

Richland Community College

2003-2004 Catalog

CollegeSource

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Richland Community College

Established 1972

Accreditation

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

Recognition

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

Disclaimer

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.

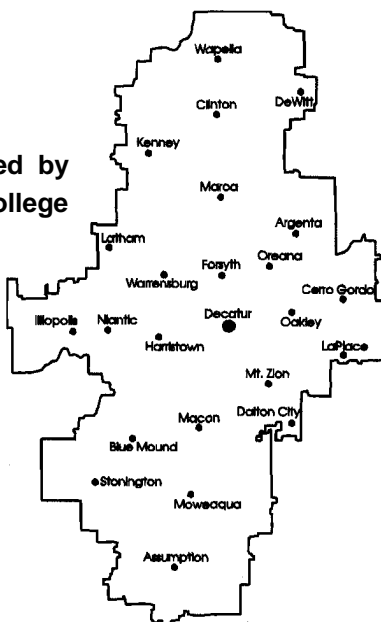
Nondiscrimination Policy

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

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

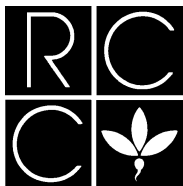
The College's non-discrimination policy applies to the admission and retention of students, recruitment, employment, and retention of faculty and staff, and access to and treatment in the College's programs and activities. Complaints of discrimination prohibited by the College are to be resolved within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

**District served by
Richland Community College**



Richland Community College

Community College District 537



2003-2004 Catalog

One College Park, Decatur, Illinois 62521

Telephone: 217/875-7200

Switchboard Hours:

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

Friday — 7:30 a.m. - 5:00 p.m.

World Wide Web Address:

www.richland.edu

E-mail Address:

rcchelp@richland.edu

(Campus tours available)

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College Calendar

(Subject to change)

Spring 2003

April

April 18-19 F, S Spring Holiday (College Closed)

May

May 9 F Last Day for Withdrawal with "W"
 May 12-15 Finals Week
 May 16 F Graduation
 May 17 S Saturday Finals
 May 19 M Final Grades Due by 11:00 a.m.
 May 26 M Memorial Day (College Closed)
 May 27 T First 5-week Summer Session Begins

Summer 2003

June

June 9 M 8-week Summer Session Begins
 June 9 M Drop-Add (Schedule Changes)
 June 27 F First 5-week Summer Session Ends
 June 30 M Second 5-week Summer Session Begins

July

July 3 Th Midterm
 July 4 F Independence Day (College Closed)
 July 29 T Last Day for Withdrawal with "W"
 July 30-31 W, Th Final Examinations

August

Aug. 4 M Final Grades Due by 11:00 a.m.

Fall 2003

August

Aug. 13 W New Student Orientation
 Aug. 15 F New Student Orientation
 Aug. 18 M Classes Begin
 16-week Session and First 8-week Session
 Aug. 18 M Drop-Add (Schedule Changes)
 Aug. 23 S Saturday Classes Begin

September

Sept. 1 M Labor Day (College Closed)

October

Oct. 10 F Midterm of Semester
 Oct. 13 M Columbus Day (College Closed)
 Oct. 14 T Staff Development Day (College Closed)
 Oct. 15 W Second 8-week Session Begins
 Oct. 27 M Spring 2004 Registration Begins

November

Nov. 11 T Veterans' Day (College Closed)
 Nov. 26-29 Thanksgiving Vacation (No classes after 5:00 p.m., Wed., Nov.26;
 College Closed Nov. 27, 28, and 29)

December

Dec. 5	F	Last Day for Withdrawal with "W"
Dec. 8-11	M-Th	Final Examinations
Dec. 13	S	Saturday Finals
Dec. 15	M	Final Grades Due by 11:00 a.m.
Dec. 24-Jan. 2		Holiday Break

Spring 2004**January**

Jan. 1	Th	New Year's Day (College Closed)
Jan. 2	F	College Closed
Jan. 7	W	New Student Orientation
Jan. 9	F	New Student Orientation
Jan. 12	M	Classes Begin 16-week Session and First 8-week Session
Jan. 12	M	Drop-Add (Schedule Changes)
Jan. 17	S	Saturday Classes Begin
Jan. 19	M	Martin Luther King, Jr.'s Birthday (College Closed)

February

Feb. 11	W	Staff Development Day (College Closed)
Feb. 12	Th	Lincoln's Birthday (College Closed)

March

Mar. 5	F	Midterm of Semester
Mar. 8-13	M-S	Spring Break
Mar. 15	M	Second 8-week Session Begins
Mar. 29	M	Registration for Summer/Fall 2004 Begins

April

April 9-10	F, S	Spring Holiday (College Closed)
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May

May 7	F	Last Day for Withdrawal with "W"
May 10-13		Finals Week
May 14	F	Graduation
May 15	S	Saturday Finals
May 17	M	Final Grades Due by 11:00 a.m.
May 24	M	First 5-week Summer Session Begins
May 31	M	Memorial Day (College Closed)

Summer 2004**June**

June 7	M	8-week Summer Session Begins
June 7	M	Drop-Add (Schedule Changes)
June 25	F	First 5-week Summer Session Ends
June 28	M	Second 5-week Summer Session Begins

July

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

August

Aug. 2	M	Final Grades Due by 11:00 a.m.
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Welcome to Richland Community College!



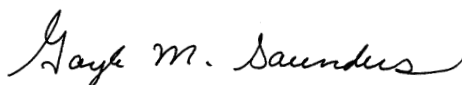
New faces, new spaces, and new ideas are waiting for students coming to Richland Community College. I would like to welcome you to Richland and assure you that your educational journey will be of the highest quality. Our classes are small, and our faculty members are friendly. Our graduates say Richland Community College has provided a solid foundation for the challenges they have faced. Whether you are coming to Richland for the first two years of a baccalaureate degree, enrolling in the occupational/technical programs that lead directly to jobs, upgrading your personal and professional skills, or taking a few courses in the summer, the College staff is committed to providing the services and support you will need.

Visitors to our campus cannot help but notice the physical changes. Two new wings were dedicated to provide expansion of additional classrooms, laboratories and faculty offices for our industrial technology and health science programs. Students and faculty moved into these state-of-the-art facilities in the fall of 2002. Growth is not limited to our campus, though! We are committed to making education accessible, convenient, and affordable for all our District residents. In addition to our existing outreach centers, Richland Community College is expanding its classroom space at the Decatur Public Library and adding additional services in a new community education facility.

Our commitment to provide a quality education is fundamental to our college accreditation. Richland is one of a few select community colleges statewide to embark on an Academic Quality Improvement Project (AQIP), a new concept offered to colleges that are seeking re-accreditation. Richland has chosen to participate in AQIP because it is an interactive process involving the entire campus community, and the outcomes of this project will greatly enhance the quality of education we provide to our students.

Richland has served residents of District 537 for over thirty years. The beauty of a community college is its ability to change and grow to meet the needs of its community. I invite you to be part of this exciting time as we retrain our neighbors and educate our families. Richland Community College—it's a great place to be!

Sincerely,



Dr. Gayle M. Saunders
President

Introduction to Richland

Richland Community College was founded in 1971. At that time, its mission statement identified it as a comprehensive community college, which required that it offer baccalaureate, technical, continuing education, and community service programs. Over the past 30 years, that is what the College has done. The people of the District have benefited and prospered from the services the College has offered.

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

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

Governance

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

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

Statement of Purpose and Mission

Statement of Purpose

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

College Mission

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

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

1. The first two years of a baccalaureate education;

2. Technical courses, certificates, and degrees designed to provide job training, retraining, and upgrading of skills;

3. Basic educational skills designed to prepare students to engage in college-level study;

4. Continuing and community education courses and programs designed to provide and encourage opportunities for lifelong learning;

5. Student development programs and services designed to help students identify educational and career goals, set realistic career paths, and develop skills necessary to achieve intellectual and personal growth;

6. Academic programs and services that provide supplemental support to both teaching and learning;

7. Community education activities and programs that complement, enhance, and contribute to the growth and enrichment of students and the community, both inside and outside of the classroom; and

8. Community service activities and programs that promote linkages with business, industry, and governmental agencies designed to meet the changing needs of the market place and promote economic growth in Central Illinois.

Ethics and Leadership

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

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.

Core Values Mission

To engage in a process of self and community reflection that would lead us to recognize and heighten awareness of the core values we and our institution have already practiced and articulated, to seek agreement about those values, and to develop an institutional culture that holds itself accountable to those values.

What we practice at Richland

Commitment—

We support and carry out the College missions.

Respect—

We demonstrate courtesy, caring, dignity, and compassion.

Excellence—

We promote feelings of worth and accomplishment.

Accountability—

We demonstrate responsibility for our actions.

Diversity/Inclusiveness—

We appreciate similarities and differences in people and give a voice to everyone.

The Tenets of Community College Trusteeship

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

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

About Allegiance

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

About Commitment

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

About Distinction

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

About Evaluation

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

About Power

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

About Purpose

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

About Service

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

About Teamwork

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

An Administrator's Creed

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

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

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

About Creativity

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

About Expectations

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

About Learning

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

About Objectivity

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

About Openness

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

About People

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

About Respect

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

About Risk

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

About Trust

Educational leaders must demonstrate faith and reliance on the integrity and ability of people. This trust is both a concept and an emotion. It requires leaders to rely on others.

About Truth

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

Facilities

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

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

Main Campus

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

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

The **Shilling Community Education Center** was made possible by a \$750,000 bequest from the Shilling Trust administered by the First National Bank of Decatur. Construction on the Shilling Center was completed in January 1993. The Center features a 325-seat auditorium, banquet room with seating for 300, conference rooms, and several classrooms available for use by students, faculty, staff, and the community. The facility is available for meetings, programs, teleconferences, performances, and other events by calling 875-7211, Ext. 240.

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

The **Kitty Lindsay Learning Resources Center**, located in W140, provides a variety of resource materials, Internet, and e-mail equipment and a professional staff trained to help students locate and use materials.

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**, operated by College Bookstores of America, is located next to the Mueller Student Center. It carries textbooks and materials for all Richland courses and a variety of school supplies. VISA, MasterCard, and Discover are accepted by the bookstore. The Bookstore can be contacted at Ext. 231.

The **Industrial Technology** wing, dedicated in August 2002, is the location of many technology programs including CAD/Drafting, HVAC, Electronics Systems, Mechanical Technology, and CIM. State-of-the-art equipment allows integrated training opportunities for students in these programs.

The **Schrodt Health Education Center** offers training opportunities for health professions through realistic replications of hospital rooms and surgical rooms. General classrooms, laboratories, and computer labs are also available in this wing, dedicated in January 2003.

A variety of fast foods, drinks, and daily specials may be purchased from the **Food Service** facility next to the Mueller Student Center. Hours of operation are from 7:30 a.m. to 8:00 p.m. when classes are in session, with no service on Saturday. Summer hours will be posted. Vending machines are located in the cafeteria, in the lounge adjacent to the LRC, and in the Shilling Center, just south of the lobby.

Off-campus Facilities

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

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

The **Decatur Public Library** provides an excellent source of information and secondary resources for Richland students. Computer workshops/seminars (located on the second floor) are offered. Richland has also equipped the computer training room with computers and offers computer classes there.

The **Richland Opportunities Center, at 1500 East Condit Street, Decatur**, houses the Opportunities Program, Options 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 non-credit classes are also scheduled at the Opportunities Center. Listings of these classes are included in the schedules mailed to households throughout the College district prior to each semester. See page 36 for more information about the Options/Opportunities Program.

The **Clinton Extension Center** offers admissions, advising, registration, placement testing, financial aid, and many other services. Credit classes and noncredit 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. 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 in Clinton at Clinton High School (southwest entrance). The address is 1200 Highway 54 West. Please call 935-6791 for information.

Admissions



Admission to the College

Students seeking admission to Richland Community College should

1. Have graduated from high school, or
2. Have received a High School Equivalency Certificate based on the GED 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 GED course, or
5. Be a high school junior or senior and have principal approval to enroll, or
6. Be a gifted student below the age of 16 and have principal approval to enroll; (see page 18.)

GED Placement Program

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

Admission to a Program or Course

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

Admission to a Program of Study

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

Information that may be used in admission to a program includes

1. A transcript of the student’s high school and college records. The student should request a transcript from the school(s) to be sent to the Student Records Office 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), or 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 competitive. Applicants must meet minimum requirements to be considered. See Registered Nursing Program, page 119 and Practical Nursing Program, page 124.

Radiologic Technology (Radiography) Program Admission Requirements

Admission to Richland Community College does not guarantee admission to the Radiologic Technology Program. Admission to the Radiologic technology Program is by competitive application. For minimum requirements, see Radiologic Technology Program details, page 127.

Surgical Technology Regional Program Admission Requirements

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

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

Applications to Richland's Regional Surgical Technology Program are due by March

1. Students will be informed by letter of the action taken on their application by April 15. A new Surgical Technology class will begin fall semester of each year.

Admission to Richland Community College does not guarantee admission to the Surgical Technology program. The applicant must meet or exceed the minimum requirements to be considered for admission to the Surgical Technology program.

Students who are admitted to this program may take general education courses at their local college. The classroom Surgical Technology courses will be offered at Richland Community College. While enrolled at

Richland Community College, the students will become in-district students. They will pay the current tuition rate and follow the same procedures regarding student services as in-district students. For additional information, call the Surgical Technology Director (S173), Ext. 763/450.

Minimum Subject Admission Requirements for Transfer Programs

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

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

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

The minimum subject requirements are listed below:

Units/Subjects

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

For further information, please contact your high school counselor or the Dean of Enrollment Services at Richland Community College, 875-7211, Ext. 246.

Transfer of College Credit to RCC

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

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

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

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

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 credit, college credit, or dual credit; and has the principal’s approval.
3. A high school transcript is submitted to Richland.

Final approval for enrollment is then determined by Richland.

College credit for classes taken by high school students will be held in “the bank” and awarded to the student upon completion of high school (as verified by an official high school transcript).

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

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

Dual Credit

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

Students enrolling for dual credit should follow the application procedures previously listed for the admission of high school students. In addition, a signed “Principal’s Approval” form and a “Parent/Guardian Approval Form for Dual Credit Program” must be submitted to Richland. Students are encouraged to contact the Admissions Office of the university or college they are interested in to ensure that dual credit courses will be accepted.

Registration

Registration for classes at Richland takes place at scheduled 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. Students may need to complete placement tests in Assessment Services, Room W124, prior to registering.

Drop/Add registration is held the first week 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 and counselors are available during registration periods. Students are encouraged to register early.

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

Credit Evaluation Programs

College Credit for Experience Outside the Classroom

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

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

1. Advanced Placement Program (APP)

The APP is an organized instructional and/or testing program offered in high school in cooperation with the College Entrance Examination Board. Advanced high school courses may be offered through the program for college credit, or credit may be given for course areas not offered by the APP if the student passes an APP examination given by the high school. High school students interested in the Advanced Placement Program should contact their high school counselor.

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

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

CLEP examinations are available in over 30 areas, including Social Science, Natural Science, Humanities, and Mathematics. Credit through a CLEP examination may be applied to a degree or certificate as general education or elective(s).

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

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

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

Students who have enrolled in college study before attempting a CLEP or DANTES examination will not be granted credit if they attempt examination after they have received a grade for that specific course or for prior college study that is directly related to an exam taken.

For more information, or to register to take a CLEP or DANTES examination, contact Assessment Services, Ext. 238, or the Student Learning Center, Ext. 419.

3. Proficiency Examination

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

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

A proficiency examination for a given course may be taken only once. A student may enroll only on an audit basis in a course in which credit has previously been granted through proficiency.

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

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

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

4. Proficiency by Advanced Course

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

<i>Advanced Proficiency Course</i>		<i>Required Grade</i>
I.T. 162	I.T. 161	B
I.T. 252	I.T. 251	B
Eltrn. 113	Eltrn. 109	B
Eltrn. 202	Eltrn. 160	B
Fren. 202	Fren. 101, 102, 201	B

Fren. 201	Fren. 102 and/or 101	B
Fren. 102	Fren. 101	B
Germ. 202	Germ. 101, 102, 201	B
Germ. 201	Germ. 102 and/or 101	B
Germ. 102	Germ. 101	B
Mach. 102	Mach. 101	B
Math. 104	Math. 091	B
Math. 221	Math. 116, 117, 121, 122	B
Math. 122	Math. 116, 117, 121	B
Math. 121	Math. 116, 117	B
Nurs. 203	Nurs. 101, 102, 151, 202	B
O.T. 212	O.T. 112, 211	B
O.T. 211	O.T. 112 and/or 100	B
O.T. 112	O.T. 100	B
O.T. 100	Bus. 140	B
O.T. 132	O.T. 131	B
O.T. 243	O.T. 242 and/or 141	B
O.T. 242	O.T. 141	B
Span. 202	Span. 101, 102, 201	B
Span. 201	Span. 102 and/or 101	B
Span. 102	Span. 101	B
Weld. 102	Weld. 100, 101	B

Students desiring credit by advanced course must apply officially for such credit within the four years following 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 Student Records. 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 Student Records.

6. United States Armed Forces and Armed Services Courses

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

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

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

Contact the Dean of Enrollment Services, Ext. 246, 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 are given 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 courses for which they are best prepared.

Course Placement Testing

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

Some of these tests are administered on a

computer, and some are untimed. Photo identification is required for all testing. Review materials for the mathematics and English sentence skills tests are on reserve in the Kitty Lindsay Learning Resources Center, Room C155, or may be checked out from Assessment Services, Room W124. Other review options are available by asking in the Student Learning Center, Room S117. Retesting for some placement tests for a fee is possible if a student meets certain guidelines. Once a student begins a sequence of courses based on the test results, the student may not retake the placement test in that area.

English-Reading - Each student will receive an English placement report based on his/her transcripts and/or ACT test scores. The report advises in which English class (Engl. 088, 089, 090, 091, Engl. 101, or Bus. 119) the student is to enroll. In some cases, students may be required to take English and Reading Placement Tests to help determine their level of competence. The English and Reading Comprehension Placement Tests are also used to determine eligibility in some college-level courses. See the course description to determine prerequisites for courses.

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

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

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

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

Example: A student who studied a foreign language for one year and received an “A” for both semesters would have earned four quality points, (i.e., $4.00 + 4.00 = 8.00$ divided by $2 = 4.00$). 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., $4.00 + 3.00 = 7.00$ divided by $2 = 3.50$).

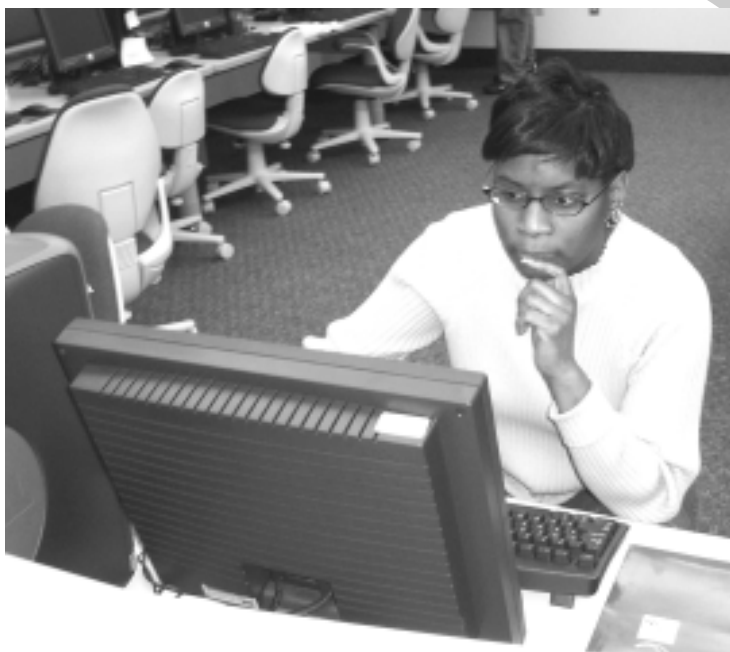
Earned Quality Points	Start With Course
0 to 4	101
5 to 11	102
12 to 14	201
15 or more	202

Any person who wishes to register for a specific foreign language with course placement different from that shown above should consult with the Richland Communications, Education, Humanities, & Fine Arts Dean’s Office (C162), Ext. 386, regarding appropriate placement.

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

Students seeking clarification regarding their math placement should see a counselor in the Student Services Center in Room C129 or the Dean of Mathematics and Sciences in Room S119.

Financial Information



Tuition, Fees, and Charges

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

The Academic/Technology Fee includes the following services and privileges: computers, both for computer-based classes and for open use; and 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	\$49.00*
Academic/Technology Fee	\$4.50*
Total	\$53.50

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

Per Credit Hour

Tuition	\$49.00*
Academic Fee	\$4.50*
Out-of-District	\$138.05**
Total	\$191.55

Out-of-State and International students pay \$319.49** per credit hour plus fees.

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

Fees

Registration Fee (non-refundable and payable with tuition & fees) \$10.00
Graduation Fee (per application) \$15.00
Courses Fees— not applicable to all courses, these fees generally range from \$5.00 to \$50.00 per course. A current listing of course fees is available in the Business Services Office.

Payment Information

Full payment (100%) of tuition and fees is due approximately two weeks before the start of classes. Students are not required to pay at the time of registration unless the date of registration is less than two weeks before the start of classes. A student payment plan, FACTS, is available. Details of the payment plan are listed in the section below. All students are encouraged to apply for Financial Aid and should apply as early as possible. Failure to pay for classes by the deadline will result in the student being dropped from class. Note: payment dates for each semester are published and available at the cashier's window.

Deferred Tuition Payment Plan

For students desiring additional time for payment, the College offers FACTS, the online tuition payment plan. With the FACTS plan, there are no interest or finance charges and there is no credit check. For a fee of \$25 per semester, tuition payments will be automatically deducted from the designated bank account or credit card on a predetermined monthly schedule. Enrollment and additional information is available online at www.richland.edu. Informational brochures are also available at the cashier's window.

Tuition Discount For Senior Citizens

District 537 residents who are 65 or older or who will become 65 years old during the calendar year are eligible to enroll without payment of tuition in regularly scheduled credit courses, other than credit courses designed specifically for senior citizens, provided that available classroom space exists and tuition-paying students enrolling constitute the minimum number required for the course. Such waiver does not apply to all other fees associated with enrollment in such a course. For more information, call the Business Services Office, 875-7211, Ext. 227.

Proficiency Exam

The fee for a proficiency exam is one-half of the tuition normally charged for a course. See page 19 for information about the process of proficiency.

Transcripts

Transcripts are \$2.00 per copy. Faxed transcripts are \$5.00 per copy. Transcripts can be obtained in Student Records.

Refund Policy

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

All withdrawals and drops must be initiated by the student and must be processed through Student Records to be eligible for a refund.

Regular Semester:

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

Summer Session:

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

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

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

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

Residents of Richland Community College's District who choose to pursue a program of study that is not offered by Richland at another Illinois public community college may be eligible for a charge-back. If a charge-back is approved by the Richland Board of Trustees, the student will pay the other district's in-district tuition only. Charge-backs will not be approved for individual courses.

Applications for charge-back must be completed and submitted to the Student Services Center (C129) no later than 30 days prior to the beginning of any term to which the charge-back is to be applied. Charge-back applications must be completed prior to the start of each academic year the student is attending the other community college, regardless of any prior year's approval. Charge-backs will not be approved retroactive to the time of application.

Richland has cooperative agreements with many other community colleges. If Richland has a cooperative agreement with another college for the program of study for which the student is requesting a charge-back, the student must attend that college in order to pay only the in-district tuition of that institution. If the student chooses to attend a college other than the one Richland has the agreement with, the student will be responsible to pay that college's full out-of-district tuition.

Students are encouraged to contact the Student Services Center (C129) for further information.

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 listed on page 65. A cooperative agreement authorization must be completed by Richland and submitted to the college that the student plans to attend. Cooperative Agreement forms are available in Student Services Center.

Financial Aid

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 the Financial Aid Office (Room C129) at Richland, from high school counselors, or www.fafsa.ed.gov. Early application is important.

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

Grants**PELL Grant**

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

Supplemental Educational Opportunity Grant (SEOG)

The 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)

The 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)

The MAP provides partial payment 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 eight semesters of full-time enrollment. Eligibility is determined through the FAFSA. Application should be made early for full-year consideration.

Less than 1/2 time MAP

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

Scholarships

Merit Recognition Scholarship

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

Illinois National Guard/Naval Militia Program

Funds are 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 the Student Services Center or from guard/militia units. ING recipients must meet the Standards of Academic Progress for Financial Aid Recipients, Condition I. Applicants must apply each academic year.

Policeman/Fireman Scholarship

These scholarships 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 Wilnot Road, Deerfield, IL 60015, 1-800-899-4722.

Correctional Workers' Scholarship

The fund provides tuition and mandatory fees for dependents of workers who were killed or were 90% disabled in the line of duty since January 1, 1960. Application should be made directly to the Illinois Student Assistance Commission, 106 Wilnot Road, Deerfield, IL 60015, 1-800-899-4722.

MIA/POW Scholarship

This fund 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 Financial Aid and Veterans' Affairs Office.

Illinois Veterans' Grant (IVG)

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

Department of Human Services

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

RCC Foundation, Private, and Institutional Scholarships

A number of RCC Foundation and institutional scholarships have been established at Richland. Most require that the student has filed the FAFSA and submitted a Student Aid Report to the College in order to be considered. Some are need-based, and many are based on grades, achievement, and other unique criteria. Awards are made for the Fall and Spring Semesters only, and the student must be enrolled full time unless noted. Applications for Foundation and Institutional Scholarships must be submitted by May 15 for the following fall semester. Applications and instructions are available in the Financial Aid Office, Room C128, and at www.richland.edu/sas/enroll/finaid/.

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 halftime (6 semester hours or more). Students are limited to 20 hours per week while classes are in session and 30 hours per week during the semester breaks. Student Employment Applications are available in the Student Services Center, Room C129.

Off-Campus Employment

The Career Center, C129, 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 and Transfer Services Office in the Student Services Center.

VA Workstudy

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

Loans

Richland participates in the Federal Family Education Loan Program. These loans include the Subsidized Stafford Loan and the Unsubsidized Stafford Loan. These are low-interest loans to students made by banks, credit unions, and savings and loan institutions and guaranteed by the government. In order to receive a loan, students must apply for financial aid by filling out the Free Application for Federal Student Aid and submitting their Student Aid Report to the Financial Aid Office. Students must be enrolled in 6 or more credit hours and be in good standing academically to receive a loan. Loan counseling is required for all applicants. For more information, contact the Financial Aid Office, Room C129.

Loan Limits at RCC

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

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

Freshman.....\$2,625 (6 to 29 credit hours that count towards your current certificate or degree)

Sophomore...\$3,500 (30 plus credit hours that count towards your current certificate or degree)

Student loans are disbursed in two checks and outstanding charges are deducted from

the first loan check. Any remaining balances will be deducted from the second loan check.

Transfer Students

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

Transfer students who have not submitted a copy of their transcript from a prior school or were not meeting Satisfactory Progress at the last school attended will be placed on financial aid probation.

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. Cumulative Grade Point Average Standard

The following grade point average must be maintained:

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

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

Condition II. Completion of Hours

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

<i>Initial enrollment status</i>	<i>Minimum hours which must be completed</i>
Full-time (12+ hours)	8 hours per semester/ 20 hours per year
$\frac{3}{4}$ -time (9 to 11 hours)	6 hours per semester/ 15 hours per year
$\frac{1}{2}$ -time (6 to 8 hours)	3 hours per semester/ 9 hours per year
Less than $\frac{1}{2}$ -time (3 to 5 hours)	Must complete all

Grades of A, B, C and D are considered successful completion for the Credit Hour Completion Standard.

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.

While remedial hours are not counted in the cumulative grade point average calculation, they will be reviewed for successful completion for financial aid purposes.

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

Progress will be checked at the end of each semester. Students who are on probation or suspension will be notified by mail.

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

Financial Aid Probation

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

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

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

Students placed on probation are requested to sign a Probation Contract

outlining the requirements needed to return to good standing.

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

If the conditions of probation are met and all other conditions for Satisfactory Progress are met, the student may be returned to good standing or continued on probation for longer than two semesters. The probation contract is enforced whether or not it is signed.

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

Re-Entry Students

Students re-entering Richland after an absence of five or more years from any college who do not meet the Satisfactory Academic Progress Standards can file a Request for Consideration to return to financial aid probation instead of suspension.

Transfer Students on Probation

Students who have attended another college or university and have not submitted an academic transcript will be on probation.

Students who have attended another college or university and have submitted an academic transcript but are not meeting satisfactory progress will be placed on probation.

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 semester 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. 31 hours have been completed, with a cumulative GPA of 2.0.

After fulfilling the above requirements, a student will be placed on probation and must complete the terms on the Probation Contract

in order to return to good standing.

Students will be terminated from financial aid once they have attempted 150% of the time frame needed to complete their program. The 150% limit counts all hours attempted, not just hours for which a student was paid financial aid. Students will be allowed to complete a Request for Consideration form if they feel unusual circumstances should be considered. Students who have attempted 120 credit hours and do not have a certificate or degree will not be eligible for financial aid at Richland Community College.

Appeals

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

Program Completion Policy

Maximum credit hours allowed for Program Completion:

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

Hours attempted include all courses in which a student is 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 thirty credit hours attempted for remedial course work.

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

The Federal Financial Aid Guidelines have specific regulations for program completion. See a Financial aid advisor for more information.

Other Financial Aid Policies

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

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

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

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

Disbursement

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

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

Students who are eligible to receive a PELL Book Check and withdraw prior to earning enough PELL funding to cover their check will be sent a bill requesting a repayment to Richland and/or the Federal Government.

Refunds to Aid Recipients

Refunds for students attending Richland who receive federal financial assistance and withdraw before completion of 60% of the semester will be calculated on a pro rata basis based on the federal government's Returning of Funds formulas.

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

Loan Policies

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

No Federal Family Education Loan will be certified for students not in good standing.

For more information, contact the Financial Aid Office.

Verification

All new, re-entering, and government-selected 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, child support, Social Security (SSI), and proof of all untaxed income.

Veterans' Affairs

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

Military benefits are defined as the Illinois Veterans' Grant, the Illinois National Guard and the MIA/POW Scholarships. Veterans are required to meet the cumulative GPA standard as stated in Condition I. The credit hour completion standard does not apply to military benefit recipients. Military benefits have their own eligibility limits. Veterans 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 Enrollment Services Office for evaluation of prior credits.

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

Applications and/or information concerning the following Veterans' programs are available in Financial Aid or the RCC financial aid webpage at www.richland.edu/sas/enroll/finaid/.

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

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

VEAP - Post-Vietnam Era Veterans' Educational Assistance Program

Chapter 35 - Survivors and Dependents' Educational Assistance Program

Chapter 31 - Disabled Veterans - Vocational Rehabilitation

Illinois Veterans' Grant

Refer to Scholarships (page 27)

MIA/POW Scholarship

Refer to Scholarships (page 27)

Tutorial Assistance

The Student Learning Center, Room S117, 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.

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

Student & Academic Support Services



Orientation

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

The Orientation Program is provided through the Student Life Office. New students are notified by mail of the Orientation schedule.

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

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

An on-line orientation is available at www.richland.edu/sas/retention/orientation/.

Counseling Services

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

Counseling Services is located in the Student Services Center, Room C129. Counseling Services information is available at www.richland.edu/sas/retention/counseling/.

Career Services

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

Students may select from a variety of interest and personality inventories that provide insight into their career interests and

values. A career counselor or the Director of Career Services will explain the inventory results and also recommend other resources for further exploration.

Career Services is located in C129 within the Student Services Center. The Center has many resources for students to use when planning a career or when looking for a job. Visit RCC's Career Services online at www.richland.edu/sas/enroll/career/.

Academic Advisement

Assistance with program and course selections is provided by faculty, counselors, and staff advisors. Students may contact the Student Services Center, Room C129, or call 875-7211, Ext. 267. Appointments or walk-in assistance is available. Information about Academic Advisement is available at www.richland.edu/sas/retention/.

Self-Advisement

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

Students eligible for self-advisement are sent a notification by mail. Notification must be submitted with the class registration form at the time of registration at the Student Records Office, Room C129.

Transfer Center

Students planning to transfer to other colleges or universities should contact the Transfer Center, located in Room C129. The Transfer Center provides a wide range of services to assist students in the transfer process, including preparation of a Transfer Academic Plan and ensuring that Richland courses transfer to the college or university of the student's choice. The staff also provides information on the transfer process, including admission requirements, financial aid, housing, and campus visits. Visit the RCC Transfer Center website at www.richland.edu/sas/retention/transfer/.

Job Placement

Job placement assistance is available in Career Services, Room C129. Part-time and full-time job openings available in the community are posted daily in the Center and online at www.richland.edu/sas/enroll/career/

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

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

Students desiring to work on campus must fill out a Student Employment Application form available in the Student Services Center and submit it to Career Services.

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

Visit RCC Career Services online at www.richland.edu/sas/enroll/career/.

Internship

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

- Agriculture Products and Processing
- Business
- Accounting
- Management and Leadership
- Marketing
- Child Care and Education
- Criminal Justice
- Electronic Systems Technology
- Electronics
- Electronics Bio-Medical Option
- Graphic Arts
- Heating, Ventilation, Air Conditioning and Refrigeration
- Horticulture
- Hospitality Management

- Industrial Drafting
- Information Technology
- Mechanical Technology
- Office Technology
- Sociology
- Surgical Technology

Learning 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 Learning Accommodation Services (LAS) Office, Room C137.

Documentation of disability is required for all services. Visit LAS online at www.richland.edu/sas/retention/das/.

Student Learning Center

The Student Learning Center (SLC), Room S117, offers free tutoring to students who may need help with classes or programs. Both peer and faculty tutors are available on an appointment or drop-in basis for many areas including math, biology, chemistry, reading comprehension, study skills, vocabulary building, research, and specific written assignments. Biology and chemistry tutoring is available in Room E112 with hours varying each semester. In cooperation with other academic programs, the SLC may offer study groups each semester. Schedules with location and time are posted in the Center. Computers with tutorial software and word processing programs are available for student use any time the SLC is open.

Assessment Services

Assessment Services, located in Room W124, Ext. 238, provides testing services for placement in English, mathematics, and health courses. Also administered are the Constitution test, exams from other universities, and make-up tests for Richland classes. Photo identification is required for all students completing any test in Assessment Services. Students completing tests for other universities or for CLEP or DANTES testing may need to pay an additional fee. Assessment Services is also a designate VUE Testing site, allowing students to complete testing for national certification in certain technical areas.

Options/Opportunities Programs

The Options Program, located in the Student Services Center on campus, assists homemakers who are divorced, widowed, separated, or have a disabled spouse at home. The Opportunities Program is located off campus at the Opportunities Center and is available at no charge to everyone residing in the Richland Community College District. In addition, the Opportunities Center provides access to computers and the Internet through its recently updated computer lab and software. The computer lab has a part-time instructional lab facilitator and provides free basic computer skills workshops monthly. Both programs provide academic advising, training, job readiness workshops, and career planning in an effort to support students in achieving economic self-sufficiency. Services may include tuition, books, child-care assistance, transportation, and some supplies. Call 875-7200, Ext. 232, for more information on the Options Program or call 421-6565 for the Opportunities Center. www.richland.edu/sas/retention/optoppor/.

Early Alert

In response to a student survey that showed that students want to know how they are doing in classes during a semester instead of at the end of a semester, the College has developed an Early Alert program. Any time an instructor believes a student is at risk of being unsuccessful in a course, the instructor can notify the Student Success Coordinator. The Coordinator will in turn contact the student and suggest assistance options that are available on campus (usually at no cost to the student). Students are welcome at any time to contact the Student Success Coordinator at Ext. 309 or stop by the office in the Student Services Center.

Student Support Services/TRIO

Student Support Services/TRIO, a federally-funded program, provides educational support to low-income, first generation students (neither parent with a bachelor's degree) and to students with physical or learning disabilities who are admitted to the program. Participants must also be accepted as Richland students and have citizenship, permanent residency, or refugee status. The purpose of the program is to help students improve academic performance, graduate from Richland, and transfer to a four-year institution of their choice. Services include advising, tutoring, mentoring in addition to academic improvement services, cultural trips, college trips, leadership activities, and technology loans. Applications are available in the TRIO Office in Room C143. www.richland.edu/sas/retention/trio/.

Perkins Program

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

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

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

If a student is enrolled in an occupational area, he or she is automatically enrolled in the Perkins Program. Students may call the Perkins Program office at Ext. 480 or 202 for more information.

Project READ

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

Honors Opportunities Program

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

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

To be admitted to the program:

1. Recent high school graduates must have an ACT composite score of 27 with no individual score lower than 22 (or equivalent scores on any national testing program).
2. Presently enrolled students or transfer students must have a cumulative grade point average of 3.5 or better on a 4.0 scale for 12 or more semester hours in courses equivalent to Richland courses numbered 100 or above.
3. All students must agree to complete the requirements of the program as outlined in the Honors Opportunities Program Brochure available from SAS or from Division offices.

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

Study Abroad Program

As a member of the Illinois Consortium of International Studies and Programs, Richland offers students the opportunity to attend universities in other countries and receive credit to apply to Richland degrees. Students may apply for acceptance into programs in Costa Rica, England, Austria, and the Netherlands. Pell Grant funds may be used to cover tuition and fees for some programs. For more information, contact the Director of the Student Learning Center, 875-7211, Ext. 364.

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. Contact the Child Care Learning Center at 875-7200, Ext. 319, for cost of Child Care Services.

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

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

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

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

The Center is open from 7:30 a.m. to 10:00

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

Student IDs

Photo student identification cards will be available at no cost to registered students. These will be useful for students using the computer lab and Assessment Services and for students to receive student discounts where applicable. There is a fee for replacement of a lost ID card. ID cards should be kept from year to year.

Photo IDs 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 issued only by the Secretary of State's Office; contact the Driver's License Facility.

Security Services

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

Student Life



Student Life Program

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

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

We invite you to become involved in Student Life campus activities, organizations, and clubs to enrich your college life. For more information contact the Director of Student Life in Room C133, Ext. 305. www.richland.edu/sas/retention/studentlife/.

Clubs

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

The **Black Drama Theater** emphasizes plays by Black authors that are performed by Richland students and community members.

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

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

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

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

The **Engineering, Math, and Science Club** promotes interest in engineering through visits to college campuses, sponsoring academic competition, and involvement with WYSE.

The **Fire Science Club** exists to promote interest in the Fire Service.

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

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

The **Intervarsity Christian Fellowship Club** encourages Christian fellowship through spiritual, intellectual, physical and social activities to students and faculty.

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

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

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

Richland's chapter of **Phi Theta Kappa**, a national two-year college honor society, initiates new members each fall and spring. Students with a 3.5 grade point average in at least twelve hours of 100-level courses of transferable credit during a specific semester are invited to join.

People Respecting Individual Differences in Everyone (P.R.I.D.E.) provides education surrounding gay, lesbian, bisexual,

and transgender (GLBT) issues, seeks to foster a greater awareness and tolerance for GLBT persons and issues, and furnishes social and emotional support for GLBT persons and allies on campus.

The **Spanish Club** was formed to promote interest in Hispanic and international cultures and languages. Students are provided with culturally diverse activities including trips to ethnic localities.

Students Unlimited provides support to students with disabilities. The goal of the club is to increase awareness of the challenges of individuals with disabilities.

Members of the **Visions of Design** endeavor to create and use their inner desires and discoveries as artists to educate and raise awareness about Graphic Arts to the community around us.

Contact the Director of Student Life, Room C133, or the club's current faculty advisor for more information.

Organizations

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

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

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

The **Forensics (Speech) Team** competes in intercollegiate competition at state, national, and international levels. The team

allows students co-curricular experience in public speaking, oral interpretation, and acting. Past members have achieved national championships, increased self-perception, improved communication skills, and acquired a sense of collegiate achievement.

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

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

The **Student Senate** represents the students of Richland through effective communications by promoting unity and fellowship with all members of the College community. The Student Senate strives to represent and adequately interpret student opinion as related to campus policy and to distribute the auxiliary fees to provide a variety of educational and social opportunities for students. Through College-wide elections six senators are elected each fall and spring semester.

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

Student Rights and Responsibilities

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

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

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

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

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

Student Records and Confidential Information

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

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

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

Access to Confidential Information By Students

Students may have access to the confidential information in their own records by contacting the Dean of Enrollment Services.

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 and Academic 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 improve-

ment of instruction;

7. Persons acting pursuant to a judicial order or subpoena, providing the College notifies the student before complying;
8. Appropriate persons, if necessary, to protect the health or safety of the student or others; and
9. Parents of an eligible student who is claimed as a dependent for income tax purposes.

Withholding Student Information

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

Student Grievances

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

A grievance may be categorized as follows:

1. Academic Concerns
 - Academic Dishonesty
 - Academic Suspension
 - Educational Guarantee
 - Grade Appeals
 - Graduation Requirements
 - Other academic concerns
2. Americans with Disabilities Act (accommodations)
3. Discrimination (age, disability, gender, race)
4. Financial Aid Suspension
5. Family Educational Rights and Privacy Act (confidentiality)
6. Sexual Harassment (by student, staff, or faculty)
7. Student Conduct
8. Student Employment
9. Tuition Refunds
10. Others not represented above

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

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

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

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

Student Resolution Process Chart

(Contact Individuals Listed in Sequential Order)

Category	For Informal Resolution, Contact:	For Formal Resolution, Contact:
<ul style="list-style-type: none"> - Academic Concerns - Academic Dishonesty - Academic Suspension - Educational Guarantee - Grade Appeals - Graduation Requirements 	Instructor (1 st) Program Director* (2 nd) Dean (3 rd) V.P. Student & Academic Services (4 th)	V.P. Student & Academic Services
Americans with Disabilities Act (accommodations)	Program Coordinator of Disabilities Accommodation Services (1 st) V.P. Student & Academic Services (2 nd) Director of Human Resources & Staff Development (3 rd)	Director of Human Resources & Staff Development
Discrimination (gender, race, color, religion, sexual orientation, age, disability)	Director of Human Resources & Staff Development	Director of Human Resources & Staff Development
Financial Aid Suspension	Director, Financial Aid (1 st) V.P. Student & Academic Services (2 nd)	V.P. Student & Academic Services
Family Education Rights and Privacy Act Issues (confidentiality)	Dean of Enrollment Services (1 st) V.P. Student & Academic Services (2 nd)	V.P. Student & Academic Services
Sexual Harassment by Faculty, Staff, or Student	Director of Human Resources & Staff Development	Director of Human Resources & Staff Development
Student Conduct (in classroom)	Instructor (1 st) Program Director* (2 nd) Dean (3 rd) V.P. Student & Academic Services (4 th)	V.P. Student & Academic Services
Student Conduct (out of classroom)	V.P. Student & Academic Services	V.P. Student & Academic Services
Student Employment	Supervisor (1 st) Director of Human Resources & Staff Development (2 nd)	Director of Human Resources & Staff Development
Tuition Refunds	Director, Accounting & Business Services (1 st) V.P. Finance & Administration (2 nd)	V.P. Finance & Administration
Others not listed	Staff member responsible for area involved	V.P. responsible for area involved

*If Applicable

Disciplinary Proceedings Policy

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

Initiation of Grievance or Disciplinary Proceedings

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

Informal Resolution Process:

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

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

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

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

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

If a student grievance or disciplinary problem cannot be resolved at the informal level, a formal hearing of the Judicial Board or Special Committee appointed by the President may be convened.

Formal Resolution Process

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

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

Academic Dishonesty

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

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

Smoking

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

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

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

Substance Abuse Policies

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

Intoxicant Use

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

Pamphlets, Counseling

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

Chronic Communicable Disease Policy

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

Each student with a chronic communicable disease shall be evaluated by a placement committee that will consist of the President, as chairperson, and other appropriate College personnel, a physician or other consultants selected by the President or his

designee, the student's physician, public health personnel, the student, and the student's parents or guardians.

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

The student shall be re-evaluated 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 the Student Services Center can make referrals for psychological counseling through the Heritage Behavioral Health Center.

Sexual Harassment Policy

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

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

1. Any sexual advance by an employee toward a student.
2. Any request by an employee of a sexual advance or request for sexual favors from a student.
3. Any conduct of a sexual nature by an employee directed toward a student when
 - a. the student's submission to or re-

jection of such conduct is either explicitly or implicitly a term or condition of the student's grade or the student's participation in any school-sponsored activity, or

b. such conduct has the purpose or effect on a student of reasonable sensibilities of creating an intimidating, hostile, or offensive school environment for the student.

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

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

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

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

Responsible Use of Information Technology Policy

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

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

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

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

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

Possession of Weapons Policy

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

A weapon is defined as a firearm, dangerous chemical, any explosive device of any description, compressed air guns, pellet guns, BB guns, illegal knives, stun guns, electric shock devices, or any item used in a threatening manner toward another individual. The College reserves the right to further determine the definition of a “weapon” and may prohibit other devices on an individual basis, such as unusual walking canes that may be more of a club, flashlights that may be used as a club, air horns, fluid discharge devices, compressed air devices, etc.

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

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

WISE-1

WISE-1 for students is a program on the internet that allows students access to their own personal academic records. Visit www.richland.edu/StudentServices/WISE!

Continuing & Community Education



Adult Education

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

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

English as a Second Language Program

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

Applied Learning Skills (ALS) Program

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

low-pressure method of learning. Students may register for ALS modules at any time through the 10th week of the semester.

In order to participate in this program, students should be able to work on their own and be dedicated and motivated. Students are expected to spend a minimum of 15 hours in the Student Learning Center. For more information, contact the Director of the Student Learning Center, Ext. 364.

Business and Industry Institute

The Business and Industry Institute provides professional development, technology training, occupational safety training, and commercial truck driver training.

The Institute offers a variety of training options, from full-day classes to short-term workshops in the evenings, during the day, and on Saturdays. Institute staff can provide training at a company or organization or at Richland in a classroom or specialized lab. Instructors are experts in their fields, and material can be customized to fit the specific needs of any business or industry. The Institute has a broad scope of programs ranging from basic skills to professional development ("soft skills" and highly technical training) to computer software and hardware.

For more information, call 217/875-7211, Ext. 260.

CDL (Commercial Driver's License)

Approved by the Illinois Community College Board, this course offers seven (7) hours of professional/occupational skill college credits. A certificate will be awarded upon completion.

The program can be completed in four (4) weeks by attending full time, Monday through Friday, 8:00 a.m. to 4:30 p.m. The part-time evening program can be completed in eight (8) weeks, Monday through Friday, 6:00 p.m. to 10:00 p.m. Thirty (30) hours of home study is required during the program.

The RCC truck driver program works with trucking companies that will pre-hire students. Truck driving is one of the few occupations where students who complete training are almost certain to go to work immediately. Most students receive several job offers prior to completion of their training. Employment assistance is offered through RCC's Truck Driver Training.

Students may register at any time. Full-time classes start every month. Part-time classes start periodically. Training is scheduled around holidays and interruptions caused by weather or other unforeseen circumstances. For information, call 217/875-7211, Ext. 245.

Extension Center Programming

Credit classes and Lifelong Learning workshops and seminars are scheduled in Clinton and other communities throughout Richland's District, including Argenta, Assumption, Blue Mound, Cerro Gordo, Forsyth, Illiopolis, Macon, Maroa, Moweaqua, Mt. Zion, Niantic, Stonington, and Warrensburg. General Education Development (G.E.D.) and English as a Second Language (ESL) classes are also provided. In many cases, off-campus sites are held via interactive distance learning. Certain courses are guaranteed to be held at off-campus sites, regardless of the number of students enrolled. The Clinton Extension Center is located in Clinton at the Clinton High School (southwest entrance), 1200 Highway 54 West in Clinton. For additional information, call 217-935-6791.

Fitness Center

With staff assistance, each person develops a personalized fitness program, based on individual goals and abilities. The health-related fitness class uses stationary bikes, treadmills, stairclimbers, free weights, and universal weight machines to provide a combined aerobic/muscle-toning workout. Cross training ensures more effective results in

improving and maintaining personal fitness.

Individual fitness workouts to meet class requirements may be completed any time during Fitness Center hours. We encourage students to use the Center on a daily basis. The Fitness Center is available on a first-come, first-served basis; usually there is no waiting for use of the equipment. Locker room and shower facilities are available.

Circuit Training with a Personal Trainer

Join the growing number of people who are incorporating the services of a personal trainer to keep them on the road to fitness. This class is designed for 1-on-1 training. A personal workout will be designed based on individual goals. Cardiovascular equipment and weight training will be used throughout the 6-week course. Call 875-7211, Ext. 324, for Circuit Training availability.

Public Programming

This program promotes access to lifelong learning through classes offered both on and off campus. A priority is to serve the needs of the College District's varied population. Thus, public programming offers classes, workshops, and seminars for all ages—tots through seniors—in the following areas:

Professional Development: intended to update knowledge and theory to fulfill job responsibilities, find a new career, or upgrade current position—includes classes such as Real Estate Transactions, Network+ Certification, A+ Certification, Network Infrastructure Design, or Teacher Re-certification.

Personal Development: offering opportunities for self-growth and development of new skills—Sign Language, Conversational French and Spanish, Fundamentals of Investing, Planning for a Secure Retirement, Instrument Flying, ACT Review, etc.

Personal Computers: developing technological expertise and experience—Intro to PCs,

Intro to Windows, Word, Excel, Access, PowerPoint, Internet, Outlook, etc.

Hobby/Leisure: encouraging adults of all ages to turn leisure time into creative, productive opportunities—Ballroom Dance, Adult Ballet, Tap, and Jazz, Pottery, Drawing, Watercolor, Piano, Genealogy, Bridge, Yoga, etc.

