
Bill Wood .....	St. Mary's Hospital .....	Decatur

## Fire Science Advisory Committee

Les Albert .....	Decatur Fire Department .....	Decatur
Toby Jackson .....	Sullivan Fire Department .....	Forsyth
Lowell Mulvany .....	Long Creek Fire Department .....	Decatur
Tony Vespa .....	Decatur Fire Department .....	Decatur
Jim Williams .....	Warrensburg Fire Department .....	Warrensburg
Tom Williams .....	South Wheatland Fire Department .....	Decatur
Bill Wood .....	St. Mary's Hospital .....	Decatur

## Food Service Management Advisory Committee

Kevin Brewer .....	Main Hanger Restaurant .....	Decatur
Susan Hurst .....	Tater's Family Grill .....	Decatur
James Keyes .....	Blue Mill Restaurant .....	Decatur
Marcia Phillips .....	Marcia's Waterfront Restaurant .....	Decatur
Wally Ryan .....	Ryan Equipment .....	Decatur
Dan Snyder .....	Holiday Inn .....	Decatur

## Heating, Ventilation, & Air-Conditioning Advisory Committee

Dan Clow .....	King-Lar Co. ....	Decatur
Ron Luttrell .....	Caterpillar, Inc. ....	Decatur
Al Thompson .....	Roger's Supply Co. ....	Decatur
Doug Maxheimer .....	Reeder's Plumbing & Heating .....	Pana

## Horticulture Advisory Committee

Connie Burgett .....	Connie's Country Greenhouse .....	Latham
Lisa Dunlap .....	Dunlap Enterprises .....	Blue Mound
Sandee Fearn-Talbert .....	Naturescapes .....	Decatur
Ken Whitsitt .....	Lowe's Garden Center .....	Decatur
Bill Wond .....	Houran's on the Corner Florists .....	Decatur

Law Enforcement Advisory Committee

Bob Anderson	FBI	Springfield
Mark Barthelemy	Decatur Police Department	Decatur
Jerry Dawson	Macon County Sheriff's Office	Decatur
Larry Fichter	Macon County State's Attorney Office	Decatur
Mike Hendricks	Mt. Zion Police Department	Mt. Zion
George Lebo	CIRCLE	Mt. Zion
Roger Massey	Dewitt County Sheriff's Office	Clinton
Mike Reidy	Clinton Police Department	Clinton
Kevin Riddle	Illinois State Police	Pesotum
Richard Ryan	Decatur Police Department	Decatur
Roger Walker	Macon County Sheriff's Office	Decatur

Mechanical Technology Advisory Committee

Darbe Brinkoetter	Decatur Area Technical Academy	Decatur
Dan Carico	Mueller Co.	Decatur
Eugene King	Bridgestone/Firestone	Decatur
Jim Gruenloh	PPG Industries	Mt. Zion
Dick Hahn	Internet Decatur	Decatur
Ernie Marsh	Zexel Illinois, Inc.	Decatur
Joe Perry	Caterpillar, Inc.	Decatur
Tom Robinson	A. E. Staley	Decatur
Ron Sorenson	ADM	Decatur
Joseph Waymire	Borden Chemicals and Plastics	Illiopolis

Nurse Assistant Training Advisory Committee

Lynn Berner	St. John's Home Health	Decatur
Sarah Coulter	Decatur Memorial Hospital	Decatur
Nancy Donnel	Fair Havens Christian Home	Decatur
Mary Jane Lamont	Manor Care Health Services	Decatur
LaVon Mason	Visiting Nurses Assoc. of Macon County	Decatur
Kathy Releford	Aspen Ridge Care Centre	Decatur
Martha Schrodrt	Richland Community College	Decatur
Donna Yemm	Richland Community College	Decatur

Nursing Advisory Committee

Laura Brown	Millikin Institute	Decatur
Joyce Cecil	Manor Care	Decatur
Ann Chelette	Decatur Public Schools District #61	Decatur
Mary Lou Cookson	Decatur Area Technical Academy	Decatur
Brenda Eden	Community Health Improvement Corp.	Decatur
Linda Fahey	Decatur Memorial Hospital	Decatur
Beverly Holly	McFarland Mental Health Center	Springfield
Diane Johner	Macon County Health Dept.	Decatur
Esther Johnson	Field's-Wright Health Center	Sullivan
Linda Klemm	St. John's Home Health Care	Decatur
Theresa Larson	Decatur Memorial Hospital	Decatur
Deborah McGee	Richland Community College	Decatur
Jill Roemer	St. Mary's Hospital	Decatur
Martha Schrodrt	Richland Community College	Decatur
Edward Yundt	St. Mary's Hospital	Decatur

