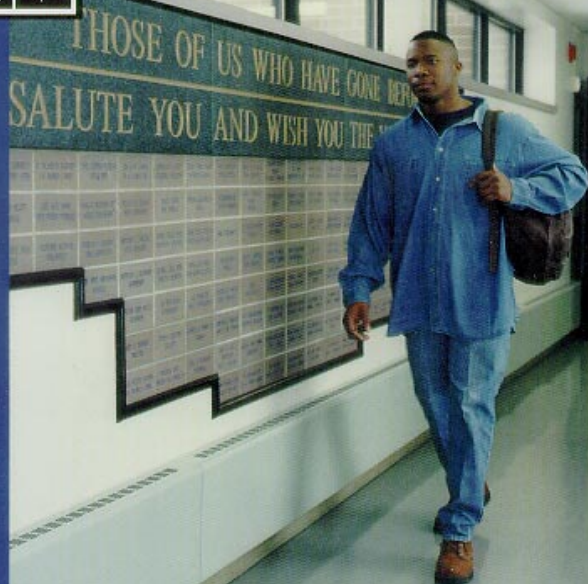


Richland Community College



1998-2000 Catalog

# Richland Community College

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## 1998-2000 Catalog

CollegeSource

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# **Richland Community College**

Established 1972

## **Accreditation**

Richland Community College is accredited by the North Central Association of Colleges and Secondary Schools

## **Recognition**

Illinois Board of Higher Education

Illinois Community College Board under the provision of the  
Community College Act

Office of the State Board of Education

Universities of the State of Illinois

U.S. Department of Education

Veterans' Administration

Illinois Student Assistance Commission

## **Freedom of Information**

The College complied with the regulations of the Family Rights and Privacy Act of 1974. A copy of the regulations are on file in the Learning Resources Center and the Student Development and Services Office.

## **Disclaimer**

This Catalog should not be considered a contract. The College reserves the right to change at any time, without notice, tuition, fees, courses, programs, graduation requirements, policies, procedures, and other such matters as may be within its control.

## **Nondiscrimination Policy**

It is the policy of Richland Community College that discrimination against any individual, or group of individuals on the basis of race, color, religion, sex, age, national origin, ancestry, marital status, physical or mental disability unrelated to ability, military status, or unfavorable military discharge, is specifically prohibited. Questions regarding compliance may be directed to the Affirmative Action Officer at the College.

# **Richland Community College**

Community College District 537

## **1998-2000 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:

*<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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Wayne Dunning, Vice-Chairman  
Sharon Alpi, Secretary  
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Dean, Lifelong Learning  
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David L. Zindel  
Dean, Kitty Lindsay Learning Resources Center

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# College Calendar

(Subject to Change)

## Fall 1998

### August

Aug. 17	M	Staff Development Workshops (College Closed)
Aug. 18	T	Fall Scheduled Registration
Aug. 19	W	New Student Orientation
Aug. 21	F	New Student Orientation
Aug. 24	M	Fall Semester Begins 16-week session and First 8-week session
Aug. 24	M	Drop-Add Registration
Aug. 29	S	Saturday Classes Begin

### September

Sept. 7	M	Labor Day (College Closed)
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### October

Oct. 12	M	Columbus Day (College Closed)
Oct. 16	F	Midterm of Semester
Oct. 19	M	Second 8-week Session Begins
Oct. 26-Jan. 19		Registration for 1999 Spring Semester

### November

Nov. 11	W	Veterans' Day (College Closed)
Nov. 26-29	Th-Su	Thanksgiving Vacation (No Classes after 5:10 p.m., Wed., Nov. 25; College Closed Nov. 26, 27, and 28)

### December

Dec. 11	F	Last Day for Withdrawal with "W"
Dec. 14-19	M-S	Final Examinations
Dec. 21	M	Final Grades Due by 11:00 a.m.
Dec. 24-Jan. 3	Th-Su	Holiday Break

## Spring 1999

### January

Jan. 11	M	Staff Development Workshops (College Closed)
Jan. 13	W	New Student Orientation
Jan. 15	F	New Student Orientation
Jan. 18	M	Martin Luther King, Jr.'s Birthday (College Closed)
Jan. 19	T	Spring Semester Begins 16-week session and First 8-week session
Jan. 19	T	Drop-Add Registration
Jan. 23	S	Saturday Classes Begin

### February

Feb. 12	F	Lincoln's Birthday (College Closed)
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### March

Mar. 12	F	Midterm of Semester
Mar. 15	M	Second 8-week Classes Begin

Mar. 31-Apr. 4 W-Su Spring Break  
(No Classes Wed., March 31, through Sun., April 4;  
College Closed, April 2 - Good Friday)

## April

April 5-June 8 Registration for 1999 Summer Term  
April 5-Aug. 23 Registration for 1999 Fall Semester

## May

May 7 F Last Day for Withdrawal with "W"  
May 10-15 M-S Final Examinations  
May 14 F Graduation  
May 17 M Final Grades Due by 11:00 a.m.  
May 31 M Memorial Day (College Closed)

## Summer 1999

### June

June 1 M Summer Scheduled Registration  
June 7 M Summer Classes Begin  
June 7 M Drop-Add Registration

### July

July 2 Th Midterm of Semester  
July 5 M Independence Day Observed (College Closed)  
July 27 T Last Day for Withdrawal with "W"  
July 28-29 W-Th Final Examinations

### August

Aug. 2 M Final Grades Due by 11:00 a.m.

## Fall 1999

### August

Aug. 16 M Staff Development Workshops (College Closed)  
Aug. 18 W New Student Orientation  
Aug. 20 F New Student Orientation  
Aug. 23 M Fall Semester Begins  
16-week session and First 8-week session  
Aug. 23 M Drop-Add Registration  
Aug. 28 S Saturday Classes Begin

### September

Sept. 6 M Labor Day (College Closed)

### October

Oct. 11 M Columbus Day (College Closed)  
Oct. 15 F Midterm of Semester  
Oct. 18 M Second 8-week Session Begins  
Oct. 25-Jan. 18 Registration for 2000 Spring Semester

### November

Nov. 11 Th Veterans' Day (College Closed)  
Nov. 25-28 Th-Su Thanksgiving Vacation (No classes after 5:10 p.m. Wed., Nov. 24;  
College Closed Nov. 25, 26, and 27)

**December**

Dec. 10	F	Last Day to Withdraw with "W"
Dec. 13-18	M-S	Final Examinations
Dec. 20	M	Final Grades Due by 11:00 a.m.
Dec. 23-Jan. 2	Th-Su	Holiday Break

**Spring 2000**

**January**

Jan. 10	M	Staff Development Workshops (College Closed)
Jan. 12	W	New Student Orientation
Jan. 14	F	New Student Orientation
Jan. 17	M	Martin Luther King, Jr.'s Birthday (College Closed)
Jan. 18	T	Spring Semester Begins 16-week session and First 8-week session
Jan. 18	T	Drop-Add Registration
Jan. 22	S	Saturday Classes Begin

**February**

Feb. 11	F	Lincoln's Birthday (College Closed)
---------	---	-------------------------------------

**March**

Mar. 6	M	Mid-semester Break
Mar. 10	F	Midterm of Semester
Mar. 13	M	Second 8-week Session Begins

**April**

April 3-June 5		Registration for 2000 Summer Term
April 3-Aug. 21		Registration for 2000 Fall Semester
Apr. 20-23	Th-Su	Spring Break (No Classes Thurs., April 20 - Sun., April 23; College Closed, April 21 - Good Friday)

**May**

May 5	F	Last Day for Withdrawal with "W"
May 8-13	M-S	Final Examinations
May 12	F	Graduation
May 15	M	Final Grades Due by 11:00 a.m.
May 29	M	Memorial Day (College Closed)
May 30	T	Summer Scheduled Registration

**Summer 2000**

**June**

June 5	M	Summer Classes Begin
June 5	M	Drop-Add Registration

**July**

July 4	F	Independence Day Observed (College Closed)
July 25	T	Last Day for Withdrawal with "W"
July 26-27	W-Th	Final Examinations
July 31	M	Final Grades Due by 11:00 a.m.

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# 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 towards 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,

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. During the past two and a half decades, that is what the College has done. The people of the District have benefited and prospered from the services the College has offered.

As the College enters its third decade, its basic purpose and mission has not dramatically changed. What has changed, however, is the scope of activity and the manner in which it occurs. The world is not the same as it was in the 1970s. The 1990s place demands on Richland that are far different than they were 25 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 next 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 -- straightforward, 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 6,000 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, 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 a non-credit option with the Lifetime 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, 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 Vocational Center (DAVC)**, 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.

**Decatur Public Library** provides an excellent source of information and secondary resources for Richland students.

**The Richland Opportunities Center**, at 1075B W. Pershing Rd., Decatur, houses both the Option/Opportunities 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. 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 Opportuni-

ties 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**

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. Is a high school junior or senior and has principal approval to enroll, or
6. Is a gifted student below the age of 16 and has 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. Applicants must be enrolled at Richland Community College.
2. High school diploma or GED.
  - a. Applicants must be a high school graduate or have a GED certificate.

- b. Applicants must have a cumulative high school grade point average of 2.5 or above.
- c. Applicants must have completed the following high school courses with a minimum grade of "C":
  - Three years of English,
  - Three years of mathematics (including Algebra I and II and Geometry), and
  - Three years of science (including chemistry and biology) within the past five years.
 (Students who do not meet this requirement must complete a one-semester college course in each of the three areas and receive a "C" or above in each course.)

A cumulative grade point average of 2.5 in college courses 100 level and above is required for applicants who do not have a cumulative high school grade point average of 2.5 or whose high school grade point average is not available.

- 3. Courses that must be completed before applying to the Program include
  - a. High school chemistry or college chemistry taken within the past five years with a grade of "C" or above. Chemistry 100 or above is acceptable to fulfill this requirement,
  - b. Meet prerequisite for Biology 201, and
  - c. Computer Information Systems (C.I.S.) 110.
- 4. Pre-entrance Tests
 

Applicants are required to have a 21 composite score and 20 in Science Reasoning on the ACT. Students who did not take the ACT must have a 2.5 grade point average in 15 semester hours of approved college courses. (See Nursing Brochure for approved course list.)
- 5. Applicants must have a 2.0 cumulative grade point average in all biology courses. All science courses must have been taken within the last five years.
- 6. The Admission Process--Student selection is based on Grade Point Average (GPA) as described above and a bio-

logy GPA of 2.0. 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.

- 7. Students admitted to the program must allow the College to file an application for a criminal background check through the Illinois State Police. 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 Transfer Career Majors-South Office (S145), Ext. 432. (Advanced placement available for LPNs who meet requirements.)

## 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.

## Transfer of College Credit

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, or
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 or college 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.

## 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. Add/Drop 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)

Richland participates in the College Level Examination Program (CLEP), which allows 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 from two to six semester hours may be given, depending on the test score. 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. Credit from two to six hours may be given depending on the student's test score.

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

Credit granted through a CLEP examination will be recorded as "Credit through CLEP" 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 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 examination, contact the Reading/Writing 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 \$15.00, or one-half the in-district or out-of-district tuition normally charged for the course, whichever is greater, 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:

C.I.S. 161, 162	B
C.I.S. 251, 252	B
C.I.S. 261, 262	B
Eltrn. 109, 113	B
Eltrn. 160, 202	B
Fren. 101, 102, 201, 202	B
Germ. 101, 102, 201, 202	B
Japan. 101, 102, 201	B
Mach. 101, 102	B
Math. 091, 104	B
Math. 098, 116, 121, 122, 221	B
Music 101, 102, 201	B
Nurs. 101, 102, 151, 202, 203	C
Bus. 140, O.T. 100, 111, 112, 211, 212	B
O.T. 121, 131, 132	B

O.T. 141, 242, 243 B

Span. 101, 102, 201, 202 B

Weld. 101, 102, 201 B

Students desiring credit by advanced course must apply officially for such credit within four years following the completion of the advanced course. Exceptions 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 USAFT” or “credit through armed services courses.”

Contact the Dean of Admissions and Records 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, or other areas. Test results will be used to determine a student’s eligibility for courses with prerequisites and/or placement in developmental courses (courses numbered 088 through 098).

**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 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 Reading/Writing 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 Transfer Career Majors-West Office (C162), Ext. 344, regarding appropriate placement.

**Math 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 intermediate algebra.

Students seeking clarification regarding their math placement should see a counselor in SDS.

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# 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	\$42.00*
Academic Fee	\$2.50
Total	\$44.50

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

Per Credit Hour	
Tuition	\$42.00*
Academic Fee	\$2.50
Out-of-District	\$117.06**
Total	\$161.56

**Out-of-State and International students pay \$239.56\*\* per credit hour.**

\* Scheduled to increase to \$44.00 for fiscal year 1999-2000.  
\*\* These charges are subject to change on a yearly basis as per capita costs are determined.

**Fees**

<i>Registration Fee</i> (non-refundable and payable at the time of registration)	\$10.00
<i>Art Lab Fee</i> (Art 121, 122, 125, 126, 131, 225)	\$15.00
<i>Automotive Lab Fee</i> (per course except Auto. 101)	\$20.00
<i>Biology Lab Fee</i> (per course except Biol. 210)	\$20.00
<i>Chemistry Lab Fee</i> (per course)	\$20.00
<i>Drafting Lab Fee</i> (per course except Draft. 101, 102, 120, 130, 295)	\$20.00
<i>Earth Science Lab Fee</i>	\$5.00
<i>Electronics Lab Fee</i> (per course except Eltrn. 101, 102, 220, 290, 295)	\$20.00
<i>Electronics 202</i> (Kit)	\$35.00-\$49.95
<i>Golf</i> (golf rounds)	\$10.00
<i>Home Economics</i> (110 only)	\$20.00
<i>Machining</i> (per course)	\$20.00
<i>Mechanical Systems</i> (110 only)	\$15.00
<i>Physical Education</i> (Fitness Center only)	\$15.00
<i>Welding Lab Fee</i> (per course)	\$20.00
<i>Graduation Fee</i> (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** or a **Mid-term Deferment** for a fee of \$10.00.

# Tuition Discount For Senior Citizens

Persons 65 years or older whose annual income is less than \$14,000 may enroll in any credit course (other than credit courses designed for senior citizens) without the payment of tuition. However, all fees must be paid. Any person 65 years or older whose annual income is over \$14,000 will pay one-half of the regular tuition and all fees. For more information, call the Business Services Office, 875-7200, Ext. 227.

## Proficiency Exam

The fee for a proficiency exam is \$15.00 or one-half of the tuition normally charged for a course, whichever is greater.

## 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 two days of session	100%
On or 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 community 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.

All students receiving financial aid at Richland must be high school graduates or have received a GED Certificate.

## 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 1 for full-year consideration.

## Scholarships

### Merit Recognition Scholarship

Provides \$500 scholarships to Illinois students who rank near the top 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 No. 1.

### 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.

### **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, 1-800-899-4722.

### **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. There is no minimum term of service requirement for veterans separated prior to August 11, 1967. 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.

### **Department of Rehabilitation 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. Some 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 some are not. 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 March 31 for the following fall semester. Applications, inquiries, and selection procedures are processed through SDS. Call 875-7200, Ext. 267.

## **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) and in good standing as defined by

the Academic Standard Policy. 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.

## Loans

Richland participates in the Federal Family Education Loan Program. These loans include the Subsidized Stafford Loan, the Unsubsidized Stafford Loan, and the PLUS Loan (Parent 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 in good standing academically to receive a loan. Loan counseling is required for all applicants. For more information, contact the Richland Financial Aid Office.

## 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.

## 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 for one semester. Students who have attempted 48 credit hours and do not have a 2.0 GPA will be suspended from financial aid.

### 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
½-time (9 to 11 hours)	6 hours per term/ 15 hours per year
°-time (6 to 8 hours)	3 hours per term/ 9 hours per year

Less than °-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.

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 instead of suspension.

Failure to meet Satisfactory Academic Progress conditions listed above will result in Financial Aid Probation or Suspension.

**Financial Aid Probation**

Students who do not meet the grade point average requirements and the completion of hours requirements as explained above will be notified in writing that they have been 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 (Stafford, PLUS) 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 the Probation Contract are met and all other conditions for Satisfactory Progress are met, the student is returned to good standing.

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

**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 be reinstated:

- 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**

A financial aid appeal may be filed if the student feels unusual circumstances affected his/her progress. To file an appeal, the student must fill out an Appeal Form, which may be obtained from the Financial Aid Office. 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 remedial courses will be allowed an additional twenty-four hours attempted for remedial course work.

Students may appeal the 96-credit rule by filling out a Financial Aid Appeal Form available in the Financial Aid Office.

**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.

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.

## **Disbursement**

The dates for disbursing Pell and/or loan checks are published prior to the beginning of each academic year. Generally, loan checks are disbursed no earlier than one month after the start of each term, and Pell checks are disbursed two weeks after mid-term.

An enrolled student's award will be determined by his/her hours of enrollment at the time of check disbursement.

A student who charged books and supplies against a Pell Grant but withdrew from classes during the first two weeks of school should return all books and supplies to the bookstore or Richland will bill the student for the charges. A Pell Grant will not cover these charges.

A student who withdraws from all classes or drops below half-time prior to disbursement will not be issued a Pell or loan check. However, outstanding expenses will be paid out of the financial aid award whenever possible.

## **Loan Policies**

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

No Federal Family Education Loans (Stafford, PLUS) will be certified for students on Financial Aid Probation.

## **Refunds to Aid Recipients**

Students receiving funds from the State of Illinois or from Federal Title IV financial aid programs that paid their tuition and fees will receive any refund due after funds representing financial aid awards are returned to the appropriate state or federal financial aid account.

Refunds for students attending the College for the first time who receive federal financial assistance and withdraw before completion of 60% of their first semester of attendance will be calculated on a pro rata basis.

The pro rata formula for determining a refund is the number of weeks remaining in the semester (as of the last recorded day of attendance) divided by the number of weeks of enrollment the student was charged for will equal the amount to be refunded to the student and/or to the federal aid program(s) that funds were awarded from.

A fair and equitable refund policy for all other Title IV aid recipients has been established according to Federal guidelines. For a complete explanation, including examples, contact the Financial Aid Office.

## **Verification**

All financial aid applicants 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, and proof of all untaxed income.

## Veterans' Benefits

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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 submitted 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 Coordinator of Financial Aid and Veterans' Affairs before enrolling in these courses.

Applications and/or information concerning the following Veterans' programs are available in SDS:

**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 28.

### **MIA/POW Scholarship**

Refer to Scholarships, page 28.

### **Tutorial Assistance**

The Study Assistance 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 20.)

# Student Services

## Orientation

New students are encouraged 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 offered. The course covers such topics as study skills, career exploration, stress, listening, notetaking, job seeking skills, and time management.

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

## Student Mentor Program

The Student Mentor Program, established Spring Semester 1990, is an important component of the New Student Orientation Program. The Mentor Program was developed to aid new students in this transition to higher education and to expose them to the broad educational opportunities at Richland. It is students helping students.

Student Mentors may be nominated by faculty members or staff or may apply directly to the program. Mentors participate in New Student Orientation, registration, College Day, and other scheduled activities, as well as provide ongoing support to new students in the areas of positive attitude development and relationship-building with faculty, staff, and peers. Student Mentors are knowledgeable and can refer students to appropriate College services and staff who provide services for students.

Students interested in becoming Mentors should contact SDS.

## Career Planning

The staff at Richland Community College knows that planning a career is an important part of most students' education. SDS offers career counseling on a one-to-one basis and a group basis.

The staff utilizes a variety of interest surveys along with career development classes and workshops to help individuals explore and understand their aptitudes, abilities, interests, strengths, and values and to make appropriate decisions.

The Career Planning and Placement Center, located in C137, provides comprehensive career planning and job placement assistance for students and residents of the College District. The Center offers career and college major exploration, interest inventories, and job placement. Visit the RCC Career Center online at <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.

## 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 (formerly Math 115).

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 register with 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, to ensure that Richland courses completely transfer to the college or university of the student's choice. The staff also provides information on the transfer process, including admission requirements, financial aid, and housing. Visit the RCC Transfer Center website at <http://www.richland.cc.il.us/sds/transfer>.

## Job Placement

Job placement assistance is available in the Career Planning and Placement Center in Room C137. Part-time and full-time job openings available in the community are posted daily in the "Job Books" located in the Center. Job seekers are also encouraged to register for "Job Links," which is a computerized job matching program.

Students may also request resumé writing assistance, as well as other job search assistance, by making an appointment with the Job Placement Specialist or the Career Planning and Placement Coordinator.

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 Coordinator.

Students are also encouraged to register with the Illinois Employment and Training Center.

## 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 division dean, faculty coordinator, or Career Planning and Placement Coordinator. 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

Horticulture

Industrial Drafting

Law Enforcement

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, note-takers, 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.

## Reading/Writing Center

The Reading/Writing Center, located in S118, offers help to students and residents of the College District in reading, study skills, and writing, as well as assistance in spelling, note-taking, concentration, and preparation of job resumé.

## **Study Assistance Center**

The Study Assistance Center, located in S116, is designed to support instruction by providing skill building and tutorial services for students at Richland. The Center provides individual student peer tutors on an appointment basis and faculty tutoring on a drop-in basis for areas of study offered by the College other than English. Biology and Chemistry tutoring is offered in Room E112.

## **Testing Center**

The Testing Center, located in S115, provides testing services for placement in English, mathematics, and health courses. Proctors also administer the constitution test, exams from other universities, and make-up tests for Richland classes.

## **Options/ Opportunities Programs**

The Options/Opportunities Programs serve homemakers who are widowed, divorced, or separated and need help finding a job. They help low-income single parents, displaced homemakers, and men and women on public aid with tuition, child care, mileage, and books. Call 875-7200, Ext. 232, for more information.

## **Student Support Services/TRIO**

The Student Support Services/TRIO 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. A variety of services is offered to help students stay in school, make higher grades, and attain a college degree. Any student who desires extra support and encouragement to complete a college degree is encouraged to apply. Applications are available in the TRIO Office in W143.

## **Perkins Program**

Students who are enrolled in selected occupational programs may receive additional academic support including opportunities for job shadowing, career exploration, professional mentoring, tutoring, transportation, child care assistance, and other individualized services. In addition, participants who are eligible meet at least one of the following criteria:

1. a man entering a traditionally female-biased field,
2. a woman entering a traditionally male-biased field,
3. low-income,
4. a non-native speaker of English,
5. taking a course(s) numbered below 100, or
6. have a disability.

For information or to register, contact the Perkins Program Coordinator.

## **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. Prospective students and volunteers may call for appointments or further information at 875-3576.

## 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 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 3.00 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 Center 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.

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, 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 Testing Center 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.

# Student Life

## Multicultural Student Enrichment Program

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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. The MSEC also monitors scholastic standing of groups and individual students and recommends programs or services for improvement. 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 **Association of Information Technology Professionals** is a nationally known organization for C.I.S. majors. Richland's student chapter promotes computer usage through a variety of activities.

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 **Christian Fellowship Club** presents Christian morals and values to students through charitable activities, workshops, and student discussion.

The **Collegiate Secretaries International** assists career-oriented business students in developing a better understanding of office professions and the business world.

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 **Contemporary Reading Club** reads and critiques the works of current culturally diverse authors. Students, faculty, and staff are urged to participate.

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

The **Ebony Club** seeks to heighten unity, cooperation, and dignity of African-American students, as well as foster better understanding between African-American students and all faculty, staff, administration, and students.

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 **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.

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

The purpose of Richland's **N.A.A.C.P. College Chapter** is to promote 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** provides a forum in which to explore the education and vocation of nursing. Health care professionals and advanced nursing students extend current knowledge in the field of nursing to new students.

Richland's chapter of **Phi Theta Kappa**, a national two-year college honor society, initiates new members each fall and spring. Students with a 3.25 grade point average in 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, and bisexual issues, to foster a greater awareness and tolerance for gay, lesbian, and bisexual persons and issues and furnish social and emotional support for gay, lesbian, and bisexual persons on campus.

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.

**Theatre Engagé** promotes personal development and enjoyment through drama and theatre. Members assist in all aspects of theatre production and also assist other local theatre groups.

The **Young Republicans Club** seeks to increase the political involvement of young people through political activity within the Richland District.

Contact the Director of the Multicultural Student Enrichment Program 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 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 and performs in the community. 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. Involvement in the Program Board brings hands-on experience in the areas of time management, delegation, and budgeting, as well as developing skills in leadership and decision-making.

The **Student Mentor 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 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

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### 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 following is a condensed version of the College's policy regarding student 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 attendance; 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 SDS each term.

2. **Confidential Information**--All information other than directory information is considered confidential. Examples of confidential items include:
  - (1) Student's academic record, grade reports, high school and college transcripts, and test results;
  - (2) Correspondence, including letters of recommendation and comments from counselors and faculty; and
  - (3) 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.

Financial information submitted by the student's parents in support of a financial aid application or letters of recommendation and other confidential correspondence placed in the student's education record before January 1, 1975, may be waived without prejudice.

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. Judicial order or subpoena, providing the College notifies the student before complying;
8. Appropriate persons (within narrow limits) if the knowledge of confidential information is necessary to protect the health or safety of the student or other persons; 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 Grievance**

When a student believes that a condition exists which is in violation of his or her rights, College policies, rules, standards, and 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
- 2. Americans With Disabilities Act
- 3. Discrimination
- 4. Financial Aid Suspension
- 5. Family Educational Rights and Privacy Act
- 6. Sexual Harassment
- 7. Student Conduct
- 8. Student Employment
- 9. Tuition Refunds

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.

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

## **Student Grievance and Disciplinary Proceedings**

If a condition exists that a student or other College personnel feels is unsatisfactory or in violation of College policies, rules, standards, or procedures, the condition may be resolved through an informal or formal process. Every attempt will be made to resolve the grievance at the point of origin. The individuals/committees on the following chart should be contacted for informal and formal resolutions (Pending Board Approval):

### Student Resolution Process Chart (Contact in Sequential Order)

Category	For Informal Resolution, Contact:	For Formal Resolution, Contact:
<ul style="list-style-type: none"> <li>- Academic Concerns</li> <li>- Academic Dishonesty</li> <li>- Academic Suspension</li> <li>- Educational Guarantee</li> <li>- Grade Appeals</li> <li>- Graduation Requirements</li> </ul>	Instructor (1st) Academic Director (2nd) Dean (3rd) Vice President of Academic Affairs (4th)	Vice President of Academic Affairs
Americans with Disabilities Act	Disabilities Accommodations Specialist (1st) Director of Personnel (2nd)	Director of Personnel
Discrimination	Director of Personnel	Director of Personnel
Financial Aid Suspensions	Coordinator of Financial Aid (1st) Vice President of Student Development and Services (2nd)	Vice President of Student Development and Services
Family Educational Rights and Privacy Act Issues	Dean of Admissions/Records (1st) Vice President of Student Development and Services (2nd)	Vice President of Student Development and Services
Sexual Harassment	Director of Personnel	Director of Personnel
Student Conduct (In Classroom)	Instructor (1st) Academic Director (2nd) Dean (3rd) Vice President of Academic Affairs <u>or</u> Vice President of Student Development and Services (4th)	Vice President of Academic Affairs <u>or</u> Vice President of Student Development and Services
Student Conduct (Out of Classroom)	Vice President of Student Development and Services	Vice President of Student Development and Services <u>or</u> Vice President of Academic Affairs
Student Employment	Supervisor (1st) Director of Personnel (2nd)	Director of Personnel
Tuition Refunds	Controller (1st) Vice President of Finance and Administration (2nd)	Vice President of Finance and Administration

## 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-- Intoxicant Use**

### **Drug-Substance Abuse**

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**

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

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 Personnel.