Youth: offering enrichment and educational enhancement activities—Tot Gym, Prep Dance Program, Horseback Riding, Summer College for Youth Program, etc.

Senior Programming: classes and workshops of special interest to senior citizens.

The Shilling Community Education Center

The Shilling Community Education Center features a 325-seat auditorium, banquet room with seating for 300, conference rooms, and several classrooms available for use by students, faculty, staff, and the community. The facility is available for meetings, programs, teleconferences, performances, and other events by calling 875-7211, Ext. 240.

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 30 or fewer 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 in Retention Services 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 in Retention Services to discuss career and educational goals. The student may wish to utilize the Student Learning Center for tutorial assistance. The counselor may suggest a reduced number of courses to improve chances for success, a different program of study, or repeating courses previously taken with a grade of “D” or “F.”

The student must achieve at least a 2.00 GPA during the following semesters after being placed on academic probation until being placed on good standing as illustrated in the previous chart.

Suspension

Failure to achieve a 2.00 GPA will result in academic suspension from the College for one or more semesters, excluding the Summer Term.

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

Grading Policy

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

- A Superior or excellent
- B Very good or above average
- C Good or average
- D Barely passing or below average
- F Failure or unsatisfactory
- AU Audit (For more information, see "Auditing a Course" in this section.)
- CR Completed course requirements.
- I Incomplete. All coursework must be finished by the end of each term, unless the instructor agrees in writing to a specified grace period no longer than 60 days after the end of the term. Failure to complete coursework within the 60-day grace period will result in the grade the student would earn without having all the course work complete. Grade of "W" or "AU" is not allowed on an incomplete.
- 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 of 100 level courses or above at RCC; and
2. Completed 6 or more semester hours for the current term; and
3. Attained at least a 3.50 GPA for the current term.

Appealing a Grade

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

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

Alternative Methods of Instruction

Distance Learning Program

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

Virtual Courses

Virtual courses are delivered via the Internet. Students are able to participate in a wide range of courses offered by Richland through the Illinois Virtual Campus. These courses are designed to be accessed from any location where the Internet is available to students. Visit the Virtual Campus webpage at www.richland.edu/vcampus/. *(Students must have a Richland email address to register for a virtual course.)*

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 Dean. If the request is granted, weekly meetings during the arranged term of the course are held between student and instructor. Only those courses included in the Catalog are available for Independent Study. "Request for Independent Study" forms are available in the appropriate division office.

Extended Learning

The Extended Learning Program (ELP) has been designed for students who prefer or require courses outside the classroom environment. Students are required to attend at least an orientation sessions(s) and to complete all assignments and examinations specified in the course syllabus for the conventional, classroom course. In the ELP, instructors are available on a one-on-one basis through the duration of the course. ELP courses often require more reading and more written assignments than classroom-based courses. For further information about ELP courses, call the Student Services Center, 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 the Student Records Office by the 10th day of the semester. Change to the grading status cannot be made after the 10th day, and a grade of AU will be assigned at the completion of the course. No credit will be awarded for auditing a course.

Dropping a Course

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

1. Student-Initiated - A student may drop a course through the last day before final exam week of any term. A grade of "W" will be recorded for the course dropped. Students are encouraged to consult with their instructor before dropping a course. A "Change of Schedule" form may be obtained in the Student Services Center or any academic division office and must be signed by the class instructor.

Students dropping two or more courses for two consecutive terms are

advised to see a counselor in Retention Services to establish a reasonable academic load for the next term of attendance.

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

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

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

Repeating a Course

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

Class Attendance

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

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

Removal from the College or Class by Richland

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

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

Withdrawing from a Course or the College

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

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

“Change of Schedule” forms are available in the Student Services Center, Room C129. To withdraw by phone, call 875-7211, Ext. 267.

Graduation

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 a counselor in the Student Services Center 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 the Student Records Office. 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 Services Office along with the \$15.00 graduation fee. (A \$15.00 fee is required for each new

Changing Program of Study

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

- 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 a Retention Services counselor, his/her academic advisor, or the Dean of Retention Services 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 Enrollment Services, a Student Services counselor, or the Dean of Retention Services 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 G.E.D. certificate may submit an official copy of their test scores or verification from the Superintendent of the Regional Office of Education through which the G.E.D. certificate was issued); or
2. Students may obtain study material from the LRC and take the examination through Assessment Services, Room W124.

Graduating With Two Certificates or Degrees

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

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

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

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

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

Graduating Transfer Students

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

certificate:

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

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

Earning Graduation Honors

When a student applies for graduation, all work done toward graduation will be evaluated for graduation academic honors. Students must have earned in class at Richland at least one-half or 15 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

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 Enrollment Ser-

vices will review the student's Application for Graduation and consult with the appropriate Dean regarding clearance for graduation.

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.

Many Illinois institutions (with the exception of the University of Illinois) had 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 meet all lower-division (freshman-sophomore) general education requirements.

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

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

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 a Retention Services counselor, the Dean of Retention Services, or the Dean of Enrollment Services for an evaluation of the quarter hours earned.

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

Illinois Articulation Initiative

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

The following codes are used to identify the general education requirement a qualifying course satisfies: IAI C (Communications), IAI F (Fine Arts), IAI H (Humanities), IAI L (Life Science), IAI M (Mathematics), IAI P (Physical Science), IAI S (Social

Sciences). Check the Course Description section of this catalog (beginning on page 139) as to whether a specific Richland course qualifies. IAI information may also be found on the Internet at www.itransfer.org.

The following codes are used to identify the courses that transfer into specific baccalaureate majors:

AG - Agriculture
ART - Art/Art Education
BIO - Biological Sciences
BUS - Business
CHE - Chemistry
CLS - Clinical Laboratory Sciences
CS - Computer Science
CRJ - Criminal Justice
ECE - Early Childhood Education
EED - Elementary Education
EGL - English
EGR - Engineering
HST - History
MTM - Manufacturing Technology/
Machining
MC - Mass Communication
MTH - Mathematics
MUS - Music/Music Education
NUR - Nursing
PLS - Political Science
PSY - Psychology
SED - Secondary Education
SWK - Social Work
SOC - Sociology
SPE - Special Education
SPC - Speech Communication
TA - Theatre Arts

Guarantee of Transfer of Credit

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

Conditions for the Guarantee:

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

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. 209.

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. For information call 217/875-7200, Ext. 209.

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, or a High School Equivalency Certificate based on the G.E.D. Test, or meets the "ability to benefit" criteria through a recognized test approved by the U.S. Department of Education. A student enrolling in a program of study would have several options:

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

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

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

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

General Studies programs are individually structured by each student to meet specific interests or needs and lead to the awarding of a Basic Certificate in a particular field or the Associate in Liberal Studies (A.L.S.) Degree (see page 138).

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

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

Cooperative Educational Programs with Other Community Colleges

Richland Community College has Cooperative Educational Program agreements with other Illinois community colleges that allow Richland Community College District residents to enroll in a vocational/technical degree and/or certificate 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. Richland will not approve a charge-back for a program of study that is available through a cooperative agreement with another community college. (Individuals with questions about a particular program should call Richland's Student Services Center at 875-7211, 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:

All Occupational/Technical Certificates and Degrees not offered by RCC.

Programs offered for Kankakee District residents at Richland:

All Occupational/Technical Certificates and Degrees not offered by KCC.

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.
Fire Science — A.A.S., Certificate
Heating, Ventilation, Air Conditioning, and Refrigeration — AAS
Surgical Technology — A.A.S., Certificate
Welding — Certificate

66 Instructional Programs

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

- Agri-Business Management — A.A.S.
- Air Frame & Power Plant Mechanics — A.A.S.
- Aviation Management/Airway Science — A.A.S.

Programs offered for Lincoln Land District residents at Richland:

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

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

- Mass Communications: Radio-TV/Video — A.A.S.
- Occupational Therapy Assistant — A.A.S.
- Equine Management— AAS
- Diesel Power Equipment Technology— AAS
- Respiratory Care — A.A.S.
- Construction Design & Management — AAS
- Construction Design & Management (Surveying Technology) —AAS
- Construction Design & Management (Building & Materials) — AAS
- Building & Construction Repair — Certificate

Programs offered for Richland Community College District residents at Heartland Community College, Normal:

- All Occupational/Technical Certificates and Degrees not offered by Richland.

Programs offered for Heartland Community College District residents at Richland:

- All Occupational/Technical Certificates and Degrees not offered by Heartland.

Baccalaureate/Transfer Programs

Associate in Arts

The Associate in Arts (A.A.) degree is 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*, available in the Student Services Center, for additional advice.)

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

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

68 Instructional Programs _____

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

Area of Concentration _____

Designed to provide two academic years of college study

for transfer toward a Bachelor of Arts degree at _____

(College or University).

General Education Requirements - 41-45 Hrs.	Course and Number	RCC	Semester and Year	Transfer	Total
Communications: 3 courses (9 Hrs.) Engl. 101, 102; Spch. 101 (Required) ("C" or better required for both Engl. 101 and 102 effective Summer 1999.)					
Social and Behavioral Sciences: 3 or 4 courses (11-12 Hrs.) (Selected from two or more disciplines.) Anthro. 110, 120, 130; Econ. 231, 232; Hist. 101, 102, 131; Pol. S. 100, 110, 120, 230; Psych. 110, 145, 150, 210; Socio. 110, 150, 200, 225					
Humanities/Fine Arts: 3 or 4 courses (11-12 Hrs.) (Select at least one course from humanities and at least one course from fine arts.) Humanities - Af. Am. 101, 103, 104; Engl. 115, 124, 126, 128, 160, 201, 202, 231, 232, 251, 252; Fren. 202; Germ. 202 Hist. 111, 112, 201, 202, 270; Human. 100, 201; Phil. 100, 110, 120, 210, 215; Span. 202 Fine Arts - Af. Am. 101, 103; Art 100, 210, 220, 230; Drama 150; Engl. 140; Human. 100, 201; Music 100, 190					
Life/Physical Science: 2 courses (7-8 Hrs.) (Select at least one course from life science and at least one course from physical science including at least one laboratory course.) Life Science - Biol. 101, 210 Physical Science - Chem. 100, 131; Ea. Sci. 210, 220, 230; Phy. S. 105; Phys. 100, 101, 111, 151					
Mathematics: 1 course (3-4 Hrs.) Math. 110, 112, 113, 121, 122, 160, 170, 171, 190, 221					
Area of Concentration (See page 75 for Area of Concentration suggestions.)					
Electives: Must be transfer courses					
Total Hours - (60 Required - Minimum of 15 hrs. at Richland)					

2.0 GPA required for all Richland degrees

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

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

Associate in Science

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

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

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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
Communications: 3 courses (9 Hrs.) Engl. 101, 102; Spch. 101 (Required) ("C" or better required for both Engl. 101 and 102 effective Summer 1999)					
Social and Behavioral Sciences: 3 or 4 courses (9-10 Hrs.) (Selected from two or more disciplines.) Anthro. 110, 120, 130; Econ. 231, 232; Hist. 101, 102, 131; Pol. S. 100, 110, 120, 230; Psych. 110, 145, 150, 210; Socio. 110, 150, 200, 225					
Humanities/Fine Arts: 3 or 4 courses (9-10 Hrs.) (Select at least one course from humanities and at least one course from fine arts.) Humanities - Af. Am. 101, 103, 104; Engl. 115, 124, 126, 128, 160, 201, 202, 231, 232, 251, 252; Fren. 202; Germ. 202 Hist. 111, 112, 201, 202, 270; Human. 100, 201; Phil. 100, 110, 120, 210, 215; Span. 202 Fine Arts - Af. Am. 101, 103; Art 100, 210, 220, 230; Drama 150; Engl. 140; Human. 100, 201; Music 100, 190					
Life/Physical Science: 2 courses (7-8 Hrs.) (Select at least one course from life science and at least one course from physical science including at least one laboratory course.) Life Science - Biol. 101, 210 Physical Science - Chem. 100, 131; Ea. Sci. 210, 220, 230; Phy. S. 105; Phys. 100, 101, 111, 151					
Mathematics: 2 courses (7-8 Hrs.) Math. 110, 112, 113, 121, 122, 160, 170, 171, 190, 221					
Area of Concentration (See page 75 for Area of Concentration suggestions.)					
Electives: Must be transfer courses.					
Total Hours - (60 Required - Minimum of 15 hrs. at Richland)					

2.0 GPA required for all Richland degrees.

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

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

Associate in Fine Arts

The Associate in Fine Arts (A.F.A.) is 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*, available in Retention Services, for additional advice.

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

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

72 Instructional Programs _____

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

Area of Concentration _____

Designed to provide two academic years of college study

for transfer toward a Bachelor of Arts degree at _____
(College or University).

General Education Requirements - 40-42 Hrs.	Course and Number	RCC	Semester and Year	Transfer	Total
Communications: 3 courses (9 Hrs.) Engl. 101, 102; Spch. 101 (Required) ("C" or better required for both Engl. 101 and 102 effective Summer 1999)					
Social and Behavioral Sciences: (6 Hrs.) (Selected from two or more disciplines.) Anthro. 110, 120, 130; Econ. 231, 232; Hist. 101, 102, 131; Pol. S. 100, 110, 120, 230; Psych. 110, 145, 150, 210; Socio. 110, 150, 200, 225					
Humanities/Fine Arts: (6 Hrs.) Af. Am. 101, 103, 104; Engl. 115, 124, 126, 128, 160, 201, 202, 231, 232, 251, 252; Fren. 202; Germ. 202; Hist. 111, 112, 201, 202, 270; Human. 100, 201; Phil. 100, 110, 120, 210, 215; Span. 202					
Life/Physical Science: 2 courses (7-8 Hrs.) (Select at least one course from life science and at least one course from physical science including at least one laboratory course.) Life Science - Biol. 101, 210 Physical Science - Chem. 100, 131; Ea. Sci. 210, 220, 230; Phy. S. 105; Phys. 100, 101, 111, 151					
Mathematics: 1 course(3-4 Hrs.) Math. 110, 112, 113, 121, 122, 160, 170, 171, 190, 221					
Required Art Courses: Art 101, 102, 111, 112, 113, 210, 220, 230					
Art Electives: (9 Hrs.) (Selected from the following) Art 110, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 151, 152, 160, 240, 251, 252					
Total Hours - (64-66 Required - Minimum of 15 hrs. at Richland)					

2.0 GPA required for all Richland degrees

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

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

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

The Associate in Engineering Science (A.E.S.) degree is 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.

Required Courses:	Cr. Hrs.
Communications:	
Engl. 101: Composition 1	3
Engl. 102: Composition 2	3
Physical Science:	
Chem. 131: General Chemistry 1	4
Chem. 132: General Chemistry 2	5
Phys. 151: Mechanics and Wave Motions	4
Phys. 152: Electricity and Magnetism	4
Phys. 153: Thermodynamics and Modern Physics	4
Mathematics:	
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
Computer Science:	
Math 141: FORTRAN for Science and Engineering	3
Engineering:	
Engr. 110: Engineering Graphics (includes 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.	
Electives:	5
Choose from a list of approved transfer electives. Lists may vary according to specific area of concentration.	

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

Area of Concentration _____

Designed to provide two academic years of college study for

transfer toward a Bachelor of Science degree in engineering at _____

(College or University).

General Education Requirements - 40-42 Hrs.	Course and Number	RCC	Semester and Year	Transfer	Total
Communications: 2 courses (6 Hrs.) Engl. 101, 102					
Physical Science: 5 courses (21 Hrs.) Chem. 131, Chem. 132, Phys. 151, Phys. 152, Phys. 153					
Mathematics: 4 courses (17 Hrs.) Math. 121, Math. 122, Math. 221, Math. 230					
Computer Science: 1 course (3 Hrs.) - Math. 141					
Engineering: 3 courses (10 Hrs.) Engr. 110, Engr. 211, Engr. 212					
Social Science/Humanities: 2 courses (6 Hrs.) Social Science or Humanities sequence from the list of approved, transferable electives. Econ. 231/232 sequence is strongly recommended. Social and Behavioral Sciences: (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; Socio. 110, 150, 200, 225 Humanities/Fine Arts: (6 Hrs.) Af. Am. 101, 103, 104; Engl. 115, 124, 126, 128, 160, 201, 202, 231, 232, 251, 252; Fren. 202; Germ. 202; Hist. 111, 112, 201, 202, 270; Human. 100, 201; Phil. 100, 110, 120, 210, 215; Span. 202.					
Electives: 2 courses (5 Hrs.) Must be transfer courses					
Total Hours - (68 Required - Minimum of 15 hrs. at Richland)					

2.0 GPA required for all Richland degrees

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

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

Area of Concentration Suggestions for Baccalaureate Transfer Programs

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

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

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

Accounting (A.A. or A.S.)

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

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

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

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

Agriculture (A.S.)

Area of Concentration: Agric. 106, 120,
130, 180, 210; 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 105, 113,
114, 115, 116, 117, 118, 119, 120, 121,
122, 123, 124, 125, 126, 131, 140, 151,
152, 225, 230, 240, 251, 252

Biology (A.S.)

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

Other suggested courses: Chem. 131,
132

Business (A.A. or A.S.)

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

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

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

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

Other suggested courses: Math 160,
170, 190

Chemistry (A.S.)

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

Other suggested courses: Math. 121,
122

Computer Science (A.S.)

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

Dentistry

See Pre-Dentistry.

Earth Science (A.S.)

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

Economics (A.A. or A.S.)

Area of Concentration: Econ. 231, 232.
Other suggested courses: Bus. 227; Econ.
200, 225; Math. 160, 170, 190, plus
courses in sociology and political
science

Education

See Teacher Education.

Engineering (A.E.S.)

See Associate in Engineering Science
(Page 73)

English (A.A.)

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

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

Foreign Language (A.A.)

Area of Concentration: two years of
study in the chosen language
Other suggested courses: one sequence
in United States or ancient or European
history and literature courses

General Science (A.S.)

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

History (A.A.)

Area of Concentration: Hist. 101, 102, 105, and either Hist. 111, 112; or Hist. 201, 202; or Hist. 250, 251
Other suggested courses: courses in economics, foreign language, history, literature, or political science.

Journalism (A.A.)

Area of Concentration: Journ. 101, 102, 110

Mathematics (A.S.)

Area of Concentration: Math. 121, 122, 221, plus one additional mathematics course
Other suggested courses: Chem. 131, 132; Phys. 210, 211, 212

Medicine

See Pre-Medicine.

Philosophy (A.A.)

Area of Concentration: Phil. 100, 110, 120, 200, 210, 215, 220, 230
Other suggested courses: humanities and/or history courses.

Physics (A.S.)

Area of Concentration: Phys. 151, 152, 153
Other suggested courses: Chem. 131, 132; Math. 121, 122, 221, 230

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

Area of Concentration: Pol. S. 100, 110, 120, 230
Other suggested courses: Econ. 231, 232; Hist. 101, 102; Phil. 110, 130

Pre-Dentistry (A.S.)

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

Pre-Forestry (A.S.)

Area of Concentration: General Science, including Biol. 101, 102, 210; Chem. 131, 132
Other suggested courses: Math. 117; Phys. 101; and courses in accounting, business, and economics
Since the study of special forestry courses generally comes during the third and fourth years of a bachelor's degree program, students desiring a B.S. in forestry should select General Science as their area of concentration at Richland.

Pre-Medicine (A.S.)

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

Pre-Veterinary (A.S.)

For purposes of identifying an area of concentration at Richland, biology is recommended as an area of concentration.
Other suggested courses: Chem. 131, 132

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

Area of Concentration: Psych. 110, plus two or more from the following: Psych. 130, 150, 200, 210, 250, 260, 280
Other suggested courses: Math. 160, 170, or 190 and other social science

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

Area of Concentration: Socio. 110, plus three or more from the following: Socio. 125, 130, 135, 141, 142, 150, 160, 200
Other suggested courses: Econ. 200, Math. 170

Speech and Drama (A.A.)

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

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

To teach in Illinois public schools, teachers must be certified by the state of Illinois. To transfer into an approved baccalaureate program as a junior in elementary, secondary, or special education, students must complete a minimum of 60 semester credits (up to a maximum of 64 semester credits). Community college students are strongly encouraged to complete an Associate in Arts or Associate in Science degree prior to transfer. A minimum grade point average of 2.5 (on a 4.0 scale) and passage of a Basic SkillsTest (reading, writing, grammar and math) prior to admission to a teacher education program. Information on testing dates and registration materials is available in the Student Services Center. Students planning to earn a Bachelor of Arts degree or a degree from a college of arts and sciences should be alerted to the probable need to complete a foreign language—and should complete their foreign language requirement before transfer.

Elementary Education

Area of concentration: 0 to 9 sophomore-level semester credits in 1 academic discipline (such as mathematics, biology, chemistry, or physics; economics, his-

tory, political science, psychology or sociology, art, music, English, a single foreign language, philosophy, or speech and theatre.

Professional Education Core Course Suggestions: 0 to 7 semester credits in Ed. 100, Psych. 150.

Secondary Education

Area of concentration: since Secondary Education is not a major at the baccalaureate level, students need to select a major and a teaching minor from among those disciplines taught in high schools.

Professional Education Core Course Suggestions: 0 to 9 semester credits in Ed. 100, Ed. 200 (or Psych. 200), Psych. 145, Ed. 220.

Special Education

Professional Education Core Course Suggestions: 9 semester credits in Ed. 100, Psych. 110, Psych. 150.

Other Areas of Baccalaureate Study

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

Articulated 2+2 Degree Programs

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

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

Eastern Illinois University - Industrial Technology
 Franklin University, Columbus, Ohio - Business Administration
 Franklin University, Columbus, Ohio - Computer Science
 Franklin University, Columbus, Ohio - Health Services Administration
 Franklin University, Columbus, Ohio - Public Safety Management
 Franklin University, Columbus, Ohio - Management Information Systems
 Franklin University, Columbus, Ohio - Technical Management
 Greenville College, Greenville, Illinois - Organizational Leadership
 Southern Illinois University - Electronics Management
 Southern Illinois University - Information Systems Technology
 University of Illinois Springfield - Accounting
 University of Illinois Springfield - Management

College Tech Prep

College Tech Prep at Richland Community College includes the applied associate (A.A.S.) degree programs of study that lead to high skill/high wage careers in occupational and technical fields. College Tech Prep programs of study are developed through strong partnerships between business/industry and the educational system. By working through designated sequences of academic and technical courses, students in grades 9 through 14 are prepared to enter their chosen career field with the skills necessary to compete in tomorrow's global job market.

A prescribed sequence of courses in any program designated as College Tech Prep is designed to build student competence in mathematics, science, communications, and technology. College Tech Prep programs use applied academics to ensure that students understand how to apply what they learn in the world beyond the classroom, including the world of work. College Tech Prep programs also offer students opportunities for job shadowing, internships, and apprenticeships. Ultimately, the combined College Tech Prep educational experience is designed to support placement of students in relevant careers upon program completion.

Students can enter College Tech Prep programs as early as their junior year in high school and can complete their program of study at the community college level. Some programs also lead to four-year degree programs offered at various colleges and universities. Most College Tech Prep programs of study include courses that provide college credit earned while in high school. College Tech Prep is designed to smooth the transition from high school to higher education or the workplace. In the Richland Community College District, area high schools and the Decatur Area Technical Academy offer a wide variety of courses, programs, and activities leading to Richland's College Tech Prep AAS degree programs. College Tech Prep programs at Richland are offered in five career cluster areas that have been identified by local area business and industry representatives.

Allied Health and Human Services

- Dental Hygiene (Cooperative Agreement with Lake Land)
- Emergency Medical Technician
- Fire Science
- Criminal Justice
- Nursing RN
- Occupational Therapy (Cooperative Agreement with Parkland)
- Physical Therapy Assistant (Cooperative Agreement with Lake Land)
- Radiologic Technology (Radiography)
- Respiratory Care (Cooperative Agreement with Parkland)
- Surgical Technician

Business and Information Technology

- Accounting
- Business
- Hospitality Management
- Information Technology-eBusiness/eCommerce
- Information Technology-Microcomputer Applications
- Information Technology-Network Administration
- Information Technology-Network Technician
- Information Technology-Programming
- Management/Leadership
- Marketing
- Office Technology
 - Medical
 - Legal
 - Administrative Assistant

Industrial and Engineering Related Technology

- Automotive Technology
- Computer Integrated Manufacturing
- Electronic Systems Technology
- Electronics
- Electronics-Biomedical Option
- Industrial Drafting
- Machine Tool Processes
- Mechanical Technology

Agriculture Business/Management and Horticulture

- Agribusiness
- Custom Applicator Specialization
- Grain Elevator Operations Specialization
- Horticulture

Arts & Communication

- Graphic Arts

The ETC Program Coordinator oversees

the College Tech Prep programs of study at Richland and is available at 217/875-7211, Ext. 233, to assist students with Tech Prep supportive services and information, including articulation of courses and transition to further education and/or the work place. A Career Advisor is also available to assist students in career and educational planning. Faculty advisors from the various College Tech Prep programs also assist students with information about specific degree programs.

Occupational and Technical Programs

Richland Community College strives to provide educational opportunities to enable individuals to become contributing members of the workforce beyond the year 2003. The workplace has changed with new work hours and work patterns due to improved telecommunications and computer technologies. Sixty-five percent of new jobs will require post-secondary education and training below the baccalaureate level, and 75% of the current workforce needs training. The information supply available doubles every five years.

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

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

Basic Certificate

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

Advanced Certificate

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

Associate in Applied Science

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

Capstone Options

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

Graduation Requirements

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

1. The program as outlined in this Catalog. (Students transferring credit to Richland should see regulations under Admissions, page 17.)
2. Constitution Requirement. (See Page 58.)
3. Cumulative Grade Point Average—2.00 ("C") or better for all work applicable toward the certificate or degree that was pursued at the College. (See Page 55.)

Course Prerequisites

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

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

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

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

Course Sequences

All students enrolled in one of the certificate programs and part-time students in the A.A.S. curriculum are encouraged to pursue their respective programs by taking general and related courses along with their special interest courses rather than taking all courses in the order listed. 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. 110
I. T. 105, 115, 120, 130, 131, 132, 161, 181, 182, 183, 205, 210, 220, 221, 222, 223, 230, 240, 245, 251, 252, 261, 272, 273, 281, 283, 284, 285, 290, 295, 297
C.I.M. 100
O.T. 100, 112, 115, 150, 160, 170, 200, 205, 210, 211, 212, 220, 225, 260

Communications

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

Humanities

Af. Am. 101, 102, 103, 104
Engl. 115, 124, 126, 128, 150, 160, 201, 202, 231, 232, 251, 252
Fren. 101, 102, 201, 202
Germ. 101, 102, 201, 202
Hist. 111, 112, 120, 201, 202, 270
Human. 100, 201
Phil. 100, 110, 120, 200, 210, 215, 220, 230
Span. 101, 102, 198, 201, 202

Fine Arts

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

Mathematics

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

Natural/Life/Physical Science

Agric. 104, 105, 130
Biol. 101, 102, 201, 202, 210, 215, 220
Chem. 100, 110, 131, 132, 201, 202
Ea. Sci. 210, 220, 230
Eltrn. 110
C.C. & E. 110 (C.C. & E. only)
Hort. 190
Phy. S. 105, 220
Phys. 100, 101, 102, 111, 120, 151, 152, 153

Social Science

Anthr. 110, 120, 130
Econ. 140, 200, 225, 231, 232
Ed. 100, 101, 102, 105, 107, 108, 199, 200
Hist. 101, 102, 105, 120, 131, 250, 251
P. Rel. 100, 110, 120, 200
Pol. S. 100, 110, 120, 230
Psych. 100, 110, 130, 145, 150, 155, 200, 210, 220, 230, 250, 260, 280
Socio. 100, 105, 110, 125, 130, 135, 141, 142, 150, 160, 200, 210, 225
Soc. S. 199

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

Occupational Program Degree Requirements

AgriBusiness (A.A.S.) Page 83

Agri Professional Custom Application (Cert.) Page 84

Automotive Technology (Cert., A.A.S.) Page 85

Business (A.A.S., Page 87; Cert., Page 89) Pages 87, 89

 Accounting

 Management/Leadership

 Marketing

 Materials Management

 Supervision of Personnel

CDL Truck Driver Training (Cert.) (See Transportation) Page 133

Child Care and Education (Basic Cert., Adv. Cert., A.A.S.) Page 90

Computer Integrated Manufacturing (Basic Cert., A.A.S.) Page 91

Criminal Justice (Basic Cert., Adv. Cert., A.A.S.) Page 92

Electronic Systems Technology (A.A.S.) Page 95

Electronics (Basic Cert., Adv. Cert., A.A.S.) Page 96

 Biomedical Option (A.A.S.) Page 97

Emergency Medical Services (Basic Cert., Adv. Cert., A.A.S.) Page 98

Fire Science (Basic Cert., Adv. Cert., A.A.S.) Page 99

Graphic Arts (Cert., A.A.S.) Page 101

Heating, Ventilation, Air-Conditioning, & Refrigeration (A.A.S., Cert.) Page 102

Horticulture (A.A.S.) Page 104

 Turf Grass Management (Adv. Cert.) Page 104

Hospitality Management (A.A.S., Cert.) Page 105

Industrial Drafting (Basic Cert., Adv. Cert., A.A.S.) Page 107

Industrial Engineering Technology (A.A.S.) Page 108

Industrial Maintenance (Basic Cert.) Page 109

Information Technology (A.A.S., Cert) (formerly Computer Information Systems) Page 110

 eBusiness/eCommerce

 Microcomputer Application

 Network Administration

 Network Technician

 Programmer/Analyst

Machine Tool Processes (Basic Cert., Adv. Cert., A.A.S.) Page 116

Mechanical Technology (A.A.S.) Page 117

Nurse Assistant (Cert.) Page 117

Nursing (A.D.N., A.A.S.) Page 118

Office Technology (Cert., A.A.S.) Page 122

Pharmacy Technician (Cert.) Page 124

Practical Nursing (Cert., State Licensure) Page 124

Radiologic Technology (A.A.S.) Page 127

Surgical Technology (Cert., A.A.S.) Page 130

Teacher Assistant Certificate Page 132

Transportation (Basic Cert.) Page 133

Welding (Basic Cert.) Page 133

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

Accounting (See page 88)

AgriBusiness

General Description: As the world's largest commercial industry, Agriculture provides more career opportunities than any other industry. The AgriBusiness degree incorporates hands-on learning with classroom instruction to provide a foundation of knowledge for the vast career opportunities in the AgriBusiness industry. This program includes several specialties to meet students' needs—from specific skill training courses to two-year degree programs designed by local businesses for immediate employment. With a program located literally in the middle of "America's AgriBusiness Center," this program offers resources that are unique from those of any other college district.

Aptitudes: If you are interested in computers or chemistry, seeds or sales, animals or apples, machinery or marketing, fertilizers or farming, there is a career opportunity in Agriculture for you. We have a place for those with non-farm backgrounds as well as those with farm backgrounds.

Outlook: Almost 25% of the people employed in Illinois work in AgriBusiness, an increase from 20% a decade earlier. As the use of technology increases, so do the job opportunities in AgriBusiness. The demand for AgriBusiness graduates is not only in high demand not only locally, but globally as well. New specialties are under development right now.

Associate in Applied Science – AgriBusiness (62-64 Credit Hours)

(ICCB Code: 2063)

Required Courses:	Cr. Hrs.
Agric. 102: Soil Management	3
Agric. 104: Crop Production	3
Agric. 110: Computer Technology in Agriculture	3
Agric. 120: Agricultural Economics	3
Agric. 150: Agribusiness Sales (formerly Agric. 255)	3
Agric. 180: Agricultural Mechanics	3
Agric. 200: Weed and Pest Control	4
Agric. 290: Work Experience Practicum and Seminar	3
Agric. 291: Advanced Work Experience Practicum and Seminar (or Agric. 295)	3
Engl. 110: Communicating in the Workplace (or Engl 101)	3
Chem. 100: Concepts of Chemistry	4
General Education Elective	3
Math. 104: Technical Math	4
P. Rel. 110: Supervisory Techniques and Personal Development	3
Spch. 120: Business & Professional Speaking (or Spch 101)	3

Specialty Options:

In addition to the required courses listed above, one of the following specialties must be followed:

Grain Elevator Operations Specialty

Additional required courses:

Agric. 220: Farm Accounting	3
Agric. 251: Agricultural Commodities (formerly Agric 121)	3
Agric. 260: Marketing Agricultural Products	3
Weld. 195: Welding Fundamentals for Millwrights	3

Directed Electives:

Nine (9) credits are required which must be selected from the courses listed below:

Agric. 101: Care and Adjustment of Agricultural Equipment	3
Agric. 106: Animal Science	4
Agric. 180: Agricultural Mechanics	3
Agric. 240: GPS Applications	3
Agric. 241: Introduction to GIS Using ArcView	3
Agric. 251: Agricultural Commodities	3

Custom Applicator Specialty

Additional required courses:		
Agric. 240:	GPS Applications	3
Mec.S. 112:	Pneumatics and Hydraulics	3

Directed Electives:		
Nine (6) credits are required, which must be selected from the courses listed below:		
Agric. 241:	Introduction to GIS Using ArcView	3
Agric. 251:	Agricultural Commodities	3
Agric. 260:	Marketing Agricultural Products	3
Weld. 195:	Welding Fundamentals for Millwrights	3

Agri Professional Custom Application

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

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

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

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

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

Required Courses:		Cr. Hrs.
Agric. 102:	Soil Management	3
Agric. 104:	Crop Production	3
Agric. 110:	Computer Technology in Agriculture	3
Agric. 180:	Agricultural Mechanics	3
Agric. 200:	Weed and Pest Control	4
Agric. 210:	Soil Science	4
Agric. 240:	GPS Applications	3
Chem. 100:	Concepts of Chemistry	4
Mec. S. 112:	Pneumatics & Hydraulics	3

Directed Electives:		
Six (6) credits are required which must be selected from the courses listed below:		
Agric. 241:	Introduction to GIS using ArcView	3
Agric. 251:	Agricultural Commodities (formerly Agric. 121)	3
Agric. 260:	Marketing Agricultural Products	3
Weld. 195:	Welding Fundamentals for Millwrights	3

Automotive Technology

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

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

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

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

Senior Automotive Repair Technician Certificate (45.5 Credit Hours)

(ICCB Code: BC 0069)

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

Automotive Service Specialist Certificate (7.5 credit hours)

(ICCB Code: 0071A)

Required Courses	Cr. Hrs.
Auto. 101: Basic Theory	3.5
Auto. 102: Electrical Systems	4

Automotive Performance Specialist Certificate (19.5 credit hours)

(ICCB Code:0071B)

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

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Certificate—Automotive Brake, Steering, and Suspension Specialist

(15.5 credit hours)

(ICCB Code: 0071C)

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

Certificate—Automotive HVAC Specialist

(10.5 credit hours)

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

Certificate—Automotive Engine Rebuilder

(11.5 credit hours)

(ICCB Code: 0071E)

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

Certificate—Automotive Transmission and Driveline Specialist

(15.5 credit hours)

(ICCB Code: 0071F)

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

Associate in Applied Science Degree - Automotive Technology

(61.5 Credit Hours)

(ICCB Code: AAS 0071)

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

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

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

Business

General Description: The Business Instructional Area consists of an A.A.S. degree in Business with a specialization in either Accounting, Management/Leadership, Marketing, or Materials Management. Students wishing to earn the Business A.A.S. degree must complete the required business core courses, the required courses for the desired specialization, elective courses in business, and specified general education requirements. A certificate is also available with a specialization in one of the following areas: Accounting, Management/Leadership, Marketing, Materials Management, and Supervision of Personnel.

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

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

(ICCB Code: AAS 038C)

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

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

Specializations

Accounting

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

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

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

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

Management/Leadership

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

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

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

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

Marketing

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

Aptitudes: Marketing careers require people who are self-motivated and have an enthusiastic manner. Good communication skills, the ability to work with others, and organizational skills are also important.

Outlook: Most openings in this field will be in retail management as well as in all types of sales.

Required Marketing Courses:		Cr. Hrs.
Bus. 145:	Fundamentals of Retailing	3
Bus. 146:	Fundamentals of Sales	3
Bus. 245:	Fundamentals of Advertising and Sales Promotion	3
Elective Business Courses: 6 Credit Hours selected from		6
Bus. 125, 227, 290; P. Rel. 110, 120, 200; Acct. 201, 202, 211		

Materials Management

Description: The program is an integrated approach to planning, acquisition, conversion, flow, and distribution of production materials from the raw material state to the finished product state. This program closely follows APIX program requirements for Materials Management and prepares individuals for APIX certification testing.

Aptitudes: Individuals need a varied background that includes the basics of accounting, cost accounting, financial planning, economics, marketing, statistics, communications skills, and elec-

tronic data processing.

Outlook: This field is directly related to the growth or decline of the manufacturing industry.

Required Materials Management Courses: **Cr. Hrs.**

C.I.M. 100: Introduction to Computer Integrated Manufacturing	3
C.I.M. 120: Production and Inventory Control	3
Matls. 110: Fundamentals of Materials Management	3
Matls. 120: Purchasing and Procurement Systems	3
Matls. 130: Principles of Physical Distribution	3
Matls. 210: Material Requirements Planning	3
Matls. 240: Distribution Resource Planning	3
Matls. 250: Master Planning	3
Prod. C. 130: Inspection and Quality Control	3

Business Certificates:

Certificates include Accounting, Marketing, Management/Leadership, Materials Management, and Supervision of Personnel. A basic core of courses is common for each of these certificates, with specific required courses for each area. These are listed below.

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

Required Courses: **Cr. Hrs.**

Bus. 100: Introduction to Business	3
Bus. 110: Business Mathematics	3
C.I.S. 110: Business Applications	3

Accounting (34 Credit Hours)

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

Management/Leadership (34/33 Credit Hours)

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

Marketing (33/34 Credit Hours)

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

Materials Management (33 Credit Hours)

Bus. 227: International Business Management	3
Bus. 231: Business Law 1	3

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Bus. 246:	Fundamentals of Management	3
C.I.M. 120:	Production and Inventory Control	3
Matls. 110:	Fundamentals of Materials Management	3
Matls. 210:	Material Requirements Planning	3
Matls. 250:	Master Planning	3
Prod. C. 130:	Inspection and Quality Control	3

Supervision of Personnel (33 Credit Hours)

Econ. 231:	Macroeconomics (or Econ. 140)	3
Engl. 110:	Communicating in the Workplace	3
Ind. S. 100:	Industrial Safety and Health	3
P. Rel. 100:	Human Relations	3
P. Rel. 110:	Supervisory Techniques and Personnel Development	3
P. Rel. 120:	Labor Management Relations	3
Phil. 100:	Critical Thinking	3
Spch. 120:	Business and Professional Speaking (or Spch. 101)	3

Child Care and Education

General Description: Child care has become a major concern in the United States. The increase in single- and working-parent families has created the need to provide proper and loving care to children. Richland Community College has two certificates and an A.A.S. degree in Child Care to assist interested individuals in entering this career field. These programs are designed to prepare students for employment in elementary schools, day care centers, or nursery schools. A.A.S. graduates meet state licensing standards to be a teacher in or director of a child care center for pre-school or school-age children.

Aptitudes: This is a career field that requires and invites special people—those who truly enjoy being with and communicating with young people. Great patience, an active sense of humor, emotional stability, and good health are required.

Outlook: Opportunities in child care are increasing with a constant demand for qualified workers.

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

Basic Certificate—Child Care and Education (30 Credit Hours) (ICCB Code: BC 0009)

Required Courses:	Cr. Hrs.
C.C.&E. 101: Introduction to Child Care and Education	3
C.C.&E. 111: Creative Activities—Children's Literature	3
C.C.&E. 112: Creative Activities—Mathematics and Science	3
C.C.&E. 113: Creative Activities—Art, Music, and Drama	3
C.C.&E. 114: Creative Activities—Recreation	3
C.C.&E. 115: Creative Activities for Infants and Toddlers	3
C.C.&E. 210: Fundamentals of Childhood Education	3
Engl. 101: Composition I	3
Psych. 110: Introduction to Psychology	3
Psych. 150: Child Psychology	3

Advanced Certificate (45 Credit Hours) (ICCB Code: AC 0010)

Required Courses:	Cr. Hrs.
C.C.&E. 101: Introduction to Child Care and Education	3
C.C.&E. 110: Health, Nutrition, and Safety for Young Children	3
C.C.&E. 111: Creative Activities—Children's Literature	3
C.C.&E. 112: Creative Activities—Mathematics and Science	3
C.C.&E. 113: Creative Activities—Art, Music, and Drama	3
C.C.&E. 114: Creative Activities—Recreation	3

C.C.&E. 115: Creative Activities for Infants and Toddlers	3
C.C.&E. 210: Fundamentals of Childhood Education	3
C.C.&E. 290: Work Experience Practicum and Seminar	3
Ed. 220: The Exceptional Child	3
Engl. 101: Composition 1	3
Psych. 110: Introduction to Psychology	3
Psych. 150: Child Psychology	3
Socio. 200: Marriage and the Family (or Socio. 160)	3
Spch. 101: Principles of Speech	3

Associate in Applied Science Degree (60 Credit Hours)(ICCB Code: AAS 0011)

The A.A.S. is earned by taking all courses required for the Advanced Certificate plus the following

- C.C.&E. 102: School-Age Child Care
- C.C.&E. 230: Organization and Operation of Child Care Programs
- Three (3) credit hours in Humanities/Fine Arts/ or Business
- Six (6) credit hours in electives numbered 100 or above

NOTE: During the semester prior to graduation, students must present evidence of having completed current infant/child CPR training to the RCC Child Care Advisor.

Computer Integrated Manufacturing

General Description: The Computer Integrated Manufacturing (CIM) program permits the student to develop and upgrade skills in basic computer control of manufacturing machines, systems, and processes including the use of CNC machines, robots, programmable controllers, computer aided design (CAD), computer aided manufacturing (CAM), and material handling systems. Some of the related occupations for which this program can prepare students are manufacturing technician, manufacturing cell or center operator, engineering technician, quality control technician, and CNC machine operator. Most local manufacturers currently utilize some type of CIM automation. It is expected that CIM skills will be needed by most manufacturing employees in the near future. Major employers are large, medium, and small manufacturing firms, engineering firms, and specialty firms. The A.A.S. CIM degree is transferable to certain four-year universities for students working toward a Bachelor's Degree in Industrial Technology.

Aptitudes: The ability to acquire good computer skills is important as well as an ability to visualize objects in two or three dimensions, good math skills, and an aptitude for hands-on machine operation.

Outlook: Average growth is expected for this occupation. However, there will be many openings because of the need to replace individuals who retire.

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

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Basic Certificate—Computer Integrated Manufacturing (25 Credit Hours)

(ICCB Code: BC 0016)

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

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Associate in Applied Science Degree (65 Credit Hours)

(ICCB Code: AAS 0115)

Required Courses:	Cr. Hrs.
C.I.S. 110: Business Applications	3
C.I.M. 100: Introduction to Computer Integrated Manufacturing (CIM)	3
C.I.M. 101: Computer Aided Manufacturing (CAM) Fundamentals	3
C.I.M. 102: CNC Programming	3
C.I.M. 110: Introduction to Automated Manufacturing	3
C.I.M. 130: Automated Manufacturing	3
Draft. 210: Introduction to Computer Aided Drafting-Microstation (or Draft 215)	3
Eltrn. 109: Industrial Controls	4
Eltrn. 110: Introduction to Electricity and Electronics	2
Eltrn. 113: Industrial Controls 2	4
Engl. 101: Composition 1	3
I.T. 105: Information Technology Systems	3
Mfg. 100: Print Reading for Industry	2
Mfg. 120: Manufacturing Processes	3
Math. 104: Technical Mathematics	4
Mec. S. 112: Pneumatics and Hydraulics	3
Phys. 101: Introduction to Physics I	4
Prod. C. 130: Inspection and Quality Control	3
Robot. 101: Introduction to Robotics	3
Group Requirements/Electives	6

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

Criminal Justice (formerly Law Enforcement)

General Description: The Criminal Justice Careers Program offers preparation for a broad range of career opportunities in the expanding Criminal Justice field. Careers in criminal justice offer interesting and intense work and provide high pay and excellent benefits and retirement programs. The RCC Criminal Justice Careers Program offers basic and advanced certificates as well as an A.A.S. degree. There are four areas of concentration, each leading to a different criminal justice career path for individuals with different abilities, aptitudes, and/or interests. Areas of concentration include Patrol Officer, Correctional Officer, Probation and Parole Officer, and Emergency Telecommunications Specialist. Work in these specialized fields ranges from the delivery of emergency response and investigative services provided by the Emergency Telecommunications Specialist and Patrol Officer to the close monitoring and accountability systems for those accused or convicted of crimes managed by the Correctional Officer and Probation and Parole Officer.

Aptitudes: Although the career focus may be different for each of the areas of concentration, they each require individuals with the ability to make sound judgments and rational decisions, to perform well under high stress conditions, to observe and recall details, and to communicate effectively, both verbally and in writing. Good physical fitness and health are also required.

Outlook: The job availability in all of the Criminal Justice Careers Program areas of concentration is stable and expanding. Career opportunities are filled through competitive testing with those candidates possessing higher performance abilities provided through higher education.

Patrol Officer Certificate (21 Credit Hours)

(ICCB Code: 019F)

Required Courses:	Cr. Hrs.
C.I.S. 110: Business Applications	3
CR.J. 110: Criminal Justice Fundamentals	3
CR.J. 112: Investigative Report Writing	3
CR.J. 113: Criminal Investigation	3
CR.J. 114: Criminal Law	3
CR.J. 125: Patrol Procedures	3
Hlth. 120: Wellness and Healthful Living	3

Correctional Officer Certificate (21 Credit Hours)

(ICCB Code: 019D)

Required Courses:		Cr. Hrs
C.I.S. 110:	Business Applications	3
CR.J. 110:	Criminal Justice Fundamentals	3
CR.J. 112:	Investigative Report Writing	3
CR.J. 113:	Criminal Investigation	3
CR.J. 114:	Criminal Law	3
CR.J. 128:	Corrections Fundamentals	3
Hlth. 120:	Wellness and Healthful Living	3

Probation and Parole Officer Certificate (21 Credit Hours)

(ICCB Code: 019E)

Required Courses:		Cr. Hrs
C.I.S. 110:	Business Applications	3
CR.J. 110:	Criminal Justice Fundamentals	3
CR.J. 112:	Investigative Report Writing	3
CR.J. 113:	Criminal Investigation	3
CR.J. 114:	Criminal Law	3
CR.J. 116:	Probation/Parole	3
Hlth. 120:	Wellness and Healthful Living	3

Emergency Telecommunications Specialist Certificate (21 Credit Hours)(ICCB Code: 019C)

Required Courses:		Cr. Hrs
C.I.S. 110:	Business Applications	3
CR.J. 110:	Criminal Justice Fundamentals	3
CR.J. 112:	Investigative Report Writing	3
CR.J. 113:	Criminal Investigation	3
CR.J. 126:	Emergency Telecommunications Specialist	3
Hlth. 120:	Wellness and Healthful Living	3
Spch. 120:	Business and Professional Speaking	3

Advanced Certificate - Patrol Officer (45 Credit Hours)

(ICCB Code: 0019)

Required Courses:		Cr. Hrs
C.I.S.110:	Business Applications	3
CR.J.110:	Criminal Justice Fundamentals	3
CR.J.112:	Investigative Report Writing	3
CR.J.113:	Criminal Investigation	3
CR.J.114:	Criminal Law	3
CR.J.125:	Patrol Procedures	3
CR.J.200:	Youth, the Law, and Police Intervention	3
CR.J.210:	Law Enforcement and Community Relations	3
Engl.101:	Composition I	3
Hlth. 120:	Wellness and Healthful Living	3
Pol.S. 120:	Politics in States and Communities	3
Psych.110:	Introduction to Psychology	3
Socio.110:	Introduction to Sociology	3
Socio.130:	Criminology	3
Spch. 120:	Business and Professional Speaking	3

Advanced Certificate - Correctional Officer (45 Credit Hours)

(ICCB Code: 019B)

Required Courses:		Cr. Hrs
C.I.S. 110:	Business Applications	3
CR.J. 110:	Criminal Justice Fundamentals	3
CR.J. 112:	Investigative Report Writing	3
CR.J. 113:	Criminal Investigation	3
CR.J. 114:	Criminal Law	3
CR.J. 128:	Corrections Fundamentals	3
CR.J. 200:	Youth, the Law, and Police Intervention	3

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CR.J. 210:	Law Enforcement and Community Relations	3
Engl. 101:	Composition I	3
Hlth. 120:	Wellness and Healthful Living	3
Pol. S. 120:	Politics in States and Communities	3
Psych. 110:	Introduction to Psychology	3
Socio. 110:	Introduction to Sociology	3
Socio. 130:	Criminology	3
Spch. 120:	Business and Professional Speaking	3

Advanced Certificate - Emergency Telecommunications Specialist (45 Credit Hours) (ICCB Code: 019A)

Required Courses:		Cr. Hrs
C.I.S. 110:	Business Applications	3
CR.J. 110:	Criminal Justice Fundamentals	3
CR.J. 112:	Investigative Report Writing	3
CR.J. 113:	Criminal Investigation	3
CR.J. 114:	Criminal Law	3
CR.J. 126:	Emergency Telecommunications	3
CR.J. 200:	Youth, the Law, and Police Intervention	3
CR.J. 210:	Law Enforcement and Community Relations	3
Engl. 101:	Composition I	3
Hlth. 120:	Wellness and Healthful Living	3
Pol S. 120:	Politics in States and Communities	3
Psych. 110:	Introduction to Psychology	3
Socio. 110:	Introduction to Sociology	3
Socio. 130:	Criminology	3
Spch. 120:	Business and Professional Speaking	3

Associate in Applied Science - Criminal Justice (60 Credit Hours) (ICCB Code: 0020)

Required Courses:		Cr. Hrs
C.I.S. 110:	Business Applications	3
CR.J. 110:	Criminal Justice Fundamentals	3
CR.J. 112:	Investigative Report Writing	3
CR.J. 113:	Criminal Investigation	3
CR.J. 114:	Criminal Law	3
CR.J. 116:	Probation/Parole	3
*CR.J. 125:	Patrol Procedures (or CRJ 126 or CRJ 128)	3
CR.J. 200:	Youth, the Law, and Police Intervention	3
CR.J. 210:	Law Enforcement and Community Relations	3
CR.J. 290:	Work Experience Practicum and Seminar (or CRJ 295)	3
Engl. 101:	Composition I	3
Hlth. 120:	Wellness and Healthful Living	3
Pol. S. 120:	Politics in States and Communities	3
Psych. 110:	Introduction to Psychology	3
Socio. 110:	Introduction to Sociology	3
Socio. 130:	Criminology	3
Spch. 120:	Business and Professional Speaking	3

Directed Electives (Choose 9 credit hours from options below):

Communications Group Requirement
Humanities Group Requirement
Mathematics Group Requirement
Science Group Requirement

*Students pursuing a career as a Patrol Officer should take CR.J. 125: Patrol Procedures.
Students pursuing a career as an Emergency Telecommunications Specialist should take CR.J. 126: Emergency Telecommunications Specialist.