## Office Technology Advisory Committee

Marilyn Achelpohl .....	Decatur Area Technical Academy .....	Decatur
Pam Bradbury .....	Samuels, Miller, Schroeder, Jackson, & Sly .....	Decatur
Ellen Carter .....	Wallace Laboratories .....	Decatur
Wanda Cruz .....	Illinois Power Company .....	Decatur
Cherrie Diercks .....	Decatur Area Technical Academy .....	Decatur
Donna Hord .....	Mt. Zion School District .....	Mt. Zion
Kelly McCourt-Edwards .....	Decatur Area Technical Academy .....	Decatur
Barbara Parker .....	Illinois Power Company .....	Decatur
Darrel Parish .....	Attorney .....	Decatur
Debbie Tucker .....	Downing & Uhl .....	Decatur

## Surgical Technology Advisory Committee

Danny Austif .....	St. John's Hospital .....	Springfield
Marsha Cordts .....	St. Mary's Hospital .....	Decatur
Darlene Dandridge .....	Decatur Memorial Hospital .....	Decatur
Tina Finch .....	St. Mary's Hospital .....	Decatur
Donna Gephart .....	Decatur Memorial Hospital .....	Decatur
Patty Harmo .....	St. John's Hospital .....	Decatur
Kaye Hartwig .....	St. Mary's Hospital .....	Decatur
Sally Hodges .....	Decatur Memorial Hospital .....	Decatur
Dr. Donald Kamm .....	Private Practice .....	Decatur
Loni Lindsey .....	St. Mary's Hospital .....	Decatur
Candy Luthin .....	St. John's Hospital .....	Springfield
Jeff Meyerhoff .....	St. John's Hospital .....	Springfield
Sr. Trudy O'Connor .....	St. John's Hospital .....	Springfield
Lonni Penman .....	St. John's Hospital .....	Springfield
Marilyn Rigney .....	St. John's Hospital .....	Springfield
Elaine Roberts .....	Sarah Bush Lincoln Health Care Center .....	Mattoon
Brenda Saubert .....	Decatur Memorial Hospital .....	Decatur
Dr. Sushant Sinha .....	Private Practice .....	Decatur
Susan Swartz .....	St. Mary's Hospital .....	Decatur
Christina White .....	St. Mary's Hospital .....	Decatur
Judy Wilson .....	Decatur Memorial Hospital .....	Decatur
Dr. Jordan Youngerman .....	Private Practice .....	Decatur
Connie Zumwalt .....	Sarah Bush Lincoln Health Center .....	Mattoon