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

## Responsible Use of Information Technology

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**

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 Basic Education/Adult Secondary Education (GED)**

Student Advising, Assessment and Learning Support (SAALS) offers a variety of courses to help meet the diverse needs of students. 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 17. All classes and textbooks for the program are free to students.

## **English as a Second Language**

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 SAALS office for further information. All classes and textbooks for this program are free.

## **Applied Learning Skills (ALS)**

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 either the Study Assistance Center or the Reading/Writing Center, depending on the module taken.

## **Lifelong Learning Program**

The Lifelong Learning Program promotes access to lifelong learning by providing programs in convenient locations, as well as on campus. Credit, general studies, and lifelong learning classes are held in locations throughout the Richland District. Programs are based on a continuous assessment of community needs.

Richland Community College considers the 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 will indicate the days, times, and locations of the classes and the expense to the student. There are five major areas of focus:

1. Professional/Technical/  
Career Development
2. Personal Interest
3. General Studies/  
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. General Studies/Vocational Skills Credit** -- Registration for General Studies and vocational skills credit courses is conducted at the same time and locations as registration for other credit courses prior to the beginning of each semester. The refund policy for General Studies and vocational skills courses is the same as for all credit courses; refer to the Tuition, Fees, and Charges section (page 24).

- 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, confer-

ences, 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, 875-7211, Ext. 263.

## The Center for Business and Community Development

The purpose of the Center for Business and Community 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 rural communities in the District.

## **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 Reading/Writing Center or the Study Assistance

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 45.

## 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:

A = 4 quality points and 4 x 3 hrs. = 12  
 B = 3 quality points and 3 x 3 hrs. = 9  
 9 + 12 = 21 total points  
 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; 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 45 under Student Grievance and Disciplinary Proceedings.

## Alternative Methods of Instruction

### Distance Learning Program

The Distance Learning Program 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 the Distance Learning Program are listed in the Off-Campus section of the Class Schedule.

### 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 Bulletin are available for Independent Study.

“Request for Independent Study” forms are available in the appropriate division office.

### Extended Learning Program

The Extended Learning Program 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 ELP courses, call SDS, 875-7211, 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; 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 divi-

sion 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 - Regular attendance is necessary for satisfactory college work; thus, a student may be administratively dropped 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, Administrative Drop

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.

Students who fail to attend the first two classes of a course may also be dropped from the class.

The College may also drop any student who has unsatisfactory attendance during the period from the midterm through the last regular week of classes before finals. Faculty certification is required for such action.

Students are not to assume they will be automatically dropped and must complete a "Change of Schedule" form, available from SDS, if they wish to stop attending a class.

Students who stop attending a class without dropping a class or who are not dropped by the College may receive a grade of "F" for the course.

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.

## 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 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 as part of the withdrawal process.

Students are asked to withdraw in person unless it is physically impossible. In such a case, the student may either write a letter requesting the withdrawal or telephone an SDS counselor at 875-7200, Ext. 267.

Students may withdraw through the last day of class before final exam week of any term. A grade of "W" will be given for all current courses, if the courses are officially dropped.

"Change of Schedule" slips are available from SDS.

## 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 the Testing Center.

## 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. Transfer credit will be posted to the student’s transcript upon completion of eight hours 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

### 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, Millikin University, and Southern Illinois University at Edwardsville.
2. Meet all general education requirements for the baccalaureate degree at Chicago State University, Eastern Illinois University, Governor's State University, Greenville College, Illinois State University, MacMurray College, Northern Illinois University, University 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 Richland's *Student Transfer Handbook* and in that senior college's transfer guide or handbook.

**Richland recommends that students planning to transfer should consult Richland's *Student Transfer Handbook* available in the Transfer Center and 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 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 courses satisfies: IAIC (Communications), IAIF (Fine Arts), IAIH (Humanities), IAIL (Life Science), IAIM (Mathematics), IAI P (Physical Science), IAI S (Social Sciences). Check the Course Description section of this catalog (page 123) as to whether a specific Richland course qualifies.

## 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 *Student Transfer Handbook* in effect at the time of graduation. If a Richland course is taken and successfully completed in compliance with the *Student Transfer Handbook* 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 meet 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 68), Associate in Fine Arts (A.F.A.) (see page 69), and Associate in Engineering Science (A.E.S.) (see page 76) 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 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 81).

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 118).

All programs are designed to stimulate personal growth as the student achieves occupational, social, and personal goals 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.

In compliance with Public Act 87-581 of the Illinois Revised Statutes, the course content for general education courses in Social Science and Humanities promotes the improvement of human relations as related to race, ethnicity, gender, and other issues. These courses are required for all students satisfying the requirements for the Associate in Arts and the Associate in Science degrees, as well as for those students satisfying group requirements for the Associate of Applied Science degree in those areas.

## 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 -- Certificate  
Welding -- Certificate

## 66 Instructional Programs

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### **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 -- 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.
- Respiratory Care -- A.A.S.

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

- Surgical Technology -- Certificate

## Baccalaureate/Transfer Programs

### 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 59.)
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.)

\*Course content designed to improve human relations.

## 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 59.)
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.)

\*Course content designed to improve human relations.

## 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 59.)
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.)

\*Course content designed to improve human relations.

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**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:</b> 3 courses (9 Hrs.) Engl. 101, 102, 102H; Spch. 101 (Required)					
<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, 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; Engl. 115, 124, 126, 128, 201, 202, 231, 232, 251, 252; Fren. 202; Germ. 202 Hist. 111, 112, 201, 202, 270; Human. 100, 201H; Phil. 100, 110, 120, 210, 215; Span. 202 <b>Fine Arts</b> - Af. Am. 101; Art 100, 210, 220, 230; Drama 150; Engl. 140; Human. 100, 201H; 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					
<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 77 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 G.P.A. required for all Richland degrees.

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

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

## 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, 102H; Spch. 101 (Required)					
<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, 210, 230; Socio. 110, 150, 200					
<b>Humanities/Fine Arts: 3 courses (9-10 Hrs.)</b> (Select at least one course from humanities and at least one course from fine arts.) <b>Humanities</b> - Af. Am. 101; Engl. 115, 124, 126, 128, 201, 202, 231, 232, 251, 252; Fren. 202; Germ. 202; Hist. 111, 112, 201, 202, 270; Human. 100, 201H; Phil. 100, 110, 120, 210, 215; Span. 202 <b>Fine Arts</b> - Af. Am. 101; Art 100, 210, 220, 230; Drama 150; Engl. 140; Human. 100, 201H; 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					
<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 77 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 G.P.A. required for all Richland degrees.

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

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

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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 Science 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, 102H; Spch. 101 (Required)					
<b>Social and Behavioral Sciences: (6 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, 210, 230; Socio. 110, 150, 200					
<b>Humanities/Fine Arts: (6 Hrs.)</b> Af. Am. 101; Engl. 115, 124, 126, 128, 201, 202, 231, 232, 251, 252; Fren. 202; Germ. 202; Hist. 111, 112, 201, 202, 270; Human. 100, 201H; Phil. 100, 110, 120, 210, 215; Span. 202					
<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					
<b>Mathematics: 1 course (3-4 Hrs.)</b> 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: (9 Hrs.)</b> (Selected from the following) Art 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 151, 152					
<b>Total Hours</b> - (64-66 Required - Minimum of 15 hrs. at Richland)					

2.0 G.P.A. required for all Richland degrees.  
**It is strongly recommended that students consult with an academic advisor at both Richland and at 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.

### **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 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 131, 140, 225.

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

*Area of Concentration:* Biol. 101, 102, 202, and 210 or 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:* C.I.S. 105 or 110; Math. 116, 160, 170, 190, and above; psychology.

### **Business Teacher Education**

See Teacher Education.

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

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

*Other suggested courses:* Math. 121, 122.

### **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:* Econ. 200, 225, Math. 160, 170, 190, plus courses in sociology and political science.

Since a limited amount of study in economics is generally offered during the first two years of a bachelor's degree program, persons desiring a B.A. or B.S. in economics will be considered for graduation from Richland based upon a broad field of study as their area of concentration such as business, social science, etc.

### **Education**

See Teacher Education.

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

See *Associate in Engineering Science* (Page 80.)

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

*Area of Concentration:* Engl. 115, 124, 126, or 128, 140, 150; or 201, 202; or 231, 232; or 251, 252.

*Other suggested courses:* Hist. 101, 102; foreign language.

### **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, literature, or political science.

## International Business (A.A.)

*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.

## 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.

## Music

Music 101, 102, 103, 104, 190, 201, 202

## Nursing (A.D.N., A.A.S.)

*Area of Concentration:* Nurs. 101, 102, 151, 152, 154, 201, 202, 251, 254.

*Other suggested courses:* O.T. 141; Phil. 100, 120; Spch. 101.

## Philosophy (A.A.)

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

*Other suggested courses:* humanities and/or history courses.

## Physical Education

### 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 and 200.

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

### Physics (A.S.)

*Area of Concentration:* Phys. 210, 211, 212.

*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-Engineering

See Engineering.

### 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, 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.

**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.

## 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: Optics, 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
Social Science/Humanities:	6
Social science or humanities sequence from the list of approved, transferable electives. Econ. 231/232 sequence is strongly recommended.	
<b>Electives:</b>	<b>5</b>
Choose from a list of approved transfer electives. Lists may vary according to specific area of concentration.	

### Admission Requirements

Students admitted to the A.E.S. Program at Richland must meet the following admission requirements:

1. Have graduated from high school.
2. Successful placement into Engl. 101 - Composition 1.
3. Successful placement into Math. 121 - Calculus and Analytical Geometry 1.

### Provisional Admission

If an individual is not successful in placing into Engl. 101 or Math. 121, the student may be provisionally admitted into the A.E.S. program. Provisional admission will require the student to enroll in any required courses to address these deficiencies.

## 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 in Arts or Associate in Science degree at Richland.

The *Student Transfer Handbook*, which is available in the Transfer Center and in the Student Development and Services office, provides extensive transfer information including suggested Richland Associate Degree Transfer Curriculum (2+2) for the following programs:

- Eastern Illinois University - Business
- Eastern Illinois University - Elementary Education
- Eastern Illinois University - Industrial Technology
- Eastern Illinois University - Special Education
- Illinois State University - Business
- Illinois State University - Elementary Education
- Mennonite College of Nursing
- Millikin University - Business
- Millikin University - Nursing
- St. John's College, Department of Nursing
- St. Louis College of Pharmacy
- University of Illinois/Springfield - Business
- Southern Illinois University - Business
- University of Illinois - Engineering
- Western Illinois University - Business
- Western Illinois University - Elementary Education
- Western Illinois University - Law Enforcement

## 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**

- Nursing
- Radiography
- Physical Therapy Assistant
- Respiratory Care
- Occupational Therapy Assistant
- Surgical Technologist
- Dental Assisting
- Child Care Occupations
- Fire Science
- Law Enforcement

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

- Accounting
- Management
- Marketing
- Business-Real Estate
- Office Technology
- Supervision of Personnel
- Computer Information Systems-Programming
- Computer Information Systems-Microcomputer Applications

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

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

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

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

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.

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# Occupational & Technical Career Programs

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Richland Community College strives to provide educational opportunities to enable individuals to become contributing members of the workforce beyond the year 2000. The workplace has changed with new work hours and work patterns due to improved telecommunications and computer technologies. Sixty-five percent of new jobs by the year 2000 will require post-secondary education and training below the baccalaureate level, and 75% of the current workforce will need training by the year 2000. The information supply available doubles every five years. More information has been produced in the last 30 years than during the previous 5000.

The mission of the occupational & technical career 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 that together will 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. See page 81 for program listing. If the program is not on the list, some of the courses in that program may still transfer. Those courses are shown in bold type on page 81.

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 (page 80) with four-year institutions for completion of a Bachelor's degree.

## Human Services Certificate

This program has two goals: to prepare students to transfer to a four-year college with a major in one of the human services fields and to provide specific skills and

knowledge for employment in community agencies providing an array of human services.

The Human Services curriculum includes five areas of specialization. The Mental Health certificate helps to prepare students who are interested in counseling, therapeutic, and related services. A certificate in Gerontology provides a background for understanding and working with the elderly population. The Youth Worker certificate is designed as a foundation for those students seeking opportunities to provide services to children and adolescents. For students interested in working in the criminal justice system, Richland offers certificates in Corrections. The Home Care certificate is a program designed for students whose interest is providing in-home services to a variety of clients.

Certificate Level I and Certificate Level II are available in all five areas of specialization. Brochures can be picked up in SDS or the Transfer Career Majors-Southeast office.

## 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 59.)
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, 135, 145, 161, 162, 210, 220, 221, 222, 225, 245, 251, 252, 255, 261, 262, 285, 297  
C.I.M. 100  
O.T. 100, 102, 104, 105, 111, 112, 121, 131, 132, 150, 160, 210, 211, 212, 250

### Communications

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

### Humanities

Af. Am. **101**, 102  
Engl. **115, 124, 126, 128, 140**, 150, 201, 202, **231, 232, 251, 252**  
Fren. **202**  
Germ. **202**  
Hist. **111, 112, 201, 202**, 270  
Human. **100, 201H**  
Phil. **100, 110, 120, 130, 200, 210, 215**, 220  
Span. **202**

### Fine Arts

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

### Mathematics

Math. 104, 106, 108, **110, 111, 112, 113, 116, 117, 121, 122, 125, 131, 132, 141, 142, 160, 170, 171, 190, 221, 230, 231**

### 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, 115, 120, 210, 211, 212

### Social Science

Anthr. **110, 120, 130**  
Econ. 140, 200, 225, **231, 232**  
Ed. 100, 200  
Hist. 101, 102, 105, 120, 131, 250, 251  
P. Rel. 100, 110, 120, 200  
Pol. S. **100, 110, 120, 130, 230, 280, 290**  
Psych. 100, **110, 130, 145, 150**, 200, **210, 220, 230, 240, 250, 280**  
Socio. 100, **110, 125, 130, 135, 141, 142, 150, 160, 200**

Bold print indicates I.A.I. approved classes.

Occupational Program Degree Requirements

Accounting (Cert., A.A.S.) .....	Page 86
Agricultural Products and Processing	
Agri/Industrial Processing Technology (A.A.S.) .....	Page 83
Grain Elevator Management (A.A.S.) .....	Page 84
Automotive Technician (Cert., A.A.S.) .....	Page 85
Business (A.A.S., Page 86; Cert., Page 89)	
Accounting	
Management	
Marketing	
Materials Management	
Business-Real Estate (Cert.) .....	Page 90
Child Care (Basic Cert., Adv. Cert., A.A.S.) .....	Page 90
Computer Information Systems-Programming (A.A.S.) .....	Page 93
Computer Information Systems-Microcomputer Applications (Cert.) .....	Page 93
Microcomputer Applications (A.A.S.) .....	Page 94
Computer Integrated Manufacturing (Basic Cert., A.A.S.) .....	Page 95
Electronic Systems Technology (A.A.S.) .....	Page 96
Electronics (Basic Cert., Advanced Cert., A.A.S.) .....	Page 97
Biomedical Option (A.A.S.) .....	Page 99
Fire Science (A.A.S.) .....	Page 100
Heating, Ventilation, Air-Conditioning, and Refrigeration (Cert.) .....	Page 101
Horticulture (A.A.S.) .....	Page 103
Turf Grass Management (Adv. Cert.) .....	Page 102
Industrial Drafting (Adv. Cert., A.A.S.) .....	Page 103
Industrial Engineering Technology (A.A.S.) .....	Page 105
Industrial Maintenance (Basic Cert.) .....	Page 106
Industrial Production Technology (Basic Cert., Adv. Cert., A.A.S.) .....	Page 107
Law Enforcement (Basic Cert., Adv. Cert., A.A.S.) .....	Page 108
Machine Tool Processes (Basic Cert., Adv. Cert., A.A.S.) .....	Page 110
Management (Cert., A.A.S.) .....	Page 86
Marketing (Cert., A.A.S.) .....	Page 86
Materials Management (Cert., A.A.S.) .....	Page 86
Nursing (A.D.N., A.A.S.) .....	Page 111
Office Technology (Cert., A.A.S.) .....	Page 112
Production Control (Basic Cert.) .....	Page 114
Surgical Technology (Cert.) .....	Page 115
Welding (Basic Cert.) .....	Page 116

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

## Accounting (See page 87.)

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## 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 skills, good management skills, and good supervisory skills. Employers will include local food processing industries.

**Aptitudes:** An interest in working with people and 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 (F, S, Su)	3
Chem. 131: General Chemistry 1 (F, S)	4
Chem. 132: General Chemistry 2 (F, S)	5
C.I.S. 110: Business Applications on Microcomputers (F, S)	3
Draft. 101: Fundamentals of Drafting (F)	4
Econ. 231: Principles of Economics 1 (F, S)	3
Econ. 232: Principles of Economics 2 (F, S)	3
Eltrn. 109: Industrial Controls (F)	4
Eltrn. 110: Introduction to Electricity and Electronics (F)	2
Eltrn. 111: Circuit Analysis (F)	3
Engr. 110: Engineering Graphics (S)	3
Engl. 101: Composition 1 (F, S)	3
Engl. 102: Composition 2 (F, S)	3
Engl. 110: Report Writing (F, S)	3
Ind. S. 100: Industrial Safety and Health (F, S)	3
Math. 098: Intermediate Algebra (F, S)	4
Mec. S. 112: Pneumatics and Hydraulics (A)	3
P. Rel. 100: Human Relations (or Spch. 110) (F, S)	3
P. Rel. 110: Supervisory Techniques and Personnel Development (S)	3
Phys. 115: Technical Physics (F, S)	4

#### Suggested full-time Agri/Industrial Processing A.A.S. sequence:

(Your schedule may differ.)

Fall	Spring	Fall	Spring
First Semester :	Second Semester:	Third Semester:	Fourth Semester:
Engl. 101	Engl. 102	Econ. 231	P. Rel. 110
Chem. 131	Chem. 132	Eltrn. 110	Engl. 110
Math. 098	Engr. 110	Eltrn. 111	Econ. 232
Draft. 101	Bus. 100	Eltrn. 109	C.I.S. 110
Mec. S. 112	P. Rel. 100	Phys. 115	Ind. S. 100
	or Spch. 110		

(A) indicates course will be offered as needed.

(F) indicates course will be offered Fall Semester.

(S) indicates course will be offered Spring Semester.

(Su) indicates course will be offered Summer Term.

## 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 (64/65 Credit Hours) (ICCB Code: AAS 0061)

Required Courses:	Cr. Hrs.
Acct. 101: Principles of Accounting 1 (F, S, Su)	4
Acct. 102: Principles of Accounting 2 (F, S, Su)	4
Agric. 104: Fundamentals of Crop Production (A)	3
Agric. 120: Introduction to Agricultural Economics (A)	3
Agric. 130: Introductory Crop Science (A)	4
Agric. 260: Marketing Agricultural Products (A)	3
Agric. 290: Work Experience Practicum and Seminar (F)	5
Bus. 120: Business Communications (F, S)	3
C.I.S. 110: Business Applications on Microcomputers (F, S, Su)	3
Eltrn. 110: Introduction to Electricity & Electronics (or Eltrn. 108) (F)	2/3
Engl. 101: Composition 1 (F, S)	3
Engl. 102: Composition 2 (F, S)	3
Ind. S. 100: Industrial Safety and Health (F)	3
Math. 098: Intermediate Algebra (F, S)	4
Phys. 115: Technical Physics (F, S)	4
P. Rel. 100: Human Relations (F, S)	3
P. Rel. 110: Supervisory Techniques and Personnel Development (S)	3
Spch. 101: Principles of Speech (F, S)	3
Weld. 101: Shielded Metal Arc Welding (F, S)	4

#### Suggested full-time Grain Elevator Management A.A.S. sequence:

(Your schedule may differ.)

Fall	Spring	Fall	Spring
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Acct. 101	Acct. 102	Agric. 290	Agric. 104
C.I.S. 110	Agric. 120	Ind. S. 100	Agric. 130
Eltrn. 110 or 108	Engl. 102	Phys. 115	Agric. 260
Engl. 101	P. Rel. 100	Spch. 101	Bus. 120
Math. 098	P. Rel. 110	Weld. 101	

(A) indicates course will be offered as needed.  
(F) indicates course will be offered Fall Semester.  
(S) indicates course will be offered Spring Semester.  
(Su) indicates course will be offered Summer Term.

## Automotive Technology

**General Description:** The Automotive Technician Program provides the opportunity to develop skills in automotive care and repair, including basic automotive theory; electrical systems; suspension, steering and brakes; heating and air conditioning; fuel injection (advanced, turbo, and super charging); engine repair; manual drive train and axles; automatic transmissions and transaxles; and driveability problem diagnosis. Upon completion of this course, students will also be better prepared to take the ASE (Automotive Service Excellence) test to become certified automotive technicians, with subsequent appropriate work experience.

**Aptitudes:** Students in the Automotive Technician Program need good math skills, the ability to read technical manuals, and good communication 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 which 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.*

### Basic Certificate--Automotive Technology

(41.5 Credit Hours)

(ICCB Code: BC 0069)

Required Courses:	Cr. Hrs.
Auto. 101: Basic Theory* (A) (or Auto. 100A and Auto. 100B)	3.5
Auto. 102: Electrical Systems* (A)	3.5
Auto. 201: Suspension and Steering Alignment (A)	3.5
Auto. 202: Heating and Air Conditioning (A)	3.5
Auto. 203: Fuel and Emission Systems (A)	3.5
Auto. 204: Engine Repair (A)	3.5
Auto. 205: Manual Drive Train and Axles (A)	3.5
Auto. 206: Automatic Transmissions and Transaxles (A)	3.5
Auto. 207: Advanced Automotive Electronics (A)	3.5
Auto. 208: Automotive Brakes (A)	3.5
Auto. 209: Advanced Driveability Problem Diagnosis (A)	3.5
Group Requirements/Electives(s)	3

### Associate in Applied Science Degree

(72.5 Credit Hours)

(ICCB Code: AAS 0071)

Required Courses:	Cr. Hrs.
Auto. 101: Basic Theory* (A) (or Auto. 100A and Auto. 100B)	3.5
Auto. 102: Electrical Systems* (A)	3.5
Auto. 201: Suspension and Steering Alignment (A)	3.5
Auto. 202: Heating and Air Conditioning (A)	3.5
Auto. 203: Fuel and Emission Systems (A)	3.5
Auto. 204: Engine Repair (A)	3.5
Auto. 205: Manual Drive Train and Axles (A)	3.5
Auto. 206: Automatic Transmissions and Transaxles (A)	3.5
Auto. 207: Advanced Automotive Electronics (A)	3.5
Auto. 208: Automotive Brakes (A)	3.5
Auto. 209: Advanced Driveability Problem Diagnosis (A)	3.5
Eltrn. 110: Introduction to Electricity and Electronics(F)	2
Eltrn. 111: Circuit Analysis (F)	3
Engl. 101: Composition I (F, S)	3
Ind. S. 100: Industrial Safety and Health (F, S)	3
Math. 091: Basic Algebra (F, S)	4
Weld. 101: Shielded Metal Arc Welding (F, S)	4

\*Auto. 101 (or Auto. 100A/B) and Auto. 102 are prerequisites to all other automotive classes.

**A.A.S. Group Requirements/Electives:**

The A.A.S. degree requires that 15 more semester hours of courses numbered 100 or above be selected from the areas of Communications, Humanities/Fine Arts and/or Business, and Social Science with at least three hours in each area. (See page 81.)

**NOTE:** Required courses can be used to meet the General Education Group Requirements.

**Suggested full-time Automotive Technology A.A.S. sequence:** (Your schedule may differ.)

<b>Fall</b>	<b>Spring</b>	<b>Fall</b>	<b>Spring</b>
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Auto. 101	Auto. 201	Auto. 203	Auto. 205
Auto. 102	Auto. 202	Auto. 204	Auto. 206
Engl. 101	Auto. 207	Auto. 208	Auto. 209
Eltrn. 111	Eltrn. 110	Ind. S.100	Weld. 101
Math. 091	GR/Elec. (2)	GR/Elec.	
GR/Elec.			

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**Business**

**General Description:** The Business Instructional Area consists of an A.A.S. Degree in Business with a specialization in either Accounting, Management, Marketing, or Materials Management. Students wishing to earn the Business A.A.S. Degree must complete 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: AAS 038C)

**Required Business Core Courses**

<b>for Accounting, Management, and Marketing:</b>	<b>Cr. Hrs.</b>
Acct. 101: Principles of Accounting 1 (F, S, Su)	4
Acct. 102: Principles of Accounting 2 (F, S, Su)	4
Bus. 100: Introduction to Business (F, S, Su)	3
Bus. 110: Business Mathematics (F, S, Su)	3
Bus. 120: Business Communications (F, S)	3
Bus. 124: Principles of Marketing (F, S)	3
Bus. 231: Business Law 1 (F, S, Su)	3
Bus. 232: Business Law 2 (F, S)	3
Bus. 246: Fundamentals of Management (F,S)	3
C.I.S. 110: Business Applications on Microcomputers (F, S, Su)	3
Econ. 231: Principles of Economics 1 (F, S) (Social Science Req.)	3
Econ. 232: Principles of Economics 2 (F, S) (Social Science Req.)	3
Engl. 110: Report Writing (A) (Communications Req.)	3
P. Rel. 100: Human Relations (F, S) (Social Science Req.)	3
Spch. 120: Business and Professional Speaking (F, S) (Communications Req.)	3

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

	<b>Cr. Hrs.</b>
Acct. 100: Fundamentals of Accounting (F, S)	3
Bus. 100: Introduction to Business (F, S, Su)	3
Bus. 110: Business Mathematics (F, S, Su)	3
Bus. 120: Business Communications (F, S)	3
Bus. 227: International Business Management (F, S)	3
Bus. 246: Fundamentals of Management (F,S)	3
C.I.S. 110: Business Applications on Microcomputers (F, S, Su)	3
Econ. 231: Principles of Economics 1 (F, S)	3
Engl. 101: Composition 1 (F, S) [or Engl. 110 (A)]	3
P. Rel. 100: Human Relations (F, S) (Social Science Req.)	3

Spch. 101: Principles of Speech (F, S, Su) [or Spch. 120 (F, S)]	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, 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 (F)	3
Acct. 201: Intermediate Accounting 1 (F)	4
Acct. 202: Intermediate Accounting 2 (S)	4
Acct. 211: Managerial Cost Accounting 1 (F)	3

**Elective Business Courses: (3 Credit Hours selected from:)**

Bus. 125, 145, 146, 227, 245, 290; P. Rel. 110, 120, 200

**Suggested full-time Business/Accounting A.A.S. sequence:** (Your schedule may differ.)

First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Acct. 101	Acct. 102	Acct. 201	Acct. 202
Bus. 100	Econ. 232	Acct. 130	Bus. 232
Bus. 110	Engl. 110	Acct. 211	Spch. 120
Econ. 231	P. Rel. 100	Bus. 231	Bus. Elec.
C.I.S. 110	Bus. 120	Bus. 124	Bus. 246

### 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 very 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 (S)	3
P. Rel. 120: Labor Management Relations (S)	3
P. Rel. 200: Personnel Administration (F)	3

**Elective Business Courses: (6 Credit Hours selected from:)**

Bus. 125, 145, 146, 227, 245, 290; Acct. 201, 202, 211

**Suggested full-time Business/Management A.A.S. sequence:** (Your schedule may differ.)

First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Acct. 101	Acct. 102	Bus. 231	Bus. 232
Bus. 100	Econ. 232	Bus. 246	Engl. 110
Bus. 110	Bus. 124	Bus. Elec.	Bus. Elec.
Econ. 231	P. Rel. 110 or 120*	P. Rel. 200	P. Rel. 110 or 120*
Spch. 120	Bus. 120	C.I.S. 110	P. Rel. 100

\*Both courses are needed, one in spring of first year and one in spring of second year.