Students pursuing a career as a Corrections Officer should take CR.J. 128: Corrections Fundamentals.

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

(65 Credit Hours)

(ICCB Code: AAS 014A)

Required Courses:	Cr. Hrs.
Eltrn. 109: Industrial Controls	4
Eltrn. 110: Introduction to Electricity and Electronics	2
Eltrn. 111: Circuit Analysis	3
Eltrn. 112: Electronic Devices and Circuits	5
Eltrn. 113: Industrial Controls 2	4
Eltrn. 151: Electrical Systems Troubleshooting	4
Eltrn. 160: Digital Electronics	4
Eltrn. 204: Programming and Troubleshooting Logic Controllers (PLC's)	4
Eltrn. 231: AC/DC Drives and Motion Control	3
Eltrn. 232: CNC and Motion Control Troubleshooting	3
Eltrn. 240: Introduction to Microprocessors	3
Eltrn. 290: Work Experience Practicum	3
Math. 104: Technical Mathematics* (or Math. 117)	4
Mec. S. 112: Pneumatics and Hydraulics	3

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

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A.A.S. Group Requirements/Electives

The A.A.S. degree requires 16 more semester hours of courses numbered 100 or above with 15 of these hours selected from the areas of Communications, Humanities/Fine Arts and/or Business, and Social Science with at least 3 hours in each area. (See page 81.)

Suggested Group Requirements:

Communications — Engl. 101: Composition 1	3
Humanities — Phil. 200: Symbolic Logic	3
Social Science — Econ. 140: American Economy	3
Social Science — P. Rel. 100: Human Relations	3

Suggested Electives:

Draft. 241: Computer Aided Drafting—Electronic	3
Eltrn. 201: Fundamentals of Process Control	3
Eltrn. 210: Advanced Electronics Devices & Circuits	3
Mfg. 120: Manufacturing Processes	3
Phys. 101: Introduction to Physics 1	4

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

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.

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Basic Certificate—Electronics (22 Credit Hours)		(ICCB Code: BC 0012)
Required Courses:		Cr. Hrs.
Eltrn. 110:	Introduction to Electricity and Electronics	2
Eltrn. 111:	Circuit Analysis	3
Eltrn. 112:	Electronic Devices and Circuits	5
Eltrn. 120:	Fundamentals of Servicing	2
Eltrn. 160:	Digital Electronics	4
Math. 104:	Technical Mathematics (or Math. 116)	4
Elective		2

Advanced Certificate (44 Credit Hours)		(ICCB Code: AC 0013)
Required Courses:		Cr. Hrs.
Eltrn. 110:	Introduction to Electricity and Electronics	2
Eltrn. 111:	Circuit Analysis	3
Eltrn. 112:	Electronic Devices and Circuits	5
Eltrn. 120:	Fundamentals of Servicing	2
Eltrn. 160:	Digital Electronics	4
Eltrn. 210:	Advanced Electronic Devices & Circuits	3
Eltrn. 211:	Pulse, Digital, & Switching Circuits	5
Eltrn. 212:	Communications Systems	5
Eltrn. 240:	Introduction to Microprocessors	3
Engl. 101:	Composition 1	3
Math. 104:	Technical Mathematics (or Math. 116)	4
Math. 117:	Trigonometry (or 3 hours of Electronics electives)	3

Advanced Certificate Electives

The Advanced Certificate requires 2 elective hours numbered 100 or above.
Eltrn. 220: FCC License Preparation is recommended for students planning a career in the Communications field.

Associate in Applied Science Degree—Electronics (67 Credit Hours)		(ICCB Code: AAS 0014)
A.A.S. Group Requirements/Electives		
The A.A.S. degree requires 25 more semester hours of courses numbered 100 or above with 15 of these hours selected from the areas of Communications, Humanities/Fine Arts and/or Business, and Social Science with at least 3 hours in each area. (See page 81.)		
Suggested Group Requirements:		
Communications—Spch. 110:	Discussion and Group Conference	3
Humanities—Phil. 200:	Symbolic Logic	3

Social Science—Econ. 140: American Economy 3

Suggested Electives:

Eltrn. 222: Advanced Electronic Servicing 4

Eltrn. 295: Electronics Internship 2-5

Math. 116: College Algebra 4

Eltrn. 220: FCC License Preparation is recommended for students planning a career in the Communications field.

Eltrn. 295: Electronics Internship can be used as elective credit in fulfillment of the requirements for this degree.

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Electronics - Biomedical Option

General Description: The biomedical electronics option is a specialized program offered to prepare the student for a variety of positions working with medical equipment. Upon completion of the curriculum and intensive hospital internship, the student will be well prepared to perform and document preventive and corrective maintenance on a variety of medical devices. This program will also help prepare the student for the BMET certification exam of the International Certification Commission for Clinical Engineering and Biomedical Technology (ICC).

Aptitudes: Prospective biomedical electronics technicians need above-average skills in mathematics. They should expect challenging work that requires great attention to details and keeping up with a rapidly advancing technology. The ability to communicate ideas clearly and to follow instructions to the letter is also needed.

Outlook: This is a small occupation in Illinois that is expected to grow faster than the average. Graduates may need to relocate to find job opportunities.

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

Associate in Applied Science Degree—Electronics - Biomedical Option

(67 Credit Hours)

(ICCB Code: AAS 0015)

Required Courses:

	Cr. Hrs.
Biol. 101: Concepts of Biology 1	4
Biol. 201: Human Anatomy and Physiology 1	4
Biol. 202: Human Anatomy and Physiology 2	4
Eltrn. 110: Introduction to Electricity and Electronics	2
Eltrn. 111: Circuit Analysis	3
Eltrn. 112: Electronic Devices and Circuits	5
Eltrn. 120: Fundamentals of Servicing	2
Eltrn. 160: Digital Electronics	4
Eltrn. 210: Advanced Electronic Devices & Circuits	3
Eltrn. 211: Pulse, Digital, & Switching Circuits	5
Eltrn. 212: Communications Systems	5
Eltrn. 240: Introduction to Microprocessors	3
Eltrn. 295: Electronics Internship	5
Engl. 101: Composition 1	3
Math. 116: College Algebra	4
Math. 117: Trigonometry	3

A.A.S. Group Requirements/Electives

The A.A.S. degree with a Biomedical Option requires 8 more semester hours of courses numbered 100 or above selected from the areas of Communications, Humanities/Fine Arts and/or Business, and Social Science with at least 3 hours in each area. (See page 81.)

Suggested Group Requirements:

Communications—Spch. 110: Discussion and Group Conference 3

Humanities—Phil. 200: Symbolic Logic 3

Social Science—Econ. 140: American Economy 3

Emergency Medical Technology

General Description: Emergency Medical Technology education is offered in cooperation with St. Mary’s Hospital Emergency Medical Services. The curriculum meets the criteria established by Illinois Department of Public Health, Division of Emergency Medical Services and Highway Safety. Prerequisites of the program are high school diploma or G.E.D. certificate, 18 years of age, and BLS Health Care Provider CPR certified.

The training program prepares individuals to provide emergency aid and basic and advanced life support in out-of-the-hospital settings to critically ill and injured persons and to prepare the patient for transport to the nearest medical facility. A combination of educational methods will be used including theory instruction and demonstration and practice of life-saving skills for simulated and real emergency situations. Physicians specializing in emergency medicine, paramedics, and registered nurses have advanced education in medical and trauma management provide instruction.

Successful completion of the Illinois Department of Public Health State Licensure Examination is required before advancing to the next level of Emergency Medical Technology training and prior to employment in each level.

Aptitude: The student entering emergency medical technology must be a caring and self-disciplined individual. The field requires academic knowledge, clinical expertise, critical thinking skills, physical stamina, personal integrity, and the ability to act competently in confined areas and under stressful situations. Students must be physically and mentally able to perform all required skill tasks. Students must be able to lift and move supplies, equipment, and the patient in the course of action. The student must possess adequate visual, hearing, and communication skills. Students must be willing to continue their education throughout their career to keep their license and skills updated and current.

Outlook: Job opportunities include hospitals, ambulance services, and fire or police rescue squad departments.

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

Certificate—Emergency Medical Technology - Basic		
(11 Credit Hours)		(ICCB Code: 2073)
Prerequisite Course:		Cr. Hrs.
HLTH. 110:	Cardio Pulmonary Resuscitation or Basic Life Support (BLS) Health Care Provider CPR Certified	0.5
Required Courses:		Cr. Hrs.
HLTH. 140:	Medical Terminology	3
EMT 120:	EMT – Basic	6
MATH 106:	Math for Health Careers	2

Advanced Certificate — Emergency Medical Technology		
(22 Credit Hours)		(ICCB Code: 2072)
Prerequisite Course:		Cr. Hrs.
HLTH. 110:	Cardio Pulmonary Resuscitation or Basic Life Support (BLS) Health Care Provider CPR Certified	0.5
Required Courses:		Cr. Hrs.
HLTH. 140:	Medical Terminology	3
EMT 120:	EMT – Basic	6
EMT 140:	EMT – Intermediate 1	7
EMT 150:	EMT – Intermediate 2	4
MATH 106:	Math for Health Careers	2

Associate of Applied Science Degree—Emergency Medical Services		
(64 Hours)		(ICCB Code: AAS 2071)
Prerequisite Course:		Cr. Hrs.
HLTH. 110:	Cardio Pulmonary Resuscitation or Basic Life Support (BLS) Health Care Provider CPR Certified	0.5

Required Courses:	Cr. Hrs.
Hlth. 140: Medical Terminology	3
EMT 120: EMT – Basic	6
EMT 200: Paramedic 1	7
EMT 220: Paramedic 2	6
EMT 240: Paramedic 3	9
EMT 260: Paramedic 4	7
EMT 290: Paramedic 5	5
General Education Courses:	Cr. Hrs.
Biol. 101: Concepts of Biology 1	4
Engl. 101: Composition 1 (or Engl. 110-Communicating in the Workplace)	3
Psych. 110: Introduction to Psychology	3
Socio. 110: Introduction to Sociology	3
Math. 106: Math for Health Careers	2
Humanities Elective	3
Directed Elective:	Cr. Hrs.
P. Rel. 100: Human Relations (or P. Rel. 110 or Fire 270)	3

The biology course must have been completed within the last five years.

Students must maintain a 2.00 (C) Grade Point Average in the Program.

A student must receive a grade of “C” or above in all courses.

All students must complete the College graduation requirements for an Associate in Applied Science Degree.

All students must complete a minimum of fifteen credit hours at Richland Community College to be eligible for an AAS Degree.

Fire Science

General Description: This program offers an in-depth study of fire science and safety with opportunities to specialize. It is designed for the pre-employment student, the employed firefighter, or the volunteer firefighter who is seeking to augment present job skills. The broad educational background prepares students for employment as highly specialized and thoroughly schooled fire science and safety technicians. In addition to the required fire science courses, students are able to select a field of specialization including fire science education, fire investigation, and emergency rescue-technician. Jobs require performing heavy work indoors and outdoors for prolonged periods under dangerous conditions.

Aptitudes: Excellent health, physical stamina, agility, good vision, stability, mental alertness, and a mechanical aptitude are all needed. An ability to work well with others and to follow orders is important.

Outlook: Average employment growth is expected in Illinois. Most openings will come from a need to replace current workers. Competition is keen for firefighter positions.

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

Basic Certificate—Fire Company Officer (15 Credit Hours) (ICCB Code: BC 017B)

Required Courses:	Cr. Hours
Fire 120: Fire Prevention Principles 1	3
Fire 140: Fire Science Instructor 1	3
Fire 200: Tactics and Strategy	3
Fire 270: Management 1	3
Fire 280: Management 2	3

Basic Certificate—Fire Inspector (9 Credit Hours) (ICCB Code: BC 017D)

Required Courses:	Cr. Hrs.
Fire 120: Fire Prevention Principles 1	3
Fire 130: Fire Service Laws & Regulations	3
Fire 260: Fire Investigation	3

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Basic Certificate—Fire Technician

Required Courses:

	Cr. Hrs.
Fire 110: Introduction to Fire Science (Module A)	3
Fire 111: Techniques of Firefighting 1 (Module B)	3
Fire 112: Techniques of Firefighting 2 (Module C)	3

Basic Certificate—Fireground Commander(9 Credit Hours)

(ICCB Code: BC 017E)

Required Courses:

	Cr. Hrs
Fire 200: Tactics and Strategy	3
Fire 210: Tactics and Strategy 2	3
Fire 270: Management 1	3

Advanced Certificate—Fire Science Technology-Specialist (36 Credit Hours)

(ICCB Code: AC 017A)

Required Courses:

	Cr. Hrs
Fire 110: Introduction to Fire Science	3
Fire 111: Techniques of Firefighting 1 (Module B)	3
Fire 112: Techniques of Firefighting 2 (Module C)	3
Fire 120: Fire Prevention Principles 1	3
Fire 130: Fire Service Laws & Regulations	3
Fire 170: Rescue/Roadway Extrication	3
Fire 200: Tactics and Strategy	3
Fire 210: Tactics and Strategy 2	3
Fire 230: Fire Apparatus Engineer	3
Fire 250: Hazardous Materials Operations	3
Fire 270: Management 1	3
Fire 280: Management 2	3

Associate in Applied Science Degree—Fire Science (61 Credit Hours)

(ICCB Code: AAS 0017)

Required Courses:

	Cr. Hrs.
Engl. 110: Communicating in the Workplace	3
EMT 120: Emergency Medical Technician-Basic	6
C.I.S. 110: Business Applications	3
Fire 110: Introduction to Fire Science (Module A)	3
Fire 111: Techniques of Firefighting 1 (Module B)	3
Fire 112: Techniques of Firefighting 2 (Module C)	3
Fire 120: Fire Prevention Principles 1	3
Fire 130: Fire Service Laws & Regulations	3
Fire 170: Rescue/Roadway Extrication	3
Fire 200: Tactics and Strategy	3
Fire 230: Fire Apparatus Engineer	3
Fire 250: Hazardous Materials Operations	3
Fire 270: Management 1	3
Fire 280: Management 2	3
Math. 104: Technical Mathematics (or Math. 117)	4
Psych. 100: Practical Psychology	3
Socio. 110: Introduction to Sociology (or Socio. 100)	3
Spch. 101: Principles of Speech	3

Directed Electives:

(Select 3 credit hours)

Fire 140: Fire Science Instructor 1	3
Fire 210: Tactics and Strategy 2	3
Fire 220: Fire Science Instructor 2	3
Fire 260: Fire Investigation	3
Fire 297: Fire Science Technologies	3

Graphic Arts

General Description: The purpose of this program is to prepare students for employment in the graphic production and information technology industries related to the visual arts. Students completing the program will obtain a solid theoretical foundation in traditional art and design in addition to developing advanced skills with MacIntosh and PC hardware and software for quality computer graphics and design production. This A.A.S. program is designed to prepare students to find entry-level employment in advertising agencies, design studios, service bureaus, publishing companies, media production studios, freelance agencies, and other applied arts-related firms, as well as in-house art departments of manufacturing industries, retail firms, and news agencies.

Aptitudes: Computer Graphic Designers are required to be able to use computers to acquire, organize, analyze, and communicate information in an artistically expressive manner. Also important is the ability to self-manage and work independently to meet deadlines, as well as use visual communication in an appropriate format to persuade an audience.

Outlook: Computer graphics and design fields ranked at 78.4% in expected job growth in Richland's area. Opportunities are greatest for those with cross-platform knowledge in both Mac and PC.

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

Certificate—Graphic Arts (16.5 Credit Hours) (ICCB Code: C 2122)

Required Courses:	Cr. Hrs.
Art 101: Introduction to Drawing	3
Art 105: Introduction to the Macintosh and Graphics Programs	1.5
Art 111: Design 1	3
Art 140: Principles of Graphic Design	3
Art 151: Computer Graphics 1	3
Art 152: Computer Graphics 2	3

Certificate—Graphic Arts/Desktop Publishing Specialty (25.5 Credit Hours) (ICCB Code: C 2123)

The Desktop Publishing Specialty is earned by taking all courses required for the Certificate plus the following:

Required Courses:	Cr. Hrs.
Art 125: Photography: Black and White	3
Art 240: History of Design	3
Art 251: Computer Graphics 3	3

Certificate—Graphic Arts/Multimedia Specialty (25.5 Credit Hours) (ICCB Code: C 2124)

The Multimedia Specialty is earned by taking all courses required for the Certificate plus the following:

Required Courses:	Cr. Hrs.
Art 160: 3-D Computer Design Multimedia	3
Art 127: Digital Photography	3
Art 251: Computer Graphics 3	3

Associate in Applied Science Degree—Graphic Arts (61.5 to 64.5 Credit Hours) (ICCB Code: AAS 0122)

Required Courses:	Cr. Hrs.
Art 101: Introduction to Drawing 1	3
Art 105: Introduction to the MacIntosh and Graphics Programs	1.5
Art 140: Principles of Graphic Design	3
Art 111: Design 1	3
Art 125: Photography 1: Black and White	3
Art 127: Digital Photography	3
Art 151: Computer Graphics 1	3

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Art 152:	Computer Graphics 2	3
Art 160:	3-D Computer Design Multimedia	3
Art 230:	Art History 3: Modern Art	3
Art 240:	History of Design	3
Art 251:	Computer Graphics 3	3
Art 252:	Graphics Arts 4: Self-Promotion/Portfolio Preparation	3
Art 290:	Work Experience/Internship	2-5
Engl. 110:	Communicating in the Workplace (or English 101)	3
Math. 110:	Concepts of Mathematics (or Math 116)	4
P. Rel. 100:	Human Relations	3
Spch. 120:	Business and Professional Speaking (or Speech 101)	3

Directed Electives:		Cr. Hrs.
Choose at least one business course and two additional courses from the following:		
Art 102:	Introduction to Drawing 2	3
Art 112:	Design 2	3
Art 113:	Figure Drawing	3
Art 126:	Photography 2: Black and White	3
Bus. 100:	Introduction to Business	3
Bus. 124:	Principles of Marketing	3
Bus. 125:	Small Business Management	3
Bus. 245:	Fundamentals of Advertising and Sales Promotion	3
Draft. 215:	Introduction to Computer Aided Drafting–Autocad	3

Heating, Ventilation, Air-Conditioning, & Refrigeration

General Description: This program is designed to prepare students for a career in the heating, ventilation, air conditioning and refrigeration industry. Toward this end, the comprehensive curriculum blends “leading-edge” HVACR theory with a large amount of practical “hands-on” experiences for the purpose of developing confident, professional HVACR technicians/installers. In addition, this program is ideal for existing technicians/installers who need a thorough review of HVACR fundamentals or experienced technicians/installers who would like a refresher course. This program has three primary areas of concentration: Residential Heating & Air Conditioning, Commercial Heating & Air Conditioning, and Refrigeration. Additionally, career-laddering certificates are offered in each of these areas.

Aptitudes: This field requires the ability to work well with others as well as the ability to work independently. The HVACR Technician will need to enjoy working with the public whether in a service or maintenance company or in a factory on the maintenance crew. The typical technician has a curious, analytical mind and enjoys problem solving. As technology continues to grow at an unprecedented rate, the trained technician will need to continue to learn once in the field.

Outlook: In today’s accelerating information-based economy, there is a high demand for people who have these skills. Job prospects for highly skilled heating, air-conditioning, and refrigeration mechanics and installers are expected to be very good, particularly for those with technical school or formal education training to install, remodel, and service new and existing systems. In addition to job openings created by employment growth, thousands of openings will result from the need to replace workers who transfer to other occupations or leave the labor force. The National Bureau of Labor Statistics suggest that the industry will grow somewhere between 10% and 20% by 2010. They also suggest that wages for HVACR mechanics/technicians range from \$9.71 to \$24.58 per hour. Mid-range salary for the State of Illinois is \$14.52 per hour.

Certificate—Commercial Heating, Ventilation, Air Conditioning (27 Credit Hours)		(ICCB Code: C 058B)
Required Courses:		Cr. Hrs.
HVAC 100:	Refrigeration Fundamentals	3
HVAC 102:	Refrigeration Applications	3

HVAC 106:	Tools & Piping (formerly HVAC 200)	3
HVAC 130:	Electricity Fundamentals	3
HVAC 132:	Control Applications (formerly HVAC 104)	3
HVAC 140:	Troubleshooting Air Conditioning Systems (formerly HVAC 105)	3
HVAC 230:	Motors & Controls	3
HVAC 250:	Commercial Air Conditioning	3
HVAC 252:	Commercial Heating Systems (formerly HVAC 221)	3

Certificate—Residential Heating, Ventilation, Air Conditioning**(27 Credit Hours)**

(ICCB Code: C 058C)

Required Courses:	Cr. Hrs.
HVAC 100: Refrigeration Fundamentals	3
HVAC 102: Refrigeration Applications	3
HVAC 106: Tools & Piping (formerly HVAC 200)	3
HVAC 130: Electricity Fundamentals	3
HVAC 132: Control Applications (formerly HVAC 104)	3
HVAC 140: Troubleshooting Air Conditioning Systems (formerly HVAC 105)	3
HVAC 230: Motors & Controls	3
HVAC 240: Residential Air Conditioning (formerly HVAC 210)	3
HVAC 242: Residential Heating Systems (formerly 220)	3

Certificate—Refrigeration**(30 Credit Hours)**

(ICCB Code: C 058D)

Required Courses:	Cr. Hrs.
HVAC 100: Refrigeration Fundamentals	3
HVAC 102: Refrigeration Applications	3
HVAC 106: Tools & Piping (formerly HVAC 200)	3
HVAC 130: Electricity Fundamentals	3
HVAC 132: Control Applications (formerly HVAC 104)	3
HVAC 140: Troubleshooting Air Conditioning Systems (formerly HVAC 105)	3
HVAC 202: Residential & Self-Contained Refrigeration	3
HVAC 204: Commercial Refrigeration	3
HVAC 206: Troubleshooting Refrigeration Systems (formerly HVAC 215)	3
HVAC 230: Motors & Controls	3

Associate in Applied Science - Heating, Ventilation, Air Conditioning & Refrigeration**(64 Credit Hours)**

(ICCB Code: AAS 058A)

Required Courses:	Cr. Hrs.
C.I.S. 110: Business Applications	3
Engl. 110: Communicating in the Workplace (or Engl 101*)	3
General Education Electives	6
6 hours selected from Communications, Humanities, Fine Arts, Math, Science or Social Science	
HVAC 100: Refrigeration Fundamentals	3
HVAC 102: Refrigeration Applications	3
HVAC 106: Tools & Piping (formerly HVAC 200)	3
HVAC 130: Electricity Fundamentals	3
HVAC 132: Control Applications (formerly HVAC 104)	3
HVAC 140: Troubleshooting Air Conditioning Systems (formerly HVAC 105)	3
HVAC 202: Residential & Self-contained Refrigeration	3
HVAC 204: Commercial Refrigeration	3
HVAC 206: Troubleshooting Refrigeration Systems (formerly HVAC 215)	3
HVAC 230: Motors & Controls	3
HVAC 240: Residential Air Conditioning (formerly HVAC 210)	3
HVAC 242: Residential Heating Systems (formerly HVAC 220)	3

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HVAC 250:	Commercial Air Conditioning	3
HVAC 252:	Commercial Heating Systems (formerly HVAC 221)	3
HVAC 290:	Work Experience & Seminar (or HVAC 295)	3
Math. 104:	Technical Mathematics	4
Spch. 120:	Business & Professional Speaking or Spch 101*	3
*If you wish to transfer to a 4-year institution, take this course.		

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. 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.*

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Advanced Certificate—Turf Grass Management
(47 Credit Hrs.)

(ICCB Code: AC 0116)

Required Courses:	Cr. Hrs.
Agric. 210: Introductory Soil Science	4
Agric. 290: Work Experience Practicum & Seminar	5
Chem. 100: Concepts of Chemistry	4
C.I.S. 110: Business Applications	3
Engl. 110: Communicating in the Workplace	3
Hort. 101: Turf Management	3
Hort. 103: Landscape Layout and Design	3
Hort. 104: Turf Management 2	3
Hort. 105: Turf Equipment Operation and Maintenance	3
Hort. 110: Nursery Management	3
Hort. 160: Building and Grounds Maintenance	3
Hort. 190: Plants and Society	4
O.T. 160: Office Accounting	3
P. Rel. 110: Supervisory Techniques and Personnel Development	3

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

(ICCB Code: AAS 0108)

Required Courses:	Cr. Hrs.
Agric. 290: Work Experience Practicum and Seminar	5
Bus. 110: Business Mathematics	3
Bus. 125: Small Business Management	3
Engl. 110: Communicating in the Workplace	3
Hort. 101: Turf Management	3
Hort. 102: Ornamental Plant Identification and Use	3
Hort. 103: Landscape Layout and Design	3
Hort. 110: Nursery Management	3
Hort. 130: Electrical Controls	3
Hort. 140: Plant Propagation	3

Hort. 150:	Greenhouse Management	3
Hort. 160:	Building and Grounds Maintenance	3
Hort. 170:	Plantscaping	3
Hort. 180:	Small Gas Engines	2
Hort. 190:	Plants and Society	4
Hort. 191:	Landscape Construction and Estimating	3
Electives		3

A.A.S. Group Requirements/Electives

The A.A.S. degree requires that 9 or more hours of courses numbered 100 or above be selected from areas of Communications, Mathematics, and/or Natural/Life/Physical Science, and Humanities and/or Social Science with at least 3 hours in each area. (See page 81.)

Phil. 100 should be considered as the Humanities elective.

Agric. 291 can be used as an elective.

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

Hospitality Management

General Description: This degree program offers an A.A.S. degree with two areas of concentration: Food Service or Lodging Management. Both pathways offer core courses in hospitality management. The Restaurant Management strand prepares students for career-track positions in the restaurant, catering, and institutional food service fields. Courses are offered in five areas: risk management, cost control and revenue management, human resources, marketing management, and operations management. The Lodging Management strand prepares students for career-track position in the hotel, motel, and resort field. Students receive specialized education in front office operations, housekeeping, computer systems, and security and loss prevention.

Aptitudes: A person should be energetic, enthusiastic, organized, hard working, and service-oriented and like to interact with the public.

Outlook: There is a great need for managers in restaurants and other related businesses.

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

Certificate—Hospitality Management Fundamentals

(15 Credit Hours)

(ICCB Code: C 012A)

Required Courses:

	Cr. Hrs.
C.I.S. 110: Business Applications	3
Engl 110: Communicating in the Workplace	3
HOSP. 100: Hospitality Fundamentals (formerly F.S.M. 100)	3
HOSP. 101: Hospitality Supervision	3
Spch. 120: Business & Professional Speaking (or Spch 101)	3

Certificate—Hospitality Operations Management

(13 Credit Hours)

(ICCB Code: C 012B)

Required Courses:

	Cr. Hrs.
HOSP. 102: Cost Management	4
HOSP. 103: Hospitality Law	3
HOSP. 104: Purchasing	3
HOSP. 106: Hospitality Marketing (formerly F.S.M. 106)	3

Certificate—Food Service Management

(18 Credit Hours)

(ICCB Code: C 012C)

Required Courses:

	Cr. Hrs.
HOSP. 200: Management by Menu	3
HOSP. 201: Professional Cooking (formerly F.S.M. 204)	2
HOSP. 202: Hospitality Nutrition (formerly F.S.M. 200)	3

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Certificate—Lodging Management	
(18 Credit Hours)	
(ICCB Code:012D)	
Required Courses:	Cr. Hrs.
HOSP. 210: Housekeeping Operations	3
HOSP. 211: Front Office Operations	3
HOSP. 212: Computer Systems	3
HOSP. 213: Security & Loss Prevention	3
HOSP. 214: Facilities Management	3
HOSP 290: Work Experience Practicum	3

The Hospitality Management Fundamentals, Hospitality Operations Management, and Food Service Management Certificates will qualify students for assistant manager jobs in the food service industry.

The Hospitality Management Fundamentals, Hospitality Operations Management, and Lodging Management Certificates will qualify students for assistant manager jobs in the lodging industry.

Associate in Applied Science Degree—Hospitality Management	
(62 Credit Hours)	
(ICCB Code: AAS 0121)	
Required Courses:	Cr. Hrs.
Acct. 100: Fundamentals of Accounting	3
Bus. 110: Business Mathematics	3
C.I.S. 110: Business Applications	3
Econ. 140: American Economy	3
Engl. 110: Communicating in the Workplace (or Engl 101)	3
HOSP. 100: Hospitality Fundamentals (formerly F.S.M. 100)	3
HOSP. 101: Hospitality Supervision (formerly F.S.M. 104)	3
HOSP. 102: Cost Management (formerly F.S.M. 102)	4
HOSP. 103: Hospitality Law	3
HOSP. 104: Purchasing	3
HOSP. 106: Hospitality Marketing (formerly F.S.M. 106)	3
HOSP. 110: Food Service Sanitation (formerly F.S.M. 110)	1
HOSP. 290: Work Experience Practicum	3
Spch. 120: Business & Professional Speaking (or Spch 101)	3
General Education Elective:	6
Choose one of the following concentrations to complete this A.A.S. degree:	
Food Service:	
HOSP. 200: Management by Menu (formerly F.S.M. 108)	3
HOSP. 201: Professional Cooking Fundamentals (formerly F.S.M. 204)	2
HOSP. 202: Hospitality Nutrition (formerly F.S.M. 200)	3
HOSP. 203: Bar & Beverage Management (formerly F.S.M. 206)	3
HOSP. 204: Food Service Presentation (formerly F.S.M. 208)	3
HOSP. 291: Professional Cooking Work Experience (formerly F.S.M. 291)	1

Lodging Management:	
HOSP. 210: Housekeeping Operations	3
HOSP. 211: Front Office Operations	3
HOSP. 212: Computer Systems	3
HOSP. 213: Security & Loss Prevention	3
HOSP. 214: Facilities Management (formerly F.S.M. 202)	3

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.

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Basic Certificate—AutoCad-Industrial Drafting (13 Credit Hours)

(ICCB Code: BC 0114)

Required Courses:	Cr. Hrs.
Draft. 101: Fundamentals of Drafting	4
Draft. 215: Introduction to Computer Aided Drafting—Microstation	3
Draft. 220: Intermediate Computer Aided Drafting	3
Draft. 230: Advanced Computer Aided Drafting	3

Advanced Certificate—Industrial Drafting (34 Credit Hours)

(ICCB Code: AC 0112)

Required Courses:	Cr. Hrs.
Draft. 101: Fundamentals of Drafting	4
Draft. 102: Industrial Drafting	4
Draft. 120: Technical Graphics	2
Draft. 210: Introduction to Computer Aided Drafting—Microstation	3
Draft. 215: Introduction to Computer Aided Drafting—AutoCad	3
Draft. 220: Intermediate Computer Aided Drafting	3
Draft. 295: Drafting Internship	3
Engr. 110: Engineering Graphics	3
Math. 117: Trigonometry (or Math. 104)	3
Directed Electives:	
(Select a minimum of 6 credit hours)	
Draft. 230: Advanced Computer Aided Drafting	3
Draft. 235: Advanced Solid Modeling (3-D)	3
Draft. 236: Introduction to Pro-Engineer	3
Draft. 240: Computer Aided Drafting—Piping Systems	3
Draft. 241: Computer Aided Drafting—Electronic	3
Draft. 242: Computer Aided Drafting—Architectural/Commercial	3
Draft. 243: Computer Aided Drafting—Structural Steel Detailing	3
Draft. 244: Computer Aided Drafting—Concrete Detailing	3
Draft. 245: Computer Aided Drafting—Architectural	3

Associate in Applied Science Degree—Industrial Drafting (63 Credit Hours)

(ICCB Code: AAS 0113)

Required Courses:	Cr. Hrs.
C.I.S. 145: Personal Computers for Technicians	3
Draft. 101: Fundamentals of Drafting	4
Draft. 102: Industrial Drafting	4
Draft. 110: Technical Design	3
Draft. 120: Technical Graphics	2
Draft. 130: Fundamentals of Tool Design Drafting	4
Draft. 210: Introduction to Computer Aided Drafting—Microstation	3
Draft. 215: Introduction to Computer Aided Drafting AutoCad	3
Draft. 220: Intermediate Computer Aided Drafting	3

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Draft. 230:	Advanced Computer Aided Drafting	3
Draft. 295:	Drafting Internship	3
Engl. 101:	Composition 1	3
Engl. 110:	Communicating in the Workplace	3
Engr. 110:	Engineering Graphics	3
I.T. 105:	Information Technology Systems	3
Math. 117:	Trigonometry (or Math. 104)	3
Phys. 101:	Introduction to Physics I	4
Spch. 101:	Principles of Speech	3
Directed Electives:		
(Select a minimum of 6 credit hours)		
Draft. 235:	Advanced Solid Modeling (3-D)	3
Draft. 236:	Introduction to Pro-Engineer	3
Draft. 240:	Computer Aided Drafting—Piping Systems	3
Draft. 241:	Computer Aided Drafting—Electronic	3
Draft. 242:	Computer Aided Drafting—Architectural/Commercial	3
Draft. 243:	Computer Aided Drafting—Structural Steel Detailing	3
Draft. 244:	Computer Aided Drafting—Concrete Detailing	3
Draft. 245:	Computer Aided Drafting—Architectural	3

A.A.S. Group Requirements/Electives

The A.A.S. degree requires that 3 more semester hours of courses numbered 100 or above be selected from areas of Communications, Mathematics and/or Natural/Life/Physical Science, and Humanities/Fine Arts and/or Social Science with at least 3 hours in Humanities and/or Social Science. (See page 81.)

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

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.

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

Associate in Applied Science Degree—Industrial Engineering Technology (63 Credit Hours)

(ICCB Code: AAS 0083)

Required Courses:	Cr. Hrs.
C.I.M. 100: Introduction to Computer Integrated Manufacturing (C.I.M.)	3
C.I.M. 102: CNC Programming	3
Draft. 101: Fundamentals of Drafting	4
Econ. 231: Macroeconomics	3
Econ. 232: Microeconomics	3
Engl. 110: Communicating in the Workplace	3
Engr. 110: Engineering Graphics	3
Ind. S. 100: Industrial Safety and Health	3
Mfg. 110: Basic Metallurgy	3

Mfg. 120:	Manufacturing Processes	3
Math. 116:	College Algebra	4
Math. 117:	Trigonometry	3
Math. 121:	Calculus and Analytic Geometry 1	5
Math. 141:	FORTTRAN for Science and Engineering	3
P. Rel. 100:	Human Relations	3
Phys. 101:	Introduction to Physics 1	4
Phys. 102:	Introduction to Physics 2	4
Prod. C. 130:	Inspection and Quality Control	3
Spch. 101:	Principles of Speech	3

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.

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

Basic Certificate—Industrial Maintenance (32 Credit Hours) (ICCB Code: BC 0057)

Required Courses:	Cr. Hrs.
Eltrn. 109: Industrial Controls	4
Eltrn. 110: Introduction to Electricity and Electronics	2
Eltrn. 111: Circuit Analysis	3
Mfg. 100: Print Reading for Industry	2
Math. 104: Technical Mathematics	4
Phys. 101: Introduction to Physics I	4
Weld. 101: Shielded Metal Arc Welding	4
Elective(s)	9
Electives must be chosen from the areas of	
Manufacturing Processes and Materials	Cr. Hrs.
Mfg. 110: Basic Metallurgy	3
Mfg. 120: Manufacturing Processes	3
Machine Tool Operation	
Mach. 101: Machine Tool Processes 1	3
Welding Processes	
Weld. 102: Shielded Metal Arc Welding, Advanced	4
Weld. 190: Maintenance Welding	1.5
Drafting	
Draft. 101: Fundamentals of Drafting	4
Draft. 102: Industrial Drafting	4
Ind. S. 100: Industrial Safety and Health	3
Electricity/Electronics	
Eltrn. 112: Electronic Devices and Circuits	5
Eltrn. 120: Fundamentals of Servicing	2
Mechanical Systems	
Mec. S. 101: Mechanical Power Transmission 1	4
Mec. S. 102: Mechanical Power Transmission 2	3
Mec. S. 112: Pneumatics and Hydraulics	3

Information Technology

General Description: The Information Technology A.A.S. program is designed to prepare students for employment in the growing Information Technology industry, either in an IT company or on an IT support team for a company in another industry. The IT A.A.S. program consists of directed three-tiered curricula, which provides all IT students with a common IT foundation of knowledge, followed by a specific concentration in one of five IT areas, and finally a capstone experience that puts into practice the IT knowledge gained throughout the program. The IT program includes five A.A.S. degrees:

- Programmer/Analyst
- eBusiness/eCommerce
- Network Technician
- Microcomputer Applications
- Network Administration

In addition to the 5 degrees offered in the IT program, students may earn certificates that recognize significant academic achievement and progress through the program, as well as preparation for external occupational/professional certifications. IT certificates include

- A+ Prep
- iNet+Prep
- Net+Prep
- Cisco CCNA
- eBiz+Prep
- MOUS (Microsoft Office User Specialist)
- Programming Specialist
- WebTech Specialist
- IT Plus
- Applications Specialist
- Network Hardware Specialist
- Network Administration Specialist

Aptitudes: To be successful in this program, and later as an IT professional, students will need to possess or be able to develop the ability to organize ideas and data; the ability to think logically, to analyze tasks and data, and design solutions; the ability to think conceptually but to work with details; the ability to be persistent, to face challenges and to overcome obstacles in the effort to find workable solutions; the ability to set priorities and meet deadlines; the ability to work individually and on teams, in group work settings, and over the Internet. Extremely important abilities include above-average mathematical, verbal/presentation, and writing skills; critical thinking skills; and interpersonal relation skills. Finally, note that to be successful in the Information Technology fields, one must be able to concentrate on detail and be tolerant of frustration and setbacks while striving for solutions.

Outlook: IT professionals remain high in demand in central Illinois as well as nationally. Areas of highest demand include multi-language applications programmers, applications software support specialists, hardware support technicians, web/eBusiness/eCommerce applications developers, and Internet & Intranet technicians and administrators.

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

Information Technology Certificate—A+ Prep (formerly Computer Service Technician Certificate) (12 Credit hours)		(ICCB Code)
Required Courses:		Cr. Hrs.
I.T. 115: Client Operating Systems (formerly C.I.S. 115)		3
I.T. 171: Microcomputer Hardware Services (formerly Eltrn. 171)		3
I.T. 172: Microcomputer Software Services (formerly Eltrn. 172)		3

I.T. 205: Tech Support/Help Desk

3

**Information Technology Certificate—Net+Prep
(18 Credit Hours)**

(ICCB Code:011C)

Required Courses:		Cr. Hrs.
I.T. 115:	Client Operating Systems (formerly C.I.S. 115)	3
I.T. 141:	Networking Fundamentals (formerly C.I.S. 141)	3
I.T. 142:	Routers (formerly C.I.S. 142)	3
I.T. 171:	Microcomputer Hardware Service (formerly Eltrn. 171)	3
I.T. 172:	Microcomputer Software Service (formerly Eltrn. 172)	3
I.T. 205:	Tech Support/Help Desk	3

**Information Technology Certificate—e-Biz+Prep
(24 Credit Hours)**

(ICCB Code: 011D)

Required Courses:		Cr. Hrs.
I.T. 115:	Client Operating Systems (formerly C.I.S. 115)	3
I.T. 141:	Networking Fundamentals (formerly C.I.S. 141)	3
I.T. 142:	Routers (formerly C.I.S. 142)	3
I.T. 171:	Microcomputer Hardware Service (formerly Eltrn. 171)	3
I.T. 172:	Microcomputer Software Service (formerly Eltrn. 172)	3
I.T. 181:	eBusiness Concepts	3
I.T. 205:	Tech Support/Help Desk	3
I.T. 281:	eCommerce Techniques	3

**Information Technology Certificate—i-Net+Prep
(30 Credit Hours)**

(ICCB Code: 011E)

Required Courses:		Cr. Hrs.
I.T. 115:	Client Operating Systems (formerly C.I.S. 115)	3
I.T. 141:	Networking Fundamentals (formerly C.I.S. 141)	3
I.T. 142:	Routers (formerly C.I.S. 142)	3
I.T. 143:	Switches (formerly C.I.S. 143)	3
I.T. 144:	Wide Area Networks (formerly C.I.S. 144)	3
I.T. 151:	The Internet & Web Applications (formerly C.I.S. 287)	3
I.T. 171:	Microcomputer Hardware Service (formerly Eltrn. 171)	3
I.T. 172:	Microcomputer Software Service (formerly Eltrn. 172)	3
I.T. 181:	eBusiness Concepts	3
I.T. 205:	Tech Support/Help Desk	3

Information Technology Certificate—Cisco (CCNA) Prep (formerly Computer Networking Certificate)**(12 Credit Hours)**

(ICCB Code: 011B)

Required Courses:		Cr. Hrs.
I.T. 141:	Networking Fundamentals (formerly C.I.S. 141)	3
I.T. 142:	Routers (formerly C.I.S. 142)	3
I.T. 143:	Switches (formerly C.I.S. 143)	3
I.T. 144:	Wide Area Networks (formerly C.I.S. 144)	3

**Information Technology Certificate—Microsoft Office User Specialist Prep
(15 Credit Hours)**

(ICCB Code: 011F)

Required Courses:		Cr. Hrs.
I.T. 120:	Spreadsheet Applications (formerly C.I.S. 120)	3
I.T. 130:	Word Processor Applications (formerly C.I.S. 130)	3
I.T. 210:	Graphics Applications (formerly C.I.S. 210)	3
I.T. 220:	Data Management Applications (formerly C.I.S. 221)	3
I.T. 230:	Business Productivity Applications	3

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Information Technology Certificate—Programming Specialist (42 Credit Hours)

(ICCB Code: 011G)

Required Courses:		Cr. Hrs.
C.I.S. 110:	Business Applications	3
I.T. 105:	Information Technology Systems (formerly C.I.S. 105)	3
I.T. 131:	Programming Logic (formerly C.I.S. 131/ I.T. 131)	3
I.T. 132:	Visual Basic Programming	3
I.T. 151:	The Internet & Web Applications (formerly C.I.S. 287)	3
I.T. 161:	COBOL Programming 1 (formerly C.I.S. 161)	3
I.T. 171:	Microcomputer Hardware Service	3
I.T. 183:	Client Side Scripting	3
I.T. 205:	Tech Support/Help Desk	3
I.T. 221:	Data Modeling (formerly C.I.S. 221)	3
I.T. 222:	Structured Query Language (formerly C.I.S. 222)	3
I.T. 232:	Advanced Visual Basic Programming	3
I.T. 251:	C++ Programming	3
I.T. 261:	Advanced COBOL Programming (formerly C.I.S. 162/163)	3
I.T. 281:	Java Programming	3

Information Technology Certificate—Applications Specialist (42 Credit Hours)

(ICCB Code: 011H)

Required Courses:		Cr. Hrs.
C.I.S. 110:	Business Applications	3
I.T. 105:	Information Technology Systems (formerly C.I.S. 105)	3
I.T. 115:	Client Operating Systems (formerly C.I.S. 115)	3
I.T. 120:	Spreadsheet Applications (formerly C.I.S. 120)	3
I.T. 130:	Word Processor Applications (formerly C.I.S. 130)	3
I.T. 131:	Programming Logic (formerly C.I.S. 131/I.T. 131)	3
I.T. 151:	Internet Fundamentals (formerly C.I.S. 287)	3
I.T. 152:	HTML Programming	3
I.T. 171:	Microcomputer Hardware Service	3
I.T. 182:	WebPage Design Applications	3
I.T. 205:	Tech Support/Help Desk	3
I.T. 210:	Graphics Applications (formerly C.I.S. 210)	3
I.T. 220:	Data Management Applications (formerly C.I.S. 221)	3
I.T. 230:	Business Productivity Applications	3

Information Technology Certificate—Web Technician (42 Credit Hours)

(ICCB Code: 011J)

Required Courses:		Cr. Hrs.
C.I.S. 110:	Business Applications	3
I.T. 105:	Information Technology Systems (formerly C.I.S. 105)	3
I.T. 131:	Programming Logic (formerly C.I.S. 131/I.T. 131)	3
I.T. 151:	Internet Fundamentals (formerly C.I.S. 287)	3
I.T. 152:	HTML Programming	3
I.T. 153:	Web Graphics & Design	3
I.T. 171:	Microcomputer Hardware Service	3
I.T. 181:	eBusiness Concepts	3
I.T. 252:	Web Authoring Tools	3
I.T. 275:	Web Administration & Security	3
I.T. 281:	JAVA Programming	3
I.T. 282:	Web Scripting	3
I.T. 283:	Active Server Pages	3
I.T. 284:	Perl & CGI	3

**Information Technology Certificate—Network Hardware Specialist
(42 Credit Hours)**

(ICCB Code: 011K)

Required Courses:	Cr. Hrs.
C.I.S. 110: Business Applications	3
I.T. 105: Information Technology Systems (formerly C.I.S. 105)	3
I.T. 115: Client Operating Systems (formerly C.I.S. 115)	3
I.T. 131: Programming Logic (formerly C.I.S. 131/I.T. 131)	3
I.T. 141: Networking Fundamentals (formerly C.I.S. 141)	3
I.T. 142: Routers (formerly C.I.S. 142)	3
I.T. 143: Switches (formerly C.I.S. 143)	3
I.T. 144: Wide Area Networks (formerly C.I.S. 144)	3
I.T. 151: The Internet & Web Applications (formerly C.I.S. 287)	3
I.T. 171: Microcomputer Hardware Services (formerly Eltrn. 171)	3
I.T. 172: Microcomputer Software Services (formerly Eltrn. 172)	3
I.T. 205: Tech Support/Help Desk	3
I.T. 245: Network Security	3
I.T. 271: NOS: Windows NT/2000/XP (formerly C.I.S. 245)	3

**Information Technology Certificate—Network Administration Specialist
(42 Credit Hours)**

(ICCB Code: 011L)

Required Courses:	Cr. Hrs.
C.I.S. 110: Business Applications	3
I.T. 105: Information Technology Systems (formerly C.I.S. 105)	3
I.T. 115: Client Operating Systems (formerly C.I.S. 115)	3
I.T. 131: Programming Logic (formerly C.I.S. 131/ I.T. 131)	3
I.T. 141: Networking Fundamentals (formerly C.I.S. 141)	3
I.T. 151: The Internet & Web Applications (formerly C.I.S. 287)	3
I.T. 171: Microcomputer Hardware Services (formerly Eltrn. 171)	3
I.T. 172: Microcomputer Software Services (formerly Eltrn. 172)	3
I.T. 205: Tech Support/Help Desk	3
I.T. 240: TCP/IP	3
I.T. 271: NOS: Windows NT/2000/XP (formerly C.I.S. 245)	3
I.T. 272: NOS: UNIX/LINUX	3
I.T. 273: Network Management Techniques	3
I.T. 274: Windows Network Administration	3

**Associate in Applied Science Degree—Information Technology -
Microcomputer Applications (formerly CIS Microcomputer Applications AAS degree)
(65 Credit Hours)**

(ICCB Code: AAS 0111)

General Description: The A.A.S. in IT-Microcomputer Applications degree is designed to prepare students for application software and microcomputer workstation technical support of end users, where expert direct knowledge in the use of microcomputer workstations and their associated applications software and peripheral hardware is critical to the success of the organization. Typical job titles include microcomputer application support specialist, help desk specialist, technical support specialist, hardware support technician, troubleshooter, systems support technician, systems maintenance technician, and IT consultant.

Aptitudes: In addition to the aptitudes listed under the IT program, the ability to develop solutions by using and integrating applications software implemented in GUI environment and to troubleshoot problems in hardware and software is required.