- Janice Adams**, Assistant Professor, Spanish and Sociology (B.S., Southern Illinois University; M.A., Michigan State University; M.S.W., Arizona State University)
- Jack Adwell**, Instructor, Computer Information Systems (A.A.S., Richland Community College; B.A., Mt. Vernon College)
- Todd Albert**, Fitness Center Assistant
- Richard Allen**, Instructor, Computer Information Systems (B.S., James Madison University; M.Div., Lexington Theological Seminary)
- Janice Altman**, Secretary, Student Support Services, TRIO Project
- Keith Ashby**, Instructor, Food Service Management (B.S., University of Missouri)
- Mary Atkins**, Disabilities Accommodations Services Program Coordinator (B.S., Eastern Illinois University; M.S., Illinois State University)
- Karen Baird**, Professor, Biology (B.A., Millikin University; M.A., Washington University)
- Donna Barnes**, Secretary, SAALS Division/Assessment Services (Associate in Business, Southern Illinois University)
- Judy Barringer**, Student Records Assistant
- Mike Bartimus**, Maintenance (B.A., Evangel College)
- Yvonne Basden**, Secretary, Secretarial Center (A.A.S., Richland Community College)
- Pamela Baskette**, Evening Receptionist
- Thomas Baynum**, Dean, Arts & Sciences (B.A., Wayne State College; M.A., Wayne State College; Ed.D., Baylor University)
- Karen S. Becker**, Academic Director, Arts & Sciences, Professor, English (B.A., Kansas State University; M.A., Kansas State University)
- Patricia Belote**, Secretary, Secretarial Center (A.A.S., Richland Community College)
- Rose Best**, Financial Aid Specialist (B.A., University of Illinois-Springfield)
- D. Michael Beube**, Dean, Admissions and Records (B.S., Eastern Illinois University; M.S., Eastern Illinois University; Specialist in Education & Administration, Eastern Illinois University)
- Sharon Beube**, Instructor, Office Technology (B.S., Eastern Illinois University; M.S., University of Illinois)
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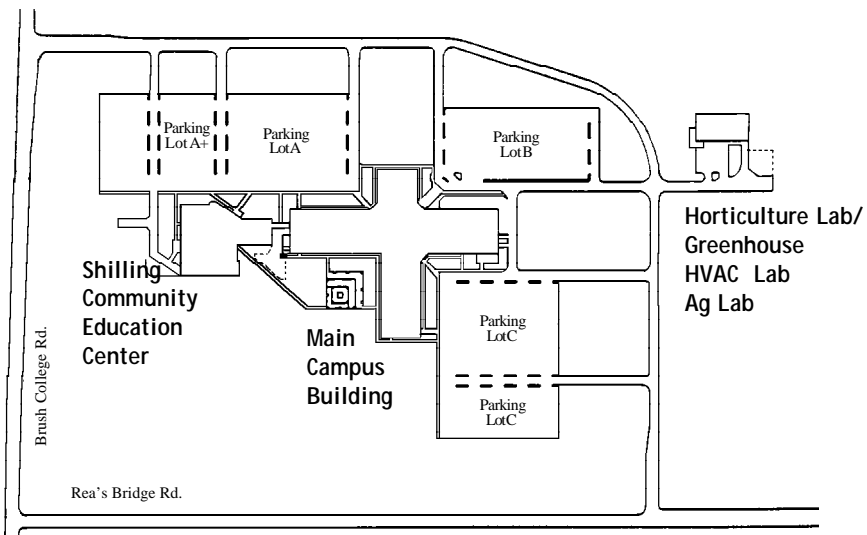
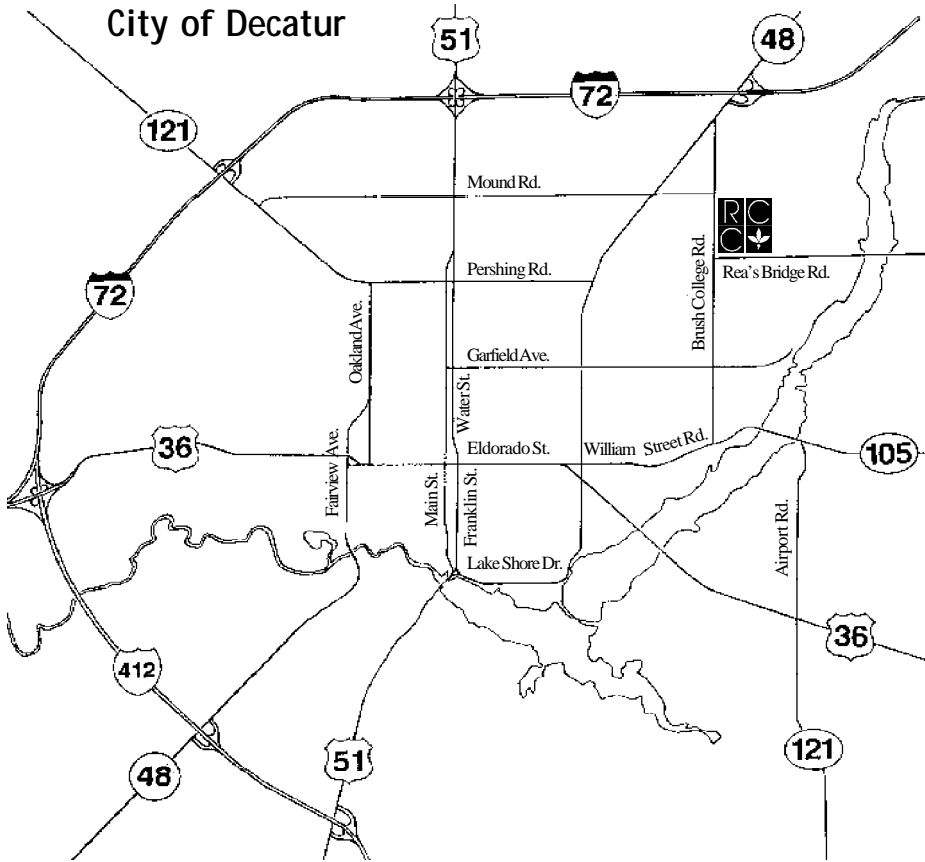
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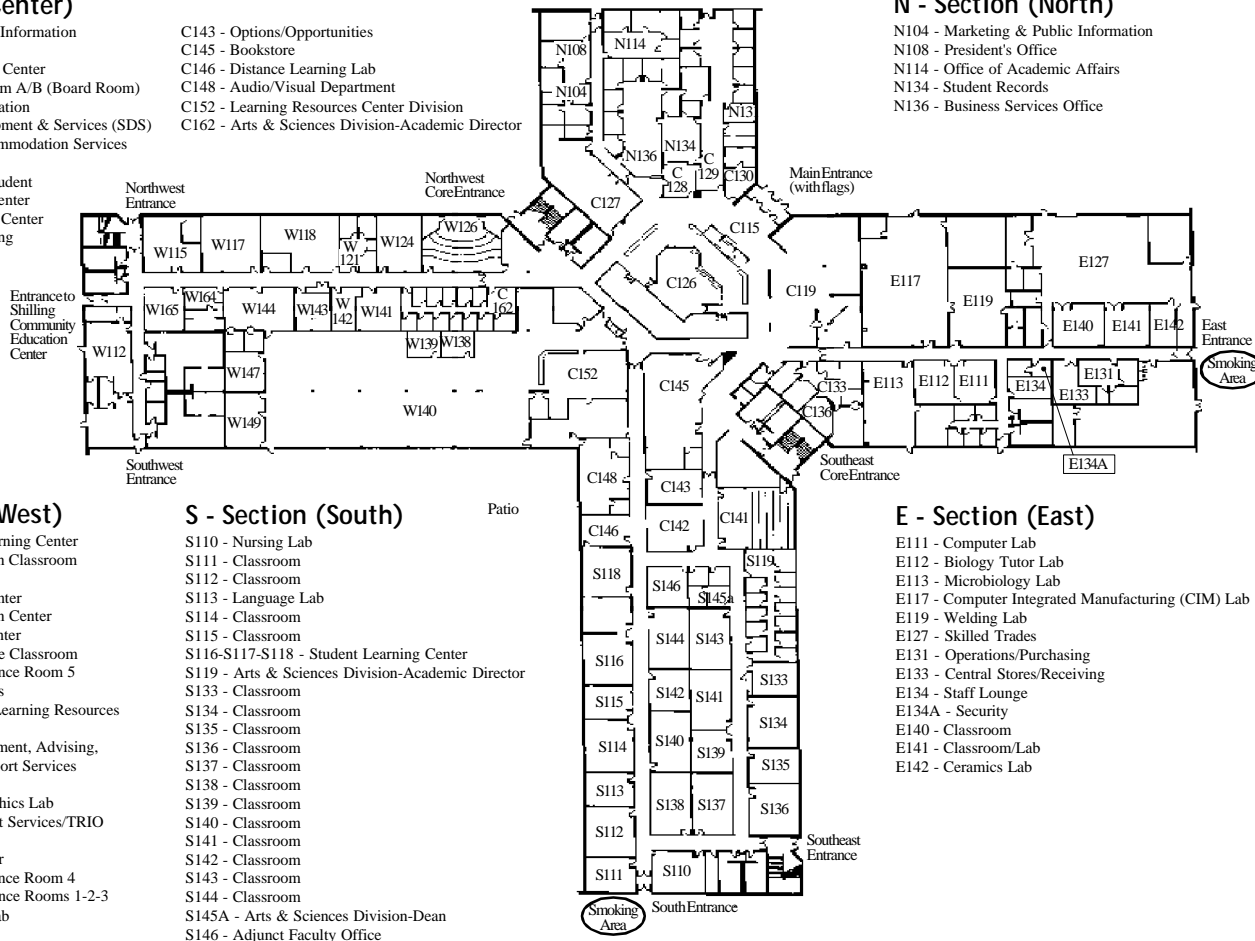