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 (F)	3
Bus. 146: Fundamentals of Sales (S)	3
Bus. 245: Fundamentals of Advertising and Sales Promotion (S)	3

**Elective Business Courses: (6 Credit Hours selected from:)**

Bus. 125, 227, 290; P. Rel. 110, 120, 200; Acct. 201, 202, 211

**Suggested full-time Business/Marketing A.A.S. sequence:** (Your schedule may differ.)

First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Acct. 101	Acct. 102	Bus. 231	Bus. 232
Bus. 100	Econ. 232	Bus. 246	Engl. 110
Bus. 110	Bus. 124	Bus. Elec.	Bus. Elec.
Econ. 231	Bus. 146 or 245*	P. Rel. 145	Bus. 146 or 245*
Spch. 120	Bus. 120	C.I.S. 110	P. Rel. 100

\*Both courses are needed; one in spring of first year and one in spring of second year.

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:** The outlook in 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 (F)	3
C.I.M. 120: Production and Inventory Control (S)	3
Matls. 110: Fundamentals of Materials Management (A)	3
Matls. 120: Purchasing and Procurement Systems (A)	3
Matls. 130: Principles of Physical Distribution (A)	3
Matls. 240: Distribution Resource Planning (A)	3
Matls. 250: Master Planning (A)	3
Prod. C. 130: Inspection and Quality Control (S)	3

**Suggested full-time Business/Materials Management A.A.S. sequence:**

(Your schedule may differ.)

First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Acct. 100	Bus. 110	Bus. 246	C.I.M. 120
Bus. 100	Bus. 120	Matls. 120	Engl. 101 or 110
Econ. 231	Matls. 110	Matls. 130	Matls. 210
C.I.M. 100	Spch. 120	Matls. 240	Matls. 250
C.I.S. 110		P. Rel. 100	Prod. C. 130
		GR/Elec.	

## Business Certificates:

There are five Business Certificates (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.

### Core Courses (Required for all Business Certificates) (ICCB: 0037C)

Bus. 100: Introduction to Business (F, S, Su)	3
Bus. 110: Business Mathematics (F, S, Su)	3
C.I.S. 110: Business Applications on Microcomputers (F, S, Su)	3

### Required Courses:

#### Accounting (34 Credit Hours)

Acct. 101: Principles of Accounting 1 (F, S, Su)	4
Acct. 102: Principles of Accounting 2 (F, S, Su)	4
Acct. 201: Intermediate Accounting 1 (F)	4
Acct. 202: Intermediate Accounting 2 (S)	4
Bus. 125: Small Business Management (F, S)	3
Bus. 231: Business Law 1 (F, S, Su)	3
Bus. 227: International Business Management (F, S)	3

#### Management/Leadership (34/33 Credit Hours)

Acct. 101: Principles of Accounting 1 (or Acct. 100) (F, S, Su)	4/3
Bus. 120: Business Communications (F, S)	3
Bus. 124: Principles of Marketing (F, S)	3
Bus. 227: International Business Management (F, S)	3
Bus. 231: Business Law 1 (F, S, Su)	3
Bus. 246: Fundamentals of Management (F, S)	3
P. Rel. 100: Human Relations (F, S)	3
P. Rel. 120: Labor Management Relations (S)	3

#### Marketing (33/34 Credit Hours)

Acct. 100: Introduction to Accounting (or Acct. 101) (F, S, Su)	3/4
Bus. 120: Business Communications (F, S)	3
Bus. 124: Principles of Marketing (F, S)	3
Bus. 145: Fundamentals of Retailing (F)	3
Bus. 146: Fundamentals of Sales (S)	3
Bus. 227: International Business Management (F, S)	3
Bus. 245: Fundamentals of Advertising and Sales Promotion (S)	3
P. Rel. 100: Human Relations (F, S)	3

#### Materials Management (33 Credit Hours)

Bus. 227: International Business Management (F, S)	3
Bus. 231: Business Law 1 (F, S, Su)	3
Bus. 246: Fundamentals of Management (F, S)	3
C.I.M. 120: Production and Inventory Control (S)	3
Matls. 110: Fundamentals of Materials Management (A)	3
Matls. 210: Materials Requirements Planning (A)	3
Matls. 250: Master Planning (A)	3
Prod. C. 130: Inspection and Quality Control (S)	3

(A) indicates course will be offered as needed.

(F) indicates course will be offered Fall Semester.

(S) indicates course will be offered Spring Semester.

(Su) indicates course will be offered Summer Term.

## Business-Real Estate

**General Description:** The Business-Real Estate Certificate is designed to meet the needs of persons desiring to enter real estate sales occupations and presently employed sales persons working to meet the requirements necessary to take the Real Estate Broker's License examinations. No special qualifications are required for enrollment in the program. Individuals usually work more than 50 hours a week, including evenings and weekends. Sales people usually must furnish their own cars.

**Aptitudes:** Self-motivation, persistence, tact and patience in dealing with people, and an ability to work with numbers and clerical details are needed.

**Outlook:** The outlook depends entirely on economic conditions, which vary greatly from community to community within Illinois.

Individuals seeking to sit for the salesman license must:

- 1. be at least 21 years of age.
- 2. be a United States citizen.
- 3. be a high school graduate or equivalent.
- 4. be sponsored by a Real Estate Broker.
- 5. satisfactorily pass Real Estate 101.

Individuals seeking to sit for the Real Estate Broker's license must:

- 1. meet all qualifications for a Real Estate Broker's license.
- 2. satisfactorily pass Real Estate 102 and 103.
- 3. satisfactorily pass two courses from Real Estate 110, 112, 114, 116, 117, 118, or 120.

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

Certificate--Business-Real Estate (7 Credit Hours)	(ICCB Code: BC 0060)
Required Courses:	Cr. Hrs.
R. Est. 101: Real Estate Transactions (F, S)	2
R. Est. 102: Advanced Real Estate Principles (A)	1
R. Est. 103: Contract Conveyancing (A)	1
Directed Electives: (Select 3 credit hours)	
R. Est. 110: Real Estate Appraisal (A)	1
R. Est. 112: Real Estate Financing (A)	1
R. Est. 114: Real Estate Sales and Brokerage (A)	1
R. Est. 116: Property Management (A)	1

## Child Care

**General Description:** The Child Care Program is designed to prepare students for employment in elementary schools, day care centers, or nursery schools, working with children 6 weeks old to 12 years old. 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. Thirty semester hours enable the student to be a teacher's aide in the public schools. Work is indoors and outdoors, teaching children. Many child care centers operate 9 or 10 hours a day, 5 days a week, requiring some split shifts. Major employers are day care centers, nursery schools, recreation programs, church-related programs, and school- and employer-sponsored centers.

**Aptitudes:** The most important aptitude is the ability to work with children and to enjoy them. Patience, emotional stability, and good health are also necessary.

**Outlook:** This is a growing occupational field. There is a constant demand for workers because of a high turnover rate. Many job openings are part-time.

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

- (A) indicates course will be offered as needed.
- (F) indicates course will be offered Fall Semester.
- (S) indicates course will be offered Spring Semester.
- (Su) indicates course will be offered Summer Term.

**Basic Certificate--Child Care and Education  
(30 Credit Hours)**

(ICCB Code: BC 0009)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
C.C.&E. 101: Introduction to Child Care and Education (F, S)	3
C.C.&E. 111: Creative Activities--Children's Literature (A)	3
C.C.&E. 112: Creative Activities--Math and Science (A)	3
C.C.&E. 113: Creative Activities--Art, Music, and Drama (A)	3
C.C.&E. 114: Creative Activities--Recreation (A)	3
C.C.&E. 115: Creative Activities for Infants and Toddlers (A)	3
C.C.&E. 210: Fundamentals of Childhood Education (F)	3
Engl. 101: Composition 1 (F, S)	3
Psych. 110: Introduction to Psychology (F, S)	3
Psych. 150: Developmental Psychology (F, S)	3

**Advanced Certificate (44 Credit Hours)**

(ICCB Code: AC 0010)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
C.C.&E. 101: Introduction to Child Care and Education (F, S)	3
C.C.&E. 111: Creative Activities--Children's Literature (A)	3
C.C.&E. 112: Creative Activities--Math and Science (A)	3
C.C.&E. 113: Creative Activities--Art, Music, and Drama (A)	3
C.C.&E. 114: Creative Activities--Recreation (A)	3
C.C.&E. 115: Creative Activities for Infants and Toddlers (A)	3
C.C.&E. 210: Fundamentals of Childhood Education (F)	3
C.C.&E. 290: Work Experience Practicum and Seminar (A)	2
Ed. 220: The Exceptional Child (F, S)	3
Engl. 101: Composition 1 (F, S)	3
H. Ec. 110: Health, Nutrition, and Safety for Young Children (A)	3
Psych. 110: Introduction to Psychology (F, S)	3
Psych. 150: Developmental Psychology (F, S)	3
Socio. 200: Marriage and the Family (or Socio. 160) (A)	3
Spch. 101: Principles of Speech (F, S)	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 Adv. Cert. plus C.C.&E. 102 and C.C.&E. 230 and suggested electives listed below.

**Suggested Electives**

To complete this degree, students must take 7 to 11 additional hours. It is suggested these credit hours be selected from the following list of courses:

- C.C.&E. 120 - 3 credit hours
- C.C.&E. 103 - 2 credit hours
- C.I.S. 110 - 3 credit hours
- Bus. 119 - 3 credit hours
- Art 100 - 3 credit hours
- Music 100 - 3 credit hours

NOTE: Required courses can be used to meet the General Education Group Requirements. During the semester prior to graduation, students must present evidence of having completed current infant/child CPR training to the RCC Child Care Advisor.

**Suggested full-time Child Care & Education A.A.S. sequence: (Your schedule may differ.)**

<b>Fall</b>	<b>Spring</b>	<b>Fall</b>	<b>Spring</b>
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Engl. 101	C.C.&E. 112	C.C.&E. 114	C.C.&E. 230
C.C.&E. 101	C.C.&E. 113	C.C.&E. 115	C.C.&E. 290
C.C.&E. 111	H. Ec. 110	C.C.&E. 210	Ed. 220
Psych. 110	Psych. 150	Socio. 200 or 160	GR/Elec.
Spch. 101		GR/Humanities or Business Elec.	

## 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:** 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. This certificate is also designed to increase the knowledge and skills of persons whose current or previous employment in data processing is based primarily on practical experience.

**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 (F, S)	4
Acct. 102: Principles of Accounting 2 (F, S)	4
Bus. 100: Introduction to Business (F, S)	3
Bus. 290: Work Experience Practicum and Seminar (F, S)	3
C.I.S. 105: Introduction to Business Computer Systems (F, S)	3
C.I.S. 110: Business Applications on Microcomputers (F, S, Su)	3
C.I.S. 131: Introduction to Visual Basic (F,S)	3
C.I.S. 161: COBOL Programming 1 (F)	3
C.I.S. 162: COBOL Programming 2 (A)	3
C.I.S. 221: Database Systems (F, S)	3
C.I.S. 222: Advanced Database Systems (F)	3
C.I.S. 245: Microcomputer Operating Systems and Utilities (F, S)	3
C.I.S. 251: C Programming (F, S) [or C.I.S. 262 (A)]	3
C.I.S. 255: Data Communications (F)	3
C.I.S. 261: Introduction to CICS (F)	3
C.I.S. 285: Systems Analysis Methods (A)	3
Econ. 231: Principles of Economics 1 (F,S)	3
Engl. 101: Composition 1 (F, S) [or Engl. 110 (A)]	3
Math. 116: College Algebra (F, S)	4
P. Rel. 100: Human Relations (F, S)	3
Spch. 101: Principles of Speech (or Spch. 120) (F, S)	3

**Suggested full-time C.I.S.: Programming A.A.S. sequence:** (Your schedule may differ.)

First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Bus. 100	C.I.S. 161	Acct. 101	Acct. 102
C.I.S. 105	C.I.S. 245	C.I.S. 162	Bus. 290
C.I.S. 110	C.I.S. 255	C.I.S. 221	C.I.S. 131
Engl. 101 or 110	P.Rel. 100	C.I.S. 251	C.I.S. 222
Math. 116	Spch. 101 or 120	C.I.S. 255	C.I.S. 261
			Econ. 231

**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) (F, S, Su)	4/3
Bus. 100: Introduction to Business (F, S, Su)	3
Bus. 110: Business Mathematics (F, S)	3
C.I.S. 105: Introduction to Business Computer Systems (F, S, Su)	3
C.I.S. 110: Business Applications on Microcomputers (F, S, Su)	3
C.I.S. 120: Spreadsheet Applications (F, S)	3
C.I.S. 130: Word Processors (F, S)	3
C.I.S. 221: Microcomputer Data Base Systems (F, S)	3
C.I.S. 245: Microcomputer Operating Systems and Utilities (F, S)	3
C.I.S. 285: Systems Analysis Methods (F, S)	3

(A) indicates course will be offered as needed.

(F) indicates course will be offered Fall Semester.

(S) indicates course will be offered Spring Semester.

(Su) indicates course will be offered Summer Term.

Associate in Applied Science Degree--  
Computer Information Systems: Microcomputer Applications  
(63 Credit Hours)

(ICCB Code: AAS 0111)

Required Courses:	Cr. Hrs.
Acct. 101: Principles of Accounting 1 (F, S, Su)	4
Bus. 100: Introduction to Business (F, S, Su)	3
Bus. 290: Work Experience Practicum and Seminar (F, S)	3
C.I.S. 105: Introduction to Business Computer Systems (F, S, Su)	3
C.I.S. 110: Business Applications on Microcomputers (F, S, Su)	3
C.I.S. 115: Introduction to Windows (F, S, Su)	3
C.I.S. 120: Spreadsheet Applications (F, S)	3
C.I.S. 130: Word Processors (F, S)	3
C.I.S. 220: Local Networks (F, S)	3
C.I.S. 221: Database Systems (F, S)	3
C.I.S. 245: Operating Systems & Utilities (F, S)	3
C.I.S. 285: Systems Analysis Methods (F, S)	3
Econ. 231: Principles of Economics 1 (F, S)	3
Engl. 101: Composition 1 (F, S) [or Engl. 110 (A)]	3
Math. 116: College Algebra (or Math. 098) (F, S)	4
P.Rel. 100: Human Relations (F, S)	3
Spch. 101: Principles of Speech (or Spch. 120) (F, S)	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 7 directed elective credit hours be selected from the courses listed within that option.

**Specialist Directed Electives: (Take 7 hours)**

Bus. 227: International Business Management (F,S)	3
Bus. 231: Business Law 1 (F, S, Su)	3
C.I.S. 135: Microcomputer Accounting Systems (A)	3
C.I.S. 210: Business Graphics (F)	3
C.I.S. 222: Advanced Database Systems (F)	3
C.I.S. 297: Emerging Technologies (A)	1-3

**Network Management Directed Electives: (Take 7 hours)**

Bus. 227: International Business Management (F, S)	3
Bus. 231: Business Law 1 (F, S, Su)	3
C.I.M. 100: Introduction to Computer Integrated Manufacturing (F, S)	3
C.I.S. 222: Advanced Database Systems (F)	3
C.I.S. 251: C Programming (F, S)	3
C.I.S. 255: Data Communications (F)	3

**Suggested full-time C.I.S.: Microcomputer Applications A.A.S. sequence:**

(Your schedule may differ.)

First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Acct. 101	Math. 116 or 098	C.I.S. 220	Bus. 290
Bus. 100	C.I.S. 115	C.I.S. 221	Econ. 231
C.I.S. 105	C.I.S. 120	C.I.S. 245	GR/Elec.
C.I.S.110	C.I.S. 130	C.I.S. 285	Dir. Elec.
Engl. 101	P.Rel. 100	Dir. Elec.	

(A) indicates course will be offered as needed.  
(F) indicates course will be offered Fall Semester.  
(S) indicates course will be offered Spring Semester.  
(Su) indicates course will be offered Summer Term.

## Computer Integrated Manufacturing

**General Description:** The Computer Integrated Manufacturing (C.I.M.) 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 (C.A.M.), 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 C.I.M. automation. It is expected that C.I.M. 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. C.I.M. 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

(24 Credit Hours)

(ICCB Code: BC 0016)

Required Courses:	Cr. Hrs.
C.I.M. 100: Introduction to Computer Integrated Manufacturing (F, S)	3
C.I.M. 101: Computer Aided Manufacturing Fundamentals (S)	2
C.I.M. 102: CNC Programming (F)	3
C.I.M. 110: Introduction to Automated Manufacturing (F)	3
Draft. 210: Introduction to Computer Aided Drafting-Intergraph (or Drafting. 215) (F,S)	3
Mfg. 120: Manufacturing Processes (A)	3
Math. 104: Technical Mathematics (F, S)	4
Robot. 101: Introduction to Robotics (F, S)	3

### Associate in Applied Science Degree

(71 Credit Hours)

(ICCB Code: AAS 0115)

Required Courses:	Cr. Hrs.
C.I.S. 145: DOS for Technicians (F, S)	3
C.I.S. 251: C Programming (F, S)	3
C.I.S. 255: Data Communications (F)	3
C.I.M. 100: Introduction to Computer Integrated Manufacturing (F, S)	3
C.I.M. 101: Computer Aided Manufacturing Fundamentals (S)	3
C.I.M. 102: CNC Programming (F)	3
C.I.M. 110: Introduction to Automated Manufacturing (F)	3
C.I.M. 120: Production and Inventory Control (S)	3
C.I.M. 130: Automated Manufacturing (S)	3
Draft. 210: Introduction to Computer Aided Drafting-Intergraph (or Drafting. 215) (F, S)	3
Eltrn. 109: Industrial Controls (F)	4
Eltrn. 110: Introduction to Electricity and Electronics (F)	2
Eltrn. 111: Circuit Analysis (F)	3
Eltrn. 160: Digital Electronics (S)	3
Engl. 101: Composition I (F, S)	3
Mfg. 120: Manufacturing Processes (A)	3
Math. 104: Technical Mathematics (F, S)	4
Mec. S. 112: Pneumatics and Hydraulics (F, S)	3
Phys. 115: Technical Physics (F)	4
Prod. C. 130: Inspection and Quality Control (S)	3
Robot. 101: Introduction to Robotics (F, S)	3
Group Requirements/Electives	6

NOTE: Required courses can be used to meet the General Education Group Requirements.

**Suggested full-time C.I.M. A.A.S. sequence:** (Your schedule may differ.)

<b>Fall</b>	<b>Spring</b>	<b>Fall</b>	<b>Spring</b>
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
C.I.M. 100	C.I.S. 145	C.I.M. 110	C.I.M. 120
C.I.M. 102	C.I.M. 101	C.I.S. 255	C.I.M. 130
Draft. 215	Math. 104	Eltrn. 109	C.I.S. 251
Eltrn. 110/111	Mec. S. 112	Phys. 115	Eltrn. 160
Engl. 101	Robot. 101	GR/Elec.	Prod. C. 130
Mfg. 120	GR/Elec.		

## 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.*

### Associate in Applied Science Degree--Electronic Systems Technology

**(64 Credit Hours)**

(ICCB Code: AAS 014A)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
C.I.S. 145: DOS for Technicians (F, S)	3
Eltrn. 109: Industrial Controls (F)	4
Eltrn. 110: Introduction to Electricity and Electronics (F)	2
Eltrn. 111: Circuit Analysis (F)	3
Eltrn. 112: Electronic Devices and Circuits (S)	5
Eltrn. 113: Industrial Controls 2 (S)	4
Eltrn. 160: Digital Electronics (S)	3
Eltrn. 202: Advanced Digital Electronics (S)	3
Eltrn. 203: Programmable Controllers (F)	3
Eltrn. 240: Introduction to Microprocessors (S)	3
Math. 091: Basic Algebra* (or Math. 098 or 116) (F, S)	4
Math. 104: Technical Mathematics* (or Math. 117) (F, S)	4
Mec. S. 110: Fundamentals of Hydraulics (or Mec. S. 112) (A)	3

\*Students who intend to pursue a Bachelor's Degree should take Math. 098 and Math. 117 in place of Math. 091 and Math. 104.

### A.A.S. Group Requirements/Electives

The A.A.S. degree requires 20 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 -- Engl. 101: Composition 1 (F, S)	3
Humanities -- Phil. 200: Symbolic Logic (S)	3
Social Science -- Econ. 140: American Economy (A)	3
Social Science -- P. Rel. 100: Human Relations (F, S)	3

**Suggested Electives:**

Draft. 241: Computer Aided Drafting--Electronic (A)	3
Eltrn. 201: Fundamentals of Process Control (F)	3
Eltrn. 204: Programmable Controllers 2 (S)	4
Eltrn. 210: Advanced Electronics Devices & Circuits (F)	3
Mfg. 120: Manufacturing Processes (A)	3
Phys. 115: Technical Physics (F, S)	4

Eltrn. 290: Work Experience Practicum can be used as elective credit in fulfillment of the requirements for this degree.

NOTE: Required courses can be used to meet the General Education Group Requirements.

**Suggested full-time Electronic Systems Technology A.A.S. sequence:**

(Your schedule may differ.)

<b>Fall</b>	<b>Spring</b>	<b>Fall</b>	<b>Spring</b>
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Eltrn. 109	Eltrn. 112	Eltrn. 203	Eltrn. 202
Eltrn. 110	Eltrn. 113	Mec. S. 110	Eltrn. 240
Eltrn. 111	Eltrn. 160	GR/Elec.	GR/Elec.
Math. 091 or 098 or 116	Math. 104 or 117	GR/Elec.	GR/Elec.
C.I.S. 145			

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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)**

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Eltrn. 110: Introduction to Electricity and Electronics (F)	2
Eltrn. 111: Circuit Analysis (F)	3
Eltrn. 112: Electronic Devices and Circuits (S)	5
Eltrn. 120: Fundamentals of Servicing (S)	2
Eltrn. 160: Digital Electronics (S)	3
Math. 098: Intermediate Algebra (or Math. 116) (F, S)	4
Elective	3

(A) indicates course will be offered as needed.

(F) indicates course will be offered Fall Semester.

(S) indicates course will be offered Spring Semester.

**Advanced Certificate (44 Credit Hours)** (ICCB Code: AC 0013)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Eltrn. 110: Introduction to Electricity and Electronics (F)	2
Eltrn. 111: Circuit Analysis (F)	3
Eltrn. 112: Electronic Devices and Circuits (S)	5
Eltrn. 120: Fundamentals of Servicing (S)	2
Eltrn. 160: Digital Electronics (S)	3
Eltrn. 210: Advanced Electronic Devices and Circuits (F)	3
Eltrn. 211: Pulse, Digital, and Switching Circuits (F)	5
Eltrn. 212: Communications Systems (S)	5
Eltrn. 240: Introduction to Microprocessors (S)	3
Engl. 101: Composition 1 (F, S)	3
Math. 098: Intermediate Algebra (or Math. 116) (F, S)	4
Math. 117: Trigonometry (F, S)	3

**Advanced Certificate Electives**

The Advanced Certificate requires 3 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** (ICCB Code: AAS 0014)  
**(67 Credit Hours)**

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 23 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 (A)	3
Humanities--Phil. 200: Symbolic Logic (S)	3
Social Science--Econ. 140: American Economy (A)	3
Business--C.I.S. 145: DOS for Technicians (F, S)	3

**Suggested Electives:**

Eltrn. 202: Advanced Digital Electronics (S)	3
Eltrn. 222: Advanced Electronic Servicing (F)	4
Eltrn. 295: Electronics Internship (A)	5
Math. 116: College Algebra (F, S)	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.

**Suggested full-time Electronics A.A.S. sequence:** (Your schedule may differ.)

<b>Fall</b>	<b>Spring</b>	<b>Fall</b>	<b>Spring</b>
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Eltrn. 110	Eltrn. 112	Eltrn. 210	Eltrn. 212
Eltrn. 111	Eltrn. 120	Eltrn. 211	Eltrn. 240
Engl. 101	Eltrn. 160	GR/Elec.	GR/Elec.
Math. 098 or 116	Math. 117	GR/Elec.	GR/Elec.
GR/Elec.	GR/Elec.		

(A) indicates course will be offered as needed.  
(F) indicates course will be offered Fall Semester.  
(S) indicates course will be offered Spring Semester.

## 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 very small occupation in Illinois which 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:	Cr. Hrs.
Biol. 101: Concepts of Biology 1 (F, S)	4
Biol. 201: Human Anatomy and Physiology 1 (F, S)	4
Biol. 202: Human Anatomy and Physiology 2 (F, S)	4
Eltrn. 110: Introduction to Electricity and Electronics (F)	2
Eltrn. 111: Circuit Analysis (F)	3
Eltrn. 112: Electronic Devices and Circuits (S)	5
Eltrn. 120: Fundamentals of Servicing (S)	2
Eltrn. 160: Digital Electronics (S)	3
Eltrn. 210: Advanced Electronic Devices and Circuits (F)	3
Eltrn. 211: Pulse, Digital, and Switching Circuits (F)	5
Eltrn. 212: Communications Systems (S)	5
Eltrn. 240: Introduction to Microprocessors (S)	3
Engl. 101: Composition 1 (F, S)	3
Math. 098: Intermediate Algebra (or Math. 116) (F, S)	4
Math. 117: Trigonometry (F, S)	3

#### A.A.S. Group Requirements/Electives

The A.A.S. degree with a Biomedical Option requires 14 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 (A)	3
Humanities--Phil. 200: Symbolic Logic (S)	3
Social Science--Econ. 140: American Economy (A)	3

#### Suggested Elective:

Eltrn. 295: Electronics Internship (A)	5
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**Suggested full-time Electronics (Biomedical) A.A.S. sequence:** (Your schedule may differ.)