Required Courses:	Cr. Hrs.
C.I.S. 110: Business Applications	3
Engl. 110: Communicating in the Workplace (or Engl. 101*)	3
General Education Electives:	6
I.T. 105: Information Technology Systems (formerly C.I.S. 105)	3
I.T. 115: Client Operating Systems (formerly C.I.S. 115)	3
I.T. 120: Spreadsheet Applications (formerly C.I.S. 120)	3
I.T.130: Word Processor Applications (formerly C.I.S. 130)	3

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I.T. 131:	Programming Logic (formerly C.I.S. 131/ I.T. 131)	3
I.T. 151:	The Internet & Web Applications (formerly C.I.S. 287)	3
I.T. 152:	HTML Programming	3
I.T. 171:	Microcomputer Hardware Service(formerly Eltrn. 171)	3
I.T. 182:	WebPage Design Applications	3
I.T. 205:	Tech Support/Help Desk	3
I.T. 210:	Graphics Applications (formerly C.I.S. 210)	3
I.T. 220:	Data Management Applications (formerly CIS 221)	3
I.T. 230:	Business Productivity Applications	3
I.T. 285:	Systems Analysis & Design (formerly C.I.S. 285)	4
I.T. 290:	Work Experience Practicum & Seminar (formerly C.I.S. 290) (or I.T. 295)	3
Math. 104:	Technical Math	4
Spch. 120:	Business & Professional Speaking (or Spch. 101*)	3

*If you wish to transfer to a 4-year institution, take this course.

Associate in Applied Science Degree—Information Technology - eBusiness/eCommerce (65 Credit Hours) (ICCB Code: AAS 2077)

General Description: The A.A.S. in IT–eBusiness/eCommerce degree is designed to prepare students for developing web-based applications for organizations conducting business via the Internet or internal operations using an intranet. Typical job titles include web applications developer, website designer, web programmer, webmaster, web systems analyst, and web consultant.

Aptitudes: In addition to the aptitudes listed under the IT program, the ability to develop solutions by designing and developing client- and server-side applications using a growing number of web and multimedia tools is required.

Required Courses:	Cr. Hrs.
C.I.S. 110: Business Applications	3
Engl. 110: Communicating in the Workplace (or Engl. 101*)	3
General Education Electives:	6
I.T. 105: Information Technology Systems (formerly C.I.S. 105)	3
I.T. 131: Programming Logic (formerly C.I.S. 131/ I.T. 131)	3
I.T. 151: The Internet & Web Applications (formerly C.I.S. 287)	3
I.T. 152: HTML Programming	3
I.T. 153: Web Graphics & Design	3
I.T. 171: Microcomputer Hardware Service (formerly Eltrn. 171)	3
I.T. 181: e-Business Concepts	3
I.T. 252: Web Authoring Tools (formerly C.I.S. 250)	3
I.T. 275: Web Administration & Security	3
I.T. 281: JAVA Programming	3
I.T. 282: Web Scripting	3
I.T. 283: Active Server Pages	3
I.T. 284: Perl & CGI	3
I.T. 285: Systems Analysis & Design (formerly C.I.S. 285)	4
I.T. 290: Work Experience Practicum & Seminar (formerly C.I.S. 290) (or I.T. 295)	3
Math. 104: Technical Math	4
Spch. 120: Business & Professional Speaking (or Spch. 101*)	3

*If you wish to transfer to a 4-year institution, take this course.

Associate in Applied Science Degree—Information Technology - Network Administration (65 Credit Hours) (ICCB Code AAS 2075)

General Description: The A.A.S. in I.T.–Network Administration degree is designed to prepare students for designing, implementing, and administering networks in the business environment. This degree focuses primarily on the software configuration and management of networks, although some attention is given to network hardware components. Typical job titles include network designer, network analyst, network administrator, network manager, and network consultant.

Aptitudes: In addition to the aptitudes listed under the IT program, the ability to organize and integrate various system and network software suites and protocols for use in the distributed business environment is required.

Required Courses:	Cr. Hrs.
C.I.S. 110: Business Applications	3
Engl. 110: Communicating in the Workplace (or Engl. 101*)	3
General Education Electives:	6
I.T. 105: Information Technology Systems (formerly C.I.S. 105)	3
I.T. 115: Client Operating Systems (formerly C.I.S. 115)	3
I.T. 131: Programming Logic (formerly CIS 131/ I.T. 131)	3
I.T. 141: Networking Fundamentals (formerly C.I.S. 141)	3
I.T. 151: The Internet & Web Applications (formerly C.I.S. 287)	3
I.T. 171: Microcomputer Hardware Service (formerly Eltrn. 171)	3
I.T. 172: Microcomputer Software Service (formerly Eltrn. 172)	3
I.T. 205: Tech Support/Help Desk	3
I.T. 240: TCP/IP	3
I.T. 271: NOS: Windows NT/2000/XP (formerly C.I.S. 245)	3
I.T. 272: NOS: Unix/Linux	3
I.T. 273: Network Management Techniques	3
I.T. 285: Systems Analysis & Design (formerly C.I.S. 285)	4
I.T. 290: Work Experience Practicum & Seminar (formerly C.I.S. 290)(or I.T. 295)	3
Math. 104: Technical Math	4
Spch. 120: Business & Professional Speaking (or Spch. 101*)	3

*If you wish to transfer to a 4-year institution, take this course.

Associate in Applied Science Degree—Information Technology - Network Technician (65 Credit Hours) (ICCB Code: AAS 2076)

General Description: The A.A.S. in I.T.–Network Technician degree is designed to prepare students for designing, implementing, and maintaining physical networks in the business environment. This degree focuses primarily on the hardware configuration and management of networks, although some attention is given to network software components. Typical job titles include network technician, network troubleshooter, network designer, and network consultant.

Aptitudes: In addition to the aptitudes listed under the IT program, the ability to organize and integrate various system and network hardware components for use in the distributed business environment is required.

Required Courses:	Cr. Hrs.
C.I.S.110: Business Applications	3
Engl. 110: Communicating in the Workplace (or Engl. 101*)	3
General Education Electives:	6
I.T. 105: Information Technology Systems (formerly C.I.S. 105)	3
I.T. 115: Client Operating Systems (formerly C.I.S. 115)	3
I.T. 131: Programming Logic (formerly C.I.S. 131)	3
I.T. 141: Networking Fundamentals (formerly C.I.S. 141)	3
I.T. 142: Routers (formerly C.I.S. 142)	3
I.T. 143: Switches (formerly C.I.S. 143)	3
I.T. 144: Wide Area Networks (formerly C.I.S. 144)	3
I.T. 151: Internet Fundamentals (formerly C.I.S. 287)	3
I.T. 171: Microcomputer Hardware Service (formerly Eltrn. 171)	3
I.T. 172: Microcomputer Software Service (formerly Eltrn. 172)	3
I.T. 205: Tech Support/Help Desk	3
I.T. 245: Network Security	3
I.T. 271: NOS: Windows NT/2000/XP (formerly C.I.S. 245)	3
I.T. 285: Systems Analysis & Design (formerly C.I.S. 285)	4
I.T. 290: Work Experience Practicum & Seminar (or I.T. 295) (formerly C.I.S. 290)	3
Math. 104: Technical Math	4
Spch. 120: Business & Professional Speaking (or Spch. 101*)	3

*If you wish to transfer to a 4-year institution, take this course.

**Associate in Applied Science Degree—Information Technology–Programmer/Analyst
(formerly CIS Programming AAS degree)
(65 Credit Hours)**

(ICCB Code: AAS 0098)

General Description: The A.A.S. in I.T.–Programmer/Analyst degree is designed to prepare students for designing, writing, testing, debugging, and implementing software, according to user/customer specifications, in process-oriented, data-oriented, and object-oriented coding environments. Typical job titles include programmer, programmer/analyst, data modeler, database designer, and systems analyst.

Aptitudes: In addition to the aptitudes listed under the I.T. program, the ability to develop solutions using designated computer languages and integrated development environments.

Required Courses:	Cr. Hrs
C.I.S. 110: Business Applications	3
Engl. 110: Communicating in the Workplace (or Engl. 101*)	3
General Education Electives:	6
I.T. 105: Information Technology Systems (formerly C.I.S. 105)	3
I.T. 131: Programming Logic (formerly C.I.S. 131/ I.T. 131)	3
I.T. 151: Internet Fundamentals (formerly C.I.S. 287)	3
I.T. 161: COBOL Programming + (formerly C.I.S. 161)	3
I.T. 171: Microcomputer Hardware Service (formerly Eltrn. 171)	3
I.T. 205: Tech Support/Help Desk	3
I.T. 221: Data Modeling	3
I.T. 222: Structured Query Language (formerly C.I.S. 222)	3
I.T. 232: Advanced Visual Basic Programming	3
I.T. 251: C++ Programming (formerly C.I.S. 251)	3
I.T. 261: Advanced COBOL Programming (formerly C.I.S. 162/163)	3
I.T. 281: JAVA Programming	3
I.T. 285: Systems Analysis & Design (formerly C.I.S. 285)	4
I.T. 290: Work Experience Practicum & Seminar (or I.T. 295) (formerly C.I.S. 290)	3
Math. 104: Technical Math	4
Spch. 120: Business & Professional Speaking (or Spch. 101*)	3

*If you wish to transfer to a 4-year institution, take this course.

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	3
Mach. 102: Machine Tool Processes 2	3
Mfg. 100: Print Reading for Industry	2
Mfg. 120: Manufacturing Processes	3

Math. 104:	Technical Mathematics	4
Group Requirements/Elective(s)		3

†

Advanced Certificate (44 Credit Hours) (ICCB Code: AC 0022)

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

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 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.

Management/Leadership (See page 88)

Marketing (See page 88)

Materials Management (See page 88)

Mechanical Technology

General Description: This program is designed to provide training for students working in the manufacturing skilled trades areas commonly described as millwright, machine repairman, general maintenance, and pipefitter. Mechanical technology workers perform a wide variety of jobs in keeping the specialized equipment of industry in operating condition by lubricating, welding, changing parts, diagnosing malfunctions, and maintaining and overhauling the machinery and equipment necessary to the operation of a particular plant. The work is done in sites such as factories, public buildings, or hospitals.

Aptitudes: Mechanical technology workers should be organized and dependable and work well as part of a team. They also need good math, science, and communication skills, have the ability to solve problems, use logic, and like working with computers and electronics.

Outlook: There is currently a shortage of qualified employees in this industry.

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

Associate in Applied Science Degree—Mechanical Technology (70 Credit Hours) (ICCB Code: AAS 0120)

Required Courses:	Cr. Hrs.
C.I.S. 110: Business Applications	3
C.I.M. 100: Introduction to Computer Integrated Manufacturing	3
Eltn. 109: Industrial Controls	4

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Eltrn. 110:	Introduction to Electricity and Electronics	2
Engl. 101:	Composition 1	3
Ind. S. 100:	Industrial Safety and Health	3
Mach. 101:	Machine Tool Processes 1	3
Mach. 102:	Machine Tool Processes 2	3
Mfg. 100:	Print Reading for Industry	2
Mfg. 120:	Manufacturing Processes	3
Math. 104:	Technical Mathematics	4
Mec. S. 101:	Mechanical Power Transmission 1	4
Mec. S. 102:	Mechanical Power Transmission 2	3
Mec. S. 112:	Pneumatics and Hydraulics	3
Mec. S. 201:	Industrial Machine Repair	2
Mec. S. 210:	Industrial Pump Systems	2
Mec. S. 220:	Industrial Lubrication Systems	2
Mec. S. 230:	Industrial Rigging Systems	2
Mec. S. 240:	Industrial Piping Systems	2
Mec. S. 250:	Advanced Hydraulics	3
Mec. S. 290:	Mechanical Technology Internship	4
P. Rel. 100:	Human Relations	3
Phys. 101:	Introduction to Physics I	4
Weld. 195:	Welding Fundamentals for Millwrights	3

Nursing

Nurse Assistant

General Description: The Nurse Assistant program prepares students to provide basic nursing skills for patients and meets the requirements of the Illinois Department of Public Health Certified Nurse Assistant Certificate. The nurse assistant, under the direct supervision of a licensed nurse, functions as a member of the health care team in a long-term care facility, hospital, clinic, or home health care setting. Theory and practical application of basic nursing skills, nurse assistant ethical and legal issues, observation, reporting of patient signs and symptoms, Alzheimer’s Disease and related dementia training, and emergency and safety skills are presented. Upon successful completion of the theory, laboratory, and clinical sections, the student is eligible for the Illinois Nurse Aide Competency Evaluation Program. When the student passes the Competency Testing and meets the Health Care Worker Background Check Act - Public Act #89-197 criteria, the student is eligible for placement on the State of Illinois Nurse Aide Registry.

Aptitude: The nurse assistant must be a caring individual who is dependable, a good communicator, and a positive team member. The nurse assistant must be willing to care for a variety of patients.

Outlook: The outlook for certified nurse assistants is excellent. As the number of health care facilities and home health agencies increases and as the population ages, the demand for nurse assistants will rise.

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

Certificate—Nurse Assistant (7 Credit Hours)	(ICCB Code: BC 0053)
Required Course:	Cr. Hrs.
Hlth. 141: Nurse Assistant Training	7

Practical Nursing Program (See p. 124)

Registered Nursing Program

General Description: The Associate Degree Nursing (ADN) program at Richland Community College is accredited by the National League for Nursing Accrediting Commission and approved by the Illinois Department of Professional Regulation. The program is designed to prepare competent, caring, and critically thinking graduates to provide safe nursing care to clients in a variety of health care settings. The program is a combination of nursing and selected general education courses. The nursing courses consist of classroom, laboratory, and clinical experiences providing care to clients in local health care agencies. Upon satisfactory completion of the program, students will receive an Associate of Applied Science Degree and be eligible to write for the National Council for Licensure Examination Registered Nurse (NCLEX-RN). Graduates who pass the examination must apply to the Department of Professional Regulation for licensure as a Registered Nurse (RN).

Aptitude: Nursing is a demanding, challenging, and satisfying profession. It requires clinical expertise, academic knowledge, critical thinking skills, physical stamina, and personal integrity. Individuals preparing to enter nursing must be caring, self-disciplined, and committed to nursing as a goal and must have good time management and study skills.

Outlook: Nursing remains the largest single health profession in the U.S. Nursing offers a life-long career with many learning and employment opportunities. The current and future need for nurses will be in acute care, long-term care, and community health care agencies. The current salary for beginning registered nurses in the Richland District ranges from \$13 to \$14 per hour. Starting salaries average \$30,000-\$34,000 per year, depending on location.

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

Admission:

Admission to Richland Community College does not guarantee admission to the nursing program. The applicant must meet or exceed all admission requirements to be considered for admission to the nursing program. Admission of out-of-district students will be considered when space is available.

Applications to Richland's nursing program are available by attending Nursing Orientation. Information regarding orientation can be obtained from the Health Professions division in S162, Ext. 450. The deadlines for submitting applications of admission are October 1st for Spring '04 and March 1st for Fall '05. Applicants completing ALL admission requirements by the deadline are considered first. Students meeting the admission criteria after the deadline will be considered if space is available. Final selection is based on the most qualified applicants in the RCC District. Out-of-district applicants will be admitted only if the class has not been filled and all qualified in-district applicants have been accepted. Students are informed by letter of the action taken on their application. A new ADN class may begin in the Fall and Spring semesters of each year depending on adequate faculty & enrollment.

Admission Requirements:

Applicants must:

1. Apply to and be admitted to Richland Community College – Student Services, Room C129, Ext. 254.
2. Submit any high school and/or college transcripts or G.E.D. certificates to the Registrar.
3. Apply for financial aid – Financial Aid, Room C129, Ext. 271/274.
4. Take English and Reading Comprehension Placement Tests in Room W124 or submit ACT scores with English and Reading scores of 19 or higher (Determines eligibility for English 101).
5. Take the Math Placement Test in W124 to be eligible for Math 106. (Determines eligibility for Math and some Science classes).
6. Be one of the following:
 - a. High School Senior
 - b. High School Graduate
 - c. G.E.D. Graduate
7. Meet ONE criteria in each of the following areas:
 - a. Academic Background

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- (1) For graduates of high school, a cumulative high school GPA of 2.5 or better on a 4.0 scale and an ACT composite of 21 and a science reasoning score of 20. Applicants must also have completed 3 years of English, 3 years of mathematics (including Algebra I and II and Geometry), and 3 years of science (including Chemistry and Biology) all with a "C" or better or
- (2) A 2.5 GPA in 15 semester hours of approved college courses (list of approved courses includes Engl. 101, Biol. 201, 202, 220, Math. 106, Psych. 110, 145, Socio. 110, Hlth. 220, and a Humanities/Fine Arts elective) and
 - a. Chemistry
 - (1) High school chemistry with a "C" or better taken within the past 5 years or
 - (2) College equivalent (Chem. 100 or above) with a "C" or better taken within the past five years and
 - b. Biology
 - (1) Completion of Biol. 101 with a "C" or better. Biology 101 or the last Biology taken of Biol. 101, 201, 202, 220 must have been taken within the last 5 years and
 - c. Computer Literacy
 - (1) Complete C.I.S 110, the equivalent, or the proficiency test with a "C" or better.
8. For admission to the program, progression and graduation, a student must earn a grade of "C" or better in each program prerequisite and each program course and have a Program GPA of 2.5.
9. Program GPA is defined as all prerequisite courses, all general education courses and all course curriculum. See Academic Information and Regulation section of the RCC College Catalog for directions to calculate GPA.
10. Students with a pattern of repeating courses after earning a "W" or grade less than a "C" in more than 2 prerequisite and program courses may be admitted on a probationary status.

Student selection is determined by:

- a. Grade point average (GPA), and
- b. A biology GPA of 2.0 or better

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.

Applicants who meet or exceed the minimum admission requirements and are not admitted because of lack of space shall be placed on a list for alternate admission. If an opening becomes available, students on the alternate list will be called based on their placement on the selection list. If an applicant is not admitted as an alternate for the current admission, they will be offered a position in the next available class. If the student does not accept the position offered, a new application must be submitted.

Official college transcript(s) for previous college work (high school and college records from other institutions and Richland Community College academic records from earlier admissions 5 or more years ago) may be excluded from the evaluation by submitting a written request to the Dean, Health Professions. Students who make this request must have completed 15 semester hours in the approved college courses within the past 5 years. The GPA from these courses will replace the ones that were excluded.

Upon Completion:

Students are admitted to the program conditionally and must (a) return the acceptance form to the Dean, Health Professions, (b) have a personal interview (nursing advisor will contact you), (c) submit a completed Richland Health Physical and provide proof of valid immunizations and/or immunity to certain diseases, (d) submit a valid BLS Healthcare Provider (CPR) card, and (e) attend P. Dev. 109 to enter the Nursing Program. Students who do not complete the above requirements will forfeit their space in the program.

Proficiency Examinations:

Nursing students may take a proficiency examination for C.I.S. 110, Math. 106, and/or Nurs. 154 with the approval of the Dean of the respective Divisions. Students who took science courses more than five years ago may take a proficiency examination with the approval of the Dean of the respective Divisions and after completing eight semester hours of credit at Richland. Students can refer to the

Richland Community College Catalog, page 19, for information on the fee for the proficiency examinations.

Licensure Examination:

Upon successful completion of all requirements for the Associate of Applied Science Degree by the graduation date, students will then be eligible to write the National Council of State Boards of Nursing Examination for Registered Nurses (NCLEX-RN). After successfully passing this examination, the graduate can apply for a state license to practice in Illinois as a Registered Nurse. Graduating from this program does not guarantee that the graduate will become a Registered Nurse. As required by the Illinois Nursing and Advanced Practice Nursing Act, the licensing process includes a criminal background check. If there are questions about the licensure exam or the background check, students should contact the Illinois Department of Professional Regulation at 312/814-4500.

Associate in Applied Science Degree—Nursing (70 Credit Hours)

(ICCB Code: AAS 0050)

Required Courses:	Cr. Hrs.
Biol. 201: Human Anatomy & Physiology 1	4
Biol. 202: Human Anatomy & Physiology 2	4
Biol. 220: Microbiology	4
Engl. 101: Composition 1	3
Hlth. 220: Nutrition and Diet Therapy	3
Humanities/Fine Arts (Elective)	3
Math 106: Mathematics for Health Careers	2
Nurs. 101: Concepts Basic to Nursing Practice	2
Nurs. 102: Fundamentals of Nursing	6
Nurs. 151: Medical-Surgical Nursing I	4
Nurs. 152: Psychiatric Mental Health Nursing	4
Nurs. 154: Pharmacological Principles for Nursing Practice	2
Nurs. 201: Medical-Surgical Nursing II	5
Nurs. 202: Family Health Nursing	5
Nurs. 251: Long-Term/Acute Care Nursing	4
Nurs. 254: Transition from Education to Practice	5
P. Dev. 109: How to Market Yourself	1
Psych. 110: Introduction to Psychology	3
Psych. 145: Human Growth and Development	3
Socio. 110: Introduction to Sociology	3

Admission of Transfer Nursing Students: In consideration of application from students from other nationally accredited nursing programs to RCC Nursing Division, the following policies/procedures are required:

1. Transfer students must complete the same admission process as other candidates applying for admission.
2. No Nursing courses with a grade below "C" will be accepted in transfer.
3. To receive credit transfer of Nursing courses, all Nursing course syllabi must be submitted to the Director of Nursing for review.
4. No more than the first year Nursing courses will be transferred to maintain the integrity of the RCC Nursing Curriculum. (Nurs. 101, Nurs. 102, Nurs. 151, and Nurs. 152 or Nurs. 202)
5. Each student will be evaluated on an individual basis to determine placement within the program. Availability of clinical space may also impact the entry decision.
6. Students must attend orientation with their faculty advisor with discussion of philosophy, mission, purpose and objectives of the program. An educational program on universal precautions and health records must be completed before entry into clinical.
7. Graduation requirements as stated in the College Catalog must be met before graduation.

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Advanced Placement Program for LPN's: Graduates of a State-approved Licensed Practical Nursing Program who have a license or are eligible for licensure in the State of Illinois can be placed into the third semester of the ADN Program by meeting admission requirements and passing the Bridge course (Nurs. 203) with a grade of "C" or better.

Requirements for application to Nurs. 203:

Students must

1. Have applied and been admitted to Richland Community College.
2. Be a graduate of a State-approved LPN Program.
3. Hold a license or eligible for licensure in the state of Illinois.
4. Have completed the following courses with a "C" or better and a GPA of 2.5.
C.I.S. 110
Biol. 101, 201, 202 (The last course taken must be completed within the past 5 years.)
Chem. 100 or High School Chemistry (Must be completed within the past 5 years.)
Psych. 110, 145
Hlth. 220 (Nutrition)
Math. 106
Nurs. 154 (Pharmacology)
5. Complete 2 letters of reference from an employer, supervisor, director or faculty who is in a position to validate your performance; in addition, students graduating more than five years ago must complete a skill test and return demo of identified nursing skills.
6. GPA of 2.5 in all prerequisite and other courses required for admission, progression, and graduation from the program.
7. Students with a pattern of repeating courses after earning a "W" or less than a "C" in greater than 2 prerequisite and program courses may be admitted on probationary status.

Once the above requirements are met, the LPN is eligible to take Nurs. 203 offered in the summer with adequate enrollment. Once Nurs. 203 is successfully completed with a "C" or better and the appropriate fees have been paid, credit is awarded for Nursing 101, Nurs. 102, Nurs. 151, Nurs. 202. The plan allows students to complete the ADN program in 3 semesters.

Applications for the Bridge Program are available by attending a Nursing Orientation session. Information regarding nursing orientation is available in the Health Profession Division, Room S162, or Ext. 450.

Applicants must meet the minimum requirements to be considered for admission to the program. The decision of the Dean, Health Professions is final in the determination of applicants who are admitted to the program.

Admission of out-of-district students will be considered when space is available; an additional fee applies to these students.

Office Technology

General Description: The Office Technology Instructional Area consists of an A.A.S. Degree in Office Technology with a specialization in either medical, legal, or word processing/administrative assistant. Students wishing to earn the Office Technology A.A.S. Degree must complete the core courses, 14 credit hours of specialization electives, and 9 credit hours selected from group requirements. A one-year Certificate in Office Technology is also available. This program is designed to develop an efficient, valuable administrative assistant.

Aptitudes: Successful employees in the office technology area should be detail oriented, be highly organized, and have the ability to work with a minimum of supervision. A high tolerance for ambiguity, patience, and the flexibility to deal with change are desirable.

Outlook: This is a very large occupational area in Illinois that is expected to have many job openings each year. Prospects are best for those with training in several software applications. *These are occupational training programs. Some of the courses may not transfer to four-year institutions.*

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

(ICC Code: AAS 0044)

Core Courses:	Cr. Hrs.
Bus. 110: Business Mathematics	3
Bus. 119: Business English	3
Bus. 120: Business Communications	3
General Education Electives	9
O.T. 112: Document Formatting/Word Processing	3
O.T. 115: Operating Systems & Applications (formerly O.T.102/104/105)	3
O.T. 150: Records Management	3
O.T. 170: Professional Office Procedures (formerly O.T. 250)	3
O.T. 290: Work Experience Practicum & Seminar (or O.T. 295)	3
P. Rel. 100: Human Relations	3
Spch. 120: Business and Professional Speaking (or Spch. 101)	3
Minimum typing speed of 50 NWAM for five minutes with five or fewer errors.	
A.A.S. Specializations Electives - select 21 semester hours from list below:	
Word Processing/Administrative Assistant	
Acct. 101: Principles of Accounting 1	4
Acct. 102: Principles of Accounting 2	4
O.T. 100: Keyboarding Speed and Accuracy	1.5
O.T. 160: Office Accounting	3
O.T. 200: Speedwriting (formerly O.T. 131)	3
O.T. 205: Voicing & Transcription	3
O.T. 210: Statistical Keyboard Entry	2
O.T. 211: Advanced Word Processing	3
O.T. 212: Desktop Publishing Application	3
O.T. 220: QuickBooks Pro Fundamentals	3
O.T. 225: Peachtree Fundamentals	3
O.T. 260: Payroll Records and Procedures	3
O.T. 272: Web Page Development	3
Medical	
O.T. 140: Medical Terminology (formerly O.T. 141)	3
O.T. 141: Medical Office /Anatomy (formerly O.T. 142)	3
O.T. 142: Medical Transcription 1 (formerly O.T. 242)	3
O.T. 143: ICD-9 Coding (formerly O.T. 246)	3
O.T. 160: Office Accounting	3
O.T. 205: Voicing & Transcription	3
O.T. 210: Statistical Keyboard Entry	3
O.T. 211: Advanced Word Processing	3
O.T. 212: Desktop Publishing Application	3
O.T. 240: Pharmacology Terminology	3
O.T. 242: Medical Transcription 2 (formerly O.T. 243)	3
O.T. 243: CPT Coding (formerly O.T. 245)	3
O.T. 245: Insurance/Patient Billing	3
Legal	
Bus. 231: Business Law 1	3
O.T. 100: Keyboarding Speed and Accuracy	1.5
O.T. 160: Office Accounting	3
O.T. 170: Professional Office Procedures (formerly O.T. 250)	3
O.T. 200: Speedwriting (formerly O.T. 131)	3
O.T. 205: Voicing & Transcription	3
O.T. 210: Statistical Keyboard Entry	3
O.T. 211: Advanced Word Processing	3
O.T. 212: Desktop Publishing Application	3
O.T. 230: Legal Terminology and Documents	3
O.T. 232: Legal Research	3
O.T. 272: Web Page Development	3

A.A.S. Group Requirements/Electives

The A.A.S. degree requires 9 semester hours selected from the areas of Communications, Humanities/Fine Arts, Social Science, Mathematics/Natural/Life/Physical Science. (See page 81.)

Pharmacy Technician

General Description: Pharmacy technicians perform a variety of duties under the supervision of licensed pharmacists. They may prepare and distribute medications under the direct supervision of a pharmacist. They also perform technical and clerical duties in the operation of the pharmacy. Pharmacy technicians must be aware of the necessity for aseptic technique, cleanliness, orderliness, and accuracy in the work areas. Pharmacy technicians must be registered by the Illinois Department of Professional Regulation. National certification, by examination, is available from the Pharmacy Technician Certification Board.

Aptitude: Students who desire to become a pharmacy technician must like to work with details and in a scientific or laboratory-type setting. They must be able to perform pharmaceutical mathematic procedures involving weights, measurements, and conversions. They must also be computer literate and possess keyboarding skills.

Outlook: Job opportunities are available in community-based retail pharmacies, hospitals, home health agencies, mail order companies, compounding pharmacies, nuclear pharmacies, and natural pharmacies and with pharmaceutical companies.

**Basic Certificate – Pharmacy Technician
(18 Credit Hours)**

(ICCB Code: 2074)

Required Courses:	Cr. Hrs.
Hlth. 150: Pharmacology	4
Hlth. 155: The Pharmacy Technician	6
Hlth. 156: Work Experience Practicum	2
Hlth. 157: Pharmacy Technician Certification Review	1
Math. 106: Mathematics for Health Careers	2
C.I.S. 110: Business Applications for Microcomputers	3

Practical Nursing Program

General Description: The Practical Nursing Program at RCC is approved by the Illinois Department of Professional Regulation and prepares entry-level students to provide nursing care to clients with normal and common health problems through the use of basic skills under the direction of a registered nurse or licensed physician. The program consists of classroom instruction, laboratory, and clinical experiences in hospitals, nursing homes, and community health settings. Upon successful completion of the program, the graduate will receive a certificate in Practical Nursing from Richland Community College. The graduate will then be eligible to write the National Council of State Boards of Nursing Examination for Practical Nurses (NCLEX-PN). After successfully passing this examination, the graduate can apply for licensure as a practical nurse. As required by the Illinois Nursing & Advanced Practice Nursing Act, the licensing process includes a criminal background check. In addition, the curriculum is structured so that the practical nurse graduate may choose courses that will allow for continued study in Richland Community College's Associate Degree Nursing program.

Aptitude: Nursing is a demanding, challenging, and satisfying profession. It requires clinical expertise, academic knowledge, critical thinking skills, physical stamina, and personal integrity. Individuals preparing to enter nursing must be caring, self-disciplined, and committed to nursing as a goal and must have good time management and study skills.

Outlook: Nursing remains the largest single health profession in the U.S. Nursing offers a life-long career with many learning and employment opportunities. The current and future need for nurses will be in acute care, long-term care, and community health care agencies. The current salary for beginning registered nurses in the Richland District ranges from \$10 to \$12 per hour. Starting salaries average \$20,800-\$24,960 per year, depending on location.

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

The Practical Nursing Program is a selective admissions process. To qualify for application the applicant must

1. Be accepted to Richland Community College.
2. Have a high school diploma or G.E.D. certificate.
3. Complete placement testing and/or place in English 101 and Math 106.
4. Complete the Nelson-Denny Reading Level at Grade 12 for full admission.
5. Complete Biology 101 or an equivalent course or successful completion of Biology 101 proficiency exam with a "C" or better. Biol. 101 or the last Biology taken in the sequence of Biol. 101, 201, 202 must be within the last 5 years.
6. Complete Psychology 110 with a grade of "C" or above (a prerequisite for Psych. 145).
7. Hold a current BLS (Basic Life Support) Healthcare Provider CPR card.
8. Have at least a "C" in all prerequisite and other courses required by the Program.
9. Have a GPA of 2.5 in all prerequisite and other courses required by the Program.
10. For admission to the Program, progression and graduation, a student must earn a **grade** of "C" or better in each program prerequisite and each program course **and** have a GPA of 2.5. Program GPA is defined as all prerequisite courses, all general education courses and all program curriculum.
11. Students with a pattern of repeating courses after earning a "W" or less than a "C" in greater than 2 prerequisite and program courses may be admitted on probationary status.

Admission to Richland Community College:

Admission to the Practical Nursing Program is a two-step process. First, the student must apply for admission to Richland Community College. Second, once admitted to Richland Community College, the student must attend Nursing Orientation and complete an application to the Practical Nursing Program. Information regarding the orientation can be obtained from the Health Professions Division in Room S162, Ext. 450. Admission to RCC does not guarantee admission to the Practical Nursing Program. Admission of out-of-district students will be considered when space is available.

Admission to RCC Practical Nursing Program:

1. Once you have been admitted to RCC, obtain and submit an application for admission to the Practical Nursing Program after attending the Nursing orientation.
2. Applications are accepted from Fall to March 1 of the spring semester. Applications are accepted during the semester in which students have or will have completed the admission requirements listed above.
3. Student notification of admission in May.
4. Prior to beginning classes students will be required to
 - a. Return the acceptance form.
 - b. Submit a completed Richland Health Record and provide proof of valid immunizations and/or immunity to certain diseases.
 - c. Submit a current BLS Healthcare Provider CPR card.

Acceptance is conditional and students will not be permitted to begin classes without completing the acceptance form, all required health records, and a current BLS card.

Student Selection is determined by:

- a. Program grade point average (GPA), and
- b. A biology GPA of 2.0 or better

Priority will be given to students who have completed five or more of the required general education course and have completed at least three biology courses. The last science course must have been completed within the past five years.

Applicants who meet or exceed the minimum admission requirements and are not admitted because of lack of space shall be placed on a list for alternate admission. If an opening becomes available, students on the alternate list will be called based on their placement on the selection list. If an applicant is not admitted as an alternate for the current admission, a new application must be submitted.

Official college transcript(s) for previous college work (high school and college records) from other institutions and Richland Community College academic records from earlier admissions (5 or

more years ago) may be excluded from the evaluation by submitting a written request to the Dean, Health Professions. Students who make this request must have completed 15 semester hours in the approved college courses within the past 5 years. The GPA from these courses will replace the ones that were excluded.

Licensure Examination:

Upon successful completion of all requirements for the Practical Nurse Certificate by the graduation date, students must apply to take the National Council for Licensure Examination-Practical Nurse (NCLEX-PN). After successfully passing this examination, the graduate must then apply for a state license to practice in Illinois as Practical Nurse. Graduating from this program does not guarantee that the graduate will become a Practice Nurse.

If there are questions about the Licensure Examination, students should contact the Illinois Department of Professional Regulation before program completion. The address is:

State of Illinois
Department of Professional Regulations
320 W. Washington
Springfield, IL 62786
312-814-4500

Certificate—Practical Nursing (48 Credit Hours)		(ICCB Code: 050A)
Required Courses:		Cr. Hrs.
Biol. 201:	Human Anatomy & Physiology 1	4
Biol. 202:	Human Anatomy & Physiology 2	4
Ed. 101:	Introduction to the Community of Health Careers	3
Engl. 101:	Composition 1	3
Hlth. 220:	Nutrition and Diet Therapy	3
*Math. 106:	Math for Health Careers	2
*Nurs. 154:	Pharmacological Principles for Nursing	2
Psych. 145:	Human Lifespan Development	3
PN 101:	Fundamental Concepts and Skills	8
PN 102:	Care of the Family (OB/Peds.)	4
PN 103:	Adult Nursing I (Med/Surg)	6
PN 104:	Adult Nursing II (Med/Surg/Psych)	5
PN 113:	PN Transition/Licensure Preparation	1
Total Program Hours		48 credits
*Proficiency Testing Available		

Admission of Transfer Practical Nursing Students

In consideration of application from students from other nursing programs to RCC Nursing Division, the following policies/procedures are required:

1. Transfer students must complete the same admission process as other candidates applying for admission.
2. No courses with a grade below "C" will be accepted in transfer.
3. To receive credit transfer of Practical Nursing 101, course syllabi must be submitted to the Dean of Health Professions for review.
4. No more than the first Practical Nursing course (PN 101) will be transferred to maintain the integrity of the RCC Practical Nursing Curriculum. Students must validate skill proficiency for credit to be awarded for PN 101.
5. Each student will be evaluated on an individual basis to determine placement within the program. Availability of clinical space may also impact the entry decision.
6. Students must attend orientation with their faculty advisor with discussion of philosophy, mission, purpose and objectives of the program. An educational program on universal precautions and health records must be completed before entry into clinical.
7. Graduation requirements as stated in the College catalog must be met before graduation.

Radiologic Technology

General Description: The Radiologic Technology (Radiography) program prepares students to use x-ray equipment to produce images of the tissue, organs, bones, and vessels of the body. The physician then uses the radiographs to evaluate a patient in order to administer a high standard of patient care. Radiographers must have a thorough understanding of anatomy, positioning, radiographic exposure, patient care, and radiation protection. Additional duties may include processing film, evaluating radiologic equipment, managing a radiographic quality assurance program, and providing relevant patient education.

Aptitudes: Radiography is a challenging and rewarding profession. It requires a warm and compassionate manner, pleasant personality, ability to work with others, accurate work habits, patience, and an interest in science and computer-assisted medical technology. The ability to follow instructions, work in emergency situations, accurately complete procedures, and maintain safety standards is essential. Physical strength to lift equipment and patients, manual dexterity to manipulate instruments, and audio, visual, and verbal skills to observe and communicate with patients are absolutely necessary.

Outlook: A radiographer may be employed by hospitals, clinics, medical laboratories, physician's offices, and government agencies. X-ray equipment manufacturers and educational facilities may also offer employment. In Illinois and nationally, employment is expected to grow much faster than average through 2012. Contributing to this growth is the increased use of x-ray equipment, expansion of medical plans, and the use of radiation therapy. Nationally, radiographers receive salaries in a range from \$26,000 to \$52,000 per year.

Admission:

Admission to the Radiologic Technology program is by application. Admission to Richland Community College does not guarantee admission to the Radiologic Technology program. Out-of-district students will be considered for the program when space is available.

The Radiologic Technology program takes two full years to complete after a student has been accepted and begins the program. The program begins in the summer and consists of six semesters.

For admission to the Radiologic Technology Program, progression within the program, and graduation from the program, students must earn a grade of "C" or better in the program prerequisite(s), general education courses required by the program, and all RADT courses. Students must also maintain a program GPA of 2.5 or above on a 4.0 grading scale.

Program GPA is calculated based on the following:

1. Prerequisite(s) to the program.
2. All general education courses required by the program.
3. All core course (RADT courses).

Admission Requirements:

Applicants must:

1. Be **one** of the following:
 - a.) High school graduate,
 - b.) G.E.D. graduate
2. Submit the following:
 - a.) Application for Admission to Richland Community College,
 - b.) Official high school transcript or G.E.D. certificate,
 - c.) Official college transcript from other college(s) for previous college work if it is to be considered for the program.
3. Meet **one** of the following:
 - a.) High school or G.E.D. Certificate, and an ACT composite score of 21 or above, with science reasoning score of 20 or above, and no section score below 15 or IDNS Limited License.
 - b.) Cumulative college GPA of 2.5 or above, on a scale of 4.0, in the General Education courses that apply to the program (Biol. 101, Biol. 201, Biol. 202, Engl. 101, and Psych. 110).
Transcripts must show evidence that a grade of "C" or above has been earned in each course.

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4. Complete the College placement examinations as follows:
 - a.) English (eligible for Engl. 101)
 - b.) Math. (level equivalent to Math. 098) (Applicant must show evidence of one year of high school geometry or RCC Math 095 Geometry)
5. Present high school or college course requirements in the following academic areas:
 - a.) Three years of high school English or complete RCC Engl. 101 or equivalent.
 - b.) One year of high school algebra and one year of high school geometry, or complete RCC Math. 091 and/or Math 095 or their equivalents.
 - c.) Two years of high school science (biology, chemistry, of physics) or complete RCC Biol. 101.
All high school and college courses must show a grade of "C" or above in the courses that apply to the program.

Note: High school and college academic records from earlier admissions (five or more years ago) may be excluded from the evaluation by submitting a written request to the Program Director.

6. The last sequence of biology courses must have been completed within the past five years.
7. Submit a worksheet for Admission to Radiologic Technology Program between October 1 and December 15. Worksheet submitted must be verified by Program Director.
8. Present evidence that program prerequisites have been completed with an earned grade of "C" or above.

Admission Process

1. Radiologic Technology worksheet must be completed and verified before receiving an application packet. Student will be notified of dates and times of meetings where applications are distributed. Students must attend one session.
2. Complete and return admission packet by February 1. Incomplete application will not be considered for admission.
3. Students who are conditionally admitted into the program must
 - a.) Return the acceptance form by deadline date.
 - b.) Submit a completed Richland Community College Health Record form and show proof of immunizations and/or immunity to certain diseases.
 - c.) Submit a current BLS Health Care Provider CPR certification.
 - d.) Spend eight hours observing in the radiology department of an approved observation site.
 - e.) Attend a **mandatory** day of orientation to the program.
4. The conditionally admitted student will be fully accepted into the program when all requirements have been fulfilled.

Proficiency Examinations:

Radiography students may take a proficiency examination for Hlth. 140, Biol. 101, 201, 202, C.I.S. 110, Engl. 101, Math 095, and Psych. 110 with the approval of the Dean of the respective Divisions. Students who took science courses more than five years ago may take a proficiency examination with the approval of the Dean of the respective Divisions and after completing eight semester hours of credit at Richland. Students must meet the standards of the particular division to earn credit by proficiency. Students can refer to the Richland Community College Catalog for information on the fee for proficiency.

Associate in Applied Science Degree—Radiologic Technology (72 Credit Hours)

(ICCB Code: 050B)

Program Prerequisites: Hlth. 140-Medical Terminology, C.I.S. 110-Business Applications for Microcomputers, eligibility for Math 098-Intermediate Algebra, and English 101.

Required General Education Courses:		Cr. Hrs.
Biol.101:	Concepts of Biology 1	4
Biol.201:	Human Anatomy and Physiology 1	4
Biol.202:	Human Anatomy and Physiology 2	4
Engl. 101:	Composition I	3
Psych. 110:	Introduction to Psychology	3
Required Radiologic Technology Courses:		
Rad.T. 101:	Introduction to Radiography	3
Rad.T. 102:	Radiologic Patient Care	3
Rad.T. 108:	Radiographic Procedures I	3
Rad.T. 110:	Principles of Radiography I	3
Rad.T. 115:	Radiography Clinical I	3
Rad.T. 116:	Radiation Physics	3
Rad.T. 118:	Radiographic Procedures II	3
Rad.T. 120:	Principles of Radiography II	3
Rad.T. 125:	Radiography Clinical II	3
Rad.T. 126:	Imaging Equipment	3
Rad.T. 128:	Radiographic Procedures III	3
Rad.T. 150:	Radiography Clinical III	3.5
Rad.T. 215:	Radiography Clinical IV	4
Rad.T. 218:	Radiographic Procedures IV	3
Rad.T. 219:	Radiation Protection & Radiobiology	2
Rad.T. 225:	Radiography Clinical V	4
Rad.T. 228:	Radiographic Image Analysis	1.5
Rad.T. 230:	Radiography Seminar	3

Student Transfer From Another RT Program:

Any student wishing to transfer into the program must apply for College admission and program admission. Transfer credits will be evaluated and transfer of credit will occur through College policy. Such transfer shall be subject to the availability of an appropriate clinical placement, student admission procedures, and Program Director approval.

Certification:

After successful completion of all didactic and clinical competency requirements, students are eligible to seek certification from the American Registry of Radiologic Technologists (ARRT) in Minneapolis, Minnesota. In addition to the educational standards, students must meet and agree to comply with the organization's ethical and character standards before sitting for the certification exam.

Students wishing to practice within Illinois must also seek accreditation from the Illinois Department of Nuclear Safety in Springfield, Illinois.

Degree Completion Program for R.T.(R) (ARRT):

Registered radiographers may be eligible for an associate's degree completion program if they meet the following:

1. Have five years experience in radiography
2. Hold a current ARRT registration AND IDNS license
3. Be graduated from an accredited hospital-based or certificate radiography program
4. Apply for admission to Richland Community College
5. Submit transcripts from radiography program and any colleges attended to Richland Community College Student Records

If all of the above criteria are satisfied, students may apply for transfer credit without examination by completing the following:

1. Applying for degree completion to the Radiologic Technology Program Director

2. Completing a minimum of fifteen RCC credit hours in general education courses with a grade of "C" or better with a 2.5 GPA or above.
3. Completing all requirements for the associate's degree chosen.
4. Submitting an Application for Graduation

Transfer credit for all core radiography courses is awarded when all of the above are satisfied. Transfer credit is not included in computing the student's GPA at Richland.

Surgical Technology

General Description: The Surgical Technology Certificate/Degree program is accredited by the Commission of Accreditation of Allied Health Education Programs (CAAHEP). The Surgical Technology program prepares students to assist with patient care and related services in delivery rooms, surgery centers, and other settings that call for knowledge of asepsis by performing tasks that help to ensure safe surgical procedures. Some of those tasks include preparing all supplies, instruments, and equipment for operative procedures; passing instruments to the surgeon; and understanding aseptic technique. The program provides classroom instruction, laboratory, and clinical experiences. Upon successful completion of the program, the graduate will receive a Certificate/Degree of Completion and become a Certified Surgical Technologist (CST) upon passing the National Certification Examination.

Aptitude: Surgical Technology is a demanding, challenging, and satisfying profession. It requires clinical expertise, academic knowledge, thinking skills, physical stamina, and personal integrity. Students must be physically and mentally capable of lifting supplies and instrument trays, moving heavy equipment, and lifting and moving patients. The student must possess adequate visual, hearing, and verbal communication skills.

Outlook: The Surgical Technology profession is expected to grow faster than the average to the year 2006. The current salary for new graduates ranges from \$10-\$12 per hour. With successful completion of the certification examination, the salary may increase. In addition, several health care providers may offer sign-on bonuses and/or educational incentives.

Note: The program maintains selective admissions. Prerequisites include a cumulative program GPA of 2.5 and a minimum grade of "C" in each course. In addition, students need to be eligible for Biol. 220 (or its equivalent) to enter these programs.

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

Admission:

Applications to Richland's Regional Surgical Technology Program are due by March 1. Late applications will be accepted until class is filled. Students will be informed by letter of the action taken on their application by April 15. A new Surgical Technology class will begin fall semester of each year.

Admission to Richland Community College does not guarantee admission to the Surgical Technology program. The applicant must meet or exceed the minimum requirements to be considered for admission to the Surgical Technology program.

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

Admission Requirements:

Applicants must

1. Be one of the following:
 - a. High school senior
 - b. High school graduate
 - c. G.E.D. graduate
2. Meet criterion in each of the following areas:
 - a. Academic Background
 - (1) A 2.5 or better cumulative program GPA in college and/or high school courses.

- b. Biology
 - (1) Be eligible for Biol. 220 (Microbiology) during the program's first semester.
 - (2) High school students who graduate in the current year may take Biol. 101 in the junior or senior year of high school, as permitted by the College policy.
- c. Revised PSB-Health Occupations Aptitude Test
 - (1) Pass test with a combined score of 50% or above.

Admission Process:

1. Send the following to the College Admissions Office:
 - a. Completed Application for Admission to Richland Community College.
 - b. Copy of high school transcript or G.E.D. certificate.
 - c. Official college transcript(s) for previous college work (High school and college records) from other institutions and Richland Community College academic records from earlier admissions (5 or more years ago) may be excluded from the evaluation by submitting a written request to the Surgical Technology Director.)
2. Submit an "Application for Admission to Surgical Technology" by March 1. Applications submitted after March 1 may be considered. Applications are available in Room S162.
3. Student selection is determined by
 - a. Successful completion of admission requirements.
 - b. High school grade point average (GPA), and/or cumulative program GPA.

Students may be conditionally accepted until admission criteria are completed. Priority will be given to students who have completed the required general education courses. Biol. 201, 202, and 220 must have been completed within the past five years. (Exceptions must be approved by the program director.)

Applicants who meet or exceed the minimum admission requirements and are not admitted because of lack of space shall be placed on a list for alternate admission. If a slot becomes available, students on the alternate list will be called based on their placement on the selection list. If an applicant is not admitted as an alternate for the current year, their admission application materials will be kept for one academic year. After one year, a new application form must be submitted. Consideration will be given to these applicants, but no guarantee of admission can be made.

Upon Acceptance:

Students who are admitted to the program must (a) return the acceptance form to the Health Professions office or Surgical Technology Director, (b) arrange a personal interview with the Surgical Technology Director, (c) submit to the Assistant to the Dean of Health Professions a completed Richland Health Record and proof of valid immunizations and/or immunity to certain diseases, (d) submit a valid BLS Healthcare Provider cardio-pulmonary resuscitation (CPR) card.

Certification Examination:

Upon successful completion of the program, students will receive a Certificate/Degree of Completion. Graduates are then eligible to apply and take the National Certifying Examination given by the Liaison Council on Certification (LCC). After successfully passing this examination, the graduate becomes a Certified Surgical Technologist (CST).

Proficiency Examinations:

Surgical Technology students may take a proficiency examination for Hlth. 140, Biol. 101, 201, 202, and 220, Engl. 101, and Psych. 110 with the approval of the Dean of the respective divisions. Students who took science courses more than five years ago may take a proficiency examination with the approval of the Dean of the respective divisions and after completing eight semester hours of credit at Richland. Students must meet the standards of the particular division to earn credit by proficiency. Students can refer to the Richland Community College Catalog for information on the fee for proficiency examinations.

Certificate—Surgical Technology (48 Credit Hours) (ICCB Code: 0055)

Prerequisite Course:		Cr. Hrs.
Biol. 220:	Microbiology	4
Required Courses:		Cr. Hrs.
Biol. 201:	Human Anatomy & Physiology 1	4
Biol. 202:	Human Anatomy & Physiology 2	4
Hlth. 140:	Medical Terminology	3
Surg. T. 100:	Surgical Technology Orientation	2
Surg. T. 101:	Surgical Technology I	6
Surg. T. 102:	Surgical Technology II	7
Surg. T. 201:	Surgical Technology III	13
Surg. T. 202:	Work Experience Practicum	9

Associate in Applied Science Degree (61-62 Credit Hours) (ICCB Code: 0056)

Required Courses:		Cr. Hrs.
Biol. 201:	Human Anatomy & Physiology 1	4
Biol. 202:	Human Anatomy & Physiology 2	4
Biol. 220:	Microbiology	4
Engl. 101:	Composition 1	3
Psych. 110:	Introduction to Psychology	3
Hlth. 140:	Medical Terminology	3
Surg. T. 100:	Orientation to Surgical Technology	2
Surg. T. 101:	Surgical Technology I	6
Surg. T. 102:	Surgical Technology II	7
Surg. T. 201:	Surgical Technology III	13
Surg. T. 202:	Work Experience Practicum	9
Electives (RCC Biol. 101 may be used)		3

Teacher Assistant (Pending ICCB Approval)

General Description: The Teacher Assistant program is designed to prepare individuals to assist a teacher in the regular classroom setting or in providing instruction and supervision to special student populations, such as bilingual/bicultural students, special education students, adult learners, and students learning English. The program will include regulations regarding teacher assistant responsibilities in general classroom supervision, discipline and behavior management, tutorial techniques, and carrying out related tasks. It is designed to satisfy state requirements for teacher assistants and to meet the skills required to assist teachers in the classroom.