**C - Section (Center)**

- C115 - RCC Reception/Information
- C119 - Food Services
- C126 - Mueller Student Center
- C127 - Conference Room A/B (Board Room)
- C128 - Records/Registration
- C129 - Student Development & Services (SDS)
- C130 - Disability Accommodation Services Office
- C133 - Multicultural Student Enrichment Center
- C136 - Transfer/Career Center
- C141 - Distance Learning Classroom
- C142 - Classroom
- C143 - Classroom
- C143 - Options/Opportunities
- C145 - Bookstore
- C146 - Distance Learning Lab
- C148 - Audio/Visual Department
- C152 - Learning Resources Center Division
- C162 - Arts & Sciences Division-Academic Director

**N - Section (North)**

- N104 - Marketing & Public Information
- N108 - President's Office
- N114 - Office of Academic Affairs
- N134 - Student Records
- N136 - Business Services Office

**W - Section (West)**

- W112 - Child Care Learning Center
- W115 - Adult Education Classroom
- W117 - Art Studio
- W118 - Duplication Center
- W121 - Adult Education Center
- W124 - Assessment Center
- W126 - Ramped Lecture Classroom
- W138 - L.R.C. Conference Room 5
- W139 - L.R.C. Archives
- W140 - Kitty Lindsay Learning Resources Center
- W141 - Student Assessment, Advising, and Learning Support Services Division
- W142 - Computer Graphics Lab
- W143 - Student Support Services/TRIO Program
- W144 - Graphics Center
- W147 - L.R.C. Conference Room 4
- W149 - L.R.C. Conference Rooms 1-2-3
- W164 - Photography Lab
- W165 - Classroom

**S - Section (South)**

- S110 - Nursing Lab
- S111 - Classroom
- S112 - Classroom
- S113 - Language Lab
- S114 - Classroom
- S115 - Classroom
- S116-S117-S118 - Student Learning Center
- S119 - Arts & Sciences Division-Academic Director
- S133 - Classroom
- S134 - Classroom
- S135 - Classroom
- S136 - Classroom
- S137 - Classroom
- S138 - Classroom
- S139 - Classroom
- S140 - Classroom
- S141 - Classroom
- S142 - Classroom
- S143 - Classroom
- S144 - Classroom
- S145A - Arts & Sciences Division-Dean
- S146 - Adjunct Faculty Office

**E - Section (East)**

- E111 - Computer Lab
- E112 - Biology Tutor Lab
- E113 - Microbiology Lab
- E117 - Computer Integrated Manufacturing (CIM) Lab
- E119 - Welding Lab
- E127 - Skilled Trades
- E131 - Operations/Purchasing
- E133 - Central Stores/Receiving
- E134 - Staff Lounge
- E134A - Security
- E140 - Classroom
- E141 - Classroom/Lab
- E142 - Ceramics Lab



## Second Floor

### W - Section (West)

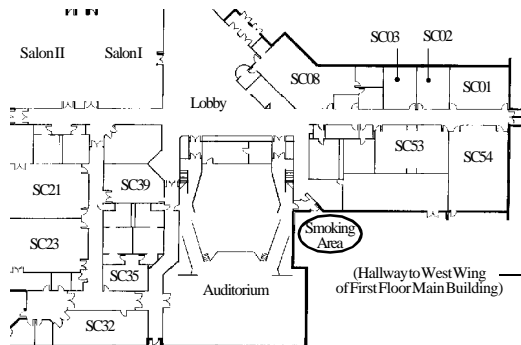
W206 - Surgical Lecture/Lab  
 W207 - Electronics Lab  
 W211 - Computer Assisted Drafting (CAD) Lab  
 W213 - Drafting Lab  
 W214 - Industrial Electronics Lab  
 W215 - Child Care Classroom  
 W217 - Biology Lab A  
 W219 - Biology Lab B  
 W220 - Chemistry Lab

### C - Section (Center)

C211 - Organic Chemistry Lab  
 C218 - Occupational & Technical Division Office  
 C232 - Physics Lab  
 C235 - Earth Science Lab  
 C236 - Classroom  
 C237 - Classroom  
 C238 - Technical Resources Center  
 C239 - Information Processing Lab 1  
 C240 - Information Processing Lab 2  
 C242 - Faculty Office Complex

### S - Section (South)

S208 - Classroom  
 S209 - Classroom  
 S210 - Classroom  
 S211 - Classroom  
 S212 - Classroom  
 S213 - Information Processing Lab 6  
 S214 - Classroom  
 S215 - Information Processing Lab 5  
 S216 - Classroom  
 S217 - Information Processing Lab 4  
 S219 - Information Processing Lab 3



## Shilling Community Education Center

SC01 - Classroom  
 SC02 - Classroom  
 SC03 - Classroom  
 SC08 - Lifelong Learning Division  
 SC21 - Fitness Center  
 SC23 - Rehearsal Room  
 SC32 - Scene Shop  
 SC35 - Green Room/Dressing Rooms  
 SC53 - Conference Rooms A/B  
 SC54 - Activity Room

District served by  
Richland Community College