Fall	Spring	Fall	Spring
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Biol. 101	Biol. 201	Biol. 202	Eltrn. 212
Eltrn. 110	Eltrn. 112	Eltrn. 210	Eltrn. 240
Eltrn. 111	Eltrn. 120	Eltrn. 211	Eltrn. 295
Engl. 101	Eltrn. 160	GR/Elec.	GR/Elec.
Math. 098	Math. 117		

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.*

Associate in Applied Science Degree--Fire Science  
(66 Credit Hours)

(ICCB Code: AAS 0017)

Required Courses:	Cr. Hrs.
Engl. 101: Composition 1 (or Engl. 110 or Bus. 120) (F, S)	3
Fire 110: Introduction to Fire Science (Module A) (A)	3
Fire 111: Techniques of Firefighting 1 (Module B) (A)	3
Fire 112: Techniques of Firefighting 2 (Module C) (A)	3
Fire 120: Fire Prevention Principles 1 (A)	3
Fire 130: Building Construction for Fire Science (A)	3
Fire 170: Rescue/Roadway Extrication (A)	3
Fire 200: Tactics and Strategy (A)	3
Fire 230: Fire Apparatus Engineer (A)	3
Fire 250: Hazardous Materials Operations (A)	3
Fire 270: Management 1 (A)	3
Fire 280: Management 2 (A)	3
Hlth. 160: EMT-Basic	6
Math. 091: Basic Algebra (or Math. 098) (F, S)	4
Math. 104: Technical Mathematics (or Math. 117) (F, S)	4
Phys. 115: Technical Physics (F, S)	4
Psych. 100: Practical Psychology (F, S)	3
Socio. 110: Introduction to Sociology (or Socio. 100) (F, S)	3
Spch. 101: Principles of Speech (F, S)	3

Directed Electives:

(Select 3 credit hours)

Fire 140: Fire Science Instructor 1 (A)	3
Fire 150: Fire Protection Systems (A)	3
Fire 210: Tactics and Strategy 2 (A)	3
Fire 220: Fire Science Instructor 2 (A)	3
Fire 260: Fire Investigation (A)	3

Suggested full-time Fire Science A.A.S. sequence:

Fall	Spring	Fall	Spring
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Fire 110	Fire 111	Fire 112	Fire 230
Fire 130	Fire 120	Fire 270	Fire 200
Engl. 101	Fire 170	Phys. 115	Fire 250
Hlth. 160	Math. 104	Socio. 110	Fire 280
Math. 091	Psych. 100	Dir. Elec.	Spch. 101

## 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. You'll 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. 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: 0058)

Required Courses:	Cr. Hrs
Bus. 119: English for Business and Technical Careers (F, S)	3
Eltrn. 109: Industrial Controls (F)	4
Eltrn. 110: Introduction to Electricity & Electronics (F)	2
Eltrn. 111: Circuit Analysis (F)	3
H.V.A.C. 100: Refrigerant Theory (F, S)	2
H.V.A.C. 101: Refrigerant Recovery and Handling (F, S)	1
H.V.A.C. 102: Refrigerant Diagnostics (F, S)	2
H.V.A.C. 104: Electrical Controls 1 (S)	3
H.V.A.C. 105: Air-Conditioning and Refrigeration Diagnostic Simulation (S)	2
H.V.A.C. 200: Tools and Piping for H.V.A.C.&R. Systems (F)	3
H.V.A.C. 210: Residential Refrigeration Systems and Air Conditioning (F)	3
H.V.A.C. 215: Advanced Air Conditioning and Refrigeration Diagnostic Simulation (F)	3
H.V.A.C. 220: Heating Systems 1-Gas and Electric (S)	5
H.V.A.C. 290: Work Experience Practicum and Seminar (S)	5
Mfg. 100: Print Reading for Industry (A)	2
Math. 104: Technical Mathematics (F, S)	4
Mec. S 111: Fundamentals of Pneumatics (A)	3

**Suggested full-time H.V.A.C.R course sequence:** (Your schedule may differ.)

Fall Semester	Spring Semester	Fall Semester	Spring Semester
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
H.V.A.C. 100	Math. 104	H.V.A.C. 200	H.V.A.C. 220
H.V.A.C. 101	Mfg. 100	H.V.A.C. 210	H.V.A.C. 290
H.V.A.C. 102	Mec.S. 111	H.V.A.C. 215	
Eltrn. 110	H.V.A.C. 104	Bus. 119	
Eltrn. 111	H.V.A.C. 105		
Eltrn. 109			

(A) indicates course will be offered as needed.

(F) indicates course will be offered Fall Semester.

(S) indicates course will be offered Spring Semester.

**Suggested part-time (evening) H.V.A.C.R course sequence:** (Your schedule may differ.)

Fall Semester	Spring Semester	Summer Term
Eltrn. 110	H.V.A.C. 100	H.V.A.C. 104
Eltrn. 111	H.V.A.C. 101	H.V.A.C. 105
Eltrn. 109	H.V.A.C. 102	
	Math. 104	
Fall Semester	Spring Semester	Summer Term
H.V.A.C. 200	H.V.A.C. 220	H.V.A.C. 290
H.V.A.C. 210	Bus. 119	Mfg. 100
H.V.A.C. 215	Mec.S.111	

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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: 0116)

**Required Courses:**

Agric. 210: Introductory Soil Science (A)	4
Agric. 290: Work Experience Practicum and Seminar (F)	5
Chem. 100: Concepts of Chemistry (F, S)	4
C.I.S. 110: Business Applications on Microcomputers (F, S, Su)	3
Engl. 110: Report Writing (F, S)	3
Hort. 101: Turf Management (F)	3
Hort. 103: Landscape Layout and Design (S)	3
Hort. 104: Turf Management 2 (S)	3
Hort. 105: Turf Equipment Operation and Maintenance (F)	3
Hort. 110: Nursery Management (F)	3
Hort. 160: Building and Grounds Maintenance (S)	3
Hort. 190: Plants and Society (F, S)	4
O.T. 160: Office Accounting (F, S)	3
P. Rel. 110: Supervisory Techniques and Personnel Development (S)	3

**Suggested full-time Turf Grass Mgmt. Adv. Cert. sequence:** (Your schedule may differ.)

<b>Fall</b>	<b>Spring</b>	<b>Fall</b>	<b>Spring</b>
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Chem. 100	Engl. 110	Agric. 210	Hort. 160
C.I.S. 110	Hort. 103	Agric. 290	P. Rel. 110
Hort. 101	Hort. 104	Hort. 105	
Hort. 190	O.T. 160	Hort. 111	

**Associate in Applied Science Degree--Horticulture  
(62 Credit Hrs.)**

(ICCB Code: 0108)

**Required Courses:**

Agric. 290: Work Experience Practicum and Seminar (F)	5
Bus. 110: Business Mathematics (F, S, Su)	3
Bus. 125: Small Business Management (F, S)	3
Engl. 110: Report Writing (F, S)	3
Hort. 101: Turf Management (F)	3
Hort. 102: Ornamental Plant Identification and Use (F)	3
Hort. 103: Landscape Layout and Design (S)	3
Hort. 110: Nursery Management (F)	3
Hort. 130: Electrical Controls (F)	3
Hort. 140: Plant Propagation (F)	3
Hort. 150: Greenhouse Management (S)	3
Hort. 160: Building and Grounds Maintenance (S)	3
Hort. 170: Plantscaping (S)	3
Hort. 180: Small Gas Engines (F, S)	2
Hort. 190: Plants and Society (F, S)	4
Hort. 191: Landscaping Construction and Estimating (S)	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.

**Suggested full-time Horticulture A.A.S. sequence: (Your schedule may differ.)**

<b>Fall</b>	<b>Spring</b>	<b>Fall</b>	<b>Spring</b>
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Bus. 110	Engl. 110	Agric. 290	Bus. 125
Hort. 101	Hort. 103	Hort. 111	Hort. 150
Hort. 102	Hort. 191	Hort. 130	Hort. 160
Hort. 190	GR/Elect.	Hort. 140	Hort. 170
GR/Elect.		GR/Elect.	Hort. 180
			GR/Elect.

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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.*

(A) indicates course will be offered as needed.

(F) indicates course will be offered Fall Semester.

(S) indicates course will be offered Spring Semester.

(Su) indicates course will be offered Summer Term.

**Advanced Certificate--Industrial Drafting****(33 Credit Hours)**

(ICCB Code: AC 0112)

**Required Courses:****Cr. Hrs.**

Draft. 101: Fundamentals of Drafting (F)	4
Draft. 102: Industrial Drafting (S)	4
Draft. 120: Technical Graphics (F)	2
Draft. 210: Introduction to Computer Aided Drafting-Intergraph (or Drafting. 215) (F,S)	3
Draft. 220: Intermediate Computer Aided Drafting (A)	3
Engr. 110: Engineering Graphics (S)	3
Math. 098: Intermediate Algebra (F, S)	4
Math. 117: Trigonometry (for transfer students) (or Math. 104) (F, S)	3

**Directed Electives:****(Select a minimum of 7 credit hours)**

Draft. 230: Advanced Computer Aided Drafting (A)	3
Draft. 240: Computer Aided Drafting--Piping Systems (A)	3
Draft. 241: Computer Aided Drafting--Electronic (A)	3
Draft. 242: Computer Aided Drafting--Architectural/Commercial (A)	3
Draft. 243: Computer Aided Drafting--Structural Steel Detailing (A)	3
Draft. 244: Computer Aided Drafting--Concrete Detailing (A)	3
Draft. 245: Computer Aided Drafting--Architectural (A)	3

**Associate in Applied Science Degree--Industrial Drafting****(67 Credit Hours)**

(ICCB Code: AAS 0113)

**Required Courses:****Cr. Hrs.**

C.I.S. 145: DOS for Technicians (F, S)	3
Draft. 101: Fundamentals of Drafting (F)	4
Draft. 102: Industrial Drafting (S)	4
Draft. 110: Technical Design (S)	3
Draft. 120: Technical Graphics (F)	2
Draft. 130: Fundamentals of Tool Design Drafting (S)	4
Draft. 210: Introduction to Computer Aided Drafting-Intergraph (or Drafting. 215) (F,S)	3
Draft. 220: Intermediate Computer Aided Drafting (A)	3
Draft. 230: Advanced Computer Aided Drafting (A)	3
Engl. 101: Composition I (F, S)	3
Engl. 110: Report Writing (F, S)	3
Engr. 110: Engineering Graphics (S)	3
Math. 098: Intermediate Algebra (F, S)	4
Math. 117: Trigonometry (for transfer students) (or Math. 104) (F, S)	3
Phys. 115: Technical Physics (F, S)	4
Spch. 101: Principles of Speech (F, S)	3

**Directed Electives:****(Select a minimum of 6 credit hours)**

Draft. 240: Computer Aided Drafting--Piping Systems (A)	3
Draft. 241: Computer Aided Drafting--Electronic (A)	3
Draft. 242: Computer Aided Drafting--Architectural/Commercial (A)	3
Draft. 243: Computer Aided Drafting--Structural Steel Detailing (A)	3
Draft. 244: Computer Aided Drafting--Concrete Detailing (A)	3
Draft. 245: Computer Aided Drafting--Architectural (A)	3
Draft. 295: Drafting Internship (A)	3

**A.A.S. Group Requirements/Electives**

The A.A.S. degree requires that 9 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.

**Suggested full-time Industrial Drafting A.A.S. sequence:** (Your schedule may differ.)

<b>Fall</b>	<b>Spring</b>	<b>Fall</b>	<b>Spring</b>
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Draft. 101	C.I.S. 145	Draft. 120	Draft. 230
Engl. 101	Draft. 102	Draft. 220	Engr. 110
Math. 098	Draft. 110	Engl. 110	GR/Elec.
Spch. 101	Draft. 130	Math. 117 (or 104)	Dir. Elec.
GR/Elec.	Draft. 210	Phys. 115	

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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

**(66 Credit Hours)**

(ICCB Code: AAS 0083)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
C.I.M. 100: Introduction to Computer Integrated Manufacturing (F)	3
C.I.M. 102: CNC Programming (F)	3
Draft. 101: Fundamentals of Drafting (F)	4
Econ. 231: Principles of Economics 1 (F, S)	3
Econ. 232: Principles of Economics 2 (F, S)	3
Engl. 110: Report Writing (F, S)	3
Engr. 110: Engineering Graphics (S)	3
Ind. S. 100: Industrial Safety and Health (F)	3
Mfg. 110: Basic Metallurgy (A)	3
Mfg. 120: Manufacturing Processes (A)	3
Math. 116: College Algebra (F, S)	4
Math. 117: Trigonometry (F, S)	3
Math. 121: Calculus and Analytic Geometry 1 (F)	5
Math. 141: FORTRAN for Science and Engineering (F, S)	3
P. Rel. 100: Human Relations (F, S)	3
Phys. 101: Introduction to Physics 1 (F)	4
Phys. 102: Introduction to Physics 2 (S)	4
Prod. C. 100: Time and Motion Study (A)	3
Prod. C. 130: Inspection and Quality Control (S)	3
Spch. 101: Principles of Speech (F, S)	3

(A) indicates course will be offered as needed.

(F) indicates course will be offered Fall Semester.

(S) indicates course will be offered Spring Semester.

(Su) indicates course will be offered Summer Term.

**Suggested full-time Industrial Engineering A.A.S. sequence:** (Your schedule may differ.)

<b>Fall</b>	<b>Spring</b>	<b>Fall</b>	<b>Spring</b>
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
C.I.M. 100	Econ. 232	C.I.M. 102	Engr. 110
Draft. 101	Engl. 110	Math. 121	Ind. S. 100
Econ. 231	Math. 117	Phys. 101	Mfg. 120
Mfg. 110	Math. 141	Prod. C. 100	Phys. 102
Math. 116	P. Rel. 100	Spch. 101	Prod. C. 130

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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.*

**Basic Certificate--Industrial Maintenance (36 Credit Hours) (ICCB Code: BC 0057)**

<b>Required Course:</b>	<b>Cr. Hrs.</b>
Eltrn. 109: Industrial Controls (F)	4
Eltrn. 110: Introduction to Electricity and Electronics (F)	2
Eltrn. 111: Circuit Analysis (F)	3
Mfg. 100: Print Reading for Industry (A)	2
Math. 091: Basic Algebra (F, S)	4
Math. 104: Technical Mathematics (F, S)	4
Phys. 115: Technical Physics (F, S)	4
Weld. 101: Shielded Metal Arc Welding (F, S)	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 (A)	3
Mfg. 120: Manufacturing Processes (A)	3
<b>Machine Tool Operation</b>	
Mach. 101: Machine Tool Processes 1 (A)	3
<b>Welding Processes</b>	
Weld. 102: Shielded Metal Arc Welding Advanced (F, S)	4
Weld. 190: Maintenance Welding (F, S)	1.5
<b>Drafting</b>	
Draft. 101: Fundamentals of Drafting (F)	4
Draft. 102: Industrial Drafting (S)	4
<b>Industrial Safety and Health</b>	
Ind. S. 100: Industrial Safety and Health (F, S)	3
<b>Electricity/Electronics</b>	
Eltrn. 112: Electronic Devices and Circuits (S)	5
Eltrn. 120: Fundamentals of Servicing (S)	2

**Mechanical Systems**

Mec. S. 101: Mechanical Power Transmission 1 (A)	4
Mec. S. 102: Mechanical Power Transmission 2 (A)	3
Mec. S. 112: Pneumatics and Hydraulics (F)	3

**Physics**

Phys. 120: Basic Statics and Strength of Materials (A)	3
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**Industrial Production Technology**

**General Description:** The Industrial Production Technology Program trains students in the various processes used in manufacturing including welding, casting, forging, and steel making, as well as in basic metallurgy, non-ferrous materials testing principles, production control, and industrial health and safety. Typical job titles for graduates include shift supervisor, foreman, and quality control worker. This work is done in factories.

**Aptitudes:** Workers must possess good math skills and be able to read technical manuals and blueprints. In addition, the ability to get along with and lead people is important.

**Outlook:** The outlook in this field is directly related to the growth or decline of the manufacturing industry. Most openings will occur with the need to replace workers who retire.

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

**Basic Certificate--Industrial Production Technology**
**(28 Credit Hours)**

(ICC B Code: BC 0063)

**Required Courses:**

Engl. 110: Report Writing (F, S)	3
Ind. S. 100: Industrial Safety and Health (F, S)	3
Mfg. 100: Print Reading for Industry (or Draft. 101 or Engr. 110) (A)	2
Mfg. 120: Manufacturing Processes (A)	3
Math. 091: Basic Algebra (or Math. 098 or 116) (F, S)	4
Math. 104: Technical Mathematics (or Math. 117) (F, S)	4
P. Rel. 100: Human Relations (F, S)	3
Group Requirements/Elective(s)*	6

\*Basic Certificate requires 3 semester hours to be selected from C.I.M. 120 and Prod. C. 120, 130, or 140.

**Advanced Certificate (48 Credit Hours)**

(ICC B Code: AC 0064)

**Required Courses:**

	<b>Cr. Hrs.</b>
Bus. 100: Introduction to Business (F, S, Su)	3
C.I.S. 110: Business Applications on Microcomputers (F, S, Su)	3
C.I.M. 100: Introduction to Computer Integrated Manufacturing (F, S)	3
Engl. 110: Report Writing (F, S)	3
Ind. S. 100: Industrial Safety and Health (F, S)	3
Mfg. 100: Print Reading for Industry (A) [or Draft. 101 (F) or Engr. 110 (S)]	2
Mfg. 120: Manufacturing Processes (A)	3
Math. 091: Basic Algebra (or Math. 098 or 116) (F, S)	4
Math. 104: Technical Mathematics (or Math. 117) (F, S)	4
O.T. 160: Office Accounting (F,S) [or Acct. 101 (F, S, Su)]	4
P. Rel. 100: Human Relations (F, S)	3
Phys. 115: Technical Physics (F, S)	4

**Advanced Certificate Electives**

The Advanced Certificate requires 9 semester hours selected from the following courses: C.I.M. 120 and Prod. C. 120, 130, or 140.

(A) indicates course will be offered as needed.

(F) indicates course will be offered Fall Semester.

(S) indicates course will be offered Spring Semester.

(Su) indicates course will be offered Summer Term.

**Associate in Applied Science Degree--Industrial Production Technology**  
**(69 Credit Hours)**

(ICCB Code: AAS 0065)

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) and 9 directed elective hours to be selected from C.I.M. 120 and Prod. C. 120, 130, or 140.

NOTE: Required courses can be used to meet the General Education Group Requirements.

**Suggested full-time Industrial Production Technology A.A.S. sequence:**

(Your schedule may differ.)

<b>Fall</b>	<b>Spring</b>	<b>Fall</b>	<b>Spring</b>
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
C.I.M. 100	Ind. S. 100	Bus. 100	O.T. 160
Engl. 110	Math. 104	C.I.S. 110	P. Rel. 100
Mfg. 100	GR/Elec.	Phys. 115	GR/Elec.
Mfg. 120		GR/Elec.	
Math. 091			

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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.*

**Basic Certificate--Law Enforcement (20 Credit Hours)** (ICCB Code: BC 0018)

<b>Required Courses</b>	<b>Cr. Hrs.</b>
Bus. 140: Keyboarding for Information Processing* (F, S)	3
Law E. 110: Introduction to Law Enforcement (F)	3
Law E. 113: Fundamentals of Investigation and Investigative Reporting (S)	3
Law E. 114: Criminal Law (S)	3
Law E. 120: Motor Vehicle Laws and Traffic Control (F)	4
O.T. 100: Keyboarding Speed and Accuracy (F, S)	1.5
Group Requirements/Elective(s)	4

**Advanced Certificate (47 Credit Hours)**

(ICCB Code: AC 0019)

**Required Courses:**

**Cr. Hrs.**

Bus. 140: Keyboarding for Information Processing (F, S)	3
Engl. 101: Composition 1 (F, S)	3
Engl. 102: Composition 2 (F, S)	3
Law E. 110: Introduction to Law Enforcement (F)	3
Law E. 113: Fundamentals of Investigation and Investigative Reporting (S)	3
Law E. 114: Criminal Law (S)	3
Law E. 120: Motor Vehicle Laws and Traffic Control (F)	4
Law E. 200: Youth, The Law, and Police Intervention (S)	3
Law E. 210: Law Enforcement and Community Relations (F)	3
Law E. 211: Law Enforcement Administration (A)	4
O.T. 100: Keyboarding Speed and Accuracy (F, S)	1.5
Pol. S. 120: Politics in States and Communities (F, S)	3
Psych. 110: Introduction to Psychology (F, S)	3
Socio. 110: Introduction to Sociology (F, S)	3
Socio. 130: Criminology (F, S)	3
Spch. 101: Principles of Speech (F, S)	3

(Recommended Soc. Sci. Elective--Socio. 135: The Study of Substance Abuse or Socio. 160: Community Problems and Resources.)

**Options:**

1. If the student has no keyboarding skills, he/she should take Bus. 140. If the student has keyboarding skills, but not a 45 WPM level, he/she should take O.T. 100.
2. A student may proficiency O.T. 100. If he/she successfully proficiencies O.T. 100, he/she will receive credit for O.T. 100 and Bus. 140.

**Associate in Applied Science Degree--Law Enforcement**

**(60 Credit Hours)**

(ICCB Code: AAS 0020)

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 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.

**Suggested full-time Law Enforcement A.A.S. sequence:** (Your schedule may differ.)

<b>Fall</b>	<b>Spring</b>	<b>Fall</b>	<b>Spring</b>
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Engl. 101	Engl. 102	Law E. 210	Law E. 211
Law E. 110	Law E. 113	Law E. 200	O.T. 100
Law E. 120	Law E. 114	Pol. S. 120	Psych. 110
Socio. 110	Socio. 130	Bus. 140	Spch. 101
GR/Elec.	GR/Elec.	GR/Elec.	GR/Elec.

(A) indicates course will be offered as needed.  
 (F) indicates course will be offered Fall Semester.  
 (S) indicates course will be offered Spring Semester.

## 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.*

### Basic Certificate--Machine Tool Processes (18 Credit Hours)

(ICCB Code: BC 0021)

Required Courses:	Cr. Hrs.
Mach. 101: Machine Tool Processes 1 (A)	3
Mach. 102: Machine Tool Processes 2 (A)	3
Mfg. 100: Print Reading for Industry (A)	2
Mfg. 120: Manufacturing Processes (A)	3
Math. 104: Technical Mathematics (F, S)	4
Group Requirements/Elective(s)	3

### Advanced Certificate (44 Credit Hours)

(ICCB Code: AC 0022)

Required Courses:	Cr. Hrs.
C.I.M. 102: CNC Programming (F)	3
Draft. 101: Fundamentals of Drafting (F)	4
Ind. S. 100: Industrial Safety and Health (F)	3
Mach. 101: Machine Tool Processes 1 (A)	3
Mach. 102: Machine Tool Processes 2 (A)	3
Mach. 201: Machine Tool Processes 3 (A)	3
Mach. 202: Machine Tool Processes 4 (A)	3
Mfg. 100: Print Reading for Industry (A)	2
Mfg. 110: Basic Metallurgy (A)	3
Mfg. 120: Manufacturing Processes (A)	3
Math. 104: Technical Mathematics (F, S)	4
Phys. 115: Technical Physics (F, S)	4
Weld. 101: Shielded Metal Arc Welding (F, S)	4

#### Advanced Certificate Electives

The Advanced Certificate requires that 2 semester hours numbered 100 or above be selected.

### 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.

**Suggested full-time Machine Tool Processes A.A.S. sequence:** (Your schedule may differ.)

<b>Fall</b>	<b>Spring</b>	<b>Fall</b>	<b>Spring</b>
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Draft. 101	Ind. S. 100	C.I.M. 102	Mach. 202
Mach. 101	Mach. 102	Mach. 201	Mfg. 110
Mfg. 100	Math. 104	Phys. 115	GR/Elec.
Mfg. 120	Weld. 101	GR/Elec.	
GR/Elec.	GR/Elec.		

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## Management/Leadership (See page 87.)

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## Marketing (See page 88.)

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## Materials Management (See page 88.)

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## Nursing

**General Description:** The Associate Degree Nursing (ADN) program at Richland Community College 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 an individual client or a group of clients. Upon satisfactory completion of the program, students will receive an Associate of Applied Science Degree and be eligible to write the RN-National Council Licensing Examination. Students who pass the examination must apply to the Department of Professional Regulations for licensure as a Registered Nurse (RN).

**Aptitude:** Nursing is a demanding, challenging, and satisfying profession. It requires clinical expertise, academic knowledge, 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. The nursing faculty expects prompt attendance to all clinical and class sessions and active participation in each learning experience based on study prior to class and clinical sessions. Students must receive a minimum grade of "C" in each nursing course to remain in the program.

**Outlook:** This is a very large occupation in Illinois. There will be many openings locally and statewide. *These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

(A) indicates course will be offered as needed.

(F) indicates course will be offered Fall Semester.

(S) indicates course will be offered Spring Semester.

**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 (F, S)	4
Biol. 202: Human Anatomy & Physiology 2 (F, S)	4
Biol. 220: Microbiology (F, S)	4
Engl. 101: Composition 1 (F, S)	3
H. Ec. 200: Nutrition and Diet Therapy (A)	3
Humanities/Fine Arts (Elective)	3
Math 106: Mathematics for Health Careers (A)	2
Nurs. 101: Concepts Basic to Nursing Practice (F)	2
Nurs. 102: Fundamentals of Nursing (F)	6
Nurs. 151: Medical-Surgical 1 (S)	4
Nurs. 152: Psychiatric Mental Health Nursing (S)	4
Nurs. 154: Pharmacological Principles for Nursing Practice (S)	2
Nurs. 201: Medical-Surgical Nursing II (F)	5
Nurs. 202: Family Health Nursing (S)	5
Nurs. 251: Long-term/Acute Care Nursing (F)	4
Nurs. 254: Transition from Education to Practice (F)	5
Psych. 110: Introduction to Psychology (F, S)	3
Psych. 145: Human Growth and Development (S)	3
Socio. 110: Introduction to Sociology (F, S)	3

**Suggested full-time Nursing A.A.S. sequence:** (Your schedule may differ.)

<b>Fall</b>	<b>Spring</b>	<b>Fall</b>	<b>Spring</b>
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Nurs. 101	Nurs. 151	Nurs. 201	Nurs. 202
Nurs. 102	Nurs. 152	Nurs. 251	Nurs. 254
Psych. 110	Nurs. 154	Engl. 101	Human. (Elective)
H. Ec. 200	Math. 106	Biol. 220	Socio. 110
Biol. 201	Psych. 145		
	Biol. 202		

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## Office Technology

**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 which 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.*

(A) indicates course will be offered as needed.  
(F) indicates course will be offered Fall Semester.  
(S) indicates course will be offered Spring Semester.