Aptitudes: Teacher assistants should enjoy working with children from a wide range of cultural backgrounds and be able to handle classroom situations with fairness and patience. Teacher assistants also must demonstrate initiative and a willingness to follow a teacher's directions. They must have good writing skills and be able to communicate effectively with students and teachers. Teacher assistants who speak a second language, especially Spanish, are in great demand to communicate with growing numbers of students and parents whose primary language is not English.

Outlook: Employment of teacher assistants is expected to grow faster than average occupations through 2010, with a projected increase of 21 to 35%. Many school districts report shortages of teachers.

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

Basic Certificate—Teacher Assistant (32 Credit Hours) (ICCB Code: Pending)

Required Courses:		Cr. Hrs.
ED. 100:	Introduction to Public Education	3
ED. 102:	Field Experience in Education	2
ED. 105:	Using Technology in the Classroom I	3
ED. 107:	Art for Elementary School Teachers	3
ED. 108:	The Multicultural Classroom	3
ED. 220:	The Exceptional Child	3

Engl. 101: Composition I	3
Hlth. 125: Health and Lifestyles of the Adolescent	3
Psych. 110: Introduction to Psychology	3
Psych. 150: Child Psychology	3
Spch. 101: Principles of Speech	3
CC&E 111: Creative Activities–Children's Literature	3

Transportation

General Description: The CDL Truck Driver (Tractor/Trailer) Training program is designed for individuals with little or no commercial driving experience. The program consists of a course that includes the Commercial Driver's License learner's permit and endorsement preparation, regulations, log books, map reading, trip planning, and complete vehicle training to prepare the individual for an entry-level position in the trucking industry. The program can be completed in four weeks by attending full time during the day, Monday through Friday. The part-time program can be completed in a maximum of eight weeks and is offered during the evening, Monday through Friday. Thirty (30) hours of home study are required during the program. Full-time programs start every month. Students may register at any time.

Aptitudes: Truckers should enjoy working outdoors, need average manual dexterity, good eye-hand coordination, possess mechanical abilities, the ability to meet deadlines, and good work ethic. Good eyesight and physical condition are also needed.

Outlook: The trucking industry has a significant number of job openings in Central Illinois. There is a serious to moderate shortage of qualified truck drivers nationwide.

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

Basic Certificate—Transportation (7 Credit Hours)

(ICCB Code: BC 0123)

Required Courses:

Cr. Hrs.

C.D.L. 1000: Tractor/Trailer Driver Training	7
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Welding

General Description: Welding is designed to provide skill development in currently-used welding processes including flat and position welding. Additional skill development may be obtained in brazing, soldering, cutting layout, and fabrication techniques. The program prepares students for certification by ASME and AWS structural code tests. The student should develop sufficient skill to pass both the pressure and structural code tests established by the ASME standards. Welders work indoors and outdoors, often welding in awkward positions. Major employers are metal shops, construction and mining industry, and machine shops.

Aptitudes: Welders need average manual dexterity and eye-hand coordination, good physical condition and eyesight, and good math aptitude.

Outlook: Average employment growth is projected in Illinois. Most openings will result from the need to replace experienced workers who leave the labor force.

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

Basic Certificate—Welding* (30 Credit Hours)

(ICCB Code: BC 0030)

Required Courses:

Cr. Hrs.

Draft. 101: Fundamentals of Drafting	4
Math. 104: Technical Mathematics	4
Weld. 100: Oxy-Acetylene and Plasma Arc Cutting	1.5
Weld. 101: Shielded Metal Arc Welding	4
Weld. 102: Shielded Metal Arc Welding, Advanced	4
Weld. 190: Maintenance Welding	1.5
Weld. 201: Gas Metal Arc and Flux Core Arc Welding	2

Weld. 202:	Welder Certification	2
Weld. 204:	Pipe Welding	4
Weld. 205:	Gas Tungsten Arc Welding	3

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

†

Guarantee for Technical Competency

Any student earning an Associate in Applied Science degree or certificate 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 Student and 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.

Instructional Programs - General



General Programs

Associate in Liberal Studies

This degree is designed for students who desire up to two years of college study for personal development. The curriculum is also designed to provide students an opportunity to try various areas of interest and then choose a specific educational objective, such as a particular occupational program or baccalaureate-oriented associate's degree.

Both baccalaureate-oriented and occupational courses may be taken as a part of this program but must be numbered 100 or above.

1. Group Requirements: Credits
 - a. Communications Skills
 - b. Humanities/Fine Arts
 - c. Social Science
 - d. Natural/Life/Physical Science and Mathematics
2. General Electives, which may include occupational-oriented courses.
3. Constitution requirement (See Page 58.)
4. Total credits required in courses numbered 100 or above (Students transferring credit to Richland should see regulations concerning transfer students.)
5. Cumulative Grade Point Average — 2.00 ("C") or better for all work applicable toward the degree that was pursued at the College (See Page 55.)

Basic Certificate Programs

The full range of courses offered by the College is applicable to the first seven basic certificate programs. Students may develop programs that will meet their specific interests or needs.

The Basic Certificate in Personal Development is meant to serve those students who want to enroll in occupational, baccalaureate-oriented, or liberal studies programs but who need additional preparation to meet their goals. Therefore, this program is more structured than the other seven basic certificate general studies programs.

Basic Certificate in Community and Civic Development

The program is meant to serve those who have an interest in improving their understanding of community and civic affairs. Persons with such an interest in community and civic activities may enroll in this program even if

they do not intend to receive a Certificate.

We recommend that interested individuals plan their programs with a counselor.

Graduation requirements for this Certificate are completion of

1. Sixteen semester hours of course work that complements the individual's other life experiences so as to broaden his or her perspective in community and civic activities. (Students transferring credit to Richland should see regulations under Admissions, Page 18.)
2. Constitution requirement. (See Page 58.)
3. Cumulative Grade Point Average — 2.00 ("C") or better for courses numbered 080 or above and a grade of "CR" for courses numbered 079 or below that are pursued at the College and are applicable to this certificate. (See Page 55.)

Basic Certificate in Developmental, Preparatory, or Basic Skills

The program is meant to serve those who want to develop or strengthen their abilities in the basic study skills areas, such as reading, writing, or arithmetic, which are important to daily living and/or further study. This program allows them to develop or strengthen these general skills in a less formalized program structure than is 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 58.)
3. Cumulative Grade Point Average — 2.00 "C" or better for courses numbered 080 or above and a grade of "CR" for courses numbered 079 or below that are pursued at the College and are applicable to this certificate. (See Page 55.)

Basic Certificate in Health, Safety, and Environment

The program is meant to serve those who have an interest in improving their understanding of matters relating to health, safety, and environment (ecology). Persons with an interest in those fields may enroll in this program even if they do not intend to receive a certificate.

We recommend that interested individuals plan their program with a counselor.

Graduation requirements for this Certificate are completion of

1. Sixteen semester hours of course work that complements the individual's other life experiences so as to broaden his/her perspective concerning health, safety, and environment. (Students transferring credit to Richland should see regulations under Admissions, Pages 18.)
2. Constitution requirement. (See Page 58.)
3. Cumulative Grade Point Average — 2.00 ("C") or better for courses numbered 080 or above and a grade of "CR" for courses numbered 079 or below that are pursued at the College and are applicable to this certificate. (See Page 55.)

Basic Certificate in Homemaking

The program is meant to serve those who have an interest in developing or improving their homemaking capabilities. Persons with an interest in this area may enroll in the program even if they do not intend to receive a certificate.

We recommend that interested individuals plan their program with a counselor.

Graduation requirements for this Certificate are completion of

1. Sixteen semester hours of course work that complements the individual's other life experiences so as to develop or strengthen general study skills. (Students transferring credit to Richland should see regulations under Admissions, Page 18.)
2. Constitution requirement. (See Page 58.)
3. Cumulative Grade Point Average — 2.00 ("C") or better for courses numbered 080 or above and a grade of "CR" for courses numbered 079 or below that are pursued at the College and are applicable to this certificate. (See Page 55.)

Basic Certificate in Improving Family Circumstances

The program is meant to serve those who have an interest in improving family life. Such an interest could range from the development of skills useful in the home to the development of psychological and/or sociological understanding. Persons with an interest in this area may enroll in the program even if they do not intend to receive a certificate.

We recommend that interested individuals plan their program with a counselor.

Graduation requirements for this Certificate are completion of

1. Sixteen semester hours of course work that complements the individual's other life experiences so as to broaden his/her perspective to improve family life. (Students transferring credit to Richland should see regulations under Admissions, Page 18.)
2. Constitution requirement. (See Page 58.)
3. Cumulative Grade Point Average — 2.00 ("C") or better for courses numbered 080 or above and a grade of "CR" for courses numbered 079 or below that are pursued at the College and are applicable to this certificate. (See Page 55.)

Basic Certificate in Intellectual and Cultural Studies

The program is meant to serve those who have an interest in pursuing studies for their own intellectual and/or cultural development.

Richland recognizes that many persons enroll for the purpose of studying in areas not previously pursued even though they may have earned one or more college degrees. Other persons may have developed their occupational skills primarily through employment experiences and now desire to take advantage of the opportunity for intellectual and/or cultural development. Such study is for personal enrichment rather than for the purpose of development of occupational competence or the pursuit of a baccalaureate-oriented curriculum.

Those interested in pursuing work for such a purpose may enroll in this program even if they do not intend to receive a certificate.

We recommend that interested individuals plan their program with a counselor.

Graduation requirements for this certificate are completion of

1. Sixteen semester hours of course work that complements the individual's other life experiences and broadens his/her intellectual and/or cultural understandings. (Students transferring credit to Richland should see regulations under Admissions, Page 18.)
2. Constitution requirement. (See Page 58.)
3. Cumulative Grade Point Average — 2.00 ("C") or better for courses numbered 080 or above and a grade of "CR" for courses numbered 079 or below that are pursued at the College and are applicable to this certificate. (See Page 55.)

Basic Certificate in Personal Development

The program is meant to serve those who want to complete courses in preparation for advanced study but who need additional preparation to meet that goal.

If, after consulting with a counselor, it is decided that the student needs additional preparatory courses, the student and counselor will design a course of study under this program. This is called a contract.

Persons with an interest in this area may enroll in the program even if they do not intend to receive a certificate.

Those interested in this program should make an appointment early with a counselor.

Graduation requirements for this certificate are completion of

1. Group Requirements:
 - a. Communications Skills — 4 to 6 semester hours; and
 - b. One course in at least two of three areas: Humanities/Fine Arts, Social Science or Natural/Life/Physical Science, and Mathematics — 4 to 6 semester hours. (See Page 81.)
2. Total credits required — 16 semester hours including requirements in Item 1 above plus general electives. (Students transferring credits to Richland should see regulations under Admissions, Page 18.)
3. Constitution requirement. (See Page 58.)

4. Cumulative Grade Point Average — 2.00 ("C") or better for work applicable to the certificate that was taken at the College. (In the event that a course numbered 079 or below is recommended by the counselor as part of the program, a grade of "CR" would be required for such a course and a 2.00 GPA 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:

Communications, Education, Humanities, and Fine Arts Division

Dean - Room C162

(African American Studies, Art, Child Care & Education, Drama, Education, English, French, German, Humanities, Journalism, Music, Philosophy, Spanish, Speech.)

Health Professions Division

Dean - Room S162

(Allied Health, Practical Nursing, Radiologic Technology, Registered Nursing, Surgical Technology)

Math and Sciences Division

Dean - Room S119

(Anthropology, Biology, Chemistry, Criminal Justice, Earth Science, Economics, Fire Science, History, Mathematics, Physical Education, Physics, Physical Science, Political Science, Psychology, Social Science, Sociology).

Business and Technology Division

Dean - Room C218

(Agriculture, Automotive, Business, Accounting, Computer Integrated Manufacturing, Drafting, Electronics, Engineering, Hospitality Management, Horticulture, H.V.A.C., Industrial Engineering/Technology, Information Technology, Manufacturing, Materials Management, Office Technology, Welding)

Retention Services

Dean - Room C129

(Career Development, Personal Development)

Applicability of Course to Program

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

Any course numbered 100 or above is applicable to one or more but not all Associate Degree curricula and one or more but not all certificate programs depending upon the nature of the curriculum or program. Courses numbered 099 or under may be applicable to selected Basic Certificate programs.

Also, several programs require some study of courses that satisfy certain Group Requirements, subdivided into Communications, Humanities/Fine Arts, Social Science, and Mathematics and Natural/Life/Physical Science. Occupational-oriented Associate Degree curricula require some study through Group Requirement areas, which are subdivided into Communications, Humanities and/or Business, Social Science, and Mathematics and/or Natural Science.

Following each course description is information showing the certificate or degree, the Group Requirement, and the Program Area of Concentration to which the course is applicable toward RCC graduation. The degrees are abbreviated: A.A.S. - Associate in Applied Science; A.E.S. - Associate in Engineering Science; A.L.S. - Associate in Liberal Studies; A.A. - Associate in Arts; A.S. - Associate in Science, and A.F.A. - Associate in Fine Arts.

Course Titles, Hours, and Credit

Course titles include (1) the general area of instruction for the course, which is called the course "Prefix" (for example: Acct., Math., Hist.); (2) the course number; (3) the descriptive course title (for example: Principles of Accounting 1, College Algebra, United States to 1877); and (4) the number of hours a class normally meets a week and the number of semester credit hours granted (for example: 1-4-3 would indicate 1 hour of lecture/discussion per week and 4 hours of laboratory per week for 3 semester hours of credit.)

Key to Course Descriptions

Below is an example of a Course Description that will serve as a Key to those descriptions that follow on pages 128-243.

Course No. Course Title

Acct. 100 - Fundamentals of Accounting

Lecture
Lab
Credit Hrs.
3 - 0 - 3

Accounting

- Acct. 100 - Fundamentals of Accounting** **3-0-3**
 is designed to promote success in Acct. 101 with an emphasis on the financial statements, accounting cycle, special journals and ledgers, adjustments, accounts receivable and accounts payable, bank reconciliation, inventories, and depreciation. This course is recommended for non-business majors and small business managers. Students cannot receive credit toward graduation for both this course and O.T. 160.
 Applicable toward graduation where program structure permits:
 Certificate or Degree - All Certificates, A.A.S.
 Group Requirement - Business (A.A.S. only)
 Area of Concentration - Not Applicable
- Acct. 101 - Principles of Accounting 1** **4-0-4**
 serves as the introduction to financial accounting, including basic theory and practice as it applies to the accounting cycle and the communication of results through financial statements.
 Applicable toward graduation where program structure permits:
 Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.
 Group Requirement - Business (A.A.S. only)
 Area of Concentration - Accounting, Business, Computer Information Systems
- Acct. 102 - Principles of Accounting 2** **4-0-4**
(Prerequisite: Acct. 101) serves as the introduction to accounting theory and practice for corporation, financial statement analysis, cost accounting, budgeting, and managerial accounting topics.
 Applicable toward graduation where program structure permits:
 Certificate or Degree - All Certificates, A.A.S., A.L.S., A.A., A.S.
 Group Requirement - Business (A.A.S. only)
 Area of Concentration - Accounting, Business, Computer Information Systems
- Acct. 130 - Tax Accounting** **3-0-3**
 serves as an introduction to the basic concepts and procedures of federal and state income tax as they pertain to the individual taxpayer and the small business enterprise under the latest amendments to the Internal Revenue Code.
 Applicable toward graduation where program structure permits:
 Certificate or Degree - All Certificates, A.A.S., A.L.S.
 Group Requirement - Business (A.A.S. only)
 Area of Concentration - Not Applicable
- Acct. 201 - Intermediate Accounting 1** **4-0-4**
(Prerequisite: Acct. 102) examines accounting concepts, principles, and theory with an emphasis on the special problems that arise in applying these concepts for external reporting purposes - specifically covering the income statement, balance sheet, and all asset topics.
 Applicable toward graduation where program structure permits:
 Certificate or Degree - All Certificates, A.A.S., A.L.S.
 Group Requirement - Business (A.A.S. only)
 Area of Concentration - Not Applicable
- Acct. 202 - Intermediate Accounting 2** **4-0-4**
(Prerequisite: Acct. 201) examines accounting concepts, principles, and theory with an emphasis on the special problems that arise in applying these concepts for external reporting purposes - specifically covering liabilities, corporation, taxation, and financial statement analysis topics.
 Applicable toward graduation where program structure permits:
 Certificate or Degree - All Certificates, A.A.S., A.L.S.
 Group Requirement - Business (A.A.S. only)
 Area of Concentration - Not Applicable
- Acct. 211 - Managerial Cost Accounting 1** **3-0-3**
(Prerequisite: Acct. 102) emphasizes the managerial uses of cost accounting information for business decision-making. Topics include analysis of three elements of cost: material, labor, and overhead. Job order, standard, and process cost will be covered.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

African-American Studies

Af. Am. 101 - The African-American Experience 1 (IAI: HF 906D) 4-0-4

surveys African-American heritage from its African roots through the beginning of the civil rights movement (1954) and critically examines literature and other products of African-American culture.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities, Fine Arts

Area of Concentration - African-American Studies

Af. Am. 102 - The African-American Experience 2 4-0-4

surveys African-American history from 1954 to the present; examines the prose, poetry, and drama of African-American authors of the period; and traces African-American music from ragtime through rock and soul to the present.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities, Fine Arts

Area of Concentration - African-American Studies

Af. Am. 103 - African-American Experience Through the Arts (IAI: HF 906D) 3-0-3

presents a critical, aesthetic, and historical introduction to African-American music, drama, and visual arts as ethnic tradition and as part of the American cultural experience.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities, Fine Arts

Area of Concentration - African-American Studies

Af. Am. 104 - African-American Experience Through Literature (IAI: H3 910D) 3-0-3

presents a critical and cultural introduction to African-American poetry and prose as ethnic tradition and as part of the American literary experience.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - African-American Studies

Agriculture

Agric. 102 - Soil Management 2-2-3

covers the nature and properties of soils including origin, formation, and biological, chemical, and physical aspects. Basic principles of soil dynamics, texture, structure, moisture, organic matter, and soil reaction to fertilizers are considered. Emphasis is placed on soil types in Illinois and appropriate conservation practices.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Agric. 104 - 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.

144 Course Descriptions

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 - Not Applicable

Agric. 106 - Animal Science (IAI: AG 902)

3-2-4

is an application of the sciences of genetics, physiology and nutrition to the improvement of the animal industries and an introduction to management and production practices. Includes animal breeds, breeding and selection; anatomy, physiology, and nutrition and growth; environment, health and sanitation; products and marketing; production technology and economics; animal behavior; and current issues in animal science.

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 - Agriculture

Agric. 110 - Computer Technology in Agriculture (IAI: AG 913)

2-2-3

deals with the use of microcomputers and programmable calculators on the farm or in agri-business. Emphasis will be placed on the applications of software available for use in the area of agriculture. Students will also be exposed to the mechanics of writing computer programs. Time will be allocated for the student's use of the computer in addition to time spent during regular class hours.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Agriculture

Agric. 120 - Agricultural Economics (IAI: AG 901)

3-0-3

applies the principles of economics to agricultural problems and the role of agriculture in the United States and world economies. Includes production principles; production costs, supply, and revenue; profit maximization; consumption and demand; price elasticity; market price determination; and competitive versus noncompetitive market models. Examination of the world food situation, including population growth, world food production trends, trade in agricultural products, and agriculture's role in economic growth; agriculture characteristics and inputs (natural, human and capital); the marketing of agricultural products (functional and institutional commodity approaches to marketing, marketing costs, and the operation of the futures market); and agricultural problems and policies (program goals, price and income, and resource use).

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 - Agriculture

Agric. 130 - Crop Science (IAI: AG 903)

3-2-4

examines basic principles of plant growth, including human and environmental influences and the theoretical and practical application of agronomic principles to crop production. Includes the historical and economic importance of crop plants for food, feed, and fiber; origin, classification, and geographic distribution of field crops; environmental factors and agronomic problems; crop plant breeding, growth, development, and physiology; cropping systems and practices; seedbed preparation, tillage, and crop establishment; pests and controls; and harvesting, storing, and marketing practices.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Agriculture

Agric. 150 - AgriBusiness Sales

3-0-3

provides the basic principles of agri-business operations including advertising, sales, personnel management, public relations, office management, finance, and regulations.

Applicable toward graduation where program structure permits:

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

Group Requirement – Not Applicable

Area of Concentration – Not Applicable

Agric. 180 - Agricultural Mechanics (IAI: AG 906)

2-2-3

is an introduction to agricultural power and machinery (engines, power transmission including hydraulics, tillage machinery, calibrations, and harvesting equipment), agricultural electrification and applications (circuits, motors, controls, and materials handling and processing), agricultural structures (sketches and drawing, loads, construction materials and layout and design), and soil and water conservation (surveying, mapping, drainage and conservation structures).

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Agriculture

Agric. 200 - Weed and Pest Control

3-2-4

covers the safety and handling of approved agricultural pesticides. Special emphasis will be placed on herbicides for corn and soybeans. Students will develop the ability to select pesticides, formulate mixes, and apply materials in a safe and approved manner.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Agric. 210 - Soil Science (IAI: AG 904)

3-2-4

(Prerequisite: Chem. 100 or 110.) is an introduction to the chemical, physical, and biological properties of soils; the origin, classification, and distribution of soils and their influence on people and food production; the management and conservation of soils; and the environmental impact of soil use.

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 - Agriculture

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 are inventory control, depreciation, taxes, financing, balance sheet, cash flow, and profit and loss statement.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Agric. 240 - GPS Applications

2-2-3

(Prerequisite: Agric. 230 or C.I.S. 110 or equivalent skills.) introduces students to global positioning equipment hardware and use. Class time will be spent in outdoor laboratory settings dealing with practical applications in agriculture using the monitor and receiver of a GPS unit. Students will utilize personal and laptop computers to transfer the gathered information to a geographic information system for data processing, analysis, and decision making in agriculture business settings.

Applicable toward graduation where program structure permits:

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

Group Requirement – Not Applicable

Area of Concentration – Not Applicable

Agric. 241 - Intro to GIS Using ArcView

2-2-3

(Prerequisite: Agric. 230 or C.I.S. 110 or permission of the instructor.) explains the fundamental process of Geographic Information Systems (GIS) using ArcView software. File formats, database management, spatial analysis, and manipulation of data are discussed. Students will also be exposed to geo-referenced data from mapping and yield monitor data.

146 Course Descriptions

Applicable 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

Agric. 251 - Agricultural Commodities

1.5-0-1.5

is designed to help farmers develop marketing skills by determining production costs and understanding the cash and futures markets, to conduct a technical analysis of the markets, and to use these principles to develop a marketing plan for their own operation.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Agric. 260 - Marketing Agricultural Products

3-0-3

consists of demand, supply, and distribution of farm products; nature of production; the marketing system; and marketing of farm products. Also included are problems in pricing, in choosing outlets, and in reducing the costs and increasing the efficiency of agricultural marketing.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Agric. 270 - Spray Equipment Maintenance

2-2-3

covers the care and calibration of the equipment used in crop production. Emphasis will be placed on fertilizer, herbicide, and pesticide applicators and planting, tillage, and harvesting equipment.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Agric. 272 - Spray Simulation

2-2-3

teaches the fundamentals of hydraulics and provides training in component functions and their applications and equipment. Methods of testing and repair will be practiced on farm and industrial equipment.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Agric. 290 - Work Experience Practicum

1-10-3

(Prerequisite: Must complete an application for enrollment and submit it to the instructor 30 days or more prior to the first day of registration for the semester during which the student desires to participate in this course. Applications are available from the Business and Technology Division.)

provides the student with an opportunity to apply knowledge and skills gained in the academic setting to real work situations. The suitability of the work setting for this practicum is determined through consultation with the Agriculture and /or Horticulture faculty, the prospective employer and the student. The work experience should be directly related to the student's desired career objectives and should serve as a supplemental source of learning. Topics to be addressed during the practicum include, but are not limited to, job performance, relationship to supervisors, time management, record keeping, customer relations, decision-making, sales, and maintenance. The practicum will include student's participation in mandatory seminars, to be scheduled with the instructor at the beginning of the semester, and a minimum of 120 hours of work-based experience.

Applicable 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

Agric. 291 - Advanced Work Experience Practicum

1-10-3

(Prerequisite: Students must obtain written permission of an Agriculture or Horticulture instructor and must submit a signed Work-based Learning Agreement to the instructor 30 days prior to the beginning of that course) provides the student with the opportunity to learn more advanced skills than he or she had achieved in Agric. 290. The suitability of the work setting for this practicum

is determined through consultation with the Agriculture and/or Horticulture faculty, the prospective employer and the student. The work experience should be directly related to the student's desired career objectives and should serve as a supplemental source of learning. Topics to be addressed during the practicum include, but are not limited to, job performance, relationship to supervisors, time management, record keeping, customer relations, decision-making, sales and maintenance. The practicum will include student's participation in mandatory seminars, to be scheduled with the instructor at the beginning of the semester, and a minimum of 120 hours of work-based experience.

Applicable 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

Agric. 295 - Workplace Simulation & Projects

1-10-3

(Prerequisite: Students must have 30 credit hours of college course work and obtain written approval of an Agriculture or Horticulture instructor) provide the student the opportunity to work on a specific project - real or simulated- under the guidance of an Agriculture faculty mentor. Students are required to present a written proposal to the Agriculture faculty for consideration. The student(s) must meet to discuss specific objectives, timelines, credit to be allowed, success criteria, and other topics. This is a capstone course and should be taken in the student's final semester.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Anthropology

Anthr. 110 - Introduction to Cultural Anthropology (IAI: S1 901N)

3-0-3

(Prerequisite: eligibility for Engl. 101.) is an introductory anthropology course that discusses the more common lifeways that humans use to adapt to their particular physical and social environments. Examples from contemporary and past societies from around the world will be used to provide the students with a broader perspective of their own culture. Various aspects of world cultures to include religion, technology, kinship, political and economic systems, and change are discussed to understand how and why culture works and sometimes fails.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Anthropology

Anthr. 120 - Introduction to Physical Anthropology (IAI: S1 902)

3-0-3

(Prerequisite: eligibility for Engl. 101.) is an introductory physical anthropology course that deals with human physical and cultural change throughout the course of history. Archaeological data and techniques are discussed as a way of providing information on human change through time. Studies of human and non-human behavior are discussed to point out the effects and consequences of change.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Anthropology

Anthr. 130 - Introduction to Archaeology (IAI: S1 903)

3-0-3

(Prerequisite: eligibility for Engl. 101.) is designed to introduce majors and non-majors to anthropology through the use of archaeological data, concepts, methods, and goals. Emphasis is placed upon New World archaeological data.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Anthropology

Art

- Art 100 - Art Appreciation** (IAI: F2 900) **3-0-3**
examines the various styles of painting, sculpture, and other visual media with an historical overview.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Fine Arts
Area of Concentration - Not Applicable
- Art 101 - Introduction to Drawing 1** (IAI: ART 904) **1-5-3**
acquaints the student with the basic concepts and practice of drawing including the study of line, form, space, value, and composition. Subject matter will include still life arrangements and other projects.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Not Applicable
Area of Concentration - Art
- Art 102 - Introduction to Drawing 2** (IAI: ART 905) **1-5-3**
(Prerequisite: Art 101.) continues exercises from still life arrangements and other projects. Black and white as well as color media are used.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Not Applicable
Area of Concentration - Art
- Art 105 - Introduction to the MacIntosh and Graphics Programs** **1-1-1.5**
introduces the student to the MacIntosh operating system and to fundamentals of computer graphics software. Students will gain experience with system hardware and software and various input and output devices and learn file management, printing, and the basics of producing and editing images in several graphics software programs.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Not Applicable
Area of Concentration - Art
- Art 111 - Design 1** (IAI: ART 907) **1-5-3**
offers the student orientation in the principles and practice of two-dimensional designing using various media and dealing with the elements of line, color, balance, value, and form.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Not Applicable
Area of Concentration - Art
- Art 112 - Design 2** (IAI: ART 908) **1-5-3**
(Prerequisite: Art 111) involves the study and practice of three-dimensional design and exploration of various tools, materials, and techniques.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Not Applicable
Area of Concentration - Art
- Art 113 - Figure Drawing 1** (IAI: ART 906) **1-5-3**
(Prerequisite: Art 101, 102, 111, or 112 or concurrent enrollment in any one of these courses) introduces the student to the drawing of the human figure with activities involving techniques, anatomy, and design in varied media.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Not Applicable
Area of Concentration - Art

Art 114 - Figure Drawing 2

1-5-3

(Prerequisite: Art 113) continues activities involving techniques, anatomy, and design in various media of drawing the human figure.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 115 - Printmaking 1 (IAI: ART 914)

1-5-3

introduces the student to creative explorations in the media of monoprint, linoleum block cut prints, and wood block prints.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 116 - Printmaking 2

1-5-3

(Prerequisite: Art 115) introduces the student to an exploration of the silkscreen print technique.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 117 - Painting 1 (IAI: ART 911)

1-5-3

introduces the student to the approaches, media, and techniques of painting as a medium of expression.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirements - Not Applicable

Area of Concentration - Art

Art 118 - Painting 2

1-5-3

(Prerequisite: Art 117) continues exploration of the approaches, media, and techniques of painting as a medium of expression.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirements - Not Applicable

Area of Concentration - Art

Art 119 - Sculpture 1 (IAI: ART 913)

1-5-3

introduces the student to three-dimensional spatial concerns in various sculptural materials. Various fundamental techniques are explored.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 120 - Sculpture 2

1-5-3

(Prerequisite: Art 119) offers further work in various three-dimensional materials. Attention is given to personal and individual problem-solving.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 121 - Ceramics 1 (IAI: ART 912)

1-5-3

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

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

150 Course Descriptions

Art 122 - Ceramics 2

1-5-3

(*Prerequisite: Art 121*) is a continuation of various hand-building techniques, decorative methods, and firing processes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 123 - Watercolor 1

1-5-3

introduces the student to approaches, techniques, and media of transparent and opaque water-soluble paints.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 124 - Watercolor 2

1-5-3

(*Prerequisite: Art 123*) continues the approaches, techniques, and media of transparent and opaque water-soluble paints.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 125 - Photography 1: Black and White (IAI: ART 917)

1-5-3

introduces the student to photography, covering fundamentals of camera, studio, and darkroom techniques. (Students must supply their own fully manual 35mm cameras. Refer to equipment list for the class.) A fifty-minute laboratory period per week is required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 126 - Photography 2: Black and White

1-5-3

(*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. A fifty-minute laboratory period per week is required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 127 - Digital Photography

1-5-3

provides an introduction to the mechanics of making a color image and the use of basic photo manipulation tools to enhance that image for final output. Techniques using both computer and hand skills will be explored as they pertain to the Prepress/Publication fields.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 131 - Advanced Ceramics 1

0-6-3

(*Prerequisite: Art 121*) is a continuation of ceramics with the emphasis on use of the potter's wheel and the building techniques, decorative methods, and firing processes of wheel-thrown work.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 140 - Principles of Graphic Design

1-5-3

(*Prerequisite: Art 101, 105, and 111 can be taken concurrently*) is an introductory course into the art of visual communication and advertising. Studies will include portfolio presentation, production methods, compositional practices and creative development with attention given to

the manipulation of text and illustration. Studio assignments are both computer and non-computer aided.

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 (IAI: ART 919)

1-5-3

(Prerequisite: Art 111 and 150) introduces the student to the fundamentals of using the computer as a fine arts and graphic design tool. Effective design concepts and individual expression will be emphasized, as well as acquiring skills necessary to master various drawing, painting, and layout software.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 152 - Computer Graphics 2

1-5-3

(Prerequisite: Art 151) is an intensive study of computer painting, drawing, photo manipulation, and layout software to produce design pieces for a variety of uses. Fundamentals of layout, symbol, packaging, and advertising design are investigated.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 160 - 3-D Computer Design/Multimedia

1-5-3

(Prerequisite: Art 111) covers a broad spectrum of computer graphics applications as they pertain to 3-D modeling and animation applications as well as multimedia authoring. Students will study the basics of three-dimensional design on the computer, sound editing, and video and animation editing, as well as scripting for a final presentation.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 199 - Topics in Art (Variable Credit)

1-0-1 to 3-0-3

provides the student an opportunity to engage in a comprehensive study of a topics dealing with studio and/or non-studio issues in the fine or applied arts. The course requires no prior depth of knowledge, but it is expected that the student has demonstrated a special interest in the topic. Repeatable two times.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Fine Arts and/or Graphic Design

Art 210 - Art History 1: Ancient through Medieval (IAI: F2 901, ART 901)

3-0-3

is an introductory course in art history from prehistoric times through the Egyptian, Greek, Roman, Early Christian, Medieval, Romanesque, and Gothic periods.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Fine Arts

Area of Concentration - Art

Art 220 - Art History 2: Renaissance-Rococo (IAI: F2 902, ART 902)

3-0-3

is an introductory course in art history from early Renaissance art and architecture through Baroque, Rococo, Neoclassicism, Impressionism, and Modern art.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Fine Arts

Area of Concentration - Art

152 Course Descriptions

Art 225 - Photography 3: Color

1-5-3

(Prerequisite: Art 125 or evaluation of portfolio) introduces the processes of making color transparencies and prints. It familiarizes the student with the mechanics of processing a color image. Various assignments stress aesthetic and technical qualities.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees.

Group Requirement - Not Applicable

Area of Concentration - Art

Art 230 - Art History 3: Modern Art (IAI: F2 902, ART 903)

3-0-3

is an introductory course in the art history of the 20th century.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Fine Arts

Area of Concentration - Art

Art 240 - History of Design

3-0-3

(Prerequisite: Art 111 and 150) is an introductory course in art history as it pertains to the field of design from its origins to the present.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Fine Arts

Area of Concentration - Art

Art 251 - Computer Graphics 3

1-5-3

(Prerequisite: Art 152.) provides advanced visual communication using computer graphics to produce advertising and layout designs for complex publications, including web publishing. Students will also study the history of advertising, media types, and advertising strategies.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 252 - Graphics Arts 4: Self Promotion/Portfolio Preparation

1-5-3

(Prerequisite: Art 251) guides the student in preparing a professional computer graphics portfolio. This is a capstone course that covers portfolio content, self-promotion, job market analysis, comparison of full-time and freelance work and strategies in approaching studios, agencies, or corporations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Art

Art 290-Work Experience/Internship

1-20-5

(Prerequisite: sophomore or second semester standing in Graphic Arts) allows the student pursuing a degree in Graphic Arts the opportunity to apply the principles learned in course work to the work situation through employment. All internships must be arranged by the instructor and the student and must be approved by the Dean prior to enrollment in the course. Credit for this internship is determined at enrollment based on the ratio of five hours per week in the job setting for each semester hour for credit over a 16-week semester.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Art

Automotive Technology

Auto. 101—Basic Theory

3-1-3.5

provides an overview of basic automotive skills and terminology. Students will learn definitions of common automotive terms, proper care and use of tools, and safety precautions and procedures in the shop. In addition, the course provides a general introduction to automotive components and principles, including the engine, its parts and their functions; fuel systems; batteries and cranking systems; ignition systems; suspension, steering, and brakes; manual and automatic transmissions and heating and air conditioning; electrical systems and principles.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Auto. 102—Electrical Systems

1-6-4

is for students with basic automotive and/or electrical knowledge. It covers operations and principles of the electrical and electronic components in the automobile. Students will also learn practical applications in the basic diagnosis and repair of automotive electrical systems. Topics include batteries, electrical and electronic devices, AC and DC charging systems, ignition systems, instruments and accessories, and troubleshooting.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Auto. 201—Suspension and Steering Alignment

1-6-4

introduces the more advanced automotive student to the components and functions of suspension equipment, steering equipment, and braking systems. Classroom work and practical applications provide knowledge and hands-on experience with equipment and operations such as front and rear suspension; shock absorbers; manual and power steering; wheels and tires; wheel alignment and balance; various brake types; antilock braking systems; and brake diagnosis, service, and inspection.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Auto. 202—Heating and Air Conditioning

1-4-3

covers functions and components of automotive heating and air conditioning systems. Students will learn the fundamental operations of cooling systems, heating and ventilating systems, and refrigeration systems. Safety precautions, diagnostic procedures, and cleaning and inspection are also covered.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Auto. 203—Fuel and Emission Systems

1-7-4

(Prerequisite: Auto. 102) introduces the advanced student to the functions and components of advanced fuel injection and turbo and super charging. Through classroom work and hands-on applications, students will become familiar with the following equipment and operations: turbochargers and superchargers; gasoline, diesel and propane fuels; fuel supply systems; carburetors; fuel injection systems and injectors; gasoline and diesel fuel injection components; exhaust systems; and emission controls and modifications. Students will also be introduced to diagnostic and performance testing procedures.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

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Auto. 204—Engine Repair

1-7-4

covers the diagnostic processes and actual procedures of engine repair. Students learn troubleshooting techniques, service tips, safety rules, and repair methods in the classroom and in hands-on experiences. Topics include basic engine components; engine systems, classifications, and measurements; force and pressure; energy, work and power; externally mounted parts; lubrication systems and principles; cooling systems and principles; and overall engine diagnosis and service procedures.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Auto. 205—Manual Drive Train and Axles

1-6-4

covers the terms and components related to manual drive trains and axles. Students will study principles and operations of manual transmissions, learning equipment, terms, and safety procedures. Course also includes information on diagnosis and service, cleaning, and inspection.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Auto. 206—Automatic Transmissions and Transaxles

1-6-4

introduces the student to the terms and components involved in maintenance and service of automatic transmissions. Students will study the basic parts and operation of automatic transmissions, including safety tips, service, and diagnostic procedures.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Auto. 207—Advanced Automotive Electronics

1-6-4

(Prerequisite: 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.

Applicable 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

Auto. 208—Automotive Brakes

1-6-4

teaches the advanced diagnostic and analytical skills that are needed to service today's high tech, electronically controlled anti-lock brake systems properly. Topics include brake types (design and application), braking principles, hydraulic brake systems, power brakes, disc brakes, drum brakes, electric brakes, anti-lock braking systems, and testing and diagnosis of brake systems.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Auto. 209—Advanced Drivability Problem Diagnosis

1-7-4

(Prerequisite: Auto. 102, 203, and 207.) teaches advanced diagnostic and analytical skills that are needed to service today's high tech, computer-controlled engine management systems properly. Students will learn intake and fuel system design and application, exhaust and emission systems, carburetors, fuel injection, ignition systems and problem diagnosis, computerized engine controls and circuits, and engine performance diagnosis and troubleshooting. Lab work includes examination, analysis, and diagnosis of various vehicles.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Auto 290 - Automotive Internship**0-15-3**

(Prerequisite: Auto 101, 102, and at least two additional Automotive Technology courses) provides a student in the Automotive Technology program the opportunity to apply the knowledge and skills learned in other courses to the workplace. The suitability of the work setting will be determined by consultation with the Automotive Coordinator and the prospective employer. Student must work a minimum of 150 hours during the semester to receive credit for this course. Payment of an hourly wage to the intern will be at the option of the employer. Interns will be required to keep a daily log of their activities and to write a report detailing their work study experiences at the end of the semester.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Biology

Biol. 101 - Concepts of Biology 1 (IAI: L1 900L, BIO 912, CLS 902)**3-2-4**

(Prerequisite: eligibility for Engl. 101.) is an introduction to basic principles of biology with emphasis on the biochemistry, structure, function, and organization of cells. Topics include scientific method, cellular respiration, photosynthesis, cellular reproduction, molecular and classical genetics, and an introduction to evolution and ecology. This course includes lecture and laboratory classes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Life Science

Area of Concentration - Biology, General Science

Biol. 102 - Concepts of Biology 2 (IAI: BIO 911, CLS 901)**3-2-4**

(Prerequisite: successful completion ["C" or better grade] of Biol. 101.) is a continuation of Biology 101 with an emphasis on organismal biology or biodiversity. Structure and function of major groups of microorganisms, fungi, animals, and plants are introduced. Evolutionary trends and ecological relationships are observed in the increasing complexity of life from microorganisms to vertebrates and angiosperms. Laboratories include microscope work, field work, and the dissection of representative invertebrates and vertebrates. This course includes lecture and laboratory classes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Biology, General Science

Biol. 201 - Human Anatomy and Physiology 1 (IAI: CLS 903, NUR 903)**3-2-4**

(Prerequisite: successful completion ["C" or better grade] of Biol. 101 or successful completion of Biol. 101 proficiency exam.) is a study of tissues and the integumentary, skeletal, nervous, and muscular systems of the human body, emphasizing the relationship between structure and function. This course includes lecture and laboratory classes.

Application toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Biology, General Science

Biol. 202 - Human Anatomy and Physiology (IAI: CLS 904, NUR 904) 2**3-2-4**

(Prerequisite: successful completion ["C" or better grade] of Biol. 201 or successful completion of Biol. 201 proficiency exam) is a continuation of Biol. 201, covering the circulatory, lymphatic, respiratory, digestive, urinary, reproductive, and endocrine systems. This course includes lecture and laboratory classes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Biology, General Science

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Biol. 210 - Environmental Biology (IAI: L1 905L)

3-2-4

(Prerequisite: eligibility for Engl. 101.) teaches a foundation of basic ecological principles which leads to an examination of current issues of environmental concern. Lectures will include such topics as air/water/soil pollution, overpopulation, extinction, deforestation, global warming, and ozone depletion. Laboratory exercises will include indoor experiments, outdoor field studies, and visits to local facilities of environmental concern.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Life Science

Area of Concentration - Biology, General Science

Biol. 215 - Wilderness Biology

1-4-3

is taught at a remote location during a week-long trip and provides a general overview of a wide variety of biological topics including ecology, environmental biology, and natural history as they apply to a particular region. Fieldwork includes the collection, identification, and classification of regional plants and animals; observation and analysis of the various ecosystems of the area; and discussion of the interaction between the nonliving and living components of the various ecosystems encountered.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Science (A.A.S. only)

Area of Concentration - Biology, General Science

Biol. 220 - Microbiology (IAI: CLS 905, NUR 905)

3-2-4

(Prerequisite: successful completion ["C" or better grade] of Biol. 101.) is an introductory course in the principles of microbiology and their application to medicine, agriculture, sanitation, and industry. Training in laboratory technique pertinent to the field is included.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Biology, General Science

Building Construction

B. Con. 210 - Mechanical and Electrical Building Service Systems

2-2-3

introduces the study of the materials and equipment used in the mechanical and electrical service systems of buildings. The student is provided with information on how a modern building operates. This information enables the student to make reasonable preliminary selection of necessary mechanical and electrical equipment. Topics covered include illumination, heat gain and loss, heating systems, sewage disposal, electrical sources, and materials. Students will visit buildings to observe the service systems and equipment so that they may be better able to realize the relationship of these elements to the building as a whole.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Business

Bus. 100 - Introduction to Business (IAI: BUS 911)

3-0-3

provides insights into the structure and organization of the enterprise system, marketing, management, legal environment, and the financial obligations and implications that a business carries with it.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Not Applicable

Bus. 110 - Business Mathematics**3-0-3**

covers basic applications of mathematics in the business world. Students develop understandings of these processes as they relate to general business applications.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Not Applicable

Bus. 119 - English for Business and Technical Careers**3-0-3**

(Prerequisite: eligibility for Engl. 090 and 091) is designed to review the principles of grammar, punctuation, capitalization, spelling, pronunciation, meaning, and choice of words frequently used in business. The ability to communicate effectively is the main requirement for obtaining, performing, and advancing in any business or technical career.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

Bus. 120 - Business Communications**3-0-3**

(Prerequisite: Bus. 119 or eligibility for Engl. 101) applies standard English to business communication documents. While completing written assignments using electronics technology, students become proficient in organizing and composing business letters, memorandums, reports, and e-mail messages. The course also includes an overview of oral, interpersonal, and intercultural business communication.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Teacher Education and Business

Bus. 124 - Principles of Marketing**3-0-3**

(Prerequisite: completion of or concurrent enrollment in Bus. 119 or eligibility for Engl. 101.) is a fundamental course describing the business activities involved in product planning, pricing, promoting, and distributing want-satisfying goods and services. Other topics include market segmentation, consumer motivation and behavior, and legal influences. Marketing cases are used to illustrate current principles and techniques and to enhance development of managerial skills.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

Bus. 125 - Small Business Management**3-0-3**

includes principles for successful management of a small business, such as the general functions of management, problems of initiating the business, financial and administrative control, marketing programs and policies, business operations, and legal and governmental relationships.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

Bus. 140 - Keyboarding for Information Processing**1-1-1.5**

(No previous keyboarding skills required. Recommended course for Business, Information Technology, Criminal Justice, and Office Technology students and all students needing keyboard skills.) is a beginning keyboarding course designed to teach the touch system of keyboarding using proper techniques on the alpha/numeric keyboard on microcomputers. Speed and accuracy are developed. Previous typing is not a requirement.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Bus. 145 - Fundamentals of Retailing**3-0-3**

covers problems of store location, layout, organization, employment, training, merchandising, management, and investment control as well as current trends in retailing. Emphasis is placed

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on developing solutions to actual business problems using the case study method.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

Bus. 146 - Fundamentals of Sales

3-0-3

is a practical course that deals with the sales process (prospecting, preapproach, presentation or demonstration, trial close, answering questions and meeting objections, close, follow-up), consumer motivation, ethics in selling, and selling as a career. Role playing, sales demonstrations, and critiques of sales demonstrations allow the student the opportunity to apply selling skills.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

Bus. 227 - International Business Management

3-0-3

introduces the student to the global business and its interrelationships in the United States economy. The objective is to expose the student to an understanding of how foreign countries work in the marketplace and how these economies impact upon our business environment.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Not Applicable

Bus. 231 - Business Law 1

3-0-3

introduces the student to the legal system. Emphasis is placed on principles and sources of law, business ethics, torts, contracts, agency, personal and real property, bailments, wills, and estates. Case analysis is the main method of presentation.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Business Teacher Education

Bus. 232 - Business Law 2

3-0-3

(Prerequisite: Bus. 231 or equivalent competencies.) is a continuation of Bus. 231. Topics discussed are sales, commercial paper, credit transactions, anti-trust laws and other government regulations, partnerships, and corporations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Not Applicable

Bus. 245 - Fundamentals of Advertising and Sales Promotion

3-0-3

includes coverage of the economic and social role of advertising, customer research, selection of advertising appeals, media decisions, and the creative process. Specific media to be studied are newspaper, magazine, radio, TV, direct mail, and outdoor advertising. Students will work on an advertising campaign during the semester.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

Bus. 246 - Fundamentals of Management

3-0-3

includes analysis of administrative, staff, and operating management in business. Management principles and techniques are explored. Basic factors such as objectives, policies, leadership, organizational structures, procedures, and controls are studied.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

Bus. 290 - Work Experience Practicum and Seminar (Variable Credit)

1-20-5

(Prerequisite: sophomore standing) affords the student in a(n) Accounting/Business, 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 instructor 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 Business and Technology Division office.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

Bus. 295 - Special Advanced Projects

1-20-5

(Prerequisite: Students seeking A.A.S. degree or certificate in Business/Accounting, I.T., or O.T., who have completed at least 40 credit hours of college work or who have approval of appropriate instructional team.) is an individual or group project course that allows the student the opportunity to work on an advanced level in his/her major area of Business Program study.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

Career Development

C. Dev. 112 - Career Planning and Development

3-0-3

provides the student with a presentation of career development and career decision-making as a lifelong process and an introduction and discussion of the relationship of individuals to the world of work. Students will practice their approach to decision-making in personal, academic, and career planning. Students will explore values, skills, interests, and abilities as they relate to the world of work. Job search techniques, resumé development, cover letters, and interviewing skills will be developed as a part of the course. (Students may not receive credit for C. Dev. 112 and P. Dev. 109, 110, and/or 111.)