**Certificate--Office Technology (30 Credit Hours)**

(ICC Code: 0043)

<b>Core Courses:</b>	<b>Cr. Hrs.</b>
Bus. 119: English for Business & Technical Careers (F, S)	3
O.T. 111: Document Formatting (F, S)	3
O.T. 112: Basic Word Processing (F, S)	3
O.T. 150: Records Management (F, S)	3
O.T. 160: Office Accounting (F, S)	3
O.T. 102a: Operating Systems/Windows-Office Applications (F, S)	1
O.T. 104: Spreadsheet Basics/Windows-Office Applications (F, S)	1.5
O.T. 105: Database Basics/Windows-Office Applications (F, S)	1.5
O.T. 210: Statistical Keyboard Entry (F, S)	2
O.T. 250: Professional Office Development (F, S)	3
P.Rel. 100: Human Relations (F, S)	3
O.T. Electives	3

Minimum typing speed of 40 NWAM for five minutes with five or fewer errors.

**Associate of Applied Science Degree--Office Technology**
**(60 Credit Hours)**

(ICC Code: AAS 0044)

<b>Core Courses:</b>	<b>Cr. Hrs.</b>
Bus. 119: English for Business & Technical Careers (F, S)	3
Bus. 120: Business Communication (F, S)	3
O.T. 111: Document Formatting (F, S)	3
O.T. 112: Basic Word Processing (F, S)	3
O.T. 150: Records Management (F, S)	3
O.T. 160: Office Accounting (F, S)	3
O.T. 102a: Operating Systems/Windows-Office Applications (F, S)	1
O.T. 104: Spreadsheet Basics/Windows-Office Applications (F, S)	1.5
O.T. 105: Database Basics/Windows-Office Applications (F, S)	1.5
O.T. 211: Advanced Word Processing (F, S)	3
O.T. 212: Word Processing/Desktop Publishing Applications (F, S)	3
O.T. 250: Professional Office Development (F, S)	3
P.Rel. 100: Human Relations (F, S)	3
Spch. 120: Business and Professional Speaking (or Spch. 101) (F, S)	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 (F, S, Su)	3
Bus. 110: Business Mathematics (F, S, Su)	3
Bus. 227: International Business Management (F, S)	3
Bus. 231: Business Law 1 (F, S, Su)	3
Bus. 246: Fundamentals of Management (F, S)	3
Bus. 290: Work Experience Practicum and Seminar (F, S)	1-5
O.T. 100: Keyboarding Speed and Accuracy (F, S)	1.5
O.T. 121: Gregg Shorthand I (A)	3
or	
O.T. 131: Speedwriting (F)	3
O.T. 132: Shorthand/Speedwriting Transcription (A)	3
O.T. 210: Statistical Keyboard Entry (F, S)	2
O.T. 213: Print and Presentation Media (A)	3

**Medical**

Bus. 290: Work Experience Practicum and Seminar (F,S)	1-5
O.T. 141: Medical Office Careers - Terminology (F,S,Su)	3
O.T. 142: Medical Office Careers - Anatomy (F)	3
O.T. 242: Medical Office Careers - Transcription 1 (F,S,Su)	3
O.T. 243: Medical Office Careers - Transcription 2 (F,S,Su)	3
O.T. 245: Medical Office Careers - CPT Coding (A)	3
O.T. 246: Medical Office Careers - Coding - ICD-9 (S)	3

**Legal\***

Bus. 100: Introduction to Business (F,S,Su)	3
Bus. 110: Business Mathematics (F,S,Su)	3
Bus. 227: International Business Management (F,S)	3
Bus. 231: Business Law 1 (F,S,Su)	3
Bus. 232: Business Law 2 (F,S)	3
Bus. 290: Work Experience Practicum and Seminar (F,S)	1-5
O.T. 100: Keyboarding Speed and Accuracy (F,S)	1.5
O.T. 121: Gregg Shorthand I (A)	3
or	
O.T. 131: Speedwriting (F)	3
O.T. 132: Shorthand/Speedwriting Transcription (A)	3
O.T. 210: Statistical Keyboard Entry (F,S)	2
O.T. 221: Dictation Transcription Review (A)	3
O.T. 230: Legal Terminology and Documents (F,S,Su)	3

\*O.T. 101 through O.T. 110A courses may be taken as specialization electives for the Word Processing/Administrative Assistant and Legal Specializations.

**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.)

**Suggested full-time Office Technology A.A.S. sequence:** (Your schedule may differ.)

First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Bus. 119	Bus. 120	O.T. 211	O.T. 212
O.T. 111	O.T. 102	Spch. 120	O.T. 250
O.T. 150	O.T. 104	5 Hrs. Special. Elec.	3 Hrs. Special. Elec.
O.T. 160	O.T. 105	3 Hrs. Gen. Elec.	6 Hrs. Gen. Elec.
3 Hrs. Special. Elec.	O.T. 112		
	P.Rel. 100		
	3 Hrs. Special. Elec.		

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# Production Control

**General Description:** Production Control involves scheduling and coordinating the flow of work within a manufacturing plant. Duties include reviewing master production schedules and work orders and revising schedules according to availability of workers, materials, and equipment. Related occupations include production clerk, material expeditor, shipping and receiving clerk, and production superintendent. Employees usually work indoors in a variety of industrial or manufacturing settings. Major employers are industrial and manufacturing businesses.

**Aptitudes:** Average ability, including the visualization of objects in three dimensions, and mathematical and verbal abilities are needed.

**Outlook:** Growth will depend on economic conditions affecting industry. However, employment is expected to grow faster than average in Illinois through the 1990s.

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

**Basic Certificate--Production Control (24 Credit Hours)** (ICCB Code: BC 0027)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
C.I.M. 100: Introduction to Computer Integrated Manufacturing (F)	3
C.I.M. 120: Production and Inventory Control (S)	3
Engl. 110: Report Writing (F, S)	3
Prod. C. 100: Time and Motion Study (A)	3
Prod. C. 120: Plant Layout and Materials Handling (S)	3
Prod. C. 130: Inspection and Quality Control (S)	3
Prod. C. 140: Methods and Operations Analysis (F)	3
Group Requirement/Elective	3

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## Surgical Technology

**General Description:** The Surgical Technology program prepares students to assist with patient care and related services in operating rooms by performing tasks that help to ensure safe surgical procedures. The program provides classroom instruction, laboratory, and actual surgical experiences. Students must maintain a grade of "C" or better in each Surgical Technology course and in biology courses to stay in the program. Upon graduation from the program, the graduate will be eligible to apply to the LCC-ST (Liaison Council on Certification for the Surgical Technologist) for the National Certifying Exam.

**Aptitude:** Surgical technologists assist with patient care and related services in the operating rooms, contribute to the operating team's efficiency, and support surgeons and others involved in operating room procedures. The faculty expect prompt attendance to all clinical and class sessions and active participation in each learning experience based on study prior to class and clinical sessions.

**Outlook:** This is a small occupation in Illinois, but the demand for workers is expected to grow. In Central Illinois, there is a shortage of trained surgical technologists.

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

**Certificate--Surgical Technology (47 Credit Hours)** (ICCB Code: 0055)

<b>Required Courses:</b>	<b>Cr. Hrs.</b>
Biol. 201: Human Anatomy & Physiology 1 (F, S)	4
Biol. 202: Human Anatomy & Physiology 2 (F, S)	4
Engl. 101: Composition 1 (F, S)	3
Hlth. 140: Medical Terminology (F)	3
Surg. T. 101: Surgical Technology I (F)	6
Surg. T. 102: Surgical Technology II (S)	13
Surg. T. 103: Surgical Technology III (Su)	7
Surg. T. 104: Work Experience Practicum (F)	7

**Suggested full-time Surgical Technology Certificate sequence:** (Your schedule may differ.)

<b>Fall</b>	<b>Spring</b>	<b>Summer</b>	<b>Fall</b>
First Semester:	Second Semester:	Third Semester:	Fourth Semester:
Biol. 201	Biol. 202	S. Tech. 103	S. Tech. 104
Engl. 101	S. Tech. 102		
Health 140			
S. Tech. 101			

(A) indicates course will be offered as needed.

(F) indicates course will be offered Fall Semester.

(S) indicates course will be offered Spring Semester.

(Su) indicates course will be offered Summer Term.

## 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 (F)	4
Math. 104: Technical Mathematics (F, S)	4
Weld. 100: Oxy-Acetylene and Plasma Arc Cutting (F, S)	1.5
Weld. 101: Shielded Metal Arc Welding (F, S)	4
Weld. 102: Shielded Metal Arc Welding, Advanced (F, S)	4
Weld. 190: Maintenance Welding (F, S)	1.5
Weld. 201: Gas Metal Arc and Flux Core Arc Welding (F, S)	2
Weld. 202: Welder Certification (F, S)	2
Weld. 204: Pipe Welding (A)	4
Weld. 205: Gas Tungsten Arc Welding (F, S)	3

Eligibility for Engl. 101 is a requirement for this certificate.

## **Guarantee for Technical Competency**

Any student earning an Associate in Applied Science degree or certificate beginning 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

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## 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 (Engl. 101, 102; Spch. 101) 9
  - b. Humanities/Fine Arts 10
  - c. Social Science 10
  - d. Natural/Life/Physical Science and Mathematics 10
- 2. General Electives, which may include occupational-oriented courses. 21
- 3. Constitution Requirement (See page 59.)
- 4. Total Credits Required in courses numbered 100 or above. (Students transferring credit to Richland should see regulations under Admissions, page 18.) 60
- 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 59.)
- 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 provided 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 59.)
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 59.)
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 59.)
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 59.)
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 59.)
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 59.)
- 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:

### Transfer Career Majors

#### Dean - Room S119

#### Academic Director - Room C162

(Business-Acct./Mgt./Mrktg., Communications, Education, Humanities, Social Sciences)

ACCT.	HIST.
AF. AM.	HUMAN.
ART	JOURN.
BUS.	LEADER.
ECON.	MUSIC
ED.	PHIL.
English/Reading (Devel.)	POL.
ENGL.	PSYCH.
Foreign Language	SPCH.

#### Academic Director - Room S145

(Allied Health and Nursing, Engineering, Mathematics, Physical Education, Physical and Natural Science)

Allied Health	MATH.
ANTHR.	NURS.
BIOL.	P. ED.
CHEM.	PHY. S.
Developmental Mathematics	PHYS.
EA. SCI.	REC.
ENGR.	SURG. T.

### Occupational and Technical Career Programs

#### Dean - Room C218

#### Academic Director - Room C218

(Agriculture, Automotive, Child Care, Computer Information Systems, Drafting, Electronics, Fire Science, Horticulture, H.V.A.C., Industrial Engineering/Technology, Law Enforcement, Manufacturing, Computer Integrated Manufacturing, Materials Management, Office Technology, Real Estate, Welding)

AGRIC.	DRAFT.
AUTO.	Industrial Engineering
B. CONST.	Industrial Maintenance
C.C.&E.	Industrial Production
C.I.M.	Technology
C.I.S.	LAW.
DIET.	MACH.
ELTRN.	MFG.
Electronic Systems	MATLS.
Technology	MEC. S.
Electronics (Biomedical)	O.T.
FIRE.	PROD. C.
H. EC.	R. EST.
HORT.	Tech Prep
H.V.A.C.	WELD.
IND. S.	

### Student Assessment, Advising, and Learning Support Services (SAALS)

#### Dean - Room W121

(Early Alert, GED/Literacy Programs, Learning Support, Student Advising, Student Assessment, Student Placement, Undecided Students, TRIO)

A.B.E.  
A.L.S.  
A.S.E.  
E.S.L.  
G.E.D.

## 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., etc.); (2) the course number; (3) the descriptive course title (for example: Principles of Accounting 1, College Algebra, United States to 1877, etc.); and (4) the number of hours a class normally meets a week and the number of semester hours credit granted (for example: 3-0-3 would indicate 3 hours of lecture/ discussion per week and 0 hours of laboratory per week for 3 semester hours of credit; 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, etc.)

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.

## Applicability of Course

Courses are offered appropriate to a wide variety of programs; consequently, not all courses are applicable to every program.

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.L.S. - Associate in Liberal Studies; A.A. - Associate in Arts; A.S. - Associate in Science, and A.F.A. - Associate in Fine Arts.

### 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 125-240.

*Course No.*

*Course Title*

*Lecture  
Lab  
Credit Hrs.*

**Acct. 100 - Fundamentals of Accounting**

**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. Offered in Fall, Spring, and Summer.

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. Offered in Fall, Spring, and Summer.

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. Offered in Fall, Spring, and Summer.

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. Offered in Fall (even years at night; odd years during day).

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. Offered in Fall.

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

## 126 Course Descriptions

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### **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. Offered in Spring (even years at night; odd years during day).

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. Offered in Fall (even years at night; odd years during day).

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 906 D)**

**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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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

## **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. Offered as 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 - 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 losses and how they can be controlled. Offered as 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 - 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. Offered as 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 - 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. Offered as needed.

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. Offered as needed.

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****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. Offered as needed.

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****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 world economics. Offered as needed.

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. Offered as 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 - Agricultural Products and Processing

**Agric. 130 - Introductory Crop Science****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. Offered as needed.

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

## 128 Course Descriptions

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### **Agric. 180 - Introductory Agricultural Mechanization**

**2-2-3**

presents principles and applications of agricultural mechanization with emphasis on soil and water conservation, farm power, farm electrification, and farm structures. Offered as needed.

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. Offered as 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 - 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. Offered as 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 - 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. Offered as 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 - Agricultural Products and Processing

### **Agric. 210 - Introductory Soil Science**

**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. Offered as needed.

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 will be inventory control, depreciation, taxes, financing, the balance sheet, cash flow, and the profit and loss statement. Offered as 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 - Agricultural Products and Processing

### **Agric. 230 - Computer Technology in Agriculture**

**2-0-2**

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. Offered as 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 - Agricultural Products and Processing

**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. Offered as 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 - 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. Offered as 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 - Agricultural Products and Processing

**Agric. 290 - Work Experience Practicum and Seminar****1-20-5**

*(Prerequisite: Sophomore standing. Must complete an application for enrollment and submit it to the Academic Director of Occupational and Technical Career Programs 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 Career Programs office.)* 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. Offered in Fall.

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 and Seminar****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. Offered in Spring.

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 will be discussed to understand how and why culture works and sometimes fails. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and all Degrees

Group Requirement - Social Science

Area of Concentration - Anthropology

## 130 Course Descriptions

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### **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. Offered in Fall.

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 will be placed upon New World archaeological data. Offered in Spring.

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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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. Offered as needed.

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. Offered as needed.

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 - 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. Offered as needed.

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. Offered as needed.

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. Offered as needed.

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. Offered as needed.

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. Offered as needed.

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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and all Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

## 132 Course Descriptions

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### **Art 121 - Ceramics 1**

**1-5-3**

is an introduction to various hand-building techniques, decorative methods, and firing processes. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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. Offered as needed.

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. Offered as needed.

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**

**1-5-3**

introduces the student to photography, covering fundamentals of camera, studio, and darkroom techniques. (Students will be expected to supply their own fully manual 35mm cameras. Refer to equipment list for the class.) Offered in Fall and Spring.

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**

**1-5-3**

(*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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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 - Art

**Art 140 - Introduction to Art****1-5-3**

provides a studio introduction to art for the non-art major, such as child care and elementary education majors, who may later be involved in art projects. It introduces basic concepts in composition, color, drawing, painting, printmaking, and sculpture. Students will explore the aesthetic possibilities of various media while learning about the media themselves. Offered as needed.

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 - 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, various input and output devices and learn file management, printing, and the basics of producing and editing images in several graphics software programs. Required for A.A.S. degree in Computer Graphics. Offered in Fall and Spring.

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 and Bus. 140 or keyboard skills of 25NWAM and successful completion of or concurrent enrollment in Art 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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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. Offered in Fall.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and all Degrees

Group Requirement - Humanities

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 the Baroque and Rococo periods. Offered in Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and all Degrees

Group Requirement - Humanities

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. Offered as needed.

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 - Art

## 134 Course Descriptions

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### **Art 230 - Art History 3: Modern Art (IAI: F2 902)**

**3-0-3**

is an introductory course in art history from the early 19th through the 20th century to the present, from the Neo-Classic period through Romanticism, Impressionism, Post-Impressionism, Fauvism, Cubism, Surrealism, and Abstract Expressionism, to art of the present day. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and all Degrees

Group Requirement - Humanities

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

## **Automotive Technology**

### **Auto. 100A--Elementary Automotive Technology I**

**3-2-4**

teaches basic automotive skills and vocabulary that will provide a foundation for the more advanced 100- and 200-level automotive training modules. Subjects include safety procedures, tools and their proper use, various engine components, electrical principles and equipment, tires, and a general overview of important systems in the automobile. Offered as 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 - Automotive Technician

### **Auto. 100B--Elementary Automotive Technology II**

**3-2-4**

(*Prerequisite: Auto. 100A or permission of instructor.*) provides a basic overview of automotive systems, equipment, and vocabulary, including tools and their proper use, safety procedures, engine operating principles, engine repair procedures, fuels and fuel systems, computers in automobiles, and manual and automatic transmissions. Offered as 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 - Automotive Technician

### **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. Offered as 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 - Automotive Technician

### **Auto. 102--Electrical Systems**

**3-1-3.5**

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. Offered as 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 - Automotive Technician

**Auto. 201--Suspension and Steering Alignment****3-1-3.5**

(*Prerequisite: Auto. 101 and Auto. 102 or permission of instructor.*) 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. Offered as 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 - Automotive Technician

**Auto. 202--Heating and Air Conditioning****3-1-3.5**

(*Prerequisite: Auto. 101 and Auto. 102 or permission of instructor.*) 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. Offered as 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 - Automotive Technician

**Auto. 203--Fuel and Emission Systems****3-1-3.5**

(*Prerequisite: Auto. 101 and Auto. 102 or permission of instructor.*) 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. Offered as 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 - Automotive Technician

**Auto. 204--Engine Repair****3-1-3.5**

(*Prerequisite: Auto. 101 and Auto. 102 or permission of instructor.*) 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. Offered as 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 - Automotive Technician

**Auto. 205--Manual Drive Train and Axles****3-1-3.5**

(*Prerequisite: Auto. 101 and Auto. 102 or permission of instructor.*) 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. Offered as 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 - Automotive Technician

## 136 Course Descriptions

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### **Auto. 206--Automatic Transmissions and Transaxles**

**3-1-3.5**

(*Prerequisite: Auto. 101 and Auto. 102 or permission of instructor.*) 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. Offered as 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 - Automotive Technician

### **Auto. 207--Advanced Automotive Electronics**

**3-1-3.5**

(*Prerequisite: Auto. 101 and Auto. 102 or permission of instructor.*) 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. Offered as 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 - Automotive Technician

### **Auto. 208--Automotive Brakes**

**3-1-3.5**

(*Prerequisite: Auto. 101 and 102 or permission of instructor.*) 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. Offered as 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 - Automotive Technician

### **Auto. 209--Advanced Driveability Problem Diagnosis**

**3-1-3.5**

(*Prerequisite: Auto. 101, 102, and 203 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. Offered as 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 - Automotive Technician

## **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. Offered in Fall and Spring.

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. Offered in Spring.

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 (AAS 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, 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. Offered in Fall and Spring.

Application 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 (AAS 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. Offered in Fall and Spring.

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 (AAS 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. Offered in Fall and Spring.

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. 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. Offered in Fall and Spring.

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 (AAS 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. Offered as 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 - 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. Offered in Fall, Spring, and Summer.

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. 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. Offered in Fall, Spring, and Summer.

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. 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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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. Offered in Fall (day and night) and Spring (day).

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. Offered in Fall (day) and Spring (night).

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.** Offered in Fall and Spring.

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. Offered in Fall.

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 will be used to allow the student the opportunity to apply selling skills. Offered in Spring.

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. Offered in Fall and Spring.

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

## 140 Course Descriptions

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### **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 will be the main method of presentation. Offered in Fall, Spring, and Summer.

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 - 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. Offered in Fall and Spring.

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. 245 - Fundamentals of Advertising and Sales Promotion**

**3-0-3**

will include 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. Offered in Spring.

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. 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. Offered in Fall and Spring.

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**

**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 Academic Director of Occupational & Technical Programs 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 & Technical Career Programs office. Offered in Fall and Spring.

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. Offered as needed.

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. Offered as needed. (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

## 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 topics of chemical kinetics and chemical equilibrium are 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. Offered in Fall and Spring.

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 and includes one 4-hour lab per week. Offered in Fall and Spring.

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 (AAS 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, three states of matter bonding and molecular structure, the three states of matter (gas, solid, liquid), and solutions. Offered in Fall and Spring.

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. Offered Fall and Spring.

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 (ASA only)

Area of Concentration - Chemistry, General Science

## 142 Course Descriptions

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### 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. Offered as needed.

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 (ASA 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. Offered as needed.

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 (AAS 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. Offered in Fall and Spring.

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 will be introduced. How this service is provided is discussed. Appropriate curriculum, environment, and activities will be explored by the students through semester projects and class activities. Offered as 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 - 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. Offered as 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 - 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.) Offered as 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 - 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.) Offered as 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 - 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.) Offered as 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 - 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.) Offered as 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 - Child Care and Education

## 144 Course Descriptions

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### **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.) Offered as 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 - 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. Offered as 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 - Child Care and Education

### **C.C.& E. 210 - Fundamentals of Childhood Education**

**3-0-3**

*(Prerequisite: Eligibility for Engl. 090/091 and 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. Offered in Fall.

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 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. Offered in Spring.

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**

**1-20-5**

*(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 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 Career Programs Office 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 Career Programs Office and any center working on NAEYC accreditation. All practicum assignments are in the Richland Community College

Child Care Learning Center. Each student serving a practicum in our 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. Offered as 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 - 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. Offered in Fall, Spring, and Summer.

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**

**3-0-3**

studies typical business applications on Windows/Intel-based microcomputers using software packages in the following categories: spreadsheet, word processing, and database. Intensive lab experiences are involved. Topics include an analysis of current software and methods to evaluate software and hardware. Offered in Fall, Spring, and Summer.

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. Offered in Fall, Spring, and Summer.

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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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**

**3-0-3**

(Prerequisite: experience with microcomputers using Windows and familiarity with fundamentals of computer programming or consent of Academic Director of Occupational and Technical Career Programs.) is object-oriented, event-driven programming; VB forms, controls, projects, and properties; multiform 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); programming applications to display, edit, and update databases by use of the data access object. Offered in Fall and Spring.

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. 135 - Microcomputer Accounting Systems**

**3-0-3**

(Prerequisite: O.T. 160 or Acct. 100 or Acct. 101.) teaches the use of microcomputers to provide financial information in a format useful for business decision-making. It provides hands-on experience using microcomputer accounting applications such as general ledger, payroll, payables, receivables, and inventory. This course provides intensive lab experiences on the Windows/Intel-based microcomputer. Offered as needed.

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. 145 - DOS 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. Offered in Fall and Spring.

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 Career Programs.) 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, nested ifs, totals, control breaks, introduction to table handling, and data validation are taught. Intensive lab experiences are involved using Windows/Intel-based microcomputers. Offered in Fall.

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.) reinforces concepts from C.I.S. 161—COBOL Programming 1. Advanced reporting techniques using sequential files including extracts, multi-level table processing, file updates, and use of sub-programs are taught. This course provides an introduction to random access files. Intensive lab experiences are involved using IBM-compatible microcomputers. Offered as needed.

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 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. Offered in Fall.

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 Career Programs.*) 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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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. Offered in Fall.

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. 225 - Pascal Programming****3-2-4**

(*Prerequisite: Math. 116 and Math. 117.*) teaches the student reading and writing proficiency in Pascal on microcomputers. Top down programming, documentation, Abstract Data Types, subroutines and functions are the tools used to teach the usual three structures of good programming. In addition to real, integer, and the typical data types, the student will learn to use the user defined data types, sets, Booleans, records, and (time permitting) dynamic data types such as linked lists and queues. The use of recursion may be included. The above data types will be used for both sequential and random access data files. (The student must allow some time to be spent doing some laboratory work on the computers outside the scheduled class time.) Credit cannot be received in both C.I.S. 225 and Math. 125. Offered as needed.

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. 245 - Operating Systems & Utilities****3-0-3**

(*Prerequisite: C.I.S. 110.*) centers on the Microsoft Disk Operating System (MS-DOS). The course covers programs that expand and extend the function of the operating system, is concerned with background utility programs, and presents keyboard enhancement programs and templates. This course provides intensive lab experiences on the Windows/Intel-based microcomputer. Offered in Fall and Spring.

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

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### **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. Offered in Fall.

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 Career Programs.*) 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. Offered in Fall and Spring.

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. Offered in Fall.

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 Career Programs.*) 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. Offered as needed.

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. 262 - Advanced CICS**

**3-1-3**

(*Prerequisite: C.I.S. 261.*) is an extension of C.I.S. 261 and covers advanced functions such as GETMAIN and FREEMAIN and file commands such as BROWSE, LOCK, and UNLOCK. It also covers VSAM local-shared resources, reading and writing out of the LINKAGE SECTION, sending and receiving terminal data, methods of passing data, reading and writing from data bases such as SQL, DL/1 and DB2, and maintaining data integrity during an abend. Offered as needed.

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. Offered in Fall and Spring.

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. 102A or experience with Windows-based applications and O.T. 110A or 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. Offered as needed.

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. 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. Offered as needed.

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 the management or the process applications will benefit from the course. Offered in Fall and Spring.

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. Offered in Spring.

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

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### **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. Offered in Fall.

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. 101, C.I.M. 102, and Robotics 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. Offered in Fall.

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. Offered in Spring.

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. Offered in Spring.

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

## **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. Offered in Fall.

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. Offered in Spring.

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. Offered in Spring.

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. Offered in Fall.

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 will be placed on proper location and clamping of parts for all types of machining. Offered in Spring.

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-Intergraph****2-3-3**

(*Prerequisite: Draft. 101 or equivalent competencies.*) will provide the basic knowledge of computer aided drafting (CAD). The student will learn 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. Offered in Fall.

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.*) will introduce 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. Offered in Fall and Spring.

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

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### **Draft. 220 - Intermediate Computer Aided Drafting** 2-3-3

(*Prerequisite:* Draft. 210 or Draft. 215.) will provide the knowledge to create advanced 2-D and basic 3-D drawings on the computer aided drafting system. Offered as 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 - Industrial Drafting

### **Draft. 230 - Advanced Computer Aided Drafting** 2-3-3

(*Prerequisite:* Draft. 220.) will provide the knowledge to create advanced 3-D drawings. These drawings will include wire frame models as well as models with surfaces and shading. Offered as 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 - Industrial Drafting

### **Draft. 240 - Computer Aided Drafting—Piping Systems** 2-3-3

(*Prerequisite:* Draft. 220.) will introduce 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. Offered as 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 - Industrial Drafting

### **Draft. 241 - Computer Aided Drafting—Electronic** 2-3-3

(*Prerequisite:* Draft. 220 or Eltrn. 203.) will introduce 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. Offered as 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 - 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. Offered as 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 - 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. Offered as 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 - 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. Offered as 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 - 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. Offered as 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 - 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 in the Occupational and Technical Career Programs Office.) is to provide the student with the opportunity to use the skills acquired from the industrial drafting program in a work place 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. Offered as 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 - 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. Offered as needed.

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 - Speech and Drama

**Drama 160 - Theatre Production****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. Offered in Fall and Spring.

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 - 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. Offered in Spring.

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 - 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. Offered in Fall and Spring.

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 should be taken prior to this course. Offered in Spring.

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. Offered in Fall.

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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (AAS 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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (AAS 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. Also includes the trade-off between efficiency and equity, economic freedom and economic order, and market-oriented systems versus planned economic systems. Offered in Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (AAS only)

Area of Concentration - Economics, International Business

**Econ. 231 - Principles of Economics 1 (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. Offered in Fall and Spring.

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 - Principles of Economics 2 (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. Offered in Fall and Spring.

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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (AAS only)

Area of Concentration - Teacher Education: Elementary-Secondary

**Ed. 200 - Educational Psychology****3-0-3**

(*Prerequisite: Psych. 110.*) examines the growth and development of the individual through adolescence, with emphasis on the facilitation of learning, both within and outside the classroom. A student may not receive credit for both Ed. 200 and Psych. 200. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (AAS only)

Area of Concentration - Teacher Education: Elementary-Secondary

**Ed. 220 - The Exceptional Child (formerly C.C.&E. 220)****3-0-3**

(*Prerequisite: Eligibility for Engl. 090/091.*) is a survey study of the mentally retarded child, the visually impaired child, the acoustically handicapped child, the emotionally disturbed child, the speech handicapped child, and the otherwise disadvantaged child. Simple assessment techniques are reviewed, and resources for specialized services for the handicapped are investigated. Offered in Fall and Spring.

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

## 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. Offered as 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 - 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. Offered as 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 - Electronics

### **Eltrn. 103 - AC and DC Electrical Theory with Industrial Applications**

**2-2-3**

provides a hands-on environment in which to learn AC/DC electrical theory and applications in an industrial setting. The course also includes applications and assembly of motor control circuits. This course starts at a beginner level and takes the students through manual and automatic electromechanical controls with some exposure to solid state devices. Offered as 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 - Electronics

### **Eltrn. 108 - Industrial Electronics**

**2-2-3**

(*Prerequisite: Math. 091 or equivalent competencies.*) is a course in the basic concepts of electricity. The student is introduced to electrical and magnetic forces, charge, voltage, current, resistance, work, energy, and power. Basic instrumentation, such as the oscilloscope, volt meter, ohm meter, ampere meter, function generator, and power supply, is used to build and test various electrical circuits. Lectures and computer-augmented instruction are used to introduce the student to the circuit analysis of series, parallel, and series-parallel DC and AC circuits. Various common electronic components are used in laboratory experiments. Offered in Fall.

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. 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. Offered in Fall.

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. Offered in Fall.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Natural Science (AAS 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. Offered in Fall.

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. Offered in Spring.

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, photoelectronic and proximity control, reduced voltage starting techniques, and AC inverters and DC drives. Offered in Spring.

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 will also be introduced to the various sources and proper use of technical service data and will be 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. Offered in Spring.

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

## 158 Course Descriptions

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### **Eltrn. 160 - Digital Electronics**

**2-2-3**

(*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 de-multiplexers, and logic families and their characteristics. Offered in Spring.

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. 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. Offered in Fall.

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. Offered in Spring.

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. Offered in Fall.

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 - Programmable Controllers 2**

**3-3-4**

(*Prerequisite: Eltrn. 203 or previous programmable controllers 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. Offered in Spring.

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 will also be provided. Extensive use of computer-assisted instruction

is used to supplement the lectures and traditional hands-on laboratory sessions. Offered in Fall.

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, clammers, Schmitt triggers, differentiators and integrators), SCRs, TRIAC's Unijunction Transistors, and other thyristors. Applications to DC and AC power control and relaxation oscillators will also be 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, 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. Offered in Fall.

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 Occupational and Technical Career Programs.*) 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. Offered in Spring.

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. Offered in Summer.

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 will be a heavy emphasis on practical, hands-on experience with modern electronic products and test equipment. The same tools required for Eltrn. 120 will be used. Offered in Fall.

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

## 160 Course Descriptions

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### **Eltrn. 240 - Introduction to Microprocessors**

**2-2-3**

(*Prerequisite: Eltrn. 160 or Etrn. 211.*) is a specialized course introducing three general areas: hardware, software, and troubleshooting. Special emphasis will be placed on how microprocessor systems function and how to maintain them. Microprocessor hardware and software will be used for most lab activities. Lab sessions will 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. Offered in Spring.

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. 290 - Work Experience Practicum**

**1-20-5**

(*Prerequisite: completion of Eltrn. 109, 110, and 111 in the Electronic Systems Technology Program.*) will allow 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. Offered in Fall and Spring.

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**

**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. 110 - Engineering Graphics**

**1-4-3**

(*Prerequisite: Draft. 101 or non-provisional admission to the A.E.S. Program.*) 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. Offered in Spring.

Applicable for 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 - Engineering, Drafting

### **Engr. 211 - Analytical Mechanics 1: Statics**

**2-2-3**

(*Prerequisite: Phys. 210 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, friction, and virtual work. Offered in Fall.

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 - 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. Offered in Spring.

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 - 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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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). Offered in Fall and Spring.

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. Offered in Fall and Spring.

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

## 162 Course Descriptions

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### **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. Indicated sections in the class schedule will stress composition and revision on the microcomputer using word processing programs. Offered in Fall and Spring.

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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and all Degrees

Group Requirement - Communications

Area of Concentration - Not Applicable

### **Engl. 102H - Composition 2 (IAI: C1 901)**

**3-0-3**

(Prerequisite: Engl. 101 and admission to the Honors Program.) 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. The honors section centers on aspects of language such as linguistic awareness, jargon, sexism and racism in language, non-verbal communication, and propaganda, or it is tied to the subject of another course, such as economics, political science, or psychology. Offered as needed.

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 - Report Writing**

**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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered as needed.

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. Offered in Fall and Spring.

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. Offered as needed.

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. Offered as needed.

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 will be explored. Offered as needed.

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 - 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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Humanities (A.A.S. only)

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. Offered as needed.

## 164 Course Descriptions

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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. Offered as needed.

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, 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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered as needed.

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. Offered as needed.

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. Offered as needed.

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. Offered as needed.

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. Offered as 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 - 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. Offered as 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 - 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. Offered as 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 - Fire Science

**Fire 120 - Fire Prevention Principles 1 3-0-3**

(*Prerequisite: Fire 110 or permission of the Academic Director of Occupational and Technical Career Programs and eligibility for Engl. 101.*) 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. Offered as 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 - Fire Science

**Fire 130 - Building Construction for Fire Science 3-0-3**

(*Prerequisite: Fire 110 or permission of the Academic Director of Occupational and Technical Career Programs.*) 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. Offered as needed.

## 166 Course Descriptions

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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**

(*Prerequisite: Fire 110 or permission of the Academic Director of Occupational and Technical Career Programs and eligibility for Engl. 101.*) 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 which are predominantly skills-oriented. Offered as 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 - Fire Science

### **Fire 150 - Fire Protection Systems**

**3-0-3**

(*Prerequisite: Fire 110 or permission of the Academic Director of Occupational and Technical Career Programs.*) studies the required standards for water supplies, protection systems, automatic sprinklers, and extinguishing systems and various automatic signaling and detection systems. Offered as 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 - Fire Science

### **Fire 170 - Rescue/Roadway Extrication**

**2-2-3**

(*Prerequisite: Fire 110 or permission of the Academic Director of Occupational and Technical Career Programs and eligibility for Engl. 101.*) 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. Offered as 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 - Fire Science

### **Fire 200 - Tactics and Strategy**

**3-0-3**

(*Prerequisite: eligibility for Engl. 101.*) 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 operations, and truck company operations. Offered as 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 - Fire Science

### **Fire 210 - Tactics and Strategy 2**

**3-0-3**

(*Prerequisite: Fire 200 or permission of the Academic Director of Occupational and Technical Career Programs and eligibility for Engl. 101.*) is designed for the fire officer who is responsible for commanding a fire or emergency operation involving multiple companies. Areas that will be covered are strategic concepts in firefighting, responsibilities of command officers, multi-company operations, high rise operations, disasters, and critical incident stress. Offered as 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 - Fire Science

### **Fire 220 - Fire Science Instructor 2**

**3-0-3**

(*Prerequisite: Fire 140 or permission of the Academic Director of Occupational and Technical Career Programs and eligibility for Engl. 101.*) 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. Offered as 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 - Fire Science

### **Fire 230 - Fire Apparatus Engineer**

**3-0-3**

(*Prerequisite: Fire 110 or permission of the Academic Director of Occupational and Technical Career Programs and eligibility for Engl. 101.*) 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. Offered as 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 - Fire Science

### **Fire 250 - Hazardous Materials Operations**

**3-0-3**

(*Prerequisite: Fire 110 or permission of the Academic Director of Occupational and Technical Career Programs and eligibility for Engl. 101.*) 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. Offered as 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 - Fire Science

### **Fire 260 - Fire Investigation**

**3-0-3**

(*Prerequisite: Fire 110 or permission of the Academic Director of Occupational and Technical Career Programs and eligibility for Engl. 101.*) 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. Offered as 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 - Fire Science

### **Fire 270 - Management 1**

**3-0-3**

(*Prerequisite: Fire 110 or permission of the Academic Director of Occupational and Technical Career Programs and eligibility for Engl. 101.*) 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. Offered as 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 - Fire Science

### **Fire 280 - Management 2**

**3-0-3**

(*Prerequisite: Fire 110 or permission of the Academic Director of Occupational and Technical Career Programs and eligibility for Engl. 101.*) 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. Offered as 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 - Fire Science

## 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. Offered in Fall.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered in Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered in Fall.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered as needed.

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. Two assigned 25-minute laboratory periods per week are necessary in addition to scheduled class hours. 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. Offered in Fall.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered in Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered in Fall.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and all Degrees

Group Requirement - Humanities

Area of Concentration - Foreign Language

## **Health**

### **HLTH. 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. Offered as needed.

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

### **HLTH. 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. Offered Fall, Spring, and Summer.

Applicable toward graduation where program structure permits:

Certificate or Degree- Allied Health

Group Requirement- Not Applicable

Area of Concentration- Not Applicable

### **HLTH. 110 - Cardio Pulmonary Resuscitation**

**[0.5-0-0.5]**

will train students for Health Care Worker- CPR certification according to Emergency Cardiac Care Guidelines. Basic Life Support performance skills must be passed for 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. Offered Fall, Spring, and Summer.

Applicable toward graduation where program structure permits:

Certificate or Degree- Allied Health

Group Requirement- Not Applicable

Area of Concentration- Not Applicable

## 170 Course Descriptions

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### **HLTH. 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. Offered as needed.

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 - Allied Health Organization**

**[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. Offered as needed.

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. Offered in Spring.

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 - 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. Offered in the Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates, A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Development

### **HLTH. 140 - Medical Terminology**

**[3-0-3]**

focuses on vocabulary used in medicine, nursing, and other allied health occupations. The course is designed to teach word building and breakdown principles, with intensive work on word parts, roots - prefixes - suffixes, combining forms, singular and plural endings, spelling accuracy, and word pronunciation. Students will learn structures, functions, and terms related to diagnosis, pathology, and treatments for each body system. This course incorporates discussion, problem-solving, reading and writing, student questions, cooperative group work, and lecture. The course relies heavily on student participation. Students are required to work both independently outside of class and in cooperative settings in class. Audio-visual aids include audio tapes, videos, and computer practice disks. Offered Fall and Spring.

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

### **HLTH. 141 - Basic Nurse Assistant Training Program**

**[5-4-7]**

(Prerequisite: High school diploma or GED certificate, at least 17 years of age, pass English and Math proficiency tests, 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. Offered Fall, Spring, and Summer.

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

### **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. An attendance certificate will be awarded for sixteen contact hours of training. Offered as needed.

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

### **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 client. 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. Offered as needed.

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

### **HLTH. 145 - Health Unit Coordinator [6-1-6]**

*(Prerequisite: High school diploma or GED certificate, pass English and Math proficiency tests; completion of or concurrent enrollment in 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.)* will train 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 completed in order to successfully complete the course. Offered in Fall.

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

### **HLTH. 160 - Emergency Medical Technician - Ambulance [5-3-6]**

*(Prerequisite: Pass reading proficiency test, Hlth. 110, or current Healthcare Worker 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 for training Emergency Medical Technicians (EMTs). The student trained in this 110-hour 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. Offered in Fall and Spring.

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

### **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. Offered in Fall and Spring.

## 172 Course Descriptions

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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

### **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. Offered as needed.

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

### **HLTH. 163 - Emergency Medical Technician - Paramedic 1** [8-6-10]

(*Prerequisite: EMT-I.*) 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. Offered as needed.

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

### **HLTH. 164 - Emergency Medical Technician - Paramedic 2** [6-12-10]

(*Prerequisite: EMT-I, successful completion of HLTH 163-EMT-Paramedic 1.*) 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. Offered as needed.

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

### **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. Offered in Spring.

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. 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. It is a seventy-two (72) clock hour course which meets on a nine-day schedule. Certificate of completion will be awarded to students upon successful completion. Offered as needed.

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

## Heating, Ventilation, and Air Conditioning

### 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. Offered in Fall and Spring.

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. They 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 for completion of the course. A Class C completion with the first two classes will qualify the student for a Universal Technician Certificate. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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, Eltrn. 111 and H.V.A.C. 102 or equivalent competencies.*) 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 a volt, ohm, milli-amp meter. 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. Offered in Spring.

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.

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### **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. Offered in Spring.

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 their 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 will be 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. Offered in Fall.

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 will be utilized to demonstrate equipment failures within the electrical, mechanical, and refrigerant systems. This exposes the student to a wide variety of technical problems that one will encounter 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. Offered in Fall.

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**

**2-2-3**

(*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 students progress, they will learn in great detail how commercial air conditioners and refrigeration and heat pump systems work, or rather, how they do NOT work. They must demonstrate the proper operation and diagnostic skills through logical problem solving techniques. Offered in Fall.

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**

**3-4-5**

*(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 will be utilized to demonstrate equipment failures within the electrical, mechanical, and gas systems. The course will conclude with light commercial load calculations and system design. Offered in Spring.

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**

**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 develop 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 will be 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. Offered in Spring.

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. Offered in Fall.

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

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### **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. A student may receive credit toward graduation for only two of the following three courses: Hist. 102 or 103 prior to 8-15-77, Hist. 102 since 8-15-77. Offered in Spring.

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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered in Fall.

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. Offered in Spring.

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 will include the impact of imperialism and colonialism and will emphasize major religious, social, economic, political, and cultural elements of the contemporary Middle East. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered as needed.

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. Offered in Fall.

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 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. Offered in Spring.

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 will be stressed, social and political influence in military affairs will also be analyzed. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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 will be an integral part of the course. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - History

**HIST. 270 - History of Non-Western Civilization: China (IAI H2903-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. This course meets third world course requirements. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and all Degrees

Group Requirement - Social Science

Area of Concentration - History

## **Home Economics**

**H. Ec. 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 health lifestyle. Offered as needed.

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

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### **H. Ec. 200 - 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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate of Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Not Applicable

Area of Concentration - Dietetic Assistant/Technician, Allied Health and Nursing

## **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. Offered in Fall.

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 will be emphasized. Offered in Fall.

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 will be introduced as they are needed. Offered in Spring.

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. Offered in Spring.

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. Offered in Fall.

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. Offered in Spring.

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. Offered in Fall.

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. Offered in Fall.

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. Offered in Spring.

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. Offered in Spring.

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. Offered in Spring.

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. Offered in Spring.

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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and all Degrees

Group Requirement - Natural Science

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. Offered in Spring.

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, 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 will be stressed. Offered as needed.

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. 121 - Great Books Seminar 1**

**3-0-3**

is a study of classic writings in literature and philosophy using the readings and shared inquiry method prescribed by the Great Books Foundation. The selected readings and course content are different for each of the five Great Books seminars even though the method and procedure are the same for each course. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Not Applicable

### **Human. 122 - Great Books Seminar 2**

**3-0-3**

is a study of classic writings in literature and philosophy using the readings and shared inquiry method prescribed by the Great Books Foundation. The selected readings and course content are different for each of the five Great Books seminars even though the method and procedure are the same for each course. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Not Applicable

### **Human. 123 - Great Books Seminar 3**

**3-0-3**

is a study of classic writings in literature and philosophy using the readings and shared inquiry method prescribed by the Great Books Foundation. The selected readings and course content are different for each of the five Great Books seminars even though the method and procedure are the same for each course. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Not Applicable

### **Human. 124 - Great Books Seminar 4**

**3-0-3**

is a study of classic writings in literature and philosophy using the readings and shared inquiry method prescribed by the Great Books Foundation. The selected readings and course content are different for each of the five Great Books seminars even though the method and procedure are the same for each course. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Not Applicable

### **Human. 125 - Great Books Seminar 5**

**3-0-3**

is a study of classic writings in literature and philosophy using the readings and shared inquiry method prescribed by the Great Books Foundation. The selected readings and course content are different for each of the five Great Books seminars even though the method and procedure are the same for each course. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Not Applicable

### **Human. 201H - 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. Offered as needed.

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 will receive instruction in first aid and CPR. Offered in Spring.

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

## **Japanese**

### **Japan. 101 - Beginning Japanese 1**

**4-0-4**

is an introduction to modern Japanese, including speaking, understanding, reading, and writing. The course stresses the correct pronunciation of the basic sounds of Japanese, the ability to use contemporary expressions idiomatically in conversation, and the mastery of basic pattern sentences. Two 25-minute language laboratory or conversation sessions per week are necessary in addition to scheduled class hours. Japanese 101 also includes the teaching of two syllabic scripts, HIRAGANA and KATAKANA. The course is designed for students with no previous study of Japanese but with a strong linguistic, economic, or cultural interest in Japan. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or degree - All Certificates, A.A.S., A.L.S., A.A., or A.S.

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Foreign Language

### **Japan. 102 - Beginning Japanese 2**

**4-0-4**

(Prerequisite: Japanese 101 or equivalent competencies.) is a continuation of Japanese 101. It also begins the study of Kanji (Chinese characters) and reading modern colloquial Japanese. It continues the exposure to Japanese customs, non-verbal communication, human relationships, and business life. Two 25-minute language laboratory or conversation sessions per week are required in addition to scheduled class hours. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or degree - All Certificates, A.A.S., A.L.S., A.A., or A.S.

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Foreign Language

### **Japan. 201 - Intermediate Japanese 1**

**4-0-4**

(Prerequisite: Japanese 102 or equivalent competencies.) is designed to build intermediate oral, reading, and writing skills through compositions and guided conversations upon topics of contemporary interest using graded readings. A student will learn to participate comfortably in Japanese conversations and write 200 kanjis. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or degree - All Certificates, A.A.S., A.L.S., A.A., or A.S.

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Foreign Language

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### Japan. 202 - Japanese 2

4-0-4

(Prerequisite: Japanese 201 or 15 or more quality points for high school Japanese completed within the past five years.) thoroughly reviews skills acquired in Japanese 101, 102, and 201 and stresses improvement of the skills of expression and comprehension of longer and more complicated sentences in both verbal and written forms. To develop such skills, students will be encouraged to practice oral conversation and develop critical reading comprehension by reading books in Japanese. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or degree - All Certificates and all Degrees

Group Requirement - Humanities

Area of Concentration - Foreign Language

## 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. Offered in Fall and Spring.

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. 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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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, Speech

## Law Enforcement

### Law E. 110 - Introduction to Law Enforcement

3-0-3

(Prerequisite: eligibility for Engl. 101 and admission to one of the Law Enforcement programs or permission of the Academic Director of Occupational and Technical Career Programs.) 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. Offered in Fall.

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 and admission to one of the Law Enforcement programs or permission of the Academic Director of Occupational and Technical Career Programs.) 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. Offered in Spring.

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 and admission to one of the Law Enforcement programs or permission of the Academic Director of Occupational and Technical Career Programs.) 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. Offered in Spring.

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 and admission to one of the Law Enforcement programs or permission of the Academic Director of Occupational and Technical Career Programs.) 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. Offered in Fall.

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 Introductory Sociology, Psychology, or Law Enforcement or permission of the Academic Director of Occupational and Technical Career Programs.) 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. Offered in Spring.

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 and admission to one of the Law Enforcement programs or permission of the Academic Director of Occupational and Technical Career Programs.) 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. Offered in Fall.

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

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### **Law E. 211 - Law Enforcement Administration**

**4-0-4**

(Prerequisite: eligibility for Engl. 101 and admission to one of the Law Enforcement programs or permission of the Academic Director of Occupational and Technical Career Programs.) 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. Offered as 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 - Law Enforcement

### **Law E. 290 - Work Experience Practicum and Seminar**

**1-25-6**

(Prerequisite: eligibility for Engl. 101 and approval of the Academic Director of Occupational and Technical Career Programs 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 Career Programs 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 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 included 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. Offered as needed.

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

## **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. Offered as 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 - 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. Offered as 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 - 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. Offered as 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 - 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. Offered as 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 - 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. Offered as 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 - 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 will be on terminology. Further study will include effects of heating and cooling on steel, the way metals bend or deform, and the principles of metal testing methods. Offered as 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 - 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. Offered as needed.

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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. 130 - Manufacturing Metallurgy and Processes**

**3-0-3**

(*Prerequisite: eligibility for Engl. 101.*) provides the student with a basic understanding of metallurgy and the application to conventional manufacturing processes. The basics of metal structures and the mechanical, physical, and chemical properties of steel and aluminum are examined. The effects of heating and cooling and the way metals bend or deform are examined. Basic casting, forging, forming, and testing are examined as well as machining and tolerances in metal removal. Offered as 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 - Computer Integrated Manufacturing

## **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. Offered as 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 - 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 will also be studied. Offered as 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 - 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. Offered as 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 - Not Applicable

### **Matls. 140 - Inventory Management and Control**

**3-0-3**

provides an overview of the dynamics of managing inventory in the constantly changing industrial and commercial environment. Topics include forecasting sales and inventory requirements, computer applications to inventory control problems, building inventory model simulation, and the relationships of inventory control to marketing management and production control. Credit cannot be received in both Matls. 140 and C.I.M. 120. Offered as 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 - Not Applicable

**Matls. 160 - Production Control Concepts****3-0-3**

(*Prerequisite: Matls. 110 or appropriate business experience.*) is devoted to describing the development, scope, and objectives of production control. Specific attention will be given to scheduling, control, critical path, machine loading and material requirements planning, and other techniques, functions, and activities that are implicit in this aspect of materials management operations. Credit cannot be received for both Matls. 160 and Prod. C. 130. Offered as 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 - 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. Offered as 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 - 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. Offered as 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 - 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. Offered as 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 - 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. Offered as 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 - 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. Offered as 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 - Not Applicable

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### 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. Offered as 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 - 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 around the module concept. Students will work independently under the guidance of an instructor to complete those modules with which the students need help. Each student will take a pre-test prior to each module. If not successful, the student will complete the work in that module and then take a post-test. This is a computer-assisted learning course. Students will be expected to spend a minimum of four hours per week on computer instruction. Offered as needed.

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 ["C" or better grade] or satisfactory score on the mathematics placement exam, and (2) eligibility for Engl. 101 or concurrent enrollment in Engl. 090.) is designed to automate the use of fractions, mixed numbers, and decimal numbers in any and all operations. It is also designed to automate 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. Intensive work is done in teaching productive thought patterns that will be used in problem solving. Some of the basic concepts of spatial geometry including pyramids, spheres, and cones are integrated in the course. Successful completion of this course insures total preparation for Math. 091. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

### Math. 091 - Basic Algebra

4-0-4

(Prerequisite: both of the following: (1) Math. 090 ["C" or better grade] 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, 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. Algebraic methods are used in spatial geometry problems, concentrating on finding the areas and volumes of irregular geometric solids. The concept of volume and surface area of prisms, cylinders, cones, and spheres is practiced. Successful completion of this course prepares the student for Math. 098 and Math. 104. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**Math. 094 - Pre-Algebra and Basic Algebra****5-0-5**

(Prerequisite: both of the following: (1) 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 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. Algebraic methods are used in spatial geometry problems, concentrating on finding the areas and volumes of irregular geometric solids. The concepts of volume and surface area of prisms, cylinders, cones, and spheres are practiced. Successful completion of this course prepares the student for Math. 098 and Math. 104. This course will be different in many ways to a traditional course not so much in content but in delivery. A graphing calculator is required. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**Math. 095 - Basic Geometry****4-0-4**

(Prerequisite: both of the following: (1) Math. 091 ["C" or better grade] or satisfactory score on the mathematics placement exam, and (2) eligibility for Engl. 101 or concurrent enrollment in Engl. 090 and Engl. 091.) is an introduction to geometry. Topics include lines and plane and solid figures with concepts of congruence, similarity, symmetry, and logic. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**Math. 097 - Basic and Intermediate Algebra****4-0-4**

(Prerequisite: both of the following: (1) satisfactory score on the mathematics placement exam, and (2) eligibility for Engl. 101, and (3) conference with mathematics instructor prior to the first day of class.) 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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

**Math. 098 - Intermediate Algebra****4-0-4****(Formerly Math. 115)**

(Prerequisite: all of the following: (1) Math. 091 ["C" or better grade] 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 in Intermediate Algebra. It is designed for (1) students who have successfully completed one year 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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

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### **Math. 104 - Technical Mathematics**

**4-0-4**

(Prerequisite: both of the following: (1) Math. 091 ["C" or better grade] 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. Presentation of concepts is followed by applied examples and problems that have been drawn from diverse occupational fields. Practical application examples from various occupations are shown to illustrate the actual on-the-job uses of the mathematical concepts. An understanding of mathematical concepts is emphasized in all topics. Derivations and formal proofs are not presented. An analytical approach to problem solving used in actual on-the-job training and technical occupations applications is emphasized in the plane geometry, computed measure, and trigonometry sections. Basic fundamentals of general mathematics are covered quickly, and examples and exercises from diverse applied problems are emphasized. Use of scientific calculators with algebraic logic is emphasized throughout the course. The student is exposed to many applied problems in mathematics using calculators. Offered in Fall and Spring.