Applicable toward graduation where program structure permits:

Certificate and Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Chemistry

Chem. 100 - Concepts of Chemistry (IAI: P1 902L)

3-2-4

(Prerequisite: eligibility for Math. 098) examines fundamental concepts of chemistry, both theoretical and practical. Course content includes the following: measurement, atomic structure, chemical bonding, stoichiometry, the three states of matter, solutions, and acids and bases. The topic of chemical equilibrium is also introduced. The course is designed as an introduction to chemistry. It may be used as a prerequisite for Chem. 131 or to satisfy the requirement for a one-semester laboratory science course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - Not Applicable

Chem. 110 - Survey of Organic Chemistry

3-4-5

(Prerequisite: Chem. 100 with "C" or better grade) is a survey course in organic chemistry. Topics include the structure and identification of simple organic molecules, functional group classifications, preparative synthetic reactions, and biochemical applications. This course is recommended for nursing and allied health professionals.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - General Science

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Chem. 131 - General Chemistry 1 (IAI: P1 902L, BIO 906, CHM 911, CLS 906, EGR 961, NUR 906) **3-3-4**

(Prerequisite: Math. 116 and either (1) one year of high school chemistry with "B" or better grade or (2) Chem. 100 with "B" or better grade.) is the first part of a two-semester college-level general chemistry course. Topics include measurement, stoichiometry, thermochemistry, atomic structure, chemical bonding, molecular structure, the three states of matter (gas, solid, liquid), and solutions.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - Chemistry, General Science

Chem. 132 - General Chemistry 2 (IAI: BIO 907, CHM 912, CLS 907, EGR 962, NUR 907) **3-4-5**

(Prerequisite: Math. 116 with Math. 121 strongly recommended and Chem. 131 with "B" or better grade) is the second part of a two-semester college-level general chemistry course. Topics include chemical kinetics, chemical equilibrium, reactions in solutions, chemical thermodynamics, electrochemistry, nuclear chemistry, and the descriptive chemistry of metals and non-metals.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Chemistry, General Science

Chem. 201 - Organic Chemistry 1 (IAI: BIO 908, CLS 908, EGR 963) **3-6-5**

(Prerequisite: Chem. 132 or equivalent competencies) is the first of a two-semester chemistry series. Topics include a review of atomic and molecular theory, the nomenclature, synthesis, and reactions of alkanes, cycloalkanes, alkenes, alkynes, alkyl halides, alcohols, ethers, and unsaturated systems. Also, stereoisomerism, an introduction to reaction mechanisms, and synthetic techniques are included. Two 3-hour lab periods per week are conducted with an emphasis on synthesis of organic compounds. This course is recommended for chemistry and biology majors and students entering programs in medicine, chiropractic, dentistry, pharmacy, or related areas.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Chemistry, General Science

Chem. 202 - Organic Chemistry 2 (IAI: BIO 909, CLS 909, EGR 964) **3-6-5**

(Prerequisite: Chem. 201 or equivalent competencies) is a continuation of Chem. 201. Topics studied include nomenclature, synthesis and reactions of aromatic hydrocarbons, phenols, organometallics, amines, carbonyl compounds, carboxylic acids and derivatives, and biomolecules, with an introduction to the physical methods of structure identification. The study of reaction mechanisms and synthetic methods is continued from the first course. Two 3-hour lab periods per week are conducted with an emphasis on qualitative analysis and instrumental methods of analysis, including nuclear magnetic resonance spectroscopy, infrared spectroscopy, and gas chromatography. Chem. 202 is recommended for chemistry and biology majors and students entering programs in medicine, chiropractic, dentistry, pharmacy, or related areas.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Chemistry, General Science

Child Care and Education

C.C.& E. 101 - Introduction to Child Care and Education (IAI: ECE 911) **2-2-3**

(Prerequisite: eligibility for Engl. 090 and Engl. 091) offers an introduction to the child care and education field with emphasis on the history of child care, the variety of operations, services, facilities, career opportunities, and basic child development principles. The laboratory includes field studies in a variety of child care centers. Reading of periodical articles is required to introduce the student to child care and the authors and publications of the profession.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.C.& E. 102 - School-Age Child Care**2-0-2**

(Prerequisite: eligibility for Engl. 090 and Engl. 091) introduces the individual caring for children five years to twelve years of age in a before- and after-school setting. Basic concepts of physical, intellectual, emotional, and social development of this age group are introduced. The provision of child care services is discussed. Appropriate curriculum, environment, and activities are explored by the students through semester projects and class activities.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.C.& E. 103 - Child Guidance**1-0-1**

addresses typical characteristics and needs of children ages 0-5 and provides a broad range of practical, effective, and flexible guidance strategies based on tested theories. Workable steps are devised for creating cooperative, respectful relationships with young children.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.C.& E. 110 - Health, Nutrition, and Safety for Young Children**3-0-3**

(Prerequisite: eligibility for Engl. 090 and Engl. 091) provides 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 a healthy lifestyle.

Applicable toward graduation where program structure permits:

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

Group Requirement - Natural Science (C.C.&E. only)

Area of Concentration - Not Applicable

C.C.& E. 111 - Creative Activities - Children's Literature**2-2-3**

(Prerequisite: eligibility for Engl. 090 and Engl. 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 is placed on language development. T.B. test, fingerprint, and background check are required before the lab portion of the class begins and within 30 days of the first day of class. (If for any reason the background check and T.B. test are not completed, the student will be unable to attend the lab.)

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.C.& E. 112 - Creative Activities - Mathematics and Science**2-2-3**

(Prerequisite: eligibility for Engl. 090 and Engl. 091) explores basic concepts of mathematics and science and suggests methods for encouraging the child's creativity in these areas. An important part of the course concerns the identification of those concepts appropriate to the different levels of mental, physical, and emotional development of the individual child. Hands-on experience supports this basic concept. T.B. test, fingerprint, and background check are required before the lab portion of the class begins and within 30 days of the first day of class. (If for any reason the background check and T.B. test are not completed, the student will be unable to attend the lab.)

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.C.& E. 113 - Creative Activities - Art, Music, and Drama**2-2-3**

(Prerequisite: eligibility for Engl. 090 and Engl. 091) explores basic concepts of art, music, and drama and suggests methods for encouraging the child's participation and creativity in those areas.

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Included during the course are discussions of the various activities associated with different stages in the mental, physical, and emotional development of the individual child and the use of these art forms to increase the child's social abilities. Emphasis is on small motor activities. Through book reports the student is introduced to various authors and child development theories. T.B. test, fingerprint, and background check are required before the lab portion of the class begins and within 30 days of the first day of class. (If for any reason the background check and T.B. test are not completed, the student will be unable to attend the lab.)

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.C. & E. 114 - Creative Activities - Recreation

2-2-3

(Prerequisite: eligibility for Engl. 090 and Engl. 091) explores basic concepts of structured and unstructured play and suggests methods for encouraging the child's creativity in those areas. An important part of the course concerns appropriate play activities associated with the different levels of mental, physical, and emotional development of the individual child. Also included within the course are selection, construction, and maintenance of the equipment related to these activities. Emphasis is on large motor activities. The laboratory includes observation and designing of outdoor and indoor play areas. T.B. test, fingerprint, and background check are required before the lab portion of the class begins and within 30 days of the first day of class. (If for any reason the background check and T.B. test are not completed, the student will be unable to attend the lab.)

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.C. & E. 115 - Creative Activities for Infants and Toddlers

2-2-3

(Prerequisite: eligibility for Engl. 090 and Engl. 091) explores activities suitable for children under two years of age. An important part of the course concerns the identification of those concepts appropriate to the development of the individual child. Lab includes observation of infants and toddlers. T.B. test, fingerprint, and background check are required before the lab portion of the class begins and within 30 days of the first day of class. (If for any reason the background check and T.B. test are not completed, the student will be unable to attend the lab.)

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.C. & E. 120 - Organization and Administration of the Family Day Care Home

3-0-3

(Prerequisite: eligibility for Engl. 090 and Engl. 091) provides knowledge and skills needed to run a family day care home: setting up a day care home, business management and administrative skills, and child development principles as applicable to home day care, the community, and the parents.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

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

3-0-3

(Prerequisite: eligibility for Engl. 090 and Engl. 091 and completion of C.C. & E. 101 or permission from the Child Care and Education Coordinator) offers an overview of the methods and procedures used in childhood education programs. Topics covered include curriculum, program planning, role of the teacher, use of materials and equipment, techniques of classroom management, and meeting the needs of individual children. The student needs either several of the C.C. & E. activity courses or equivalent knowledge to succeed in curriculum and program planning.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable.

C.C.& E. 230 - Organization and Operation of Child Care Programs**4-0-4**

(Prerequisite: eligibility for Engl. 090 and Engl. 091 and completion of C.C.&E. 101 or permission from the Child Care and Education Coordinator) is designed to develop the knowledge and skills in administration and supervision for persons presently engaged in the administration of child care programs as well as for those who aspire to do so. Principles and practices, organization and supervision of staffs, budgets, record keeping, filing, office equipment usage, and legal responsibilities are studied. Equipment and plant operation are topics also included.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.C.&E. 290 - Work Experience Practicum and Seminar (Variable Credit)**1-10-3**

(Prerequisite: eligibility for Engl. 090 and Engl. 091 and completion of a sufficient portion of the total program to justify a learning experience in the employment setting and permission of the Dean or a faculty member in the program) affords the student in a Child Care and Education program the opportunity to apply the principles learned in other courses to the work situation through employment in or observation of activities necessary for the operation of a child care agency. Employment or observation activities are coordinated with the student's course work. One of the requirements of this course will be a one-hour-per-week seminar to be arranged for maximum convenience of the student. Credit is determined at enrollment based on the ratio of five or more hours per week in the employment setting for a regular-length semester for one semester hour of credit. The course may be repeated for a maximum accumulation of three semester hours of credit. Students planning to enroll in this course must request an application from the Child Care Coordinator 30 days or more prior to the first day of registration for the semester during which the student desires to participate in this course. Practicum assignments are allowed in the Richland Learning Child Care Center and any center working on NAEYC accreditation. Each student serving a practicum in a licensed child care center must furnish current proof of a physical examination including a statement of his/her physical and emotional ability to work with children. Proof of a current T.B. check and background check are also required. The cost of the physical exam and T.B. check are the student's responsibility.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Computer Integrated Manufacturing

C.I.M. 100 - Introduction to Computer Integrated Manufacturing (CIM)**3-0-3**

(Prerequisite: eligibility for Engl. 101.) relies heavily upon plant visits, visiting lecturers, and demonstrations to give the student a firsthand view of today's manufacturing with CIM hardware, software, and CIM-trained personnel. Topics covered include CIM as it applies to the integration of people, processes, and information at all levels from order entry to automated manufacturing to shipping and billing. Also covered are the production hardware issues and technology used in CIM applications. Reference to JIT, TQM, and statistical process control are used for a complete view of manufacturing today. Students interested in either management or process applications will benefit from the course.

Applicable toward graduation where program structure permits:

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

Group Requirement - Business

Area of Concentration - Not Applicable

C.I.M. 101 - Computer Aided Manufacturing (CAM) Fundamentals (IAI: MTM 933) 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.

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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

C.I.M. 102 - CNC Programming (IAI: MTM 915)

2-2-3

(Prerequisite: Mfg. 120 or concurrent enrollment in Mfg. 120 or equivalent competencies.) is a hands-on course in the programming of computer numerical controlled machines including lathes and vertical milling machines. The student will experience the correct sequence of CNC programming utilizing computer-aided manufacturing software, graphic modeling software, tool path checking, code generation, and manual code verification. Machine operation will include proper fixturing, feed rates, torques, machine parameters, and machine maintenance.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.I.M. 110 - Introduction to Automated Manufacturing

2-2-3

(Prerequisite: eligibility for Math 091 and Engl. 101, C.I.M.100 or concurrent enrollment in C.I.M. 100) is a hands-on course in the design and configuration of computer controlled automatic manufacturing equipment consisting of automatic storage and retrieval systems, conveyors, robots, lathes, mills, and vision inspection systems. The computer control system for the automation hardware will be programmed to perform the manufacturing of various case studies of high volume production tasks. Simulation of the manufacturing configuration and cycle times will be employed in the design and documentation phase of the projects. Each project will result in an operating automated production system.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.I.M. 120 - Production and Inventory Control

3-0-3

provides the student with experience in production and inventory control techniques. Lectures on the principles of inventory management starting from sales forecasts through production scheduling and just-in-time delivery are practiced in experiments on operating automatic manufacturing equipment. Production control in a computer-integrated manufacturing environment will expose the student to order scheduling, tracking, costing, data collecting, and quality tracking. Real-time control of production case studies will be investigated.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.I.M. 130 - Automated Manufacturing

2-2-3

(Prerequisite: C.I.M. 101, C.I.M. 102, C.I.M. 110 and Robot 101 or equivalent competencies.) is a course in automation that utilizes an operating manufacturing system to emphasize inspection of parts and the refinements necessary to improve quality. Vision systems are employed for inspection and are interfaced to the operating manufacturing system. Custom software for graphical display and control of the process is written to enhance the computer integration of the manufacturing process. Automation projects are designed from specifications through the manufacturing to the final inspection.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Computer Information Systems

C.I.S. 110 - Business Applications

2-2-3

introduces students to the concepts and applications of operating systems, word processing, spreadsheets, databases, the Internet and presentation software. Students will receive hands-on lab experience using IBM-compatible equipment. Topics will include exposure to software for each of the areas of study and how to evaluate software and hardware.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

Computer Science

C.S. 151 - Computer Science I

3-2-4

(Prerequisite: Math. 116 or concurrent enrollment or equivalent competencies.) is the first of a two-course sequence. This course is designed to introduce students to top-down structured problem solving, algorithm development, and procedural and data abstraction. Topics include selection, repetition, sequence control structures; program design, development, test, and documentation; coding style, readability and maintainability; and array, record and file manipulation. This course uses a high-level block-structured programming language, such as C, Java, or Eiffel.

Applicable for graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Computer Science

C.S. 152 - Computer Science II

3-2-4

(Prerequisite: C.S. 151 with "C" or better grade) is the second of a two-course sequence. This course is designed to prepare students for large-scale program and system design and implementation. Topics include introductions to abstract data types; to data structures such as files, sets, pointers, lists, stacks, queues, trees, and graphs; to program verification and complexity analysis; to recursion; to dynamic concepts such as memory, scope and block structures; to string processing including searching and sorting; and to Object Oriented Programming. This course uses a high-level block-structured and object-oriented programming language, such as C++, Java, or Eiffel.

Applicable for graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Computer Science

C.S. 230 - Computer Organization

3-2-4

(Prerequisite: C.S. 151) Computer Organization is designed to introduce students to the underlying hardware and software architecture of modern digital computers. Topics include von Neumann model processor architecture; I/O and memory; machine and assembly language; numeric representation and binary arithmetic; data and flow control; digital circuits and logic; and emerging models.

Applicable for graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Computer Science

C.S. 270 - Data Structures

3-2-4

(Prerequisite: C.S. 152) presents a more advanced descriptive and analytical study of data structures and algorithms, building on previous studies in Computer Science. Topics include algorithmic paradigms such as divide-and-conquer, greedy, dynamic, and back-tracking; recurrence relations; complexity analysis such as big oh, big omega, big theta, and little oh; graph, sorting, searching, and string processing algorithms; advanced ADTs such as sets, graphs, heaps, and hash tables; random number generation and prediction. Data Structures projects are developed in a high-level block-structured object-oriented programming language and environment, such as Visual C++, Visual Basic, Java/J++, or Eiffel.

Applicable for graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Computer Science

Criminal Justice (formerly Law Enforcement)

CRJ. 110 - Criminal Justice Fundamentals (IAI: CRJ 901)

3-0-3

(Prerequisite: eligibility for Engl. 101) introduces the student to the philosophy and history of law enforcement and criminal justice. An overview of crime and police problems, organization and jurisdiction of local, state, and federal enforcement agencies, review of court systems, and procedures from incident to final disposition are included. Consideration also is given to professional career opportunities and necessary qualifications.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

CRJ. 112 - Investigative Report Writing

3-0-3

(Prerequisite: Engl. 101 or equivalent competencies) prepares students to use appropriate grammar, punctuation and spelling in written communications and identify the purposes and characteristics of an effective Criminal Justice report. The course prepares students to record effective field notes as the basis for a Criminal Justice report. How to use accurate and concise language, organize a narrative in chronological order, and construct a Criminal Justice report by separating categories of information are also covered.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

CRJ. 113 - Fundamentals of Investigation and Investigative Reporting

3-0-3

(Prerequisite: eligibility for Engl. 101) includes the fundamentals of investigation, crime scene search and recording, collection and presentation of physical evidence, basic photography, scientific aids, sources of information, interviewing, follow-up, and case preparation. The course also emphasizes report writing.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

CRJ. 114 - Criminal Law (IAI: CRJ 913)

3-0-3

(Prerequisite: eligibility for Engl. 101) introduces law as it applies to crimes against persons, property, and the state. It includes the elements of crimes, criminal law procedures in Illinois, and federal agency jurisdiction.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

CRJ. 116 - Probation/Parole

3-0-3

(Prerequisite: eligibility for Engl. 101) analyzes modern probation and parole practices and services, examines current probation and parole procedures and the legal decisions. Specifically,

the course will encompass the criminal justice system, probation and parole, types of offenses, sentencing process, presentence investigation, revocation procedures, alternatives to incarceration, parole board functions, Parole Officer responsibilities, and guidelines for releasing inmates.

Applicable 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

CRJ. 125 - Patrol Procedures**3-0-3**

(Prerequisite: eligibility for Engl. 101) includes patrol functions, types of calls and methods of response, protection of scene, response to hazardous materials spills, crime prevention, and patrol techniques. This course helps prepare learners to demonstrate effective patrol techniques; interact professionally with complainants, victims, witnesses, suspects, members of the community-at-large and employees of criminal justice system agencies; apply effective officer safety considerations in patrol situations; respond successfully to a variety of patrol situations to include community caretaker and crime prevention functions, traffic matters, calls for service and criminal investigations; document patrol operations; and demonstrate case processing behaviors.

Applicable 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

CRJ. 126 - Emergency Telecommunications**3-0-3**

(Prerequisite: eligibility for Engl. 101) introduces learners to police telecommunications center operations. The course examines what a telecommunicator is, the responsibilities of a telecommunicator, and the importance of the telecommunicator within the organizational structure. Radio basics, proper broadcast procedures, telephone techniques, records systems, dispatching and handling crisis calls for assistance are covered. Role plays will occur within a variety of scenario contexts.

Applicable 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

CRJ 128 - Corrections Fundamentals**3-0-3**

(Prerequisite: eligibility for Engl. 101) provides the student with the necessary fundamental knowledge of the operations of corrections. It introduces the student to standard operating procedures in correctional institutions from intake of prisoners to the time of release. The course includes theory; simulated experience emphasis is placed on professionalism, integrity, and quality work performance.

Applicable 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

CRJ. 200 - Youth, the Law, and Police Intervention**3-0-3**

(Prerequisite: eligibility for Engl. 101 and completion of Socio. 110, Psych. 110, and CRJ. 110.) covers all aspects of police contact with today's juvenile. Emphasis is on the social/psychological courses of delinquency, incorrigible behavior, and child abuse/neglect, as well as police, court, and social agency intervention in these matters. A study of the pertinent laws and contemporary youth problems in the community is involved.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

CRJ. 210 - Law Enforcement and Community Relations**3-0-3**

(Prerequisite: eligibility for Engl. 101.) studies the whole function of the law enforcement officer and the ways in which the officer portrays an image to the entire community. The course considers the role and responsibility of the law enforcement agency in crime prevention, everyday relationships with the public, assistance to persons needing help, and public information. Ethics, courtesy, and impartiality as tools necessary in gaining public support and confidence are

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emphasized.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

CRJ. 290 – Work Experience Practicum and Seminar

1-10-3

(Prerequisite: eligibility for Engl. 101 and approval of the Dean of Math and Sciences.) affords the student in the Criminal Justice 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. Students must work a minimum of 150 hours during the semester to receive credit for this course. Students will be required to meet with their supervisor weekly for an hour to discuss progress and/or concerns, and they are required to submit a weekly log of their practicum activities to the Dean of the Division.

Applicable 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

Drafting

Draft. 101 - Fundamentals of Drafting

2-4-4

is an introductory course involving drafting techniques, sketching, lettering, orthographic projection, sectioning, primary auxiliary projections, and dimensioning as well as some geometric construction.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 102 - Industrial Drafting

2-4-4

(Prerequisite: Draft. 101 or equivalent competencies) includes secondary auxiliaries, dimensioning, detail and assembly drawings, threads and fasteners, revolutions, and diametric projections. Attention will also be given to symbols and shop processes.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 110 - Technical Design

2-2-3

introduces the student to the principle of design. The student will develop individual creative/analytical problem-solving skills and apply them to a team problem-solving approach. These concepts will be developed through the construction of a project.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 120 - Technical Graphics

1-3-2

(Prerequisite: Draft. 101 or equivalent competencies) introduces the student to pictorial drawings and drafting room practices. Pipe drafting principles and practices are covered.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 130 - Fundamentals of Tool Design Drafting

2-4-4

(Prerequisite: Draft. 101) introduces the principles of jig, fixture, and die designing. The course also includes drawing machine layouts for conventional and N.C. machines. Emphasis is placed on proper location and clamping of parts for all types of machining.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 210 - Introduction to Computer Aided Drafting-Microstation

2-3-3

(Prerequisite: Draft. 101 or equivalent competencie.) provides the basic knowledge of computer aided drafting (CAD). The student learns to use the computer aided drafting system to draw 2-D mechanical drawings. This system uses graphics, terminals, digitizers, microcomputer, and plotter as drafting tools. Note: Credit cannot be received for both Draft. 210 and Draft. 215 when working toward an A.A.S. Degree. One may be used for an elective.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 215 - Introduction to Computer Aided Drafting—Autocad

2-3-3

(Prerequisite: Draft. 101 or equivalent competencies) introduces the student to the principles of computer aided drafting using Autocad CAD software. After completing this course, the student should be able to demonstrate knowledge of the following: A) the components of computer aided drafting, B) application of geometric principles in creating a 2-D drawing, C) the creation of completed 2-D drawings with dimensions, D) storage and retrieval of drawings from a common database, and E) plotting drawings to scale from the screen and the database. Note: Credit cannot be received for both Draft. 210 and Draft. 215 when working toward an A.A.S. Degree. One may be used for an elective.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 220 - Intermediate Computer Aided Drafting

2-3-3

(Prerequisite: Draft. 210 or Draft. 215) provides the knowledge to create advanced 2-D and basic 3-D drawings on the computer aided drafting system.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 230 - Advanced Computer Aided Drafting

2-3-3

(Prerequisite: Draft. 220) provides the knowledge to create advanced 3-D drawings. These drawings include wire frame models as well as models with surfaces and shading.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 235 – Advanced Solid Modeling (3-D)

2-3-3

(Prerequisite: Draft. 230 or equivalent skills) provides the student with the knowledge to create advanced 3-D solid model designs using parameter IC modeling procedures. These procedures includes the use of the following: sketching and constraining profiles, creating complex shapes, creating work planes, adding features by editing, creating multiple views from a model, creating assemblies, and construction of a bill of materials.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft 236 - Introduction to Pro-Engineer

3-2-3

(Prerequisite: Draft. 230 or equivalent skills) provides the student with the knowledge and procedures to create parametric 3-D solid model designs and assemblies using the Pro-Engineer software. The procedures to be used will include the following: sketching and constraining profiles, creating complex shapes and assemblies, creating feature and sketch planes, editing the parametric model and creating multi-views from the parametric model.

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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

Draft. 240 - Computer Aided Drafting—Piping Systems

2-3-3

(Prerequisite: Draft. 220) introduces the student to the principles of industrial pipe drawing on a CAD system. The student will be able to demonstrate knowledge of pipe fittings, valves and instrumentation, P&ID diagrams, pumps, tanks, and general piping equipment.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 241 - Computer Aided Drafting—Electronic

2-3-3

(Prerequisite: Draft. 220 or Eltrn. 203) introduces the student to the principles of electronic drafting using a CAD system. The student will be able to demonstrate knowledge of the following: A) the components of a CAD system as used for electronic drafting, B) the understanding and drawing of basic electronic diagrams on the CAD system, C) the understanding and drawing of electronic symbols and components on the CAD system, and D) the drawing and understanding of basic electronic circuits on the CAD system.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 242 - Computer Aided Drafting—Architectural/Commercial

2-3-3

(Prerequisite: Draft. 210 or 215 and Draft. 244) will allow the student to design and develop residential and industrial electrical drawings on the CAD system.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 243 - Computer Aided Drafting —Structural Steel Detailing

2-3-3

(Prerequisite: Draft. 220) introduces the student to structural steel detailing using a CAD system. Steel frame terminology, typical details, framing plans, and working drawings are covered so that the student will have the understanding and experience of creating structural steel drawings using the CAD system.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 244 - Computer Aided Drafting—Concrete Detailing

2-3-3

(Prerequisite: Draft. 220) provides the student the experience in preparing working drawings for reinforced concrete structures using a CAD system. Principles of reinforced concrete are introduced to provide the student with a background in the standards and the conventions of logical detailing.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 245 - Computer Aided Drafting—Architectural

2-3-3

(Prerequisite: Draft. 220) includes the development and execution of a complete set of architectural working drawings using the CAD system. These drawings will include floor plans, elevations, foundation, plot plan, and wall sections.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Draft. 295 - Drafting Internship**0-15-3**

(Prerequisite: Draft. 101, 102, 120, 210/215, 220, 243, and 244. Must complete an application for enrollment and submit it to the internship instructor at the time of registration. Applications are available from the Business and Technology Division.) provides the student with the opportunity to use the skills acquired from the industrial drafting program in a workplace setting. The internship will also allow the student to acquire additional knowledge from the work place. The internship work will be in the student's desired career area and must provide a source of learning. Students will be required to keep an accurate record of their activities and to write a report on their work study experience at the end of the internship. Credit for the practicum is based on 15 hours per week in the job setting for a 15-week semester.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Drama

Drama 150 - Introduction to Theatre (IAI: F1 907)**3-0-3**

is an introduction to the appreciation of theatre as an art form. At least eight plays are read and analyzed. Production values and the physical theatre are studied. The course includes background reading, lectures, reading of literature, and the discussion of the history of theatre.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Fine Arts

Area of Concentration - Speech and Drama

Drama 160 - Theatre Production (IAI: TA 918) (Variable Credit)**1-4-1 to 3**

has as its primary activity the production of a complete play, including the analysis of script, interpretation, casting, rehearsal, and performance. Students may participate in four areas: 1) acting, assistant directing, and stage management; 2) set construction and lighting; 3) costuming, property construction, and make-up; and 4) publicity and program construction. The student is expected to stress one of the four areas and assist in one other. The course may be repeated. A student may enroll in and receive credit for this course a maximum of four times to have an opportunity to emphasize a different area during each enrollment.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Speech and Drama

Drama 170 - Introduction to Acting (IAI: TA 914)**2-2-3**

is a study of the interpretative function and technique of the actor. Students are introduced to the principles of acting theory and are provided the opportunity to practice acting as a part of this course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Speech and Drama

Earth Science

Ea. Sci. 210 - Physical Geography (IAI: P1 909L)**3-2-4**

(Prerequisite: eligibility for Engl. 101) offers an introductory study of the natural environment and is designed to develop an understanding of the earth and its environments as the home of man. It concentrates on the forces of change that produce the physical settings with which man must deal. A systematic approach is used with a de-emphasis on the mathematics and physics function.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - Earth Science

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Ea. Sci. 220 - Introduction to Physical Geology (IAI: P1 907L)

3-2-4

(Prerequisite: eligibility for Engl. 101) is an introductory course to the study of the solid earth to include the earth building processes, landforms and the processes that shape landforms, rocks and minerals, and the use of topographic maps. It is recommended that Ea. Sci. 210 be taken prior to this course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - Earth Science

Ea. Sci. 230 - Introduction to Weather and Climate (IAI: P1 905L)

3-2-4

(Prerequisite: eligibility for Engl. 101) is an introductory course to the study of weather and climate designed for science and non-science majors who want a basic understanding of weather terminology, atmospheric conditions, global climates, and climatic changes. Ea. Sci. 210 should be taken prior to this course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - Earth Science

Economics

Econ. 140 - American Economy

3-0-3

(Prerequisite: eligibility for Engl. 101) is a general survey course of economics introducing the student to macro- and microeconomic theory in a one-semester course. Topics discussed include the price system and resource allocation, business cycles, economic development, national income, price levels, fiscal policy, money and banking, labor and business organization, market models, and international economics. The course is not designed for students majoring in business, economics, or programs requiring Econ. 231 and 232 or for students who have completed Econ. 231 and 232.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Not Applicable

Econ. 200 - Economics of Social Issues

3-0-3

(Prerequisite: eligibility for Engl. 101) is a study of selected topics in economics. The course consists of the survey and evaluation of major economic issues confronting the United States and the global economy. Specific issues considered will vary with the economic times. Topics that may be considered are environmental issues, employment/unemployment, energy, taxes, stagflation, world hunger, social programs, federal budget deficits, public policy issues, international economics, and U.S. trade policy.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Not Applicable

Econ. 225 - Comparative Economic Systems3-0-3

(Prerequisite: eligibility for Engl. 101) compares the similarities between various economies through an examination of systems of various countries/regions, including the former Soviet Union, China, Japan, Europe, Pacific Rim, and other economies. The course also includes the trade-off between efficiency and equity, economic freedom and economic order, and market-oriented systems versus planned economic systems.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Economics, International Business

Econ. 231 - Macroeconomics (IAI: S3 901)**3-0-3**

(*Prerequisite: eligibility for Engl. 101*) is an introduction to the study of general economic principles. Such topics as economic systems, demand and supply, business organizations, gross national product, unemployment, inflation, fiscal policy, monetary policy, interest rates, and business cycles are discussed. Macroeconomics and current economic topics are emphasized.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Business, Economics, International Business, Social Science

Econ. 232 - Microeconomics (IAI: S3 902)**3-0-3**

(*Prerequisite: Econ. 231.*) is a continuation of the study of general economic principles. Such topics as elasticity, production costs, consumer demand, perfect and imperfect competition, agriculture, labor unions, social problems, and alternative economic systems are discussed. Microeconomics and current economic topics are emphasized.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Business, Economics, International Business, Social Science

Education

Ed. 100 - Introduction to Public Education (IAI: EED 901, SED 901, SPE 911) 3-0-3

is designed for students considering a career in teaching and for individuals who wish to become better informed about the foundations of American education. The course reviews changing concepts in public education in America and examines the duties and responsibilities of the classroom teacher. Discussion of current issues and problems in education is included.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Teacher Education: Elementary-Secondary-Special-Early Childhood

Ed. 101 - The Community of Higher Education**3-0-3**

is designed to introduce and foster a mature understanding of learning, its importance, its methodologies, and its applications. Specifically, the course will entail reading, viewing, and discussing selected readings. The course will focus on the application of academic success strategies introduced through the text and class activities. The course has been organized around the concept of community: 1) the RCC community, 2) the broader academic community, and 3) the community beyond college.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates

Group Requirement - Social Science (AAS and certificates only)

Area of Concentration - Not Applicable

Ed. 102 - Field Experience in Education**2-0-2**

(*Prerequisite: Ed. 100 or current enrollment in Ed. 100*) is designed to provide the student with practical, hands-on experience in the public or private schools or in educational agencies for the purpose of exploring the potential of teaching as a career. This experience and seminar class emphasizes visiting and working in various classroom settings of interest to the student. Class seminars are also conducted in which experiences are shared with students and the instructor. Clinical experiences are arranged by the student and instructor cooperatively, and seminars are held weekly. Sixty-five hours of clinical experience in school or school-type settings are required.

Applicable toward graduation where structure permits:

Certificate or Degree - All Certificates and all Degrees

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

Area of Concentration - Teacher Education: Elementary-Secondary-Special-Early Childhood

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Ed. 105 - Using Technology in the Classroom I

3-0-3

focuses upon the use of a selection of basic technology tools and methods for integrating those tools into the instructional process in a K-12 classroom.

Applicable toward graduation where structure permits:

Certificate or Degree - All Certificates and all Degrees

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

Area of Concentration - Teacher Education: Elementary-Secondary-Special-Early Childhood

Ed. 107 – Art for Elementary School Teachers

3-0-3

(Prerequisite: Engl.101) provides the student an opportunity to become involved in the study of child level art and examination of practices in teaching art and art appreciation in the elementary school.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Teacher Education: Elementary-Secondary

Ed. 108 – The Multicultural Classroom

3-0-3

(Prerequisite: Engl.101) provides the student an opportunity to explore and reflect on the importance of recognizing different cultures in the classroom. The course requires no prior knowledge, but students are expected to participate in comprehensive discussion of topics dealing with the contemporary issue of multiculturalism in education.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Teacher Education: Elementary-Secondary

Ed. 199 – Topics in Education (Variable Credit)

1-0-1 to 3-0-3

(Prerequisite: Engl. 101) provides the student an opportunity to participate in a comprehensive discussion of a topic dealing with contemporary issues in education. The course requires no prior knowledge, but students should have some interest in the seminar topic. (This course may be repeated twice with a different topic.)

Applicable toward graduation where program structure permits:

Certificate or Degree -All Certificates and All Degrees

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

Area of Concentration -Teacher Education: Elementary-Secondary-Special-Early Childhood

Ed. 200 - Educational Psychology (IAI: SED 902)

3-0-3

(Prerequisite: Psych. 110) examines the application of psychological principles to education. Special emphasis is placed on understanding growth and development, the learning process, motivation, intelligence, evaluation, measurement, creativity, and the impact of culture on learning styles. The course requires formal classroom field experience to be arranged with the instructor. A student may not receive credit for both Ed. 200 and Psych. 200.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration -Teacher Education: Elementary-Secondary-Special-Early Childhood

Ed. 220 - The Exceptional Child (IAI: ECE 913, SED 904)

3-0-3

(Prerequisite: eligibility for Engl. 101) focuses on the following children: the mentally impaired, the gifted, the visually impaired, the hearing impaired, the emotionally disturbed, the speech impaired, the physically impaired, the health impaired, and those at risk. Each area of study will include a historical background, a study of characteristics, nonbiased assessment methods, and information about specialized services and educational adaptations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Electronic Systems Technology/Electronics

Eltrn. 101 - Basic Electricity-AC

.5-1-1

is designed for those with no previous training in electronics. Fundamental concepts, terminology, and mathematical tools required to understand basic AC circuits are presented. Lab sessions follow in parallel, familiarizing students with test equipment, components, and safe laboratory procedures.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 102 - Basic Electricity-DC

.5-1-1

is designed for those with no previous training in electronics. Fundamental concepts, terminology, and mathematical tools required to understand basic DC circuits are presented. Lab sessions follow in parallel, familiarizing students with test equipment, components, and safe laboratory procedures.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 109 - Industrial Controls

3-3-4

(Prerequisite: Eltrn. 110 or concurrent enrollment in Eltrn. 110) is a hands-on class and includes a study and application of Industrial Controls in actual circuit applications. This course will start at a beginning level and take the student through advanced manual and automatic electromechanical controls with some exposure to solid state devices and programmable controllers.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 110 - Introduction to Electricity and Electronics

1-3-2

(Prerequisite: Math.091 or equivalent competencies) is a laboratory-oriented course in the fundamentals of electricity and electronics beginning with the basic concepts of electrical and magnetic forces, charge, voltage, current, resistance, and power. It also provides familiarization with the basic electronic systems, circuits and components, and methods of representation utilizing block diagram and schematic diagrams. Measurement techniques and use of laboratory instruments are emphasized.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

Eltrn. 111 - Circuit Analysis

2-2-3

(Prerequisite: Eltrn. 110 and Math. 091 or concurrent enrollment or equivalent competencies) begins with definitions of voltage source, current source, and equivalent circuit. The loop, node, branch, ladder methods, Thevenin Theorem, and superposition theorem used in circuit analysis are also covered. The RC and RL time constants are defined, and their applications are introduced. Both inductive reactance and capacitive reactance are defined, and impedance is discussed in terms of complex variables and phasors. Series and parallel resonance circuits are studied.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

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.

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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

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.

Applicable 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

Eltrn. 120 - Fundamentals of Servicing

1-3-2

(Prerequisite: completion of or concurrent enrollment in Eltrn. 112) is a laboratory-oriented course designed to acquaint the student with systematic procedures for locating problems in the basic electronic circuits and systems. Proper use of instruments in testing components and tracing signals through circuits and systems is emphasized. The student is also introduced to the various sources and proper use of technical service data and is instructed in the proper use of the small hand tools commonly used in electronic repair work, including soldering and desoldering devices. Electronic assembly techniques are emphasized by requiring each student to participate in a construction project during the semester. A tool kit required for this course will cost approximately \$75.00.

Applicable toward graduation where program structure permits:

Certificate or Degree - A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 140 - Solid State Fundamentals for Electricians

1-3-2

(Prerequisite: Eltrn. 110 and 111) presents an overview of solid state devices and systems, including fiber optics, integrated circuits, and light-activated components. The course is designed for electricians, students, and others who have some basic knowledge of electricity. Component and system construction, operation, installation, and service are emphasized. Various practical applications are presented throughout the course as they relate to temperature, light, speed, and pressure control.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 151 - Electrical Systems Troubleshooting

2-4-4

(Prerequisite: Eltrn. 109) introduces the student to the methods and equipment used to maintain, troubleshoot, and repair industrial electrical systems. Topics include the effective use of test equipment, various approaches to troubleshooting electrical systems, a review of electrical motor theory, and preventive maintenance of electrical systems. Application portions of the National Electrical Code are included. Safe work habits are emphasized throughout the course.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 160 - Digital Electronics

2-4-4

(Prerequisite: Eltrn. 110 and 111) is a laboratory-oriented course that emphasizes analytical reasoning and basic digital design using the standard integrated circuits that are used in industry today. The student will become proficient at using the symbols and procedures that are the standard in manufacturers' data manuals and industrial settings. Topics include numbering systems and codes, digital electronic signals and switches, basic logic gates, inverting logic gates, Boolean Algebra and reduction techniques, Exclusive-Or and Exclusive-Nor gates, code converters, multiplexers and de-multiplexers, and logic families and their characteristics.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 201 - Fundamentals of Process Control**2-2-3**

(Prerequisite: Eltrn. 109 and Math. 104 or equivalent competencies) is a hands-on class that gives a broad perspective on industrial measurement and control. It addresses the basic principles and concepts of flow, pressure, level, and temperature measurement. Students will learn the essential components of automatic control systems, including the function and operation of control valves, principles and applications of PID controllers (pneumatic and electronic), and importance of controller tuning.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 202 - Advanced Digital Electronics**2-2-3**

(Prerequisite: Eltrn. 160) is a laboratory-oriented course that includes the following topics: flip-flops and registers, practical considerations for digital design, counter circuits and applications, shift registers, multivibrators, interfacing to the analog world, semiconductor memory, and programmable arrays. The course concludes with the construction of an individual project using digital principles.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 203 - Programmable Controllers**2-2-3**

(Prerequisite: Eltrn. 109 or previous motor control experience) is a laboratory-oriented course that utilizes an Allen Bradley PLC 2/16 processor and the IBM PS-2 Model 30 computer with ICOM ladder logic software for programming. Topics include relay type instructions, timer, counters, sequencers, arithmetic functions, files, shift registers, block functions, analog input and output, and troubleshooting.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 204 - Programming and Troubleshooting Logic Controllers (PLC's)**3-2-4**

(Prerequisite: Eltrn. 109 or previous motor control experience) is a hands-on course that utilizes the Allen Bradley PLC 5/15 processor and ICOM programming software. Topics include memory organization, I/O addressing, relay instructions, timers and counters, data manipulation, math functions, subroutines, sequencers, files, bit shifting, block transfer, and program troubleshooting.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 210 - Advanced Electronic Devices & Circuits**2-2-3**

(Prerequisite: Eltrn. 112) is a continuation of Eltrn. 112 (Electronic Devices and Circuits). Devices studied include Bipolar Power Transistors, Field Effect Transistors (small signal and power types), Operational Amplifiers, and Linear Integrated Circuits. Both the theory of operation of these devices and their typical circuit applications are covered. Special emphasis is given to Operational Amplifiers and their applications in negative feedback circuits. An introduction to Integrated Circuit manufacturing technology and a thorough treatment of discrete and IC Sinusoidal Oscillators are also provided. Extensive use of computer-assisted instruction is used to supplement the lectures and traditional hands-on laboratory sessions.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 211 - Pulse, Digital, & Switching Circuits

3-4-5

(Prerequisite: Eltrn. 112) begins with applications of diodes, transistors, and other semiconductors operating in the switching mode. Topics include wave shaping circuits (clippers, clampers, Schmitt triggers, differentiators and integrators), SCRs, TRIAC's Unijunction Transistors, and other thyristors. Applications to DC and AC power control and relaxation oscillators are also covered. Also included are triggered multivibrators, counters, shift registers, memory circuits, various digital display devices, digital speech synthesis, stepper motors, switching type regulators, switching power supplies, and analog-to-digital and digital-to-analog Converters. A project utilizing the building blocks covered in the course is required of each student. Computer simulations of digital circuits and other instructional computer activities are used throughout the course. Use of logic analyzers, digital oscilloscopes, and other digital test equipment is covered in the lab sessions.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 212 - Communications Systems

3-4-5

(Prerequisite: Eltrn. 210) covers the theory of AM and FM communication systems and their applications to radio, television, and satellite communication. Topics include AM and FM receivers, transmitters, antennas, transmission lines, and wave propagation. Each student builds, tests, and aligns a complete AM and FM stereo receiver. Students also design, build, and test a directional antenna and learn to use the College's antenna test range. An introduction to television broadcasting and TV receivers is also included. Using an Earth station in the electronics lab, students also work with fully operational communications satellites of both the geostationary and low Earth orbit types commonly used in modern communication systems.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 220 - FCC License Preparation

3-0-3

(Prerequisite: Eltrn. 212) is a specialized course designed to prepare students for passing the examination given by the Federal Communications Commission for the General Radiotelephone Operator License. The course is suggested for students planning to enter the field of commercial communications, avionics, marine radio and radar, or broadcast engineering. Interested persons who do not have the formal prerequisites are invited to consult with a member of the electronics teaching staff.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 222 - Advanced Electronic Servicing

3-3-4

(Prerequisite: Eltrn. 120 and completion of or concurrent enrollment in Eltrn. 212) is a continuation of Eltrn. 120 (Fundamentals of Servicing). In this course the student will learn to apply the systematic troubleshooting procedures learned previously to advanced electronic systems. Eltrn. 222 is divided into four modules, each lasting four weeks. Each of these modules will be taught by a specialist in one of the four areas covered by the course. These areas include (1) audio components and compact disc players, (2) personal computers and networks, (3) VCRs and TVs, and (4) commercial communications, including mobile radio and pagers. There is a heavy emphasis on practical, hands-on experience with modern electronic products and test equipment. The same tools required for Eltrn. 120 are used.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 231 - AC/DC Drives and Motion Control

2-2-3

(Prerequisite: Eltrn. 109 and concurrent enrollment in Eltrn. 204 or previous motor control experience) introduces the student to the methods and equipment used to maintain, troubleshoot, and repair AC and DC drive systems, closed loop servo drives, and motion control systems. Topics

include the effective use of test equipment, various approaches to troubleshooting drive systems, servo systems, an overview of electrical motor theory, position and speed feedback devices, and closed loop control. Safe work habits are emphasized throughout the course.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 232 – CNC and Motion Control Troubleshooting

2-2-3

(Prerequisite: Eltrn. 204) introduces the student to the methods and equipment used to maintain, troubleshoot, and repair Computer Numerical Controls. Topics include the effective use of test equipment, various approaches to troubleshooting CNCs, and a review of motion control theory and PLCs. Safe work habits are emphasized throughout the course.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration – Not Applicable

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 is placed on how microprocessor systems function and how to maintain them. Microprocessor hardware and software is used for most lab activities. Lab sessions include troubleshooting and repair with topics to include signature analysis and use of logic analyzers. Students may also be expected to write simple programs for purposes of troubleshooting and maintenance.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 250 - Electrician Internship 1

0-10-2

(Prerequisite: admittance into the Electrician Apprenticeship program) has been developed and established as the on-the-job component of the Electrician Apprenticeship program. The on-the-job component will consist of work relating to the wiring of residential, commercial, industrial, and/or specialized electrical systems. All of the on-the-job work-related activities will be performed under the direct supervision of a journeyworker.

Applicable toward graduation where program structure permits:

Certificate or Degree - A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 251 - Electrician Internship 2

0-10-2

(Prerequisite: Eltrn. 250) has been developed and established as the on-the-job component of the Electrician Apprenticeship program. The on-the-job component will consist of work relating to the wiring of residential, commercial, industrial, and/or specialized electrical systems. All of the on-the-job work-related activities will be performed under the direct supervision of a journeyworker.

Applicable toward graduation where program structure permits:

Certificate or Degree - A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 252 - Electrician Internship 3

0-10-2

(Prerequisite: Eltrn. 251) has been developed and established as the on-the-job component of the Electrician Apprenticeship program. The on-the-job component will consist of work relating to the wiring of residential, commercial, industrial, and/or specialized electrical systems. All of the on-the-job work-related activities will be performed under the direct supervision of a journeyworker.

Applicable toward graduation where program structure permits:

Certificate or Degree - A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

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Eltrn. 253 - Electrician Internship 4

0-10-2

(Prerequisite: Eltrn. 252) has been developed and established as the on-the-job component of the Electrician Apprenticeship program. The on-the-job component will consist of work relating to the wiring of residential, commercial, industrial, and/or specialized electrical systems. All of the on-the-job work-related activities will be performed under the direct supervision of a journeyworker.

Applicable toward graduation where program structure permits:

Certificate or Degree - A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 254 - Electrician Internship 5

0-10-2

(Prerequisite: Eltrn. 253) has been developed and established as the on-the-job component of the Electrician Apprenticeship program. The on-the-job component will consist of work relating to the wiring of residential, commercial, industrial, and/or specialized electrical systems. All of the on-the-job work-related activities will be performed under the direct supervision of a journeyworker.

Applicable toward graduation where program structure permits:

Certificate or Degree - A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 290 - Work Experience Practicum (Variable Credit)

1-20-5

(Prerequisite: completion of Eltrn. 109, 110, and 111 in the Electronic Systems Technology Program) allows the student pursuing a degree in Electronic Systems Technology the opportunity to apply the principles learned in first-semester coursework to the work situation through employment. The individual participating in the practicum will be paid an hourly wage by the employer with such wage to be at least equal to the prevailing minimum wage. One of the requirements of this program will be a one-hour-per-week seminar. Credit for this practicum is determined at enrollment based on the ratio of five hours per week in the job setting for a 16-week semester for each semester hour of credit.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Eltrn. 295-Electronics Internship (Variable Credit)

1-20-5

(Prerequisite: sophomore standing in Electronics) is an on-the-job experience course where the student will be placed in a job related to his or her career goals. The work setting selected will be determined by consultation with the student's faculty advisor and the prospective employer. Students will be required to interview for their internship position. Credit received will depend on the number of hours worked each week but must range between two and five credit hours. Each semester hour of credit will correspond to five hours per week of employment up to a maximum of five credit hours. Students will be required to attend a weekly seminar to be scheduled at the convenience of the student. Payment of an hourly wage will be at the option of the employer. Students will be required to keep an accurate record of their activities and to write a report on their work study experiences at the end of the semester. The work supervisor's reports will be a major factor in determining the student's final grade.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Emergency Medical Technology

EMT 120 – EMT – Basic (formerly Hlth 160)

5-3-6

(Prerequisite: pass reading test, Hlth 110- CPR, or current BLS Health Care Provider CPR certification, 18 years of age, and high school diploma or G.E.D.) is based on the goals and training experiences mandated by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in cooperation with U.S. Department of Health and Human Services Public Health Service and Health Resources and Human Services Administration. It is the Illinois Department of Public Health's approved 110-hour curriculum for training Emergency Medical Technicians.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

EMT 140 – EMT–Intermediate 1 (formerly Hlth 161)

5-6-7

(Prerequisite: current BLS Health Care provider CPR certification, current EMT-Basic license for the length of the course) is based on the goals and training experiences mandated by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in cooperation with U.S. Department of Health and Human Services Public Health Service and Health Resources and Human Services Administration. The course includes roles and responsibilities, patient assessment, examination and care, medications, venipuncture, and medical emergencies.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

EMT 150 – EMT–Intermediate 2

3-3-4

(Prerequisite: current BLS Health Care provider CPR certification, current EMT-Basic license for the length of the course, and completion of EMT 140 EMT-Intermediate 1) is a continuation of EMT-Intermediate training as mandated by U.S. Department of Transportation, National Highway Traffic Safety Administration, in cooperation with U.S. Department of Health and Human Services Public Health Service and Health Resources and Human Services Administration. The course includes, but is not limited to, EMT-I roles and responsibilities, assessment and emergency treatment, medications, venipuncture, cardiovascular anatomy and physiology, electrocardiography, cardiovascular treatment skills, and endotracheal intubation.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

EMT 200 – Paramedic 1 (formerly Hlth 163)

5-6-7

(Prerequisite: current BLS Health Care provider CPR certification, currently licensed as EMT-B or above, and completion of Math 106 and Hlth. 140 with an earned grade of "C" or above in both courses) is based on the State standards mandated by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in cooperation with U.S. Department of Health and Human Services Public Health Service and Health Resources and Human Services Administration. Included are Modules 1 and 2 of the National Standards for Emergency Medical Technology – Paramedic Curriculum.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

EMT 220 – Paramedic 2 (formerly Hlth 164)

4-6-6

(Prerequisite: currently licensed as EMT-B, or higher, and completion of EMT 200-Paramedic 1) is based on the State standards mandated by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in cooperation with U.S. Department of Health and Human Services Public Health Service and Health Resources and Human Services Administration. Included are Modules 3 and 4 of the National Standards for Emergency Medical Technology – Paramedic Curriculum.

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Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

EMT 240 – Paramedic 3

8-3-9

(Prerequisite: currently licensed as EMT-B, or higher, and completion of EMT 220-Paramedic 2) is based on the State standards mandated by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in cooperation with U.S. Department of Health and Human Services Public Health Service and Health Resources and Human Services Administration. Included is Module 5 of the National Standards for Emergency Medical Technology – Paramedic Curriculum.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

EMT 260 – Paramedic 4

4-9-7

(Prerequisite: currently licensed as EMT-B, or higher, and completion of EMT 240-Paramedic 3) is based on the State standards mandated by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in cooperation with U.S. Department of Health and Human Services Public Health Service and Health Resources and Human Services Administration. Included are Modules 6, 7, and 8 of the National Standards for Emergency Medical Technology – Paramedic Curriculum.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

EMT 290 – Paramedic 5

1-12-5

(Prerequisite: currently licensed as EMT-B or higher, and completion of EMT 260) is based on the State standards mandated by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in cooperation with U.S. Department of Health and Human Services Public Health Service and Health Resources and Human Services Administration. It encompasses all classroom, laboratory, and clinical skills as included in Modules 1, 2, 3, 4, 5, 6, 7, and 8 of the National Standards for Emergency Medical Technology – Paramedic Curriculum.