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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Mathematics

Area of Concentration - Registered Nursing

### **Math. 108 - Mathematics for Health Technology**

**3-0-3**

includes addition, subtraction, multiplication, and division of whole numbers, fractions, decimals, and signed numbers; measurement; scientific notation; equations, decimals, and signed numbers; measurement; scientific notation; equations and their graphs; ratio and proportion; areas; algebraic expressions; and right triangle trigonometry. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Mathematics

Area of Concentration - Radiologic Technology, Respiratory Therapy

### **Math. 110 - Concepts of Mathematics (IAI: MI 904)**

**4-0-4**

(Prerequisite: all of the following: (1) Math. 098 ["C" or better grade] 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. Mathematical modeling and projects will be included as part of the of course. A maximum of four of the following topics is studied in depth: logarithmic and exponential functions, geometry, counting techniques and probability, graph theory, logic, linear programming, mathematical modeling, mathematics of finance, statistics, and game theory. A graphing calculator is required. Credit cannot be received in both Math. 110 and Math. 111. Offered in Fall.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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 ["C" or better grade] 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. Offered in Fall.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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 and the further development of the topics in 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. Offered in Spring.

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 ["C" or better grade] 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. Offered in Fall and Spring.

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 ["C" or better grade] 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, 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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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 ["C" or better grade] or satisfactory score on the mathematics placement exam, (2) Math. 095 or one year of high school geometry, and (3) eligibility for Engl. 101.)* covers sets, relations and functions, trigonometric functions, solutions of right triangles and oblique triangles, radian and degree measure, trigonometric identities and equations, inverse trigonometric relations, and complex numbers. Calculators are used. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

## 192 Course Descriptions

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Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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: (1) successful completion of both Math. 116 and Math. 117 ["C" or better grade] or satisfactory score on the mathematics placement exam, and (2) conference with mathematics instructor prior to the first day of class.) begins with a review of algebra; then the idea of limits and continuity will be introduced. With the knowledge of limits and continuity the student will develop the concept of the derivative and its applications. At the end, the student will study the antiderivative and the applications of the integrals of some basic elementary functions. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and all Degrees

Group Requirement - Mathematics

Area of Concentration - Mathematics

### **Math. 122 - Calculus and Analytic Geometry 2 (IAI: M1 900)**

**4-0-4**

(Prerequisite: Math. 121 or equivalent competencies.) begins with the differentiation and integration of transcendental functions (exponential, logarithmic, inverse trigonometric, hyperbolic). Then, different methods of integration will be introduced. For the rest of the semester, students will study L'Hospital's Rule, sequences and series, infinite series, power series, Taylor series, conic sections, polar coordinates and parametric equations. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and all Degrees

Group Requirement - Mathematics

Area of Concentration - Mathematics

### **Math. 125 - Pascal Programming**

**3-2-4**

(Prerequisite: Math. 116 and Math. 117.) teaches the student reading and writing proficiency in Pascal on microcomputers. Top down programming, documentation, Abstract Data Types, subroutines, and functions are the tools used to teach the usual three structures of good programming. In addition to real, integer, and the typical data types, the student will learn to use the user-defined data types, sets, Booleans, records, and (time permitting) dynamic data types such as linked lists and queues. The use of recursion may be included. The above data types will be used for both sequential and random access data files. (The student must allow some time to be spent doing some laboratory work on the computer outside the scheduled class time.) Credit cannot be received in both C.I.S. 225 & Math. 125. Offered in Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Mathematics (A.A.S. only)

Area of Concentration - Mathematics

### **Math. 131 - Introduction to Computer Programming - BASIC**

**2-2-3**

(Prerequisite: Math. 116.) includes input, output, branching, and looping. The student writes programs and runs them using a microcomputer network. The student can choose problems from areas such as business, mathematics, physics, or social science. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Mathematics (A.A.S. only)

Area of Concentration - Mathematics

### **Math. 141 - FORTRAN for Science and Engineering**

**2-2-3**

(Prerequisite: Math. 121 or equivalent competencies as approved by the Academic Director of Transfer Career Majors.) teaches the student reading and writing proficiency in FORTRAN on microcomputers. Presently FORTRAN 77 is being used. 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, will be taught in conjunction with the data, parameter, if-then-else, do-while, do-until, and do- (counter) statements. Scientific problem solving will be emphasized leading to numerical methods including data analysis, curve fitting, root solving, systems of linear equations, and numerical differentiation and integration. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Mathematics (A.A.S. only)

Area of Concentration - Mathematics

**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. Offered in Fall and Spring.

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, ANOVA, sampling and simulation and quality control. A graphing calculator is required. Offered in Fall and Spring.

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, ANOVA, sampling and simulation and quality control. Students from various areas - business, education, engineering, and social science - can effectively benefit from this course. A graphing calculator is required. Offered in Fall and Spring.

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 ["C" or better grade] 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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and all Degrees

Group Requirement - Mathematics

Area of Concentration - Not Applicable

**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, quadratic 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 will be 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. Offered in Fall.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and all Degrees

Group Requirement - Mathematics

Area of Concentration - Mathematics

## 194 Course Descriptions

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### 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 will be introduced. Modeling with higher-order, Laplace transform, systems of linear first-order differential equations will be covered. At the end, students will learn series solutions of linear equations. Numerical methods will be covered throughout the course. Offered in Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Mathematics (A.A.S. only)

Area of Concentration - Mathematics

### Math. 240-Introduction to Linear Algebra

3-0-3

(*Prerequisite: successful completion of Math. 122 ["C" or better grade].*) 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. Offered in Fall.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.E.S., A.A.S., A.L.S., A.A., A.S.

Group Requirement - Mathematics (A.A.S. only)

Area of Concentration - Mathematics, Engineering Elective

## Mechanical Systems

### Mec. S. 101 - Mechanical Power Transmission 1

3-2-4

(*Prerequisite: Phys. 115.*) 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. Offered as 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 - Industrial Maintenance

### Mec. S. 102 - Mechanical Power Transmission 2

3-0-3

(*Prerequisite: Mec. S. 101.*) 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. Offered as 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 - Industrial Maintenance

### Mec. S. 110 - Fundamentals of Hydraulics

2-2-3

(*Prerequisite: Phys. 115.*) 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. Offered as 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 - 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. Offered as 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 - 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. Offered in Fall and Spring.

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

## **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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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 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. Offered in Fall and Spring.

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

## 196 Course Descriptions

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### **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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered in Fall and Spring.

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 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. Offered as needed.

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 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. Offered in Fall and Spring.

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 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. Offered in Fall and Spring.

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. Offered as needed.

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 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. Materials correlate keyboard skills to musicianship. Offered as needed.

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 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. Materials correlate keyboard skills to musicianship. Offered as needed.

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

## **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, H. Ec. 200, and Psych. 110, or approval of the Nursing Coordinator.*) describes the roles of the Associate Degree Nursing graduates 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, nursing process, legal/ethical, 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 will also be identified. Offered in Fall.

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, H. Ec. 200, 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, asepsis, and infection control. Sixteen hours of this course will be 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 will be topics for discussion and observation. Clinical experiences allow students to provide direct care for adult clients in a hospital setting, using the nursing process. Offered in Fall.

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

## 198 Course Descriptions

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### **NURS. 151 - Medical-Surgical I**

**[2-6-4]**

(Prerequisite: Nurs. 101, Nurs. 102, H. Ec. 200, 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 will be emphasized. Clinical experiences provide opportunities to use the nursing process, communication, critical thinking, and decision making in caring for adults in long-term care and hospital settings. Offered in Spring.

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]**

(Prerequisites: Nurs. 101, Nurs. 102, H. Ec. 200, 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 will provide opportunities to use the nursing process, therapeutic communication, and critical thinking. Students will plan and administer care to individuals and small groups. Offered in Fall and Spring.

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]**

(Prerequisites: RN, LPN, or Nurs. 101, Nurs. 102, H. Ec. 200, 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. Offered in Fall and Spring.

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**

**[1-1-2]**

(Prerequisite: LPN license, liability insurance or approval of the Nursing Coordinator.) introduces the LPN to the techniques, complications, and special problems of peripheral intravenous therapy. The course will teach 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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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, concurrent enrollment in Nurs. 202, 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 of sound judgments. Clinical experiences will occur in a variety of health care settings. Offered in Fall.

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 will be provided. Offered in Spring.

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, admission to the LPN Bridge course, Biol. 201, Biol. 202, H Ec. 200, 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. Critical nursing skills related to these content areas will be 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. Offered in Summer.

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 normal findings along with basic information about common and important abnormal findings. Offered in Fall and Spring.

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

## 200 Course Descriptions

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### **NURS. 215 - Registered Nurse First Assist**

**[3-1-4]**

*(Prerequisite: Registered Nurse 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 will 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. Offered in the Spring and Summer.

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, and Nurs. 154, concurrent enrollment in 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. Student will gain clinical experience in oncology care, acute care, and geriatric care. Students will develop insight about the effects of an aging population as it relates to health care delivery systems. Emergency room rotations will be an observational experience. Offered in Fall.

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 course, 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 will work two eight-hour day and/or evening shifts 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, patient care management approaches and principles, conflict management, accountability, quality assurance, employment, the health care delivery system, diagnosis-related groups, and legal/ethical issues. Opportunities and challenges related to lifelong learning and professional responsibilities are identified. Offered in Spring.

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. 295 Practicum and Seminar**

**[1-24-4]**

*(Prerequisite: Graduation from a state-approved registered nurse program)* is a 6-week elective course that is designed to introduce new graduates into the work world; provide further assistance with the transition from the student role to the role of a practicing registered nurse; provide planned, supervised, individualized experiences to meet the student's learning needs in clinical areas selected by the students; and provide a basis for cross-training registered nurses in the areas of respiratory care and phlebotomy. Opportunities will be available for students to utilize knowledge of nursing, pharmacology, diagnostic tests, and concepts from medical, biological, and social sciences to apply towards the nursing process. This course will provide experiences in client care situations that require clinical problem-solving and decision-making skills with an experienced registered nurse serving as a preceptor and role model. Offered first Summer session after graduation.

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

(Formerly O.T. 106, 107, 108)

(*Prerequisite: Touch-keyboarding skills, not looking at fingers, 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 to be taken by 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. Offered in Fall and Spring.

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. 101 - Computer Basics-Office Applications

.5-0-.5

introduces the student to major components of an IBM or compatible computer system, terminology, keyboarding usage, care and handling of diskettes, computer applications, and the setting up and loading of software applications. Offered as needed.

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. 102a - Operating Systems/Windows-Office Applications

1-0-1

introduces the student to major components of a computer system, terminology, and the Windows graphical user interface. Operations such as using the mouse, working within dialog boxes, manipulating application windows, managing files, multitasking, and the transferring of data between applications are covered. Offered in Fall and Spring.

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. 102b - Operating Systems/DOS-Office Applications

1-0-1

introduces the student to major components of a computer system, terminology, and operating system command structure. Basic operations including formatting, directories and subdirectories, and copying, deleting, undeleting, and renaming files are covered. (**Cannot receive credit for this course if completed C.I.S. 245.**) Offered as needed.

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. 103 - Word Processing Basics-Office Applications

1-0-1

(*Prerequisite: Bus. 140 or touch-keying skills of 15 NWAM.*) introduces the student to basic word processing features used in creating, saving, and editing documents such as moving the cursor, inserting, deleting, cutting and pasting, searching, replacing, formatting, enhancing text, spell checking, using the thesaurus, working with multi-page documents, and printing as well as using the help feature. Offered as needed.

#### O.T. 103a - WordPerfect Basics/Windows-Office Applications

(Cannot receive credit for this course if O.T. 112 was completed after May 1995. Cannot receive credit for this course if C.I.S. 130 was completed after January 1995.)

#### O.T. 103b - Microsoft Word Basics/Windows-Office Applications

#### O.T. 103c - AmiPro Basics/Windows-Office Applications

#### O.T. 103d - WordPerfect Basics/DOS-Office Applications

#### O.T. 103e - Microsoft Word Basics/DOS-Office Applications

(Cannot receive credit for this course if C.I.S. 130 was completed prior January 1995.)

## 202 Course Descriptions

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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**

*(It is suggested that the student take O.T. 102a or 102b prior to these courses.)* (One O.T. 104 course is required in O.T. programs. Other O.T. 104 courses may be used as specialized elective courses in O.T. programs.) introduces the student to basic spreadsheet features used in designing, creating, saving, and editing worksheets such as entering values and labels, inserting and deleting rows and columns, changing column widths, copying, moving, entering formulas, using functions, and formatting cell contents, as well as using the help feature. Offered in Fall and Spring.

**O.T. 104a - Quattro Pro Basics/Windows-Office Applications**

**O.T. 104b - Lotus 1-2-3 Basics/Windows-Office Applications**

(Cannot receive credit for this course if C.I.S. 120 was completed after January 1995.)

**O.T. 104c - Microsoft Excel Basics/Windows-Office Applications**

**O.T. 104d - Lotus Basics/DOS-Office Applications**

(Cannot receive credit for this course if C.I.S. 120 was completed prior January 1995.)

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**

*(It is suggested that the student take O.T. 102a or 102b prior to this course.)* (One O.T. 105 course is required in O.T. programs. Other O.T. 105 courses may be used as specialized elective courses in O.T. programs.) introduces the student to basic database features used in designing, creating, saving, editing, sorting, querying, and preparing and printing reports as well as using the help feature. Offered in Fall and Spring.

**O.T. 105a - Paradox Basics/Windows-Office Applications**

**O.T. 105b - dBASE Basics/Windows-Office Applications**

**O.T. 105c - dBASE Basics/DOS-Office Applications**

(Cannot receive credit for this course if C.I.S. 221 or C.I.S. 222 was completed prior September 1995.)

**O.T. 105d - Introduction to Microsoft Access-Office Applications**

(Cannot receive credit for this course if C.I.S. 221 or C.I.S. 222 was completed after September 1995.)

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. 109a - Desktop Publishing Basics-Office Applications**

**1-0-1**

*(Prerequisite: O.T. 103a, O.T. 112, or O.T. 211.)* (Cannot receive credit for this course if O.T. 212 was completed after June 1995.) introduces the student to the basic elements of good visual design using WordPerfect for Windows to produce camera-ready copy for simple publications containing text, text art, clip art, and WordPerfect Draw images. Offered as needed.

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. 109b - Harvard Graphics Basics/Windows-Office Applications**

**1-0-1**

*(It is suggested that the student take O.T. 102a prior to this course.)* (Cannot receive credit for this course if completed C.I.S. 210.) introduces the student to the basic elements of good visual design using Harvard Graphics for Windows features to choose and create the correct chart type, save, scale and format charts, import and enter data, add titles and labels, set up legends, add grids and other graphic enhancements, edit and update, and print as well as using the help feature. Offered as needed.

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. 109c - Introduction to Microsoft PowerPoint-Office Applications** **1-0-1**

*(It is suggested that the student take O.T. 102a prior to this course.)* introduces the student to the basic elements of good visual design using Microsoft PowerPoint features to create overhead transparencies, handouts, and electronic slideshows. Offered as needed.

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. 110a - Introduction to Internet** **1-0-1**

*(It is suggested that the student 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, Internet resources, and searching the Internet for information. Offered as needed.

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. 111 - Document Formatting** **2-2-3**

*(Prerequisite: Bus. 140, O.T. 100, or touch-key minimum skills of 25 NWAM for three minutes or 1 year high school typing with "B" grade or better within the last three years.)* is designed for development of efficient skills in producing business and personal documents. These problems will include various types of centering problems, various styles of multi-page letters with special features, memoranda, tables, and multi-page manuscripts. **No keyboard presentation is included;** however, basic typing theory will be reviewed. Offered in Fall and Spring.

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. 112 - Basic Word Processing** **2-2-3**

*(Prerequisite: O.T. 111 or equivalent competencies.)* introduces the student to word processing concepts and applications. Students will prepare a variety of documents and master specialized software functions. Course emphasis is placed on computer literacy, creating and editing documents, and printing. Offered in Fall and Spring.

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. 121 - Gregg Shorthand I** **3-0-3**

*(Prerequisite: completion of or concurrent enrollment in Bus 119 or eligibility for Engl. 101.)* is designed to develop skill in the use of theory, phrasing, vocabulary, and briefing forms in Gregg Shorthand. Upon successful completion of this course, the student will take dictation at a minimum of 60 wpm with 95% accuracy. Offered as needed.

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. 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. Offered as needed.

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

## 204 Course Descriptions

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### **O.T. 132 - Shorthand/Speedwriting Transcription**

**2-2-3**

(*Prerequisite: O.T. 121 or O.T. 131.*) is designed to increase speed and accuracy to a minimum of 80 wpm with 95% accuracy. Offered as needed.

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 a course 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. Offered in Fall and Spring.

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 Career Programs.*) is a lecture course dealing with an introduction to the principles of anatomy and physiology. In association with each body system, common pathological conditions will also be 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. Offered as 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 - Not Applicable

### **O.T. 150 - Records Management**

**3-0-3**

(*Prerequisite: Bus. 140 or equivalent touch-typing competencies.*) introduces the student 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. Offered in Fall and Spring.

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

### **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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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 using WordPerfect. Some of these processes include basic typography, design, desktop publishing, graphics, and creating newsletters, brochures, and booklets. Offered in Fall and Spring.

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 the student 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. Offered as needed.

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. 221 - Dictation Transcription Review****2-2-3**

(*Prerequisite: two years of high school Shorthand/Speedwriting or O.T. 132 or equivalent net speed and Bus. 119 or eligibility for Engl. 101.*) reviews dictation and transcription rules, brief forms and phrases in both Gregg Shorthand and Speedwriting. Students concentrate on regaining speed and accuracy of 80 to 120 wpm in transcribing mailable copy with 95% accuracy. Offered as 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 - Teacher Education, Office Technology

**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 the student with legal terminology, definitions, and formatting of legal documents. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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

## 206 Course Descriptions

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### **O.T. 245 - Medical Office Careers-CPT Coding**

**2-2-3**

(Prerequisite: O.T. 142 or permission of Academic Director of Occupational and Technical Career Programs.) is designed to provide the student with a knowledge of preparing and encoding medical information about a patient and to provide such information on the appropriate reporting documents. Offered as needed.

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 Career Programs.) 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. Offered as needed.

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.) emphasizes 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. Offered in Fall and Spring.

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**

(Prerequisite: eligibility for Engl. 101.) 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. Offered as needed.

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**

(Note: Students with more than twenty college credits cannot register for this class.) 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. Offered in Fall and Spring.

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 will help students to understand their own personal strengths and skills capabilities so they can better present themselves to prospective employers. Offered Fall and Spring.

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 will be used to assist the individual in making educational and career plans. Offered as needed.

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**

designed to teach effective job search techniques to students. Students will 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. Offered as needed.

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. Offered in Fall (day and night) and Spring (day).

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. Offered in Spring (even years during day; odd years at night).

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. Offered in Spring (even years at night; odd years during day).

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

## 208 Course Descriptions

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### **P. Rel. 200 - Personnel Administration**

**3-0-3**

studies the blending of the needs of the individual with the needs of the organization. Study will be 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. Offered in Fall (even years at night; odd years during day).

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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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. Offered in Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered in Fall.

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. Offered in Fall.

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. Offered in Spring.

Applicable toward graduation where program permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Humanities (A.A.S. only)

Area of Concentration - Philosophy

## **Physical Education**

*Note: Students may repeat P.Ed. 100 and/or 110, 114, 119, 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. Offered in Fall, Spring, and Summer.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered Fall, Spring, and Summer.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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 will be placed on rules interpretation, skill development, and strategies. Offered Fall and Summer.

## 210 Course Descriptions

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Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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 will include terminology and rules interpretation, skill development of the set, serve, block, and the spike as well as the playing of the game. Offered Fall and Summer.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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 will be placed on singles and doubles play, rules interpretation, terminology, and game strategy. Offered Fall and Summer.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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 will be placed on rules interpretation, terminology, and practice using the various clubs. Offered in Fall, Spring, and Summer.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered Fall and Summer.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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 will be placed on rules interpretation, team play, and game strategy. Offered Fall and Summer.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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 will be emphasized. Offered in Fall and Summer.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **P.Ed. 118 - Racketball**

**0-2-1**

is a course designed to provide instruction and to play the game of racketball. Emphasis will be placed on strategy, singles, and doubles play, rules, and special strokes. Offered Fall and Summer.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered Fall, Spring, and Summer.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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 will be introduced to the fundamental topics of physics and astronomy, including motion, force, energy, the stars, galaxies, and the night sky. In addition, students will be introduced to the scientific method and its development from early Aristotelian physics, through Galileo and Newtonian classical physics, up to the modern physics of Einstein and the 20<sup>th</sup> Century. Real-world applications and experiments will be used to illustrate the concepts and material of interest to the course. Offered in Fall, Spring, and Summer.

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. 220H - 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 will be atomic theory, an abstract, mathematical model of the structure of matter that has profound implications for the conduct of science. Offered as needed.

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 - 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. Offered in Fall and Spring.

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

## 212 Course Descriptions

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### **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 will be 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. Offered in Fall and Summer.

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, atomic and nuclear physics. Student experiments in the laboratory will be used to illustrate the concepts studied in the lecture and practiced in the problems. Offered in Spring.

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 - 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. Offered in Fall and Spring.

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 the student 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. Offered as needed.

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**

**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. Offered in Spring.

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 (AAS 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. Offered in Fall.

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 - General Science, Physics

**Phys. 153 - Optics, 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. Offered in Spring.

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 - General Science, Physics

## **Plant/Building Maintenance**

**Pipe 101 - Basic Pipefitting - Maintenance****2-0-2**

(*Prerequisite: Mfg. 100, eligibility for Math. 104 or equivalent skills.*) is designed to provide instruction in procedures to lay out, fabricate, assemble, install, and/or maintain piping and piping systems, fixtures, and equipment for steam, hot water, heating, cooling, lubricating, sprinkling, and/or industrial processing systems. Offered as 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 - Industrial Maintenance

**P. Sup. 101 - Plant/Building Maintenance Supervisor****4-0-4**

develops leadership/management skills dealing with concepts, procedures, and skills necessary to keep a building functioning. Topics include safety, preventive maintenance planning, cleaning scheduling, hiring, firing, evaluating, and discipline of employees. Offered as 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 - Industrial Maintenance

**HVAC. 131 - Heating, Ventilation, and Air-Conditioning****3-0-3**

(*Prerequisite: Mfg. 100, eligibility for Math. 104 or equivalent skills.*) is designed to introduce students to theory and fundamentals of heating and refrigeration systems. Topics include the installation, operation, and servicing of oil, electric, gas and coal heating systems; physics of refrigeration systems and components and installation, maintenance, repair, and troubleshooting techniques for commercial and domestic refrigeration and air-conditioning systems. Offered as 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 - Industrial Maintenance

## 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. Offered as needed.

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. Offered in Fall and Spring.

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. Offered in Fall and Spring.

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 shall depend greatly on contemporary international events for case study material and class discussions. Offered as needed.

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. 280 - Individual Study in Political Science** **Up to 3 credit hrs.**

(*Prerequisite: eligibility for Engl. 101 and instructor approval.*) includes individual study of a particular issue or topic in political science involving advanced study, a special project, or field research closely directed by the instructor in an area of political science not available in the College's course offerings. The research project will be listed on the student's permanent academic record. This course may be repeated for up to 3 hours credit.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (A.A.S. only)

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 will be 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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (AAS only)

Area of Concentration - Political Science, Social Science

## **Production Control**

**Prod. C. 100 - Time and Motion Study****3-0-3**

covers work simplification based upon time and motion study. The course encompasses product analysis, process analysis, flow charting, machine set-up, work motion, data recording, and rating and calculating elemental and job standard times. Offered as 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 - Production Control

**Prod. C. 120 - Plant Layout and Materials Handling****3-0-3**

introduces the principal techniques used in the layout of the production process. Students are required to determine how a specific product can best be manufactured and assembled. They will then lay out the process, set up production centers, estimate service storage and aisle space required, and lay out floor areas using templates. Offered in Spring.

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

**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. Offered in Spring.

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

**Prod. C. 140 - Methods and Operations Analysis****3-0-3**

covers techniques used in determining the best way of doing a specific piece of work. The course presents the study of methods, materials, tools, and equipment for the purpose of finding the most economical way of doing work. Standardizing work methods and procedures and determining the time required on the average to perform tasks are presented. Student activities include the analysis of fundamental physical motions, construction of related charts, the practice of dividing operations into elements, and time-study observations. Experience is gained in select time determination, performance rating, handling of allowances, and calculated standard time. Computation of the number of cycles necessary to meet minimums in industry is utilized. Offered in Fall.

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 Production Technology, Production Control

## Psychology

### Psych. 100 - Practical Psychology

**3-0-3**

has as its primary purpose providing an opportunity for students to develop a basic understanding of the human person as well as the behavioral and environmental factors that influence the development of individuality and uniqueness of the person. In addition, the course can serve as a foundation for students who wish to familiarize themselves with fundamental concepts of human behavior prior to beginning a formal study of psychology. This course needs to be followed by Psych. 110 for students desiring to pursue a study of psychology through courses numbered above 110. Students who have earned credit for Psych. 110 may not register for this course. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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 and animal behavior. It includes topics on the biological bases of behavior, learning, motivation, and personality. Offered in Fall and Spring.

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 Women

**3-0-3**

(*Prerequisite: Psych. 100 or 110 or equivalent introductory Psychology course.*) is a psychological approach to the study of the American female with emphasis on psychobiology, male/female differences, sex roles, conflicts, stresses, interaction with men, and contemporary source problems affecting the female. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered in Spring and Fall.

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 - Developmental Psychology (IAI: S6 904)

**3-0-3**

(*Prerequisite: Psych. 110.*) examines the behavioral development of the individual from conception through adolescence. Consideration is given to the effects of psychological, social, and biological factors on that development. Offered in Fall and Spring.

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. 200 - Educational Psychology

**3-0-3**

(*Prerequisite: Psych. 110.*) examines the growth and development of the individual through adolescence, with emphasis placed on the facilitation of learning both within and outside the classroom. (A student may not receive credit for both Ed. 200 and Psych. 200.) Offered in Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered as needed.

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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered as needed.

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. 240 - Psychology of Business and Industry****3-0-3**

(*Prerequisite: Psych. 110 or Psych. 110 eligibility and approval of instructor.*) is a study of the application of psychology, its methods, and the principles that apply in business and industry with emphasis on employment selection and placement, interviewing, testing, training, motivation, supervision fatigue, accidents, and absenteeism. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (A.A.S. only)

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. Offered in Fall.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (A.A.S. only)

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 personality disorders, psychotherapy, neuroses, case history, psychoses, medications, and crisis interventions. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Psychology, Social Science

## Real Estate

### **R. Est. 101 - Real Estate Transactions**

**2-0-2**

provides experiences relevant to educational requirements established by the Illinois Department of Registration and Education. The purpose of this course is to assist in preparation of individuals for the Illinois Real Estate Salesmen License Examination. Student absences in excess of three hours of class will prevent the College from certifying satisfactory completion of the course to the Department of Registration and Education. Classes missed must be made up. Offered in Fall and Spring.

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

### **R. Est. 102 - Advanced Real Estate Principles**

**1-0-1**

*(Prerequisite: R. Est. 101.)* provides experiences relevant to educational requirements established by the Illinois Department of Registration and Education. The purpose of this course is to assist in preparation of individuals wishing to take the Illinois Real Estate Brokers License Examination and for those desiring a greater understanding of real estate than that obtained in R. Est. 101. Student absences in excess of one and one-half hours of class will prevent the College from certifying satisfactory completion of the course to the Department of Registration and Education. Classes missed must be made up. Offered in Fall and Spring.

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

### **R. Est. 103 - Contract Conveyancing**

**1-0-1**

*(Prerequisite: R. Est. 101.)* provides experiences relevant to educational requirements established by the Illinois Department of Registration and Education. The purpose of this course is to assist in preparation of individuals wishing to take the Illinois Real Estate Brokers License Examination and for those desiring a greater understanding of real estate than that obtained in R. Est. 101. Student absences in excess of one and one-half hours of class will prevent the College from certifying satisfactory completion of the course to the Department of Registration and Education. Classes missed must be made up. Offered in Fall and Spring.

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

### **R. Est. 110 - Real Estate Appraisal**

**1-0-1**

*(Prerequisite: R. Est. 101.)* provides experiences relevant to educational requirements established by the Illinois Department of Registration and Education. The purpose of this course is to assist in preparation of individuals wishing to take the Illinois Real Estate Brokers License Examination and for those desiring a greater understanding of appraisal techniques. Student absences in excess of one and one-half hours of class will prevent the College from certifying satisfactory completion of the course to the Department of Registration and Education. Classes missed must be made up. Offered in Fall and Spring.

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

### **R. Est. 112 - Real Estate Financing**

**1-0-1**

*(Prerequisite: R. Est. 101.)* provides experiences relevant to educational requirements established by the Illinois Department of Registration and Education. The purpose of this course is to assist in preparation of individuals wishing to take the Illinois Real Estate Brokers License Examination and for those desiring a greater understanding of the fundamentals of real estate financing. Student absences in excess of one and one-half hours of class will prevent the College from certifying satisfactory completion of the course to the Department of Registration and Education. Classes missed must be made up. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate of Degree - All Certificates, A.A.S., A.L.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

### **R. Est. 114 - Real Estate Sales and Brokerage**

**1-0-1**

(*Prerequisite: R. Est. 101.*) provides experiences relevant to educational requirements established by the Illinois Department of Registration and Education. The purpose of this course is to assist in preparation of individuals wishing to take the Illinois Real Estate Brokers License Examination and for those desiring an understanding of the real estate brokerage business. Student absences in excess of one and one-half hours of class will prevent the College from certifying satisfactory completion of the course to the Department of Registration and Education. Classes missed must be made up. Offered as 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 - Not Applicable

### **R. Est. 116 - Property Management**

**1-0-1**

(*Prerequisite: R. Est. 101.*) provides experiences relevant to educational requirements established by the Illinois Department of Registration and Education. The purpose of this course is to assist in preparation of individuals wishing to take the Illinois Real Estate Brokers License Examination and for those desiring a greater understanding of property management. Student absences in excess of one and one-half hours of class will prevent the College from certifying satisfactory completion of the course to the Department of Registration and Education. Classes missed must be made up. Offered as 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 - Not Applicable

### **R. Est. 118 - Farm Property Management**

**1-0-1**

(*Prerequisite: R. Est. 101.*) provides experiences relevant to educational requirements established by the Illinois Department of Registration and Education. The purpose of this course is to assist in preparation of individuals wishing to take the Illinois Real Estate Brokers License Examination and for those desiring a greater understanding of farm management. Student absences in excess of one and one-half hours of class will prevent the College from certifying satisfactory completion of the course to the Department of Registration and Education. Classes missed must be made up. Offered as 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 - Not Applicable

### **R. Est. 120 - Illinois Property Insurance**

**1-0-1**

(*Prerequisite: R. Est. 101.*) provides experiences relevant to educational requirements established by the Illinois Department of Registration and Education. The purpose of this course is to assist in preparation of individuals wishing to take the Illinois Real Estate Brokers License Examination and for those desiring a greater understanding of real estate property insurance. Student absences in excess of one and one-half hours of class will prevent the College from certifying satisfactory completion of the course to the Department of Registration and Education. Classes missed must be made up. Offered as 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 - Not Applicable

## **Recreation**

### **Rec. 120 - Leadership in Recreation**

**3-0-3**

is designed as an introduction to leadership and administration in the field of recreation. Major emphasis is placed on the various types, methods, and theories in leadership. External and internal organization is taught along with budgeting, financing, facility planning, and objectives of a recreational program. Offered as needed.

## 220 Course Descriptions

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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 - Teacher Education

### Robotics

#### **Robot. 101 - Introduction to Robotics**

**2-2-3**

(Prerequisite: C.I.M. 100 or equivalent competencies as determined by the Academic Director of the Occupational and Technical Career Programs.) 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. Offered in Fall and Spring.

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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. 101 or 110 should not register for this course except upon special approval of the Dean of Transfer Career Majors and may receive credit toward graduation for only one of these three courses. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Social Science, Sociology

### **Socio. 110 - Introduction to Sociology (IAI: 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. Offered in Fall and Spring.

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. Offered in Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Social Science, Sociology/Psychology

### **Socio. 141 - Introduction to Social Work**

**3-0-3**

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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Social Science, Sociology

### **Socio. 142 - Social Service Field Experiences**

**3-0-3**

(*Prerequisite: completion of Socio. 141 and permission of the Transfer Career Majors Dean 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 will include evaluation of resources, referral and follow-up activity, awareness of unmet needs, and development of new resources when and where needed. Students planning to enroll in this course must be approved by the instructor and must complete an application for enrollment and submit it to the Career Transfer Majors Dean 30 days or more prior to the first day of registration for the semester during which the student desires to participate in this course. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (A.A.S. only)

Area of Concentration - Social Science, Sociology

## 222 Course Descriptions

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### **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. Offered as needed.

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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Social Science (AAS only)

Area of Concentration - Social Science, Sociology

### **Socio. 200 - Marriage and the Family (IAI: S7 902)**

**3-0-3**

examines patterns of dating, courtship, and marriage with consideration given to the relationship between parents, children, and other members of the family unit. Offered as needed.

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

## **Spanish**

### **Span. 101 - Beginning Spanish 1**

**4-0-4**

integrates the acquisition of basic structure of Spanish by the audiolingual method with readings and cultural material. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours. 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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered in Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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 reinforced by listen-respond practice in laboratory. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours. Offered in Fall.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered as needed.

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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and all Degrees

Group Requirement - Communications

Area of Concentration - Not Applicable

**Spch. 101H - Principles of Speech****2-2-3**

(Prerequisite: admission to the Honors Opportunities Program and eligibility for Engl. 101.) instructs the Honors student in the use of hybrid structural formats and in advanced research and provides opportunities for public speaking. Further, the student may choose one area for extended scholarship from among the following: interpersonal, persuasive, small-group, conflict resolution, or mass media speaking. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Communications (A.A.S. only)

Area of Concentration - Not Applicable

**Spch. 110 - Discussion and Group Conference****2-2-3**

examines the nature and effect 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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered in Fall and Spring.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

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 will be 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. Offered as needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.

Group Requirement - Communications (A.A.S. only)

Area of Concentration - Speech and Drama

## Surgical Technology

### SURGT. 101 - Surgical Technology I

**[4-6-6]**

(*Prerequisite: Admission to Surgical Technology Program, Biol. 101 and Biol. 220 [with a grade of "C" or above], completion of or concurrent enrollment in Biol. 201, Hlth. 140, and Engl. 101, or approval of the Surgical Technology Coordinator.*) introduces students to the surgical team members, hospital, management, and the physical aspects of the operating room. Basic patient care concepts, and issues concerning the ethical, moral, and legal responsibilities will be addressed. A basic survey of pharmacology and medical terminology and their relationship to surgery will be discussed. This introductory course includes classroom and laboratory instruction with observational clinical experiences in the operating room. Offered in Fall.

Applicable toward graduation where program structure permits:

Certificate or Degree - Certificate

Group Requirement - Not Applicable

Area of Concentration - Surgical Technology

### SURGT. 102 - Surgical Technology II

**[8-15-13]**

(*Prerequisite: SURGT 101, completion of or concurrent enrollment in Biol. 202 [with a grade of "C" or above], or approval of the Surgical Technology Coordinator.*) presents the basic patient care concepts, asepsis and the surgical environment, and surgical procedures. The surgical procedures include general surgery, gynecological, gastrointestinal, head and neck surgeries, and genitourinary. With supervision, students participate in the perioperative care of surgical clients, using the concepts and skills presented in this course. Offered in Spring.

Certificate or Degree - Certificate

Group Requirement - Not Applicable

Area of Concentration - Surgical Technology

**SURGT. 103 Surgical Technology III****[4-9-7]**

(*Prerequisite: SURGT 102 or approval of the Surgical Technology Coordinator.*) studies the objectives, the role of the surgical technologist, and sequence of the following surgical procedures: orthopedic and neurology. Offered in Summer.

Applicable toward graduation where program structure permits:

Certificate or Degree - Certificate

Group Requirement - Not Applicable

Area of Concentration - Surgical Technology

**SURGT. 104 Work Experience Practicum****[2-15-7]**

(*Prerequisite: SURGT 103 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 will introduce students to the world of work and assist them with the transition from school to work, the role of surgical technologists, and the sequence of thoracic, vascular, and cardiovascular surgery. Students will be assigned to a surgical facility and will work a full shift following the routines and practices of the surgical facilities to which they are assigned. Students will be introduced to skills for getting and keeping a job. Offered in Fall.

Applicable toward graduation where program structure permits:

Certificate or Degree - Certificate

Group Requirement - Not Applicable

Area of Concentration- Surgical Technology

## **Theatre (See Drama 160, Drama 170, or English 128.)**

### **Welding**

**Weld. 100 - Oxy-Acetylene and Plasma Arc Cutting****0-3-1.5**

is designed to prepare the student to perform oxy-acetylene and plasma arc cutting for production and maintenance work. Offered in Fall and Spring.

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 the student to perform production welding, millwright work, and general maintenance welding. Offered in Fall and Spring.

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 the student to perform A.S.M.E. code welds in the 2-G, 3-G, and 4-G positions. This class will prepare the student for pipe welding. Offered in Fall and Spring.

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 the student to perform basic industrial maintenance welds. These welds would include oxy-acetylene brazing and soldering, arc welding of cast iron, and arc air cutting and gouging. Offered in Fall and Spring.

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

## 226 Course Descriptions

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### **Weld. 201 - Gas Metal Arc and Flux Core Arc Welding**

**0-4-2**

is designed to prepare the student to perform A.S.M.E. code welds in the 1-G and 2-G positions using the GMAW and FCAW processes. Offered in Fall and Spring.

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 the student 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. Offered in Fall and Spring.

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.*) is a course that will allow a student 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. Offered as 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 - Welding

### **Weld. 205 - Gas Tungsten Arc Welding**

**0-6-3**

(*Prerequisite: Weld. 101 or equivalent competencies.*) is designed to prepare the student to perform maintenance and production welding using the gas metal arc process. Offered Fall and Spring.

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**

**2-2-3**

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 will be 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**

**2-2-3**

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 will be 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****2-2-3**

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 will be 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****2-2-3**

is designed for adult readers with a reading level of 6-8.9 who want to improve their reading comprehension, writing, 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 will be place 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.

## 228 Course Descriptions

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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 will be taught to read aloud to infants, toddlers, preschoolers, primary grade children, and intermediate grade children. Appropriate child development issues will be 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 will be taught to read aloud to infants, toddlers, preschoolers, primary grade children and intermediate grade children. Appropriate child development issues will be 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 for parents reading at the 0 - 5.9 level instruction in dealing with issues that pose daily challenges to parents and their children. Parents will focus on what works and what doesn't in dealing with their children and their everyday demands. Parents will keep a journal of their own experiences, and at each class session, several children's books related to the course topics will be 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 which pose daily challenges to parents and their children. Parents will focus on what works and what doesn't in dealing with their children and their everyday demands. Parents will keep a journal of their own experiences, and at each class session, several children's books related to the course topics will be 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 - Behavioral Management**

**1-0-1**

is designed for 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 will be discussed. A variety of views on discipline will be shared. Parents will keep a journal of their personal experiences for class discussion. At each session, children's books related to the topics will be 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 which affect how children learn acceptable behavior. Promoting respect for self and others and dealing constructively with negative behavior will be discussed. A variety of views on discipline will be shared. Parents will keep a journal of their personal experiences for class discussion. At each session, children's books related to the topics will be 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****1-0-1**

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****1-0-1**

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****1-0-1**

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****1-0-1**

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****1-0-1**

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****1-0-1**

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.

## 230 Course Descriptions

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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**

**1-0-1 to 8**

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**

**1-0-1 to 8**

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**

**1-0-1 to 8**

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 will be 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**

**4-0-4**

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 will be 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**

**4-0-4**

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**

**4-0-4**

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 will be 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 will learn together through activities designed to encourage interactive play. Emphasis will be 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 of instruction and experience for reading aloud to children of various ages. Parents will be taught to read aloud to infants, toddlers, preschoolers, primary grade children and intermediate grade children. Appropriate child development issues will be 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 which pose daily challenges to parents and their children. Parents will focus on what works and what doesn't in dealing with their children and their everyday demands. Parents will keep a journal of their own experiences; and at each class session, several children's books related to the course topics will be 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 which affect how children learn acceptable behavior. Promoting respect for self and others and dealing constructively with negative behavior will be discussed. A variety of views on discipline will be shared. Parents will keep journals of their personal experiences for class discussion. At each session, children's books related to the topics will be 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

## 232 Course Descriptions

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### **A.S.E. 030A - Job Skills 1**

**1-0-1**

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**

**1-0-1**

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**

**1-0-1**

is designed for adults reading at or above the 9.0 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**

**1-0-1 to 8**

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**

**4-0-4**

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**

**1-2-2**

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**

**1-2-2**

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**

**1-2-2**

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 objective of the course is 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**

**1-2-2**

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.

## 234 Course Descriptions

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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. 091E - Using The Scientific Calculator**

**1-0-1**

is designed for students who want to learn or improve skills in using a scientific calculator for mathematics courses. The scientific calculator is designed for use in mathematics courses 090, 091, 094, 095, 097, 098, and 104. 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.

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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 Perfect 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

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### **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. 096A - Forces And Motion**

**1-0-1**

is designed for students who want to improve their understanding of forces and motion. 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. 096B - Simple Machines**

**1-0-1**

is designed for students who want to improve their understanding of the concepts of basic simple machines. 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. 096C - Machine Elements**

**1-0-1**

is designed for students who want to improve their understanding of the concepts of machine elements. 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. 096D - Work, Energy, and Power**

**1-0-1**

is designed for students who want to improve their understanding of work, energy and, power. 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

**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. 098A - The Nursing Process**

**1-0-1**

is designed for students who want to improve their skills in collecting client information, making accurate nursing diagnoses, and writing client goals, nursing interventions, and evaluation criteria. 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. 098B - Maternity Nursing**

**1-0-1**

is designed for students who want to improve knowledge of maternity nursing. 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. 100A - Blueprint Reading For Metal Fabricators And Welders**

**1-0-1**

is designed for students who want to improve their blueprint reading knowledge for metal fabricators and welders. 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

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### **A.L.S. 100B - Welding Symbols**

**1-0-1**

is designed for students who want to improve their knowledge of welding symbols. 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

Administration,

Faculty & Staff

## 242 Administration, Faculty & Staff

---

**Janice Adams**, Instructor, Spanish (B.S., Southern Illinois University; M.A., Michigan State University; M.S.W., Arizona State University)

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**Lisa Carr**, Program Coordinator, GED (B.A., Millikin University)

**Kathryn Carter**, Executive Secretary, President's Office (A.A.S., Lake Land Community College)

**Sheryl Challans**, Computer Lab Coordinator (A.A.S., Richland Community College)

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**Joyce Griffith**, Literacy Specialist (B.A., Ashbury College)

**Robert K. Grindy**, Associate Professor, English (B.A., California State University, Chico; M.F.A., Indiana University)

## 244 Administration, Faculty & Staff

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**Dee Hall**, Custodian

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**David Holtfreter**, Director, Operations and Purchasing

**Paula Hovey**, Secretary, Personnel (A.A.S., Richland Community College)

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**Norma Jean Lackie**, Child Care Learning Center (A.A.S., Richland Community College)

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**LeAnne Layette**, Clerical Assistant, Student Records

**Katherine Lee**, Surgical Technology Coordinator, Instructor, Surgical Technology (B.S., Eastern Illinois University; M.S., Eastern Illinois University)

**Matt Lees**, Fitness Center Instructor (A.A.S., Richland Community College)

**James M. LeMaster**, Director, Multicultural Student Enrichment Program (B.S., Eastern Illinois University; M.S., University of Illinois)

**Jean Litchfield**, Instructor, Nursing (A.S., Richland Community College; B.S.N., Millikin University; M.S., Indiana State University)

**Nan Lowe**, Secretary, GED Center

**Craig A. Lucas**, Assistant Professor, Chemistry (B.S., Colorado State University; M.S., University of Cincinnati Medical College)

**Carolyn Kay Mackey**, Professor, Business and Office Technology (B.S., Southern Illinois University; M.S., Southern Illinois University)

**William Manion**, Secretary, RWC, Testing Center

**Mike Marlow**, C.C.D., Professor, Computer Information Systems (B.S., Eastern Illinois University; M.B.A., University of Chicago)

**Kathy McIntyre**, Supervisor, Duplication Center

**Craig McKenzie**, Fitness Center Instructor

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**Marcia Millar**, Secretary, Business Services Office (Secretarial Certificate, Katherine Gibbs School)

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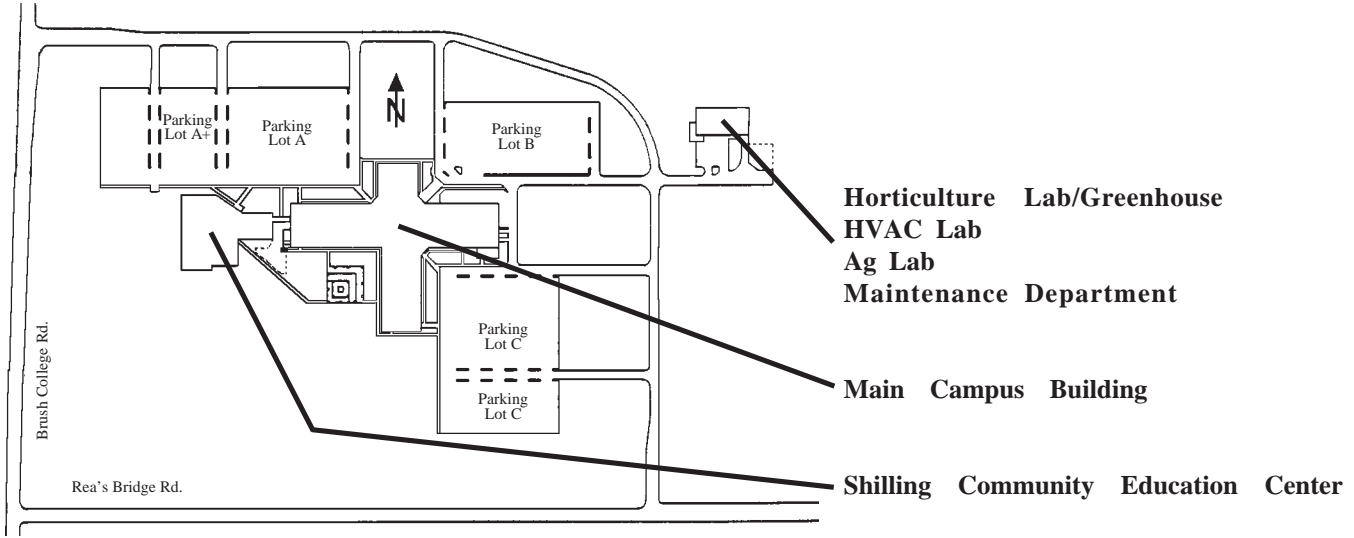
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 C119 - Food Services  
 C126 - Mueller Student Center  
 C127 - Conference Room A/B (Board Room)  
 C128 - Records/Registration  
 C129 - Student Development & Services (SDS)  
 C130 - Personnel Office  
 C133 - Multicultural Student  
 Enrichment Center  
 C136 - Transfer 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  
 C158 - L.R.C. Mac Lab/Typing Room  
 C162 - Career Transfer Majors Office (West)

## N - Section (North)

N104 - Marketing & Public Information  
 N108 - President's Office  
 N114 - Office of Academic Affairs  
 N131 - Disability Accommodation Services  
 N134 - Student Records  
 N136 - Business Services Office

## W - Section (West)

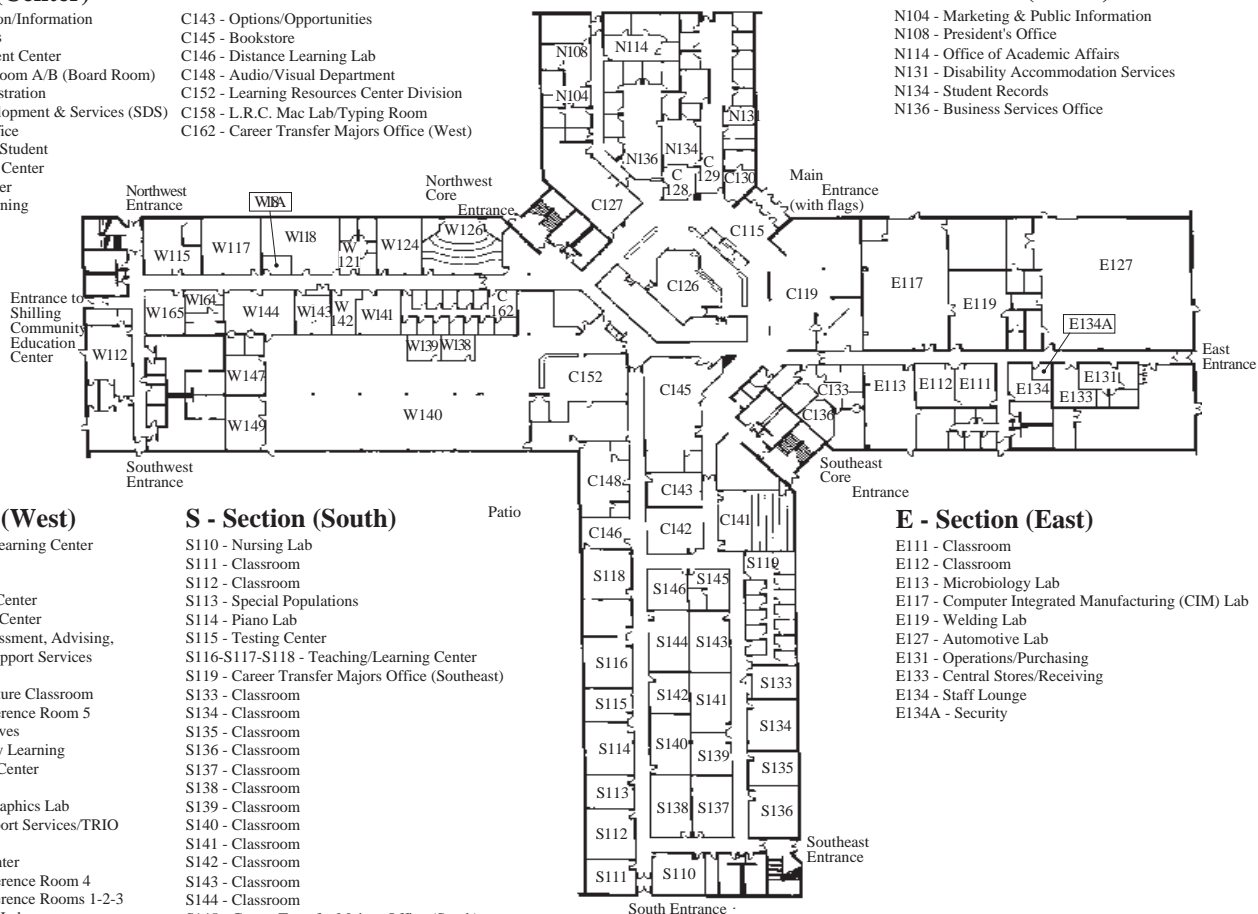
W112 - Child Care Learning Center  
 W115 - Art Lab  
 W117 - Art Studio  
 W118 - Duplication Center  
 W118A - Secretarial Center  
 W121 - Student Assessment, Advising,  
 and Learning Support Services  
 W124 - Classroom  
 W126 - Ramped Lecture Classroom  
 W138 - L.R.C. Conference Room 5  
 W139 - L.R.C. Archives  
 W140 - Kitty Lindsay Learning  
 Resources Center  
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 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

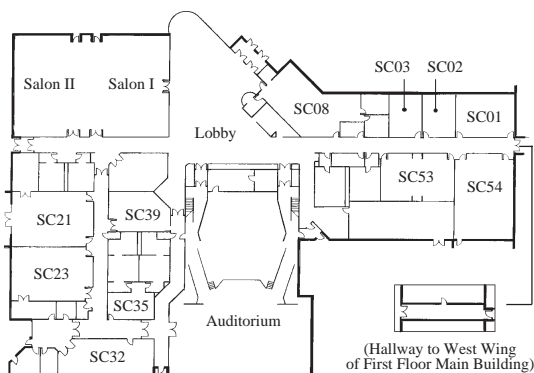
## S - Section (South)

S110 - Nursing Lab  
 S111 - Classroom  
 S112 - Classroom  
 S113 - Special Populations  
 S114 - Piano Lab  
 S115 - Testing Center  
 S116-S117-S118 - Teaching/Learning Center  
 S119 - Career Transfer Majors Office (Southeast)  
 S133 - Classroom  
 S134 - Classroom  
 S135 - Classroom  
 S136 - Classroom  
 S137 - Classroom  
 S138 - Classroom  
 S139 - Classroom  
 S140 - Classroom  
 S141 - Classroom  
 S142 - Classroom  
 S143 - Classroom  
 S144 - Classroom  
 S145 - Career Transfer Majors Office (South)  
 S146 - Adjunct Faculty Office

## E - Section (East)

E111 - Classroom  
 E112 - Classroom  
 E113 - Microbiology Lab  
 E117 - Computer Integrated Manufacturing (CIM) Lab  
 E119 - Welding Lab  
 E127 - Automotive Lab  
 E131 - Operations/Purchasing  
 E133 - Central Stores/Receiving  
 E134 - Staff Lounge  
 E134A - Security





### 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

(Hallway to West Wing of First Floor Main Building)



### Second Floor

#### W - Section (West)

- W206 - Classroom
- W207 - Electronics Lab
- W211 - Computer Assisted Drafting (CAD) Lab
- W213 - Drafting Lab
- W214 - Industrial Electronics Lab
- W215 - Classroom
- W217 - Biology Lab A
- W219 - Biology Lab B
- W220 - Chemistry Lab

#### C - Section (Center)

- C211 - Organic Chemistry Lab
- C218 - Occupational/Technical Career Programs 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