This course consists mainly of ride-time with an emergency response team on calls, at the scene, and during transport of a patient. Upon successful completion of this course, a student is eligible to apply for and take the EMT-Paramedic licensure examination for an additional fee.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Engineering

Engr. 100 - Introduction to Engineering

1-0-1

(Prerequisite: eligibility for Engr. 101 or concurrent enrollment in Engr. 090 and 091) provides students with an orientation to engineering. Topics addressed in the course include the history of engineering; current disciplines/specializations within the field; design and analytical thinking processes used by engineers; ethical, moral, and legal responsibilities of engineers; and educational requirements beyond the associate's degree. This course includes classroom instruction, guest speakers, and team design projects.

Applicable for graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Engineering

Engr. 110 - Engineering Graphics (IAI: EGR 941)

1-4-3

(Prerequisite: Draft. 101 or permission of the instructor) is designed for pre-engineering students and includes shop terms and processes, geometry of engineering drawing, working drawings, intersections and developments, advanced projection systems, use and construction of graphs, charts and monographs, and design problems and applications.

Applicable for graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Engineering, Drafting

Engr. 211 - Analytical Mechanics 1: Statics (IAI: EGR 942)

2-2-3

(Prerequisite: *Phys. 151 and Math. 122 and concurrent enrollment in or completion of Math. 221*) introduces basic concepts concerning force systems as applied to particles and rigid bodies in static equilibrium. Vector methods and calculus are used to examine two- and three-dimensional systems such as trusses, beams, and frames. Topics include resultants of force systems, moments of inertia, couples, distributed forces, center of mass, analysis of structures, and friction.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - General Science, Physics, Mathematics, Engineering

Engr. 212 - Analytical Mechanics 2: Dynamics (IAI: EGR 943)

3-2-4

(Prerequisite: *Engr. 211 or concurrent enrollment in or completion of Math. 221*) applies elements of vector calculus to two- and three-dimensional motion of a particle and of a rigid body. Topics include kinematics, kinetics, absolute and relative motion, translation, rotation, Newton's laws of motion, work and energy, power, and impulse and momentum.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - General Science, Physics, Mathematics, Engineering

English

Engl. 088 - Reading and Study Skills 1

2-2-3

is designed to help the student improve basic reading and study skills through developmental exercises.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to other studies

Area of Concentration - Preparatory to other studies

Engl. 089 - Developmental Writing 1

2-2-3

is designed for those students who desire or need additional preparation in English composition prior to taking Engl. 091. The course reviews those elements of mechanics and grammar necessary in all writing and provides intensive practice in construction of sentences and paragraphs. Much of the writing is done in a supervised laboratory setting.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to other studies

Area of Concentration - Preparatory to other studies

Engl. 090 - Reading and Study Skills 2

2-2-3

is designed to help the student improve basic reading and study skills through developmental exercises.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to other studies

Area of Concentration - Preparatory to other studies

Engl. 091 - Developmental Writing 2

2-2-3

prepares students for classes in which college-level writing is required. The course reviews mechanics and grammar basic to all writing and requires intensive practice in construction of sentences, paragraphs, and short themes. Much of the writing is done in a supervised laboratory setting.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to other studies

Area of Concentration - Preparatory to other studies

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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 and/or 091; 2) score of 40th percentile or above on ACT (English and Reading) or SAT (Verbal); 3) satisfactory scores on Richland's English and Reading Comprehension placement tests; 4) evidence of equivalent competencies) is a basic course in college writing. Students write and revise essays of a 500-word minimum according to several basic rhetorical organizational patterns. Qualities of writing to be achieved include clarity, coherence, unity, and conciseness. Special attention will be paid to persuasive writing, including the diction, logic, and persona appropriate to such writing.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Communications

Area of Concentration - Not Applicable

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

3-0-3

(Prerequisite: Engl. 101 with "C" or better) is the conclusion of the first-year, college-level writing program. Students learn to recognize various levels of formality and to develop a style of writing appropriate for a formal research paper. All elements of research are taught: choosing a topic, focusing on a thesis, locating and evaluating varied sources, organizing materials, writing and documenting the text, and revising.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Communications

Area of Concentration - Not Applicable

Engl. 110 - Communicating in the Workplace

3-0-3

(Prerequisite: eligibility for Engl. 101) provides instruction and practice in the preparation of reports appropriate for business and industry. Various rhetorical strategies for identifying and reaching particular audiences are presented. Students learn all aspects of preparing reports: choosing a topic, identifying a primary audience, completing various kinds of research, which may include phone or personal interviews, surveys, letters, and questionnaires, organizing materials, writing and documenting the text, revising, designing graphics appropriate to the text, and as needed, creating glossaries and appendices to the text.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Production Control, Supervision of Personnel, Welding

Engl. 114 - Comprehensive Speed Reading

1-2-2

is designed to improve the student's reading rate while maintaining a high level of comprehension. The course is designed for students who have been able to function effectively with their present reading rate and level of comprehension but who now desire to learn to read faster. This course may not be taken concurrently with Engl. 090.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Not Applicable

Engl. 115 - Introduction to Literature (IAI: H3 900)

3-0-3

introduces students to the careful reading, discussion, and written analysis of literature. Students read and discuss poetry, fiction, and drama. The course also includes practice in the skills necessary to write about literature.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

Engl. 124 - Introduction to Fiction (IAI: H3 901, EGL 917)

3-0-3

(Prerequisite: eligibility for Engl. 101 or completion of Engl. 115.) introduces students to the careful reading, discussion, and written analysis of short stories and novels. Students learn the

use of various critical methods in examining the elements, aims, and effects of fiction.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

Engl. 126 - Introduction to Poetry (IAI: H3 903, EGL 915)

3-0-3

(Prerequisite: eligibility for Engl. 101 or completion of Engl. 115) introduces students to the reading, discussion, and written analysis and understanding of poetry through the study of techniques, themes, and some major poets of the English and American tradition.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

Engl. 128 - Introduction to Drama (IAI: H3 902, EGL 916)

3-0-3

(Prerequisite: eligibility for Engl. 101 or completion of Engl. 115) introduces students to the reading, discussion, and written analysis of plays. Students read representative plays of the Western tradition from those of early Greece to recent American productions, studying dramatic conventions, techniques, and themes.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

Engl. 140 - Introduction to Film Art (IAI: F2 905)

2-2-3

(Prerequisite: eligibility for Engl. 101 or completion of Engl. 115) examines the aesthetic and cultural qualities of film as a contemporary art form. By viewing and discussing a variety of films, students will become familiar with the unique properties of cinematic art along with the qualities it shares with other art forms. In addition, the place of film in American culture and society is explored.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Fine Arts

Area of Concentration - Not Applicable

Engl. 150 - Topics on Literature

3-0-3

(Prerequisite: eligibility for Engl. 101 or completion of Engl. 115) examines a selected topic or movement through careful reading, discussion, and written analysis of representative works of literature. The course content will vary each time it is offered. This course may be repeated once with a different topic.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - English

Engl. 160- Literature and Gender (IAI: H3 911D)

3-0-3

(Prerequisites: eligibility for Engl. 101 or successful completion of English 115) introduces students to literary works written by major women writers or about women through reading, discussion, and written analysis. Students are also exposed to historic, educational, and social trends that relate to women and the impact of women on these same trends. Emphasis may be placed on specific genres or groups of writers, such as women of color.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirements - Humanities

Area of Concentration - English

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- Engl. 201 - American Literature to 1900** (IAI: H3 914, EGL 911) **3-0-3**
(*Prerequisite: Engl. 101, 124, 126, 128, 140, or 150*) is a historical survey of American literature from its beginning to 1900. Some of the authors read are Poe, Emerson, Thoreau, Hawthorne, Melville, Twain, Whitman, and Dickinson. Particularly examined are the cultural and political milieus of the periods in which this literature was created.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Humanities
Area of Concentration - English
- Engl. 202 - American Literature in the 20th Century** (IAI: H3 915, EGL 912) **3-0-3**
(*Prerequisite: Engl. 101, 124, 126, 128, 140, or 150*) is a historical survey of American literature from 1900 to the present. Some of the authors read are Frost, Hemingway, Faulkner, Cummings, Eliot, Stevens, Baldwin, Bellow, Plath, and Walker.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Humanities
Area of Concentration - English
- Engl. 220 - Introduction to Creative Writing** **3-0-3**
(*Prerequisite: Engl. 101 or equivalent competencies*) offers instruction and practice in writing fiction and poetry. Students learn the main critical and structural approaches to these genres. Students produce a set amount of writing in each genre, and more in a chosen genre, and discuss student work in class. The work must be creative and also mechanically acceptable. Students learn about acceptable manuscript practices and market opportunities.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Communications (A.A.S. only)
Area of Concentration - English
- Engl. 222 - Advanced Creative Writing** **3-0-3**
(*Prerequisite: Engl. 220 or equivalent competencies*) offers students the opportunity to develop advanced skills in one of the genres presented in Engl. 220. Each student will be expected to produce a significant body of writing such as a collection of poems, a full-length play, a major part of a novel, or a collection of short stories.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Communications (A.A.S. only)
Area of Concentration - English
- Engl. 231 - Masterpieces of Western Literature 1** (IAI: H3 906) **3-0-3**
(*Prerequisite: Engl. 101, 124, 126, 128, 140, or 150*) is a selective survey of European literature in translation from its beginnings to the Renaissance. Stressed are the permanence and the current relevance of this literature. The course deals with such works and authors as the Bible, Homer, Virgil, Dante, Cervantes, and Rabelais.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Humanities
Area of Concentration - English
- Engl. 232 - Masterpieces of Western Literature 2** (IAI: H3 907) **3-0-3**
(*Prerequisite: Engl. 101, 124, 126, 128, 140, or 150*) is a selective survey of European literature in translation from the Renaissance to the present. Stressed are parallels and relationships between this literature and that of the English-speaking world. The course includes writings by Voltaire, Goethe, Dostoevsky, Tolstoy, Ibsen, Kafka, and Sartre.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Humanities
Area of Concentration - English

Engl. 251 - English Literature to 1800 (IAI: H3 912, EGL 913)**3-0-3**

(Prerequisite: Engl. 101, 124, 126, 128, 140, or 150) is a selective historical survey of English literature from its beginnings to 1800. Some of the authors read are Chaucer, Spenser, Shakespeare, Milton, Dryden, Swift, Pope, and Johnson. Emphasis is on the interpretation of each work, the cultural context in which it was created, and the present relevance of the work.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

Engl. 252 - English Literature: 19th and 20th Centuries (IAI: H3 913, EGL 914) 3-0-3

(Prerequisite: Engl. 101, 124, 126, 128, 140 or 150) is a selective survey of English literature from the beginning of the Romantic era, through the Victorian period, and into the twentieth century. Some of the authors read are Wordsworth, Keats, Tennyson, Browning, Conrad, Yeats, Lawrence, Joyce, Auden, Hughes, and Larkin.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - English

Fire Science

Fire 110 - Introduction to Fire Science (Module A)**3-0-3**

is a basic introduction to the history and philosophy of fire protection and includes fire behavior, self-contained breathing apparatus, ladders operation, fire hose and appliances, personal safety, and portable extinguishers.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Fire 111 - Techniques of Firefighting 1 (Module B)**3-0-3**

is designed to teach and to develop the knowledge and manipulative skills needed by the firefighter. This course includes water supply operations, fire streams, ventilation techniques, rescue operations, emergency medical care, forcible entry techniques, overall operations, and building construction.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Fire 112 - Techniques of Firefighting 2 (Module C)**3-0-3**

is designed to expand the knowledge to a higher skill level. This course includes communications, sprinkler systems, salvage operations, fire prevention activities, rope operations, and hazardous materials awareness.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

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

is a course required of eligible candidates pursuing Fire Officer I certification. This course is designed to meet the needs of individuals who are expanding their knowledge about fire department operations within the fire service.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

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Fire 130 - Fire Service Laws & Regulations

3-0-3

enables the student to acquire a basic knowledge of the laws that directly or indirectly affect the fire service by providing a basic knowledge of methodology through which to locate, read, and comprehend the various statutes, regulations, and cases that are the framework of the law.

Applicable 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

Fire 140 - Fire Science Instructor 1

3-0-3

meets the guidelines of the Office of the State Fire Marshal to qualify fire service personnel to conduct training and educational courses for the fire service. This course is designed to give students the knowledge and ability to teach from prepared materials that are predominantly skills-oriented.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Fire 170 - Rescue/Roadway Extrication

2-2-3

is designed to develop student skills in the use of extrication techniques needed to perform rescue, extrication, and hazardous control functions. This course qualifies students for state certification as a Roadway Extrication Specialist.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Fire 200 - Tactics and Strategy

3-0-3

is an introduction to the basic principles and methods associated with fire ground operations as required of the company officer. The course emphasizes size-up, fire ground operations, pre-fire planning, and engine company and truck company operations.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Fire 210 - Tactics and Strategy 2

3-0-3

is designed for the fire officer who is responsible for commanding a fire or emergency operation involving multiple companies. Areas covered are strategic concepts in firefighting, responsibilities of command officers, multi-company operations, high rise operations, disasters, and critical incident stress.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Fire 220 - Fire Science Instructor 2

3-0-3

emphasizes teaching formalized lessons from materials prepared by the instructor including relating information from one lesson or class to the next. This course qualifies the student for certification as Fire Instructor 2.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Fire 230 - Fire Apparatus Engineer

3-0-3

is designed for those beginning the operation of fire pumps and those who wish to expand their knowledge in pump operations. Practical evolution of pump operations will be performed. This course qualifies the student for certification as a Fire Apparatus Engineer.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Fire 250 - Hazardous Materials Operations**3-0-3**

is designed to provide the basic skills needed to evaluate and work defensively at an incident involving the release of hazardous materials. The student will understand the relevance of standard operating guidelines and how they play a role in hazardous materials operations.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Fire 260 - Fire Investigation**3-0-3**

covers techniques and procedures for the investigation of fires. This course includes determining the cause and origin of fire, fire behavior, detection of arson, investigation techniques, and the legal aspects of arson investigation.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Fire 270 - Management 1**3-0-3**

is designed to acquaint the student with the role of the company officer and provides an introduction to basic management theories, practices, and functions. This course is a requirement for Fire Officer I.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Fire 280 - Management 2**3-0-3**

is designed to acquaint the student with the principles of communications and group dynamics as they relate to the company officer. This course is a requirement for Fire Officer I.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Fire 297 - Fire Science Technologies (Variable Credit)**1-0-1 to 3-0-3**

(Fire fighting experience or previous Fire Science course recommended.) offers an introduction to what is current and what is coming in fire science practice and technology. Specific topics will change to reflect the state of the art. Three credit hours may be used as directed electives in A.A.S. Fire Science Degree.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Food Service Management**(See Hospitality Management)****French****Fren. 101 - Beginning French 1****4-0-4**

is an introduction to contemporary French, including oral practice, listening and reading comprehension, and the grammar necessary for spoken and written expression. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours. Together with Fren. 102, it is designed for students with no previous study of French and also is the appropriate first college course for students who have accumulated fewer than five quality points for high school French or those whose prior study of French was completed more than five years ago regardless of earned quality points.

190 Course Descriptions

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Foreign Language

Fren. 102 - Beginning French 2

4-0-4

(Prerequisite: Fren. 101 or five to eleven quality points for high school French completed within the past five years.) is a continuation of Fren. 101. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Foreign Language

Fren. 201 - Intermediate French 1

4-0-4

(Prerequisite: Fren. 102 or 12 to 14 quality points for high school French completed within the past five years.) includes readings in French, intensive aural-oral practice, and review of grammar and writing skills. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Foreign Language

Fren. 202 - Intermediate French 2 (IAI: H1 900)

4-0-4

(Prerequisite: Fren. 201 or 15 or more quality points for high school French completed within the past five years.) is a continuation of Fren. 201, with increased attention to composition and conversation. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - Foreign Language

German

Germ. 101 - Beginning German 1

4-0-4

includes elementary grammar, pronunciation, and reading of graded texts. The aural-oral approach is utilized toward acquiring skills in speaking, understanding, and reading German. Together with Germ. 102, it is designed for students with no previous study of German and also is the appropriate first college course for students who have accumulated fewer than five quality points for high school German or those whose prior study of German was completed more than five years ago, regardless of earned quality points. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Foreign Language

Germ. 102 - Beginning German 2

4-0-4

(Prerequisite: Germ. 101 or five to eleven quality points for high school German completed within the past five years.) is a continuation of Germ. 101. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Foreign Language

Germ. 201 - Intermediate German 1

4-0-4

(Prerequisite: Germ. 102 or 12 to 14 quality points for high school German completed within the past five years.) includes reading of intermediate texts (Novellen and essays) and a review of grammar utilizing aural-oral practice in the classroom and laboratory. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Foreign Language

Germ. 202 - Intermediate German 2 (IAI: H1 900)

4-0-4

(Prerequisite: Germ. 201 or 15 or more quality points for high school German completed within the past five years) is a continuation of Germ. 201, with increased attention to composition and conversation. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - Foreign Language

Health

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.

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.

Applicable toward graduation where program structure permits:

Certificate or Degree - Not Applicable

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hlth. 110 - Cardio Pulmonary Resuscitation

0.5-0-0.5

will train students for Basic Life Support (BLS) Health Care Provider CPR Certification according to Emergency Cardiac Care Guidelines established by the American Heart Association. Performance skills must be passed for barrier devices, AED Training, Adult - One Rescuer CPR, Adult - Two Rescuer CPR, Adult - FBAO Management: Conscious, Adult - FBAO Management: Unconscious, Child - FBAO Management: Conscious, Child - FBAO Management: Unconscious, Infant CPR, Infant FBAO Management: Conscious, and Infant FBAO Management: Unconscious.

Applicable toward graduation where program structure permits:

Certificate or Degree - Not Applicable

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

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.

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

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Hlth. 115 - Introduction to Health Careers

1-0-1

is designed to train students to become familiar with and learn about the many allied health occupations and the organizational structure within the health care delivery system. Students will learn about various career descriptions, educational requirements, job skills, job availability, and career hierarchy. Students will evaluate health careers most suited to their individual interests, abilities, and goals.

Applicable toward graduation where program structure permits:

- Certificate or Degree - Not Applicable
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

Hlth. 120 - Wellness and Healthful Living

3-0-3

is designed to provide students with concepts and skills for wellness and healthful living. Students will learn about past and current health trends, as well as new health discoveries that will have an effect on health care in the future. The course covers the topics of physical health, emotional health, intellectual health, nutrition, social health, relationships, communicable diseases, substance abuse, emergency care, death and dying, community health programs, and environmental issues relating to optimal health.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates and All Degrees
- Group Requirement - Not Applicable
- Area of Concentration - Teacher Education

Hlth. 125 - Health and Lifestyles of the Adolescent

3-0-3

(Prerequisite: Engl. 101) is designed to introduce the student to adolescent development. The focus of the course is on the relationship of health, family, and society on a child, as he/she moves from childhood to adulthood.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates and All Degrees
- Group Requirement - Social Science (A.A.S. only)
- Area of Concentration - Teacher Education: Elementary-Secondary

Hlth. 130 - Phlebotomy

4-3-5

(Prerequisite: high school diploma or G.E.D. certificate and approval of the Allied Health Coordinator.) studies (a) phlebotomy techniques including venipuncture, dermal puncture, special procedures techniques; (b) medicolegal, infection control, and safety aspects of the profession; and (c) anatomy, physiology, and terminology of the body systems. Clinical experiences provide the opportunity to use phlebotomy techniques including communication and additional skills needed by a phlebotomist in the clinical setting.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Basic Certificates, A.A.S.
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

Hlth. 140 - Medical Terminology

3-0-3

focuses on vocabulary used in medicine, nursing, and other allied health occupations. Students will learn structures, functions, and terms related to diagnosis, pathology, and treatments for each body system. This course is recommended for students entering all Health Science programs.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates, A.A.S., A.L.S.
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

Hlth. 141 - Nurse Assistant Training

5-4-7

(Prerequisite: high school diploma or G.E.D. certificate, at least 17 years of age, pass the Health pretest in English and Math, and approval of the Allied Health Coordinator) is designed to give the student who desires employment as a nurse assistant or orderly training in the basic nursing skills. The course provides 142 hours of approved Illinois Department of Public Health course instruction in classroom work and clinical experience. Classroom work will consist of 92 hours, and clinical assignment will consist of 50 hours. Upon successful completion of both theory and clinical sections, the student receives a certificate of completion. To become fully certified and placed on the Nurse Aide Registry in Illinois, students must also take and pass the State's approved

Competency Evaluation, for an additional fee.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except
Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Development

Hlth. 142 - Homemaker/Home Health Aide

1-0-1

is designed to provide skills needed to give personal care and to perform homemaker services in the home. Concepts and skills will be presented for various stages of the life cycle; the newborn infant, childhood and adolescence, young and middle adulthood, and late adulthood; and the ill and the disabled at any stage.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except
Personal Development

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hlth. 143 - Alzheimer's Disease and Related Dementia Training

1-0-1

is designed to prepare the student to care for the Alzheimer's Disease or related dementias clients. It will cover normal aging, Alzheimer's Disease and related dementias, communication techniques, activity programming, nutrition, family and caregiver roles, community resources, and support resources for the family/caregiver.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except
Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Development

Hlth. 145 - Health Unit Coordinator

6-1-6

(Prerequisite: high school diploma or G.E.D. certificate, pass the Health pretest in English and Math; concurrent enrollment in or completion of C.I.S. 110 with a grade of "C" or better; or computer/office competency experience as verified by employer(s) and approved by Allied Health Coordinator) trains students in the concepts and skills which will prepare them for employment in a hospital, long-term care facility, or physician's office. Part one of the course is theory presentation. It includes medical terminology, introduction to disease, introduction to pharmacology, study of body systems, communication skills, medical ethics, legal responsibilities, the patient's medical record, transcription of physician orders and medical orders, and the general operation of a health unit. Part two of the course is a practicum. Both parts, theory and practicum, must be successfully completed in order to pass the course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except
Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Development

Hlth. 150 - Pharmacology

4-0-4

(Prerequisite: completion of, with a grade of "C" or above, or co-enrollment in Math. 106, and C.I.S. 110) is designed to present an introduction to pharmacology concepts and drug classifications. Each drug classification is presented as it applies to anatomy, physiology, and the disease-state concepts. Descriptions of leading drugs and their administration and specific uses are included.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Pharmacy Technician

Hlth. 155 - The Pharmacy Technician

6-0-6

(Prerequisite: Completion of Hlth. 150, Math. 106, and C.I.S. 110, with a grade of "C" or above) is a review of health care and pharmacy, past and present. Course will include requirements for technician certification, drug regulations and controls, and pharmaceutical terminology. This course will contain training on filling a prescription, routes and formulations, parenterals,

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compounding, basic biopharmaceutics, factors affecting drug activity, references used, inventory management, financial issues, and various areas of pharmaceutical care including community pharmacy, institutional pharmacy, and other environments.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Pharmacy Technician

Hlth. 156 – Work Experience Practicum

1-3-2

(Prerequisite: Hlth. 150 with a grade of “C” or above, completion of or co-enrollment in Hlth. 155 with a mid-term grade of “C” or above, and with faculty approval) provides students the opportunity to apply the knowledge and skills learned in Pharmacology and Pharmacy Technician courses to the work place. The students are assigned to complete a rotation of work experiences in several working environments available to a Pharmacy Technician. This course assists the students with transition from school to work.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Pharmacy Technician

Hlth. 157 – Pharmacy Technician Certification Review

1-0-1

(Prerequisite: Hlth. 155 with a grade of “C” or above and Hlth. 156 with a grade of “C” or above) is designed to prepare the student who has completed the pharmacy technician course to take the national certification examination.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Pharmacy Technician

Hlth. 200 - Advanced First Aid Training

2-2-3

(Prerequisite: HLTH. 100) will train students in comprehensive first aid techniques and Basic Life Support. Topics include basic anatomy and physiology of body systems, victim assessment, emergency care for life-threatening and non life-threatening conditions, activation of the Emergency Medical Services (EMS) system, and general principles of lifting and moving a victim.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hlth. 220 – Nutrition and Diet Therapy

3-0-3

(Prerequisite: completion of Engl. 090 with a grade of “C” or above, or tested out of Engl. 090) is designed for students in health care professions and food service programs. It includes fundamentals of nutrition, maintenance of health through good nutrition, diet therapy, and food preparation.

Applicable toward graduation where program structure permits:

Certificate of Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

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

Hlth. 250 - Rehabilitation Nursing Course

5-0-5

(Prerequisite: RN or LPN with current Illinois license) is designed to enable the nurse to define the concept and philosophy of rehabilitation nursing, identify the role and responsibilities of the nurse in the rehabilitation process, identify aspects of the aging process, and utilize basic principles and practices of restorative nursing within the framework of the nursing process. This course is accepted by the Illinois Department of Public Health, Office of Health Care Regulation, as meeting the criteria for licensure standards of Skilled and Intermediate Nursing Care Facilities. Certificate of completion will be awarded to students upon successful completion.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Heating, Ventilation, Air Conditioning, & Refrigeration

HVAC 100 Refrigeration Fundamentals (Formerly HVAC 100 & HVAC 101) 3-0-3

is focused on safety hazards, principles of refrigeration physics, temperature and pressure measurement, heat content, composition of refrigerants, refrigeration compressors, metering devices, refrigerant recovery techniques, and acquisition of certification in the E.P.A. section 608 refrigerant management laws.

Applicable 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

HVAC 102 Refrigeration Applications 2-2-3

(Prerequisite: HVAC 100 or concurrent enrollment) concentrates on applying the fundamentals learned in Refrigeration Fundamentals. Emphasis is on refrigerant recovery, pressure testing, evacuation and proper system charging.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HVAC 106 Tools & Piping (formerly HVAC 200) 2-2-3

(Prerequisite: HVAC 102 or concurrent enrollment) concentrates on the identification, utilization, and appropriate application of common hand and power tools used in the HVACR industry. Emphasis is on the proper piping design and the application of tools when working with tubing, pipe, fittings, bends, and multiple assembly techniques.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HVAC 130 Electricity Fundamentals 2-2-3

(Prerequisite: HVAC 102 or concurrent enrollment) analyzes the application of electron theory; DC/AC fundamentals; electrical quantities; OHM's Law; magnetic principles; solenoids, meter usage; power generation and distribution; wiring systems and materials; transformers and relays; schematic diagram development; and the development of a diagnostic plan for HVACR electrical equipment.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HVAC 132 - Control Applications (formerly H.V.A.C. 104) 2-2-3

(Prerequisite: HVAC 130) analyzes power supply and distribution systems; operating and safety control construction, operation, and applications; and the development wiring and troubleshooting of control schematics for basic HVACR systems. Also covers pneumatic motors & controls.

Applicable 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

HVAC 140 Troubleshooting Air Conditioning Systems (formerly HVAC 105) 2-2-3

(Prerequisite: HVAC 132 or concurrent enrollment) promotes the development of diagnostic and repair skills by simulating both electrical and mechanical system faults in computer-generated HVAC systems. Emphasis is on professionalism, accuracy, proper tool selection, and timeliness of the repair.

Applicable 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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HVAC 202 Residential & Self-contained Refrigeration

2-2-3

(Prerequisite: HVAC 140 or current enrollment) introduces basic refrigeration components; piping systems sizing and selection; installation, servicing, and troubleshooting of residential refrigeration systems; and, controls for reach-in coolers/freezers, ice machines, and dehumidifiers.

Applicable 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

HVAC 204 Commercial Refrigeration

2-2-3

(Prerequisite: HVAC 202 or current enrollment) emphasizes medium and low temperature refrigeration systems and equipment used in commercial applications (e.g. walk in coolers/freezers; supermarket rack refrigeration; ultra-low temp freezing systems; and ice making systems.) Emphasis is on the diagnosis and repair of these systems.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HVAC 206 Troubleshooting Refrigeration Systems (formerly HVAC 215)

2-2-3

(Prerequisite: HVAC 132 or concurrent enrollment) promotes the development of diagnostic and repair skills by simulating both electrical and mechanical system faults in computer generated refrigeration systems. Emphasis is on professionalism, accuracy, proper tool selection, and timeliness of the repair.

Applicable 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

HVAC 230 Motors & Controls

2-2-3

(Prerequisite: HVAC 132) allows students to analyze, set up, and troubleshoot single and poly-phase motor starting systems, damper actuators, and economizers. Emphasis is on the service and repair of residential and light commercial HVACR systems including open and hermetic motors, rooftops and split systems.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HVAC 240 Residential Air Conditioning (formerly HVAC 210)

2-2-3

(Prerequisite: HVAC 140 or current enrollment) concentrates on the use of psychrometrics, manufacturer specifications, and test instruments to determine proper installation and system operation of residential air conditioning units, split-systems, and self-contained units.

Applicable 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

HVAC 242 Residential Heating Systems (formerly HVAC 220)

2-2-3

(Prerequisite: HVAC 132 or current enrollment) procedures and principles used in the service of residential heating systems emphasizing the heating properties, combustion, burners, controls, ignition systems, safety and operating controls, installation, venting combustion, air & troubleshooting for both gas fired and electric furnaces.

Applicable 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

HVAC 250 Commercial Air Conditioning

2-2-3

(Prerequisite: HVAC 132 or current enrollment) focuses on the various types of commercial air conditioning units including split and self-contained roof top units. Emphasis will be on multistage cooling, three-phase applications, energy management, and indoor air quality requirements.

Applicable 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

HVAC 252 Commercial Heating Systems (formerly HVAC 221)

2-2-3

(Prerequisite: HVAC 132 or current enrollment) emphasizes the installation and service of high efficiency and commercial heating and humidifying systems, including steam and hydronic heat, heat pumps and heat recovery systems.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HVAC 290 - Work Experience & Seminar

1-10-3

(Prerequisite: HVAC 140 and sophomore standing) provides the student with a work-based learning experience aimed at applying the knowledge and skills learned in previous HVACR courses. The suitability of the work setting is determined through consultation with the HVACR faculty and the prospective employer. A one-hour-per-week seminar is required. This seminar will be arranged at the mutual convenience of the student and HVACR faculty. Additionally, the student will have to work for a minimum of 150 hours in a semester to receive credit for the course. Payment of an hourly wage to the intern will be at the option of the employer. Interns will be required to keep a daily log of their activities and to write a report detailing their work-study experiences at the end of the semester. This is a capstone course and should be taken in the student's final semester.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HVAC 295 Workplace Simulation & Project

1-10-3

(Prerequisite: HVAC 140 and sophomore standing) provides individuals or groups of students an opportunity to work on a specific project - real or simulated - under the guidance of a HVACR faculty mentor. Students are required to present a written proposal to the HVACR faculty for consideration. The student(s) must meet to discuss specific objectives, timelines, success criteria, and other topics. This is a capstone course and should be taken in the student's final semester.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

History

Hist. 101 - United States to 1877 (IAI: S2 900, HST 911)

4-0-4

(Prerequisite: eligibility for Engl. 101) covers the development of the United States from the colonial era through the Reconstruction period after the Civil War. Particular attention is given to the founding of the Colonies, Puritan thought and culture, Anglo-French rivalry, the political and economic background of the War of Independence, the formation of the American government, the Federalists, the Jeffersonians, the settlement of the West, Jacksonian democracy, "Manifest Destiny," sectional issues, the Civil War, and Reconstruction.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - History, Social Science

Hist. 102 - United States since 1877 (IAI: S2 901, HST 912)

4-0-4

(Prerequisite: eligibility for Engl. 101) surveys industrialization and urbanization, the Progressive Era, the background and American entry into World Wars I and II, the Depression, the New Deal, Cold War diplomacy, and domestic issues since World War II. The course will also examine the roles of women and minority peoples in our culture.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - History, Social Science

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Hist. 105 - History of Illinois

3-0-3

(Prerequisite: eligibility for Engl. 101) is a survey of Illinois history from the earliest times to the present. Topics covered include Indian cultures, Illinois under French and British rule, early statehood, settlement patterns, Land of Lincoln, growth of industrial and urban power, Progressivism, World Wars I and II, the New Deal, and post-World War II problems and growth.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - History, Social Science

Hist. 111 - European Civilization through the Reformation (IAI: H2 901, HST 913) 4-0-4

(Prerequisite: eligibility for Engl. 101) consists of a survey of European civilization from earliest times through Greece, the Roman Empire, the Middle Ages, the Renaissance, and the Reformation with particular emphasis on the development of Western thought, religion, art, culture, law, and government.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - History

Hist. 112 - European Civilization: The Modern Era (IAI: H2 902, HST 914) 4-0-4

(Prerequisite: eligibility for Engl. 101) examines the impact of intellectual, artistic, technological, and political developments from the rise of absolutist monarchies in the 17th century to the present day. Particular emphasis is given to the Enlightenment, Liberalism, the growth of Nationalism, the Industrial Revolution, Imperialism, World Wars I and II, and the decline of Colonialism. Attention is also given to major artistic, musical, and literary trends.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - History

Hist. 120 - History of the Middle East

3-0-3

(Prerequisite: eligibility for Engl. 101) examines the history of the Middle East from the Ottoman era to the present day. The course includes the impact of imperialism and colonialism and will emphasize major religious, social, economic, political, and cultural elements of the contemporary Middle East.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - History

Hist. 131 - History of Latin America (IAI: S2 911N)

3-0-3

(Prerequisite: eligibility for Engl. 101) examines the major social, political, economic, and international events of 19th and 20th century Latin America.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - History

Hist. 201 - The Origin and Development of Imperial China and Japan (IAI: H2 903N) 4-0-4

(Prerequisite: eligibility for Engl. 101) surveys early Chinese and Japanese history, religion, philosophy, art, and literature. China's "golden age" and Japanese feudalism are covered, and special emphasis is placed on how present-day East Asian attitudes and beliefs were originally formulated. Meets third world course requirements.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - History

Hist. 202 - Modern East Asia (IAI: H2 903N)**4-0-4**

(*Prerequisite: eligibility for Engl. 101*) provides a survey of China's and Japan's entry into the modern world. The last 300 years are surveyed, but particular emphasis is placed on Japan's transition from feudalism to Asia's industrial leader and China's evolution from empire to Communism. Meets third world course requirements.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - History

Hist. 250 - History of Land Warfare**3-0-3**

(*Prerequisite: eligibility for Engl. 101*) examines the nature of war from ancient Greece to the present day with emphasis on the modern era. While the study of military weapons and tactics is stressed, social and political influence in military affairs is also analyzed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - History

Hist. 251 - American Military History**3-0-3**

(*Prerequisite: eligibility for Engl. 101*) examines the evolution of the American military and the wars in which it fought. The attitudes of the American people and government before and during each war are an integral part of the course.

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - History

Hist. 270 - History of Non-Western Civilization: China (IAI: H2 903 N)**4-0-4**

provides a survey of China's premodern and modern culture/society and its entry into the modern world. The last 250 years are surveyed, but particular emphasis is placed on China's cultural modernization evolution from empire through Communism. Meets third world course requirements.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - History

Horticulture

Hort. 101 - Turf Management**2-3-3**

emphasizes general types of turf grasses, their growth habits, and the establishment of turf. Fertilizers, diseases, insects, weeds, and some turf equipment are included.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hort. 102 - Ornamental Plant Identification and Use**2-3-3**

identifies commonly used ornamental trees, shrubs, and vines. In addition, their special growth and moisture requirements and their uses in a landscape plan are emphasized.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hort. 103 - Landscape Layout and Design**2-3-3**

(*Prerequisite: Hort. 102*) emphasizes cost, specifications, land and plant material calculations, and layout design of specific landscape areas. Skills of surveying are introduced as they are needed.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

200 Course Descriptions

Hort. 104 - Turf Management 2

2-3-3

(Prerequisite: Hort. 101 or previous turf experience) covers certain topics related to the care and production of fine turf. Among the topics are irrigation systems, weed control, and the more advanced aspects and practices for the growth of fine turf grass.

Applicable toward graduation where program structure permits:

Certificate or Degree - Turf Grass Management

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hort. 105 - Turf Equipment Operation and Maintenance

2-3-3

(Prerequisite: Hort. 101 or previous turf experience) will cover topics related to the maintenance and operation of turf equipment.

Applicable toward graduation where program structure permits:

Certificate or Degree - Turf Grass Management

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hort. 110-Nursery Management

2-2-3

examines the critical production issues and marketing principles of nursery management.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hort. 130 - Electrical Controls

2-2-3

covers the basics of electrical wiring, electric motors, and the area of electrical controls such as systems for irrigation, timing, mist propagation, timed lighting, and electrical monitoring used in greenhouses, nurseries, and turf areas.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hort. 140 - Plant Propagation

2-2-3

(Prerequisite: Hort. 190 or consent of instructor) is designed to familiarize the student with the most widely used techniques in the production of woody plant material. Topics of discussion include propagation, structures, media, disease control, and types of propagation, including budding, grafting, cutting, seeding, layering, and tissue culturing.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hort. 150 - Greenhouse Management

2-2-3

includes a study of greenhouse construction and operation. Special emphasis is given to temperature, light, soils, gases, nutrition, and the growth of bedding plants.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hort. 160 - Building and Grounds Maintenance

2-2-3

covers the principles of heating, air conditioning, and lawn and landscape maintenance.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hort. 170 - Plantscaping

2-2-3

emphasizes installation, maintenance, and management of interior plantscapes. Topics include plant lighting, planting, watering, acclimatizing, cultural problems, containers, installation, and maintenance contracts.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hort. 180 - Small Gas Engines

1-2-2

develops the ability to maintain, adjust, and repair two- and four-stroke cycle single and multiple cylinder engines under 25 HP. Proper use of tools and testing equipment is included.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hort. 190 - Plants and Society (IAI: AG 905) 3-2-4

provides a general background in horticulture plant growth and development. Areas include the production, utilization, and marketing of fruits, vegetables, ornamentals, floriculture, landscaping, turf, and nursery.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural Science (A.L.S. and A.A.S. only)

Area of Concentration - Horticulture

Hort. 191 - Landscape Construction and Estimating

2-2-3

emphasizes the techniques and materials used in landscape construction. Students will also learn to use standard practices in estimating the costs of landscape construction projects.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Hospitality Management

(formerly Food Service Management)

HOSP. 100 – Hospitality Fundamentals (formerly FSM 100)

3-0-3

(Prerequisite: eligibility for Engl. 101) The course includes a study of the application of all aspects of the hotel, food service, restaurant, and travel and tourism businesses, including operations, marketing, and sales. The course will reflect current developments in this rapidly changing industry, stressing problem-solving tools and industry-wide trends.

Applicable 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

HOSP. 101 - Hospitality Supervision (formerly FSM 104)

3-0-3

(Prerequisite: eligibility for Engl. 101) includes a study and application of the supervisor's function, effective communication and motivation, recruiting and hiring employees, orienting and training employees, evaluating and disciplining employees, planning, decision making and delegating in hospitality management.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HOSP. 102 - Cost Management (formerly FSM 102)

4-0-4

(Prerequisite: eligibility for Engl. 101) includes a study and application of food cost control, beverage operation and sales, and labor cost control as related hospitality management.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

202 Course Descriptions

HOSP. 103 – Hospitality Law

3-0-3

(Prerequisite: eligibility for Engl. 101) In this course the student will learn the basic legal principles governing hospitality operations from guest safety to employee and business management. Laws important for hospitality operations and how building codes and public health regulations apply to hospitality facilities will be studied along with forms of business organizations and relationships with attorneys.

Applicable 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

HOSP. 104 – Purchasing

3-0-3

(Prerequisite: eligibility for Engl. 101) The course includes a study and application of purchasing methods for the Hospitality Industry including the distribution system, supplier channels, price and payment, ordering procedures, storage and security, specifications for food and non-food items. The course will focus on the up-to-date information on the latest trends and today's technology.

Applicable 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

HOSP. 106 – Hospitality Marketing (formerly FSM 106)

3-0-3

(Prerequisite: eligibility for Engl. 101) includes a study and application of marketing in the hospitality industry, marketing planning, information and research, understanding hospitality consumers, advertising and promotion, hospitality group sales, menu design, and pricing strategies in the hospitality management industry.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HOSP. 110 – Food Service Sanitation (formerly FSM 110)

1-0-1

is a course designed for food service operators and management. The course covers techniques for protecting food from contamination in storage, preparation and service, cleaning and sanitizing, pest control, cleanability of facilities and equipment, sanitation and the customer, personnel training, and detailed procedures for self-inspection by the food service manager.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HOSP. 200 – Management by Menu (formerly FSM 108)

3-0-3

(Prerequisite: eligibility for Engl. 101) includes a study and application of the hospitality industry, developing the menu and cost controls, menu pricing, mechanics and analysis, the liquor menu and planning a healthy menu, the menu and purchasing, production and service, and computers and finances in menu planning in the hospitality management industry.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HOSP. 201 – Professional Cooking (formerly FSM 204)

2-0-2

(Prerequisite: eligibility for Engl. 101) includes a study, application, and overview of professional cooking to include stocks, sauces, and soups, meat, poultry, and fish, vegetables, grains, salads, sandwiches, breakfast foods, garnishes, international recipes, and baking in the hospitality management industry.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HOSP. 202 - Hospitality Nutrition (formerly FSM 200)

3-0-3

(Prerequisite: eligibility for Engl. 101) includes a study and application of nutrients, carbohydrates, lipids, introduction to protein, vitamins, water, minerals, nutritional menu planning for the life cycle and for weight management, menu planning for vegetarians and for better health, nutritious menu planning and recipe development, and marketing nutrition in the hospitality management industry.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HOSP. 203 - Bar & Beverage Management (formerly FSM 206)

3-0-3

(Prerequisite: eligibility for Engl. 101) includes a study, application, and closer look at beverages to include beer, wine, spirits and non-alcoholic beverages, equipping the beverage operation, the clean and sanitary beverage operation, staffing the beverage operation, managing promotions, costs, and profits, the effects of alcohol on the body, liability laws that affect business, policies, procedures, and techniques in managing responsible alcohol service in the hospitality management industry.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HOSP. 204 - Food Service Presentation (formerly FSM 208)

3-0-3

(Prerequisite: eligibility for Engl. 101) takes students from the necessary historical overview of service up to the contemporary professional server. Table service and customer service are balanced for a comprehensive look at service in various industry segments and the manager's key role.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HOSP. 210 - Housekeeping Operations

3-0-3

(Prerequisite: eligibility for Engl. 101) studies every aspect of housekeeping management; it offers case studies and proven tips from housekeeping pros as well as a valuable technical guide with step-by-step cleaning procedures. Explains how to recruit, hire, orient, train, schedule, motivate, and discipline employees; plan and control inventories, expenses, and security; effectively oversee an on-premises laundry; ensure quality in cleaning every area of the hotel; properly handle chemicals; and comply with OSHA standards.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HOSP. 211 - Front Office Operations

3-0-3

(Prerequisite: eligibility for Engl. 101) This course places an expanded emphasis on technological applications for the front office, highlighting new ways to achieve maximum quality and efficiency in areas of reservation, registration, checkout and settlement. It will provide insight into related operational areas, including housekeeping and security.

Applicable 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

HOSP. 212 - Computer Systems

3-0-3

(Prerequisite: Engl. 101 and C.I.S. 110) The course includes a study and application of hardware and software for all hospitality functional areas. Students learn the basics of purchasing, implementing, maintaining, and effectively managing today's information system. Emphasis is placed on the impact of the Internet on the hospitality industry and the use of Website addresses of organizations that can provide up-to-date information about the hospitality industry.

204 Course Descriptions

Applicable 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

HOSP. 213 – Security and Loss Prevention

3-0-3

(Prerequisite: eligibility for Engl. 101) will study how to handle vital risk management, claims handling and insurance issues in the hospitality workplace. This includes the study of safety and security case studies developed with industry professionals and will utilize links to Internet-based, hospitality-specific resources for safety and security. The formation of in-house safety committees, crisis communications, developing an OSHA-approved safety program and the importance of safety equipment will be discussed in detail.

Applicable 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

HOSP. 214 - Facilities Management (formerly FSM 202)

3-0-3

(Prerequisite: eligibility for Engl. 101) includes a study and application of project planning, food service design and maintenance, work area design and equipment layout, equipment options and functions, facilities engineering, interior design and layout in the hospitality management industry.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

HOSP. 290 - Work Experience Practicum

1-10-3

(Prerequisite: approval of Hospitality Management Coordinator) affords the student in the Hospitality Management program the opportunity to apply principles learned in other courses to the work situation by employment of in the workplace. Employment is coordinated with the student's course work. Student must work a minimum of 150 hours during the semester to receive credit for this course.

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

HOSP. 291 - Professional Cooking Work Experience (formerly FSM 291)

0-5-1

(Prerequisite: eligibility for Engl. 101 and concurrent enrollment of HOSP 201) is designed to provide students supervised job site work experience in a food service skills program. Students will work in special skills areas such as chef training, beverage management, etc. Job sites will be restaurants in the College service area.

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

Humanities

Human. 100 - Introduction to the Arts (IAI: HF 900)

3-0-3

examines types of art such as music, film, theater, painting, sculpture, literature, and architecture as illustrating the values, capacities, and achievements of human beings. Various approaches to viewing, discussing, and writing about the arts are stressed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities/Fine Arts

Area of Concentration - Not Applicable

Human. 201 - Humanities Honors Seminar (IAI: HF 900)

3-0-3

(Prerequisite: completion of or concurrent enrollment in English 101, either admission to the Honors Opportunities Program or a 3.0 GPA, and permission of the instructor) has the student practice interpreting works of art, literature, and music. Various contexts for this interpretation will be used each time the course is offered, such as an emphasis of the historical period, the aesthetic analysis of the works, the cultural and philosophical background, or the relationships with the lives of the creators. This context will be specified each term the course is offered.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities/Fine Arts

Area of Concentration - Not Applicable

Industrial Safety

Ind. S. 100 - Industrial Safety and Health

3-0-3

investigates the principle causes of accidents in business and industry. It also is designed to increase supervisory awareness of methods of accident prevention and industrial hygiene. Each student receives instruction in first aid and CPR.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Information Technology **(formerly Computer Information Systems)**

I.T. 105 - Information Technology Systems (formerly CIS 105)

2-2-3

is designed for Computer Information Systems majors and business transfer students. Computer concepts, terminology, equipment, programming, and systems analysis and applications as they relate to computers of all sizes in business are surveyed. Computer programs through arrays are written and executed in the BASIC language on Windows/Intel-based microcomputers.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

I.T. 115 - Client Operating Systems (formerly CIS 115)

2-2-3

(Prerequisite: previous IBM-compatible experience or C.I.S. 110) introduces students to Microsoft Windows. Topics include pull-down menus, Windows utilities, running of multiple applications and sharing data between applications, Program Manager, File Manager, and system customization. Intensive lab experiences are involved.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

I.T. 120 - Spreadsheet Applications (formerly CIS 120)

2-2-3

(Prerequisite: C.I.S. 110) teaches the use of current spreadsheet software. Students learn to prepare data or text for processing, complete entries, validate entries, use appropriate menus or commands, and obtain desired results. Students learn data management, file, and graph commands. How to write macros is also covered. This course provides intensive lab experiences on the Windows/Intel-based microcomputer.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

206 Course Descriptions

I.T. 130 - Word Processor Applications (formerly CIS 130)

2-2-3

(Prerequisite: C.I.S. 110) provides hands-on experience using a major word processor. The student will learn how to create, edit, format, print, save, and retrieve as well as learn to use headers, footers, automatic page numbering, fonts, superscript/subscript, merge, spell check, search and replace, thesaurus, glossary, sort, merge, summary sheets, style sheets, library, and integrating data from other packages. This course provides intensive lab experiences on the Windows/Intel-based microcomputer.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

I.T. 131 - Programming Logic(formerly CIS 131/ I.T. 131)

2-2-3

(Prerequisite: experience with microcomputers using Windows and familiarity with fundamentals of computer programming) is an introduction to the program development and design process, including computer-based concepts of problem-solving, structured Visual Basic and techniques, algorithm development and program design. Topics include program flowcharting, algorithms, input/output techniques, looping, modules, selection structures, file handling, control breaks, pseudocoding, and user documentation. Offers students an opportunity to apply skills in a laboratory environment.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

I.T. 132 – Visual Basic Programming

2-2-3

includes 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); and programming applications to display, edit, and update databases by use of the data access object.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

I.T. 141 - Networking Fundamentals (formerly CIS 141)

2-2-3

provides foundational education in local networking and internetworking, as well as specific training using Cisco technology. The course prepares an individual for the Comp TIA Network+ professional certification exam and, likewise, is the first of four preparation courses for the Cisco Certified Network Associate (CCNA) exam. Topics include networks and layered communications, network service layers of OSI model, networking device, IP addressing, basic routing protocols, media and network design, topology, structured cabling, electrical issues in networking, and basic network management.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

I.T. 142 - Routers (formerly CIS 142)

2-2-3

(Prerequisite: I. T. 141 with a grade of "C" or better) continues to build foundational education in local networking and internetworking, as well as specific training using Cisco technology. This is the second of four preparation courses for the Cisco Certified Network Associate (CCNA) exam. Topics include the OSI model, Wide Area Networks (WAN), routing concepts, router components and implementation (including installation, configuration and troubleshooting), Cisco IOS software, TCP/IP, IP addressing, and routed and routing protocols.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

I.T. 143 - Switches (formerly CIS 143)

2-2-3

(Prerequisite: I. T. 142 with a grade of "C" or better) continues to build foundational education in local networking and internetworking, as well as specific training using Cisco technology. This is the third of four preparation courses for the Cisco Certified Network Associate (CCNA) exam. Topics include the network switching, virtual networks, network design, additional routing protocols, access lists, and IPX.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

I.T. 144 - Wide Area Networks (formerly CIS 144)

2-2-3

(Prerequisite: I. T. 143 with a grade of "C" or better) continues to build foundational education in local networking and internetworking, as well as specific training using Cisco Technology. This course is the final course for preparation for the Cisco Certified Network Associate (CCNA) exam. Topics include wide area networking (WAN), WAN design, WAN presence and connectivity with PPP, ISDN, frame relay and other telecomm services and techniques, and extensive review in preparation for the CCNA examination.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Computer Networking

I.T. 151 - Internet Fundamentals (formerly CIS 287)

2-2-3

presents the student with an introduction to the Internet and its services, applications and tools. World Wide Web and its facilities, applications and tools. Topics include Internet history, a survey of Internet-based facilities and applications (e.g., e-mail, web browsers, file transfer utilities, list servers, etc), and Web-based research and information resources. The World Wide Web service is emphasized and basic Web page creation with HTML is introduced.

Applicable 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

I.T. 152 - HTML Programming

2-2-3

(Prerequisite: IT 151) is designed to introduce students to the development of web sites using basic HTML and Dynamic HTML, Cascading Style Sheets. Students will be provided with a basic introduction to JavaScripts, XML, and related technologies and shown how they can use them to add new functionality to their Web offerings.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

I.T. 153 - Web Graphics & Design

2-2-3

(Prerequisite: CIS 110, IT 151 and IT 152 or concurrent enrollment or consent of instructor)

Web Graphics and Design introduces students to the fundamentals of website creation. The complete production process including pre-production planning, layout and design considerations, testing, implementing the site, and maintenance are covered. Professional production tools such as Adobe Premier, Illustrator, and Photoshop, or an equivalent Windows-based suite are used for graphics and layout in the hands-on laboratory exercises

Applicable 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

I.T. 161 - COBOL Programming 1 (formerly CIS 161)

2-2-3

(Prerequisite: successful completion of I. T. 105) emphasizes essentials of structured COBOL programming. Students will write programs using sequential files to print reports from a single input file covering many business applications. Headings, calculations, decisions, totals, control breaks, and data validation are covered. Intensive lab experiences are involved using Windows/Intel-based microcomputers.

208 Course Descriptions

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

I.T. 171 – Microcomputer Hardware Service

2-2-3

prepares an individual for the PC hardware component portion of the A+ Certification exam. The course covers computer architecture, microprocessors, memory, storage, video, modems, printers, local area networks, electrical theory, and portable computers. This course, along with I.T. 172, prepares a student for the A+ Certification exam.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Computer Service Technician

I.T. 172 – Microcomputer Software Service

2-2-3

(Prerequisite: I.T. 171) prepares an individual for the PC software component portion of the A+ Certification exam. The course covers the computer startup process, MS-DOS overview, device drivers, batch files, hard disk setup, MS-DOS setup, MS-DOS optimization, Microsoft Windows family, Windows 3.1 setup, and Windows 95, 98, 2000 upgrade. This course, along with I.T. 171, prepares a student for the A+ Certification exam.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Computer Service Technician

I.T. 181 – eBusiness Concepts

2-2-3

(Prerequisite: Successful completion (grade of "C" or better) of I.T. 105, I.T. 131, I.T. 151, and I.T. 171) presents the student with an introduction to the business side of the World Wide Web and the systems and facilities needed to do business on the Web. Topics include eBusiness History, Survey of eCommerce and eBusiness Models, Internet Marketing, OnLine Monetary Transactions, eBusiness Ethics and the Law, System Security, and a survey of eBusiness/eCommerce information system component requirements.

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

I.T. 182 – Webpage Design Applications

2-2-3

(Prerequisite: C.I.S. 110 and I.T. 115) presents the student with windows-based webpage and website design techniques using MS FrontPage, Adobe PageMaker, or an equivalent windows-based website design tool. This course employs microcomputer-based workstations and windows-based webpage design tools that are common to business information systems environment.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

I.T. 183 – Client Side Scripting

2-2-3

(Prerequisite: Successful completion [grade of "C" or better] of I.T. 105, I.T. 131, I.T. 151, and I.T. 171) presents the student with a comprehensive introduction to Dynamic HTML client-side website development using Visual Basic-based scripting and coding to enhance the performance and functionality of a website. This course requires the student to build multiple webpages and implement at least one major website design. Particular attention is given to client-side applications of Vbscripting and ActiveX applets.

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

I.T. 205 – Tech Support/Help Desk

2-2-3

(Prerequisite: I.T. 105 and C.I.S. 110) prepares the students to meet the demands of the computer user support industry. Topics covered include computer user support, customer service skills, troubleshooting common problems, help desk management, user needs analysis, installing computer systems, and training computer users.

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

I.T. 210 - Graphics Applications (formerly CIS 210)

2-2-3

(Prerequisite: previous IBM-compatible experience or C.I.S. 110) teaches students how 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.

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

I.T. 220 - Data Management Applications (formerly CIS 221)

2-2-3

(Prerequisite: successful completion of I.T. 105, I.T. 131, I.T. 151, and I.T. 171 with a grade of "C" or better) presents the student with windows-based data management techniques using MS Access (or an equivalent windows-based database management system) and pre-developed databases and database applications. This course employs microcomputer-based workstations and windows-based database management systems that are common to business information systems.

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

I.T. 221 - Data Modeling

2-2-3

(Prerequisite: successful completion of I.T. 105, I.T. 131, I.T. 151, and I.T. 171 with grade of "C" or better) introduces students to relational database system concepts and practices used in both small and large information systems, as well as practical experience designing and developing a relational database application. Topics include Data Modeling, Data Normalization, the Data Dictionary, Relational Database design, and Relational Database application development. This course may use MS Access (or an equivalent windows-based DBMS platform) as an RDBMS design and application development tool.

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

I.T. 222 - Structured Query Language (formerly C.I.S. 222)

2-2-3

(Prerequisite: I.T. 221 with a grade of "C" or better) continues the study of relational database system concepts and practices by incorporating Structured Query Language and introducing the advanced topics of inheritance and aggregation. Practical experience designing and developing a relational database application includes individual and team projects, as well as a survey of SQL92 RDBMS platforms and design/development tools.

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

I.T. 223 - Web-based Data Modeling

2-2-3

(Prerequisite: successful completion of I.T. 181, I.T. 183, and I.T. 184 with grade of "C" or better) presents the student with a comprehensive introduction to data modeling concepts and techniques with added particular focus on web-based database design and data sharing and management using extensible markup language (XML). This course requires the student to build multiple webpages and implement at least one major website design.

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

210 Course Descriptions

I.T. 230 - Business Productivity Applications

2-2-3

(Prerequisite: C.I.S. 110) is designed for those students pursuing training in office productivity software and/or MOUS certification. Business Productivity software enhances communication by providing e-mail, e-mail tracking, e-mail management, remote mail, scheduling, project management, address book with client profiles, and integration for seamless interaction. Students will learn basic operations and management, and how to deal with security issues as they pertain to this software.

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

I.T. 232 - Advanced Visual Basic Programming

2-2-3

(Prerequisite: IT 132) Advanced programming techniques in Visual Basic are explored including arrays, multiple forms, data files and databases, random access files, custom objects, error handling, sequential file processing, table handling, sorting and searching procedures, arrays, data validation, and formatting output. The student will build will become familiar with object linking and embedding (OLE), ActiveX controls, fundamental database concepts, relational database manipulation and connectivity, Windows API and Registry manipulation, and Internet controls. Coverage includes ADO (ActiveX Data Objects), Windows Common controls and dialog boxes, user-designed components, Active X controls, Classes, COM (Component Object Model), API (Application Programming Interface), DLL's, Multiple Document Interface (MDI), Data Access Objects, Remote Data Objects, and ODBC.

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

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

Area of Concentration - Not Applicable

I.T. 240 - TCP/IP

2-2-3

(Prerequisite: successful completion [grade C or better] of I.T. 141) presents internetworking concepts using TCP/IP principles, protocols and architectures. This course will explore the TCP/IP suite of protocols in the areas of internetworking, routing, transport, multicast and network application, including IP, RIP, RIP2, OSPF, EIGRP, EGP, BGP, TCP, UDP, DNS, DDNS, DHCP, LDAP, TELNET, FTP and utilities. Students will learn the role of these protocols in network management, security, QoS, network scalability, and load balancing. New TCP/IP technologies such as IP Version 6, its implementation and function, will also be presented.

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

I.T. 245 - Network Security

2-2-3

(Prerequisite: I.T. 141, I.T. 142, I.T. 143) designed to provide a fundamental understanding of network security principles and implementations. Mapping fully to CompTIA's "Security +" certification objectives, IT 245 focuses on the five main areas of network security:

General Security - authentication methods, common network attacks

Communication Security - remote access, e-mail, the Web, Directory/File transfer

Infrastructure Security - network devices & media, security topologies, DMZs, Extranets

Cryptography Security - asymmetric and symmetric algorithms, PKI certificates

Operational/Organizational Security - disaster recovery, business continuity, forensics

Students will learn through classroom instruction as well as a variety of extensive action-learning experiences, and research projects simulating the role of a security professional

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

I.T. 251 - C++ Programming (formerly CIS 251)

2-2-3

(Prerequisite: I. T. 105 and Math. 104) introduces C programming for students who want to learn the C language to write programs for MS-DOS environments. Students study the syntax and structure of C programs, introduce standards and styles for producing understandable C programs, and examine elements of the language, including fundamental data types, variable declaration,

expressions, operators, control statements, pointers, arrays, strings, I/O, functions, parameters, structures, and libraries. This course provides intensive lab experiences on the Windows/Intel-based microcomputer.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

I.T. 252 - Web Authoring Tools (formerly CIS 252)

2-2-3

(Prerequisite: I.T. 251) provides a more in-depth view of C++. This course takes a look into Object Oriented Programming. It includes a study of classes, function and operation overloading, inheritance, virtual functions, polymorphism, and C++'s I/O Library. This course provides intensive lab experiences on the Windows/Intel-based microcomputer.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

I.T. 261 - Advanced COBOL Programming (formerly C.I.S 162/163)

2-2-3

(Prerequisite: I.T. 161) explores advanced programming techniques in COBOL, including single and multi-level table processing, random access files, sorting, on-line/interactive programming, subprogramming, and comprehensive file updating involving both sequential and random access. Intensive lab experiences are involved using IBM-compatible microcomputers.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

I.T. 271 - NOS: Windows NT/2000/XP (formerly CIS 245)

2-2-3

(Prerequisite: I.T. 115) introduces the student to the fundamentals of implementing, administering, and troubleshooting Network Operating Systems, focusing on Microsoft Windows NT4.0 and Windows 2000 Server. Based on a typical heterogeneous WAN with multiple servers, multiple domains, and sophisticated server applications, students will learn strategies and skills in planning network protocols and compatibility, server hardware, server installation, server configuration, operating system requirements, Active Directory implementation, configuring storage, backup maintenance, managing clients through groups and accounts, managing security, printer installation and management, Internet and intranet services, network monitoring and tuning, and network troubleshooting. The materials used in this course prepare the student for Microsoft's MCSE Exam #70-215 for Windows 2000 Server. Students have an opportunity to apply their knowledge through hands-on projects, and case study assignments.

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

I.T. 272 - NOS: UNIX/Linux

2-2-3

(Prerequisite: I.T. 105 and I.T. 115. Students should possess basic computer literacy skills before attempting this course. An understanding of command-line programming would be very helpful to the student.) is an introduction to the fundamentals of Network Operating Systems, focusing on UNIX/Linux. Students will learn how to use the UNIX operating system while operating inside a Solaris environment. This course introduces the Common Desktop Environment (CDE) and includes such topics as learning the fundamental command-line interface, UNIX directory and file system management, file system security, the vi text editor, features and customizing Korn and C shells, basic network administration in UNIX, Applications Manager, Style Manager, Text Editor, printing, and electronic mail. I.T. 272 is for new users of the UNIX environment and CDE. This course incorporates hands-on learning through numerous lab projects using Sun Microsystems Solaris UNIX software.

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

I.T. 273 - Network Management Techniques

2-2-3

(Prerequisite: I.T. 115 and I.T. 271) introduces the student to the theory, strategies and tools of network management through performance and fault analysis of medium to large enterprise networks. This course will provide the student with an overview of router and LAN switch operations in order to provide a basis for managing the devices. Students will receive instruction on the essential MIBs, SNMP traps, syslog messages, and show commands critical for managing network performance, as well as techniques for implementing fault and performance management. This course is designed for students possessing a working knowledge of basic LAN and WAN network design and operation.

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

I.T. 275 - Web Administration & Security

2-2-3

(Prerequisite: IT 105, IT 181) explores the technology and skills necessary to design, deploy, administer, and maintain effective Web systems in various business contexts. This course covers the process of taking a planned Web site from concept to implementation - building a team, installing and maintaining the Web server, legal issues associated with Web site operation, Web security, and contracting issues such as performance, availability and cost. Students will learn through classroom instruction as well as a variety of extensive action-learning experiences and research projects that incorporate and illustrate the concepts of procedures in the course content.

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

I.T. 281 - JAVA Programming

2-2-3

(Prerequisite: successful completion of I.T. 181, I.T. 183, and I.T. 184 with a grade of "C" or better) presents the student with a comprehensive introduction to coding techniques and structures for transacting business in the web environment. This course builds on the I.T. 181 eBusiness Concepts course and puts to practice client-side and server-side application design methods and techniques. This course requires the student to build multiple webpages and implement at least one major website design.

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

I.T. 282 - Web Scripting

2-2-3

(Prerequisite: Successful completion (grade of "C" or better.) of I.T. 105, I.T. 131, I.T.151, and I.T. 171) presents the student with a comprehensive introduction to Dynamic HTML client-side website development using Visual Basic-based scripting and coding to enhance the performance and functionality of a website. This course requires the student to build multiple webpages and implement at least one major website design. Particular attention is given to client-side applications of Vbscripting and ActiveX applets.

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

I.T. 283 - Active Server Pages

2-2-3

(Prerequisite: I.T. 183 with grade of "C" or better) builds on the VBScripting and ActiveX foundation presented in I.T. 183 and presents the student with a comprehensive introduction to Active Server Page-based server-side coding to enhance the performance and functionality of a website. This course requires the student to build multiple webpages and implement at least one major website design. Particular attention is given to server-side applications.

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

I.T. 284 - Perl & CGI**2-2-3**

(Prerequisite: I.T. 183 with grade of "C" or better) presents the student with a comprehensive introduction to the Common Gateway Interface/Perl and JavaServlet server-side coding to enhance the performance and functionality of a website. This course requires the student to build multiple webpages and implement at least one major website design. Particular attention is given to server-side applications.

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

I.T. 285 - Systems Analysis & Design (formerly CIS 285)**2-4-4**

(Prerequisite: I.T. 105) is an introductory course in systems analysis and design for business data processing. The course includes comparative analysis of business systems, file design, documentation, feasibility studies, system implementation, controls, and security.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

I.T. 290 - Work Experience Practicum (formerly C.I.S. 290)**1-10-3**

(Prerequisite: sophomore standing, a minimum of 24 I.T. course hours) affords the student in the Information 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 employee to succeed in the workplace. Employment or observation activities are coordinated with the student's course work. A one-hour per week seminar (time to be arranged for the convenience of the student) is a requirement of this course and for which the student receives one credit hour. Student must work a minimum of 150 hours during the semester to receive credit for this course. Students wishing to enroll in this course must complete an application for enrollment and submit it to the instructor. Applications are available in the Business and Technology Division office.

Applicable toward graduation where program structure permits:

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

Group Requirements - Business (A.A.S. only)

Area of Concentration - Not Applicable

I.T. 295 - Workplace Simulation & Projects (formerly CIS 295)**1-10-3**

(Prerequisite: minimum of 40 credit hours of college course work and approval of I. T. instructional team) provides individuals or groups of students an opportunity to work on a specific project - real or simulated - under the guidance of a faculty mentor. Students are required to present a written proposal to the I.T. instructional team for their consideration. Students and the team will meet to discuss specific objectives, timelines, success criteria, and other topics. A faculty mentor will be identified at this time.

Applicable toward graduation where program structure permits:

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

Group Requirements - Business (A.A.S. only)

Area of Concentration - Not Applicable

I.T. 297 - Emerging Technologies (formerly CIS 297) (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 an I.T. A.A.S. Degree.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

Journalism

Journ. 101 - News Writing

3-0-3

(Prerequisite: eligibility for Engl. 101 and typing ability) introduces the students to basic techniques of news writing and news gathering with experience in the gathering, writing, and rewriting of news copy.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Journalism

Journ. 102 - News Reporting

3-0-3

(Prerequisite: Journ. 101) continues study and practice in writing and gathering news with added emphasis on editing, information sources, interviewing, and page make-up. The goals of accuracy, comprehensiveness, and appropriate interpretation are applied to investigative and interpretive reporting of public affairs.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Journalism

Journ. 110 - Introduction to Mass Media (IAI: MC 911)

3-0-3

(Prerequisite: eligibility for Engl. 101) examines the mass media of our society: newspapers, magazines, radio, and television. The course treats the development of the media to their present forms, the process and theory of mass communications, and issues arising from the present state of mass media, such as "new journalism," "protected sources," and freedom of the press.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Journalism, Speech

Leadership

Lead. 150 - Leadership Development

3-0-3

(Prerequisite: eligibility for Engl. 101) is an extensive exploration of leadership skills, with an emphasis on materials from the humanities, especially literature, philosophy, and film. Typical subjects for discussion include leadership styles, delegation of authority, ethics and leadership, conflict resolution, and creativity in decision making. Core materials for the course come from the Phi Theta Kappa leadership development program, and the course is taught by certified instructors.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Machining

Mach. 101 - Machine Tool Processes 1

1-4-3

provides an introduction to machining metals and the principles of measurement. Also, the student receives instruction in measuring and layout. Introductory training begins on micrometer and vernier tools, dial indication instruments, and gauge blocks. The course includes tool grinder, metal lathe, band saws, drill press, twist drills, boring tools, screw threads, and taps and dies. Related topics such as bench work, the use of hand tools, elementary heat treatment of metals, and elementary tool grinding are a part of the course. Shop safety is covered in every operation.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mach. 102 - Machine Tool Processes 2**1-4-3**

(*Prerequisite: Mach. 101 or equivalent competencies*) provides additional experience in elementary machine shop processes. Milling machines are introduced with the operations of milling vertical and horizontal surfaces. The horizontal milling machine and dividing heads are also introduced. The students begin tool and cutter grinding using various types of mill cutters. Measurement and layout on milling machines are a part of the course along with the cutting of spur, bevel gears, and racks. Shop safety is covered in every operation.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mach. 201 - Machine Tool Processes 3**1-4-3**

(*Prerequisite: Mach. 102 or equivalent competencies*) provides additional experience in grinding and grinding machines. A study of various types of abrasives with their uses is included. Types of grinding covered include tool, drills and reamers, end mills, mill cutters, tool bits, thread chasers, surface, outside and inside, and precision. Attention is given to heat treatment of metals and case hardening. Shop safety is covered in every operation.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mach. 202 - Machine Tool Processes 4**1-4-3**

(*Prerequisite: Mach. 201 or equivalent competencies*) provides the opportunity for the student to be involved in introductory tool and die and/or special projects. In the tool and die study, the student will make a fixture, die, or tooling. The student will build or fabricate a major metal working project using all the equipment in the machine shop. Shop safety is covered in every operation.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Manufacturing

Mfg. 100 - Print Reading for Industry**1-2-2**

provides experiences in reading industrial prints and some sketching of orthographic and pictorial drawings. Topics covered include the interpretation of detail and assembly drawings; auxiliary views; sections, dimensions, and tolerances; lists of materials; notes; drawing change systems; threads; callouts for machine processes; positional and form tolerances; gears; splines; NC documents; and sheet metal, welding, and control diagrams.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mfg. 110 - Basic Metallurgy**3-0-3**

introduces the basics of metal structures with mechanical, physical, and chemical properties related to plain carbon steel. Emphasis is on terminology. Further study includes effects of heating and cooling on steel, the way metals bend or deform, and the principles of metal testing methods.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mfg. 120 - Manufacturing Processes**3-0-3**

is designed to give a basic understanding of the various processes used in manufacturing. It explores theoretical and practical application of the processes, including welding, machining, casting, forging, basic metallurgy, steel making, non-ferrous materials, and testing principles. Field trips are used to demonstrate the processes.

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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

Materials Management

Matls. 110 - Fundamentals of Materials Management

3-0-3

provides an introduction and overview of the field of materials management. Topics include objectives, benefits, relationships with other functions, organization, planning, customer order servicing, inventory management, production control, purchasing, receiving and stores, material handling, physical distribution, and computer applications.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Matls. 120 - Purchasing and Procurement Systems

3-0-3

studies the role of purchasing on the materials cycle, organization under centralized and decentralized philosophy, and legal aspects of the function in setting prices, terms and contracts, planning purchases, make-buy-or-lease analysis, environmental considerations, principles of effective competition, negotiation, finding qualified suppliers, measuring performance, and reducing costs. Value analysis, cost analysis, and business ethics are also studied.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Matls. 130 - Principles of Physical Distribution

3-0-3

(Prerequisite: Matls. 110 or appropriate business experience) is concerned with the movement of goods from production to delivery to distribution channel intermediaries. Attention is focused upon distribution channels, traffic management, warehousing, inventories, organization, control, and communication. Heavy emphasis is given to distribution design and distribution system analysis.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Matls. 170 - Traffic and Transportation

3-0-3

(Prerequisite: Matls. 110 or appropriate business experience) provides an overview of transportation systems and the impact on cost, service, and inventory that each system can develop. Brief exposure to the methods of calculating costs in various modes and routings and operational aspects of the transportation function are offered to enable the materials manager to better understand and evaluate available alternatives.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Matls. 210 - Material Requirements Planning

3-0-3

(Prerequisite: Matls. 140 or C.I.M. 120 or appropriate business experience) demonstrates the importance to modern materials management of computer-based Material Requirements Planning (MRP) systems, which focus on the use of MRP systems to reduce inventories, set priorities, initiate orders, set purchasing requirements, and develop a master production schedule.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Matls. 220 - Advanced Production Control

3-0-3

(Prerequisite: Matls. 160 or Prod. C. 130 or appropriate business experience.) considers production forecasting, shop loading, capacity planning, shop floor control techniques, short-interval scheduling, and job shop versus continuous-flow systems. Further attention is devoted

to material requirements planning.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Matls. 230 - Advanced Purchasing

3-0-3

(Prerequisite: Matls. 120 or appropriate business experience) is a continuation of Matls. 120. Emphasis is given to the managerial aspects of purchasing, contract negotiations and administration, and speculative purchasing.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Matls. 240 - Distribution Resource Planning

3-0-3

(Prerequisite: Matls. 110 or appropriate business experience) ties together physical distribution with manufacturing. It presents concepts on how distribution resource planning can help achieve improvements in customer service, reductions in inventory levels, and reductions in the cost of operating a physical distribution network. Topics covered include "Push Versus Pull" distribution approaches, DRP and master production scheduling, transportation planning, scheduling DRP in the retail/wholesale sector, and justifying and implementing a DRP system.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Matls. 250 - Master Planning

3-0-3

(Prerequisite: Matls. 110 or appropriate business experience) brings the demand and supply sides of production into equilibrium. The relationships between the functions of forecasting, order service, demand planning and control, production planning, master production scheduling, final assembly scheduling, and shipping scheduling are presented.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mathematics

All mathematics courses that are prerequisites for other mathematics courses must be completed with a "C" or better grade if they are to be used as prerequisites.

Math. 087 - General Mathematics Skills

3-2-4

is designed to teach basic operations with whole numbers, fractions, and decimals. The concepts of estimation, rounding off, percents, ratio and proportion, and measurement are discussed. Problem solving and simple average problems will be introduced.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Math. 090 - Pre-Algebra

4-0-4

(Prerequisite: both of the following: (1) Math. 087 or satisfactory score on the mathematics placement exam, and (2) eligibility for Engl. 101 or concurrent enrollment in Engl. 090) is designed to teach the use of fractions, mixed numbers, and decimal numbers in any and all operations. It is also designed to teach procedures for solving simple word problems. The concepts of area, percent, ratio, and order of operations are introduced. The beginning concepts of algebra are practiced thoroughly. Some of the basic concepts of spatial geometry including pyramids, spheres, and cones are integrated in the course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

218 Course Descriptions

Math. 091 - Basic Algebra

4-0-4

(Prerequisite: both of the following: (1) Math. 090 or satisfactory score on the mathematics placement exam, and (2) eligibility for Engl. 101 or concurrent enrollment in Engl. 090 and Engl. 091) is a concentrated study of the topics in Beginning Algebra. The topics include the real number system, first degree equations, signed numbers, integer exponents, elementary graphing, products and quotients of algebraic expressions, systems of linear equations in two variables, radicals and quadratic equations, scientific notation, ratio problems, percent, and variation. A thorough discussion is presented on applied (word) problems with strong emphasis on identifying word problems by type and learning the procedures for each type. Algebraic methods are used in geometry problems, concentrating on finding the areas and perimeters of two-dimensional geometric figures.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

Math. 095 - Basic Geometry

4-0-4

(Prerequisite: both of the following: (1) Math. 091 or satisfactory score on the mathematics placement exam, and (2) eligibility for Engl. 101 or concurrent enrollment in Engl. 090 and Engl. 091) introduces topics such as lines and plane and solid figures with concepts of congruence, similarity, symmetry, and logic.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

Math. 098 - Intermediate Algebra

4-0-4

(Prerequisite: all of the following: (1) Math. 091 or satisfactory score on the mathematics placement exam, (2) Math. 095 or one year of high school geometry, and (3) eligibility for Engl. 101 or concurrent enrollment in Engl. 090 and 091) is designed for (1) students who have successfully completed two years of high school algebra or (2) students who need to review Intermediate Algebra concepts. The topics include real numbers, polynomials, rational expressions, equations, inequalities, problem solving, complex numbers, systems of equations, graphing, functions, relations, exponents, and logarithms. A graphing calculator is required.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates, A.L.S.
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

Math. 104 - Technical Mathematics

4-0-4

(Prerequisite: both of the following: (1) Math. 091 or satisfactory score on the mathematics placement exam and (2) eligibility for Engl. 101 or concurrent enrollment in Engl. 090 and Engl. 091) includes the following topics: whole numbers, common fractions, decimal fractions, percents, measure, bar and line graphs, introductory algebra, signed numbers, basic algebraic operations, simple equations, complex equations, ratio and proportion, introduction to plane geometry, angular measure, angular geometric principles, triangles, similar figures, polygons, circles, areas of common polygons, areas of circles, sectors, segments, and ellipses, prisms and cylinders and their volumes, surface areas, and weights, pyramids and cones, spheres and composite objects and their volumes, surface areas, and weights, introduction to trigonometric functions, trigonometric functions with right triangles, practical applications with right triangles, law of sines, and law of cosines.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Certificates, A.A.S., A.L.S.
- Group Requirement - Mathematics
- Area of Concentration - Industrial Maintenance, Machine Tool Processes

Math. 106 - Mathematics for Health Careers

2-0-2

(Prerequisite: eligibility for Math. 091) includes a review of fractions, decimals, and percents; the household, apothecaries', and metric systems of measurement; ratio and proportion; rate of flow of intravenous fluids; drugs measured in units; stock solutions; application problems; pediatric dosage formulas; insulin dosages; and milliequivalents.

Applicable toward graduation where program structure permits:

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

Group Requirement - Mathematics

Area of Concentration - Nursing

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

4-0-4

(Prerequisite: all of the following: (1) Math. 098 or satisfactory score on the mathematics placement exam, (2) Math. 095 or one year of high school geometry, and (3) eligibility for Engl. 101) provides an overall view of mathematics for students whose primary interests are not in engineering or the physical sciences. The course is designed to fulfill general education requirements. It is not designed as a prerequisite for any other college mathematics courses. The course focuses on mathematical reasoning and the solving of real-life problems, rather than on routine skills and appreciation. Three or four topics are studied in depth, with a least three chosen from the following list: geometry, counting techniques and probability, graph theory, logic/set theory, mathematical modeling, mathematics of finance, game theory, linear programming and statistics. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Not Applicable

Math. 111 - Mathematics for Elementary School Teaching 1

4-0-4

(Prerequisite: all of the following: (1) Math. 098 or satisfactory score on the mathematics placement exam, (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. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Teacher Education - Elementary

Math. 112 - Mathematics for Elementary School Teaching 2 (IAI: M1 903)

4-0-4

(Prerequisite: Math. 111 or equivalent competencies and eligibility for Engl. 101) is a continuation of Math. 111. Topics include geometry and geometric figures, probability and statistics, graphing, measurement, and basic computer literacy. Students are introduced to some of the current literature, innovations, methods, and proposals for the modern elementary mathematics curriculum. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Teacher Education - Elementary

Math. 113 - Introduction to Applied Statistics (IAI: M1 902)

4-0-4

(Prerequisite: all of the following: (1) Math. 098 or satisfactory score on the mathematics placement exam, and (2) Math. 095 or one year of high school geometry, and (3) eligibility for Engl. 101) is a beginning level course for the student in elementary applied statistics. Topics include basic statistical principles, graphic presentation, descriptive measures of central tendency, dispersion and location, inferential statistics and hypothesis testing, analysis and inference of linear correlation, and coefficient and slope of regression line. Students will apply statistical concepts to real-world situations. Current technology will be utilized in examining statistical information. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Not Applicable

220 Course Descriptions

Math. 116 - College Algebra

4-0-4

(Prerequisite: all of the following: (1) Math. 098 or satisfactory score on the mathematics placement exam, (2) Math. 095 or one year of high school geometry, and (3) eligibility for Engl. 101) is a concentrated study of the topics traditionally found in College Algebra. The topics include a quick and intense review of the topics from Intermediate Algebra, including real numbers, algebraic expressions, polynomials, equations, problem solving, complex numbers, and graphing. Major topics include functions, exponential and logarithmic functions, matrices, polynomial equations, inequalities, introduction to analytic geometry, conic sections, systems of equations, mathematical induction, and the binomial theorem. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Not Applicable

Math. 117 - Trigonometry

3-0-3

(Prerequisite: all of the following: (1) Math. 098 or satisfactory score on the mathematics placement exam, (2) Math. 095 or one year of high school geometry, and (3) eligibility for Engl. 101) helps students develop skills sufficiently to write and use the definition of trigonometric functions; sketch the graph of the trigonometric functions; prove identities; solve trigonometric equations; learn and then apply the law of the sines and cosines; learn how to write a complex number in trigonometric form and find all the roots of a complex number; learn polar coordinates system and the graphs of some simple equations in polar; learn about conic sections (rectangular & polar), vector (applications & operations), and the exponential and logarithmic functions with applications and modeling. A calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Mathematics

Math. 121 - Calculus and Analytic Geometry 1 (IAI: M1 900, EGR 901, MTH 901) 5-0-5

(Prerequisite: successful completion of both Math. 116 and Math. 117 or satisfactory score on the mathematics placement exam) begins with a review of algebra and trigonometry; then the idea of limits and continuity is introduced. With the knowledge of limits and continuity the student develops the concept of the derivative and its applications. At the end, the student studies the antiderivative of elementary functions and the applications of the definite integral in geometry, science, and engineering.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Mathematics, Engineering

Math. 122 - Calculus and Analytic Geometry 2 (IAI: M1 900, EGR 902, MTH 902) 4-0-4

(Prerequisite: Math. 121 or equivalent competencies) includes the different methods of integration. Students study transcendental functions, L'Hôpital's Rule, sequences and series, infinite series, power series, Taylor series, conic sections, polar coordinates, parametric equations, and mathematical modeling with differential equations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Mathematics, Engineering

Math. 141 - FORTRAN for Science and Engineering (IAI: EGR 921)

2-2-3

(Prerequisite: Math. 121 or equivalent competencies as approved by the Dean of Mathematics and Sciences) teaches the student reading and writing proficiency in FORTRAN on microcomputers. Top down programming, documentation, subroutines and functions are the tools used to teach the usual three structures of good programming. The data types, integer, real, double precision, complex, character, arrays, and logical, are taught in conjunction with the data, parameter, if-then-else, do-while, do-until, and do- (counter) statements. Scientific problem solving is emphasized leading to numerical methods including data analysis, curve fitting, root solving, systems of linear equations, and numerical differentiation and integration.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Mathematics, Engineering

Math. 160 - Finite Mathematics (IAI: M1 906)

4-0-4

(*Prerequisite: Math. 116 or equivalent competencies*) is an introductory level course covering mathematical ideas needed by students of business management, social science, or biology. The topics include sets and counting, functions, introduction to probability and statistics, interest and annuities, matrix theory, linear systems, and linear programming. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Not Applicable

Math. 170 - Introduction to Statistics (IAI: M1 902, BUS 901)

4-0-4

(*Prerequisite: Math. 160*) is a beginning level course for students in the business, social, or behavioral sciences or for anyone who can use a working knowledge of statistics. The course includes descriptive statistics, probability, probability distributions, hypotheses with testing on different parameters of a population, comparison of two populations on a single parameter, regression analysis, goodness of fit, contingency table, ANOVA, and sampling and simulation. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Not Applicable

Math. 171 - Concepts of Statistics (IAI: M1 902, BUS 901)

4-0-4

(*Prerequisite: Math. 116*) presents descriptive statistics, probability, probability distributions, hypotheses with testing on different parameters of a population, comparison of two populations on a single parameter, regression analysis, goodness of fit, contingency table, ANOVA, and sampling and simulation. Students from various areas - business, education, engineering, and social science - can effectively benefit from this course. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Not Applicable

Math. 190 - Calculus for Business and Social Science (IAI: M1 900)

4-0-4

(*Prerequisite: successful completion of Math. 116 or satisfactory score on the mathematics placement exam*) is an introductory calculus course for the non-mathematics major. The course includes sequences, limits, differentiation and integration of polynomials, and exponential and logarithmic functions with applications to business and social science. A graphing calculator is required.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Not Applicable

Math. 210 - Discrete Mathematics

4-0-4

(*Prerequisite: Math 121 or concurrent enrollment*) provides an overall view of mathematics for students whose primary interests are in computer science and mathematics. The course is designed to fulfill requirements for computer science and mathematics majors preparing to transfer to a four-year institution. This course focuses on mathematical reasoning and the solving of real-life problems rather than on routine skills. Mathematical modeling and projects are included as part of the course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Degrees

Group Requirement - Mathematics

Area of Concentration - Mathematics, Computer Science

222 Course Descriptions

Math. 221 - Calculus and Analytic Geometry 3 (IAI: M1 900, EGR 903, MTH 903) **4-0-4**

(Prerequisite: *Math. 122 or equivalent competencies*) begins with the rectangular coordinate system in three-dimensional space, vectors, and operations with vectors. Lines, planes, quadric surfaces, spherical and cylindrical coordinates, vector-valued functions, curvature, Kepler's Laws of Planetary Motion, partial derivatives, relative extrema of functions of two or more variables, centroid, LaGrange Multipliers, and multiple integrals in different coordinate systems are introduced. At the end, students will learn integrals of functions over a curve or a surface, Green's theorem, the divergence theorem, and Stoke's theorem.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Mathematics

Area of Concentration - Mathematics, Engineering

Math. 230 - Differential Equations (IAI: EGR 904, MTH 912)

4-0-4

(Prerequisite: *Math. 122 or equivalent competencies*) begins with some definitions and terminology and mathematical models used in a differential equations course. First-order and higher-order differential equations, along with the methods of solutions and their applications are introduced. Modeling with higher-order, Laplace transform, and systems of linear first-order differential equations are covered. At the end, students learn series solutions of linear equations. Numerical methods are covered throughout the course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Mathematics, Engineering

Math. 240- Introduction to Linear Algebra

3-0-3

(Prerequisite: *successful completion of Math. 122*) is an introductory course in vectors, matrices, vector spaces, and linear transformations. The concepts discussed in this course not only serve as an introduction to the more abstract courses a mathematics or engineering student meets at the junior-senior level but also have many useful applications outside of mathematics. The course begins with a review of algebra, followed by a study of vectors, vector spaces and subspaces, linear transformations, linear dependence and independence, basis and dimension, rank of a matrix, kernel and range, eigenvalues and eigenvectors, diagonalization, and applications of concepts covered in an introductory linear algebra course. If time permits, the student will learn additional topics such as least squares fitting to data, applications to differential equations, angle and orthogonality in inner product spaces, and quadratic surfaces.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Mathematics

Mechanical Systems

Mec. S. 101 - Mechanical Power Transmission 1

3-2-4

(Prerequisite: *Math. 091 and eligibility for Engl. 101*) provides experiences dealing with fundamentals of mechanical power transmission systems and related machine components used in processing and manufacturing industries. Topics covered include power belting, pulleys and drive arrangements, chain drives, shafting, dynamic shaft seals, and disc and shoe brakes. The student works with handbooks, manufacturers' catalogs, and trade literature in solving power transmission problems.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mec. S. 102 - Mechanical Power Transmission 2

2-2-3

(Prerequisite: *Mec. S. 101 and eligibility for Math. 091 or approval of instructor*) provides additional experiences dealing with mechanical power transmission systems. Topics covered include selection of bearing types including sliding bearings, ball and roller bearings, lubricants, couplings, clutches, gear drives, speed reducers, and conveyor drive systems. The student works

with handbooks, manufacturers' catalogs, and trade literature in solving power transmission problems.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mec. S. 110 - Fundamentals of Hydraulics

2-2-3

(Prerequisite: Math. 091 and eligibility for Engl. 101) provides experiences dealing with fundamentals of hydraulics. Topics covered include principles of work, force, and energy as applied to fluid power systems. Also included are schematics, symbols, fluids, filters, strainers, reservoirs, accumulators, pumps, piping, tubing, hose, valves, activating devices, cylinders, and hydraulic motors. Planned maintenance and troubleshooting of fluid power systems are covered through the use of lecture-demonstrations and field trips to a variety of industrial settings that utilize fluid power systems. The student works with handbooks, manufacturers' catalogs, and trade literature in solving fluid power problems.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mec. S. 111 - Fundamentals of Pneumatics

2-2-3

provides experiences dealing with fundamentals of pneumatics. Topics covered include principles of work, force, and energy as applied to fluid power systems. Also included are schematics, symbols, filters, strainers, air line oilers, pumps, piping, tubing, hose, valves, activating devices, cylinders, air motors, air compressors, and air treatment. Planned maintenance and troubleshooting of fluid power systems are covered through the use of lecture-demonstration and field trips to a variety of industrial settings that utilize pneumatics systems. The student works with handbooks, manufacturers' catalogs, and trade literature in solving pneumatics power problems by using pneumatic trainers.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mec. S. 112 - Pneumatics and Hydraulics

2-2-3

(Prerequisite: eligibility for Math. 091) is a hands-on course in the fundamentals of pneumatic and hydraulic systems. Topics covered include the principles of work, force, energy and flow, and their relationships in linear displacement systems. The student also learns schematics, symbols, and notation used in pneumatic and hydraulic systems. Cylinders and accumulators and various common fluid power components are used in laboratory experiments. Planned maintenance and troubleshooting are discovered through the experiments.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mec. S. 201- Industrial Machine Repair

1-2-2

(Prerequisite: Mec. S. 102 and eligibility for Math. 091 or approval of instructor.) provides lectures and lab experiences dealing with machine tools, related machine components, and equipment used in industry. Topics covered include safety, basic leveling, alignment, machine geometry, ball screws, machine ways, gib adjustment, and conveyors. Students will become proficient in the operation, design, and maintenance of machine tools using industry standard components on trainers.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

224 Course Descriptions

Mec. S. 210 – Industrial Pump Systems

1-2-2

(Prerequisite: eligibility for Math 091 and Engl 101) develops the basic competencies in non-hydraulic pumps. Pump types include non-hydraulic centrifugal, positive displacement, and turbine pumps. The students demonstrate the theory and operation of each of the pump types. Students troubleshoot, dismantle, and rebuild different types of pumps. Topics include pump installation and operation; pump safety; performance; elements of pump efficiency; pump selection and design consideration; and preventative maintenance.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mec. S. 220 – Industrial Lubrication Systems

1-2-2

(Prerequisite: eligibility for Math. 091 and Engl. 101) provides lectures and lab experiences in the areas of machine lubrication. Students will become proficient in types of lubricants, the different lubrication systems used on machines and understand the operation of different lubrication systems and their components. Topics covered include single and dual line lubrication systems; progressive central lubrication systems; the operation of air over oil, oil mist, and oil spray systems; the function of lubrication system monitoring, control, system selection, and system maintenance. Students will become proficient in the operation, design, and maintenance of lubrication systems using industry standard components on trainers.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mec. S. 230 – Industrial Rigging Systems

1-2-2

(Prerequisite: eligibility for Math. 091 and Engl. 101) provides lectures and lab experiences on the safe methods of using fiber ropes, wire ropes, synthetic slings, and chains. Knowledge of rigging and fabrication is demonstrated by structural lab experiences. Topics covered include structural steel designation, fabrication joints, layout basics, chain and accessories, strength of materials, sling angles, leveling, and alignment. The basics on crane and hoist maintenance are also covered using trainers.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mec. S. 240 – Industrial Piping Systems

1-2-2

(Prerequisite: eligibility for Math. 091 and Engl. 101) covers the basic information about piping systems. It introduces students to the basic components of a piping system and the different types of materials. Students get experience laying out and fabricating piping systems. Topics include identifying fittings, pipe threading, piping schematics, plastic pipe, tubing, hoses, and valve maintenance. Students will become proficient in the operation, design, and maintenance of piping systems using industry standard components on trainers.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mec. S. 250 – Advanced Hydraulics

2-2-3

(Prerequisite: Mec. S. 112 and eligibility for Math. 091 or approval of instructor) provides lectures and lab experiences in the areas of advanced industrial hydraulics. Students demonstrate knowledge of industrial hydraulic circuits and components using a complete operating hydraulic system. Topics covered include hydraulic circuit design, causes of component failure, and troubleshooting with hydraulic circuit drawings. Students become proficient in the operation, construction, and rebuild of pumps, valves, cylinders, accumulators, and pressure control valves.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Mec. S. 290 – Mechanical Technology Internship**1-15-4**

(Prerequisite: completion of or concurrent enrollment in all degree-required technical courses and approval of the instructor) provides the student with the opportunity to use the skills acquired from the mechanical technology program in an industrial workplace setting. The internship also allows the student to acquire additional knowledge from the work place. The internship work will be 15 hours per week of employment and must provide a source of learning. This internship requires the student to participate in the daily activities of a mechanical maintenance department. These activities will be varied, and the student will be exposed to several different types of meaningful experiences. This course should be taken in the last semester before 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 - Not Applicable

Music

Music 100 - Music Appreciation (IAI: F1 900)**3-0-3**

includes the various periods and styles of music with minimum attention to theory and harmony. The course requires listening to live and recorded performances. It is designed for students who do not intend to major in music.

Applicable toward graduation where program structure permits:

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

Group Requirement - Fine Arts

Area of Concentration - Music

Music 103 - Theory and Ear Training 1**3-2-4**

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 correlate with the rhythmic, melodic, and harmonic activity.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Music

Music 110 - Orchestra**0-5-1**

is designed for students who have the proficiency and wish to participate in orchestra. It is open to all students with registration subject to an audition. Members must attend all rehearsals and concerts. The course may be repeated for credit a maximum of four times.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Music

Music 120 - Band**0-6-1**

is open to all students with registration subject to an audition. Marching is stressed during the football season. Members must attend all rehearsals and concerts. This course may be repeated for credit a maximum of four times.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Music

Music 130 - Chorus**0-2-1**

provides an opportunity to perform major choral works and public concerts. The course is open to all students with registration subject to an audition. Members must attend all rehearsals and concerts. The course may be repeated for credit a maximum of four times.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Music

226 Course Descriptions

Music 140 - Small Ensemble

0-2-1

provides an opportunity for study and performance of musical works written for smaller instrumental and vocal ensembles. Students must be nominated by their band or orchestra instructor. Students enrolled in this course are required to present at least one public performance during the term. The course may be repeated for credit a maximum of four times.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Music

Music 190 - Introduction to American Music (IAI: F1 904)

3-0-3

studies the origins, growth, and significance of the music of the United States as a distinctive art form derived from the nation's pluralistic culture. The course includes some listening to recorded performances and involves such types of music as classical, religious, folk, jazz, and pop. It is designed for students who do not plan to major in music.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Fine Arts

Area of Concentration - Music

Nursing

Nurs. 101 - Concepts Basic to Nursing Practice

2-0-2

(Prerequisite: admission to Associate Degree Nursing Program, concurrent enrollment in Nurs. 102, completion of or concurrent enrollment in Biol. 201, Hlth. 220, and Psych. 110, or approval of the Dean of Health Professions) describes the roles of the Associate Degree Nursing graduate as provider of care, manager of care, and member of the profession. It introduces the program's conceptual framework for nursing practice: system theory, stress, adaptation, responses to illness, nursing process, legal/ethical issues, critical thinking, caring, teaching, and learning. It outlines the role of the nurse in promoting, maintaining, and restoring health and in assisting clients and families with adaptation to health problems. Issues related to the inherent worth, dignity, and choice of each individual regardless of race, ethnic group, age, or gender are also identified.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Nursing

Nurs. 102 - Fundamentals of Nursing

3-9-6

(Prerequisite: concurrent enrollment in Nurs. 101, completion of or concurrent enrollment in Biol. 201, Hlth. 220, and Psych. 110, or approval of the Dean of Health Professions) utilizes the nursing process and human needs as the framework for introducing basic nursing skills. Nursing skills are presented as the primary focus for meeting needs related to safety, principles of therapeutic communication, hygiene, comfort, mobility, fluid and electrolytes, ambulation, nutrition, elimination, medication administration, sepsis, and infection control. Sixteen hours of this course are devoted to physical assessment as a means of data gathering. The adult client as a consumer of health care and the hospital as one of several health care delivery systems are topics for discussion and observation. Clinical experiences allow students to provide direct care for adult clients in a hospital setting, using the nursing process.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Nursing

Nurs. 151 - Medical-Surgical I

2-6-4

(Prerequisite: Nurs. 101, Nurs. 102, Hlth. 220, Biol. 201, and Psych. 110, concurrent enrollment in Nurs. 152 and Nurs. 154, completion of or concurrent enrollment in Biol. 202, and Math. 106, or approval of the Dean of Health Professions) studies (a) the utilization of the nursing process and critical thinking to manage clients with alterations in the integumentary, urinary, and gastrointestinal systems; (b) the nursing management of clients experiencing surgery; and (c) the role of the nurse in the management of cell injury, inflammation, fluids, and electrolytes. Clinical nursing and physical assessment skills are emphasized. Clinical experiences provide opportunities

to use the nursing process, communication, critical thinking, and decision making in caring for adults in hospital settings.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Nursing

Nurs. 152 - Psychiatric Mental Health Nursing

2-6-4

(Prerequisite: Nurs. 101, Nurs. 102, Hlth. 220, Biol. 201, and Psych. 110, concurrent enrollment in Nurs. 151, and Nurs. 154, completion of or concurrent enrollment in Biol. 202, and Math. 106, or approval of the Dean of Health Professions) applies the nursing process and critical thinking to the management of psychiatric and mental health problems in clients and families. Emphasis is placed on the interactive nature of clients with their environment and the use of various treatment modalities, communication, and relationship skills to manage clients with alterations in mental health. Clinical experiences provide opportunities to use the nursing process, therapeutic communication, and critical thinking. Students plan and administer care to individuals and small groups.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Nursing

Nurs. 154 - Pharmacological Principles for Nursing Practice

2-0-2

(Prerequisite: RN, LPN, or grade of "C" or better in Nurs. 101, Nurs. 102, Hlth. 220, PN 101, 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 Dean of Health Professions) presents an overview of the basic drug knowledge nurses need for safe and effective drug administration. The action, characteristics, and adverse effects of drugs classified by body systems are studied. The nursing process is applied to drug therapy.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Nursing

Nurs. 160 - Intravenous Therapy Techniques for LPN's

2-0.5-2

(Prerequisite: LPN license or approval of the Dean of Health Professions) introduces the LPN to the techniques, complications, and special problems of peripheral intravenous therapy. The course teaches the students to perform the following activities under the supervision of a registered nurse: perform a venipuncture, monitor and regulate intravenous fluid rates, observe client for local reactions, add non-medicated solutions to existing lines, change peripheral intravenous tubings and dressings, discontinue intravenous therapy, and monitor existing transfusions and blood components. This course includes laboratory and clinical experiences.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificate

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Nurs. 200 - Cardiovascular Assessment

1-0-1

(Prerequisite: RN, LPN, or EMT license, or approval of the Dean of Health Professions) presents a systematic method for gathering subjective and objective data related to the physical assessment of the cardiovascular system of adults and geriatric clients. The purposes of the course are to (a) review the anatomy and physiology of the cardiovascular system; (b) provide knowledge of normal findings and deviations from normal findings; (c) identify methods and techniques used to examine cardiovascular functioning; and (d) provide opportunities to practice assessment techniques in a laboratory setting.

Applicable toward graduation where program structure permits:

Certificate or Degree - A.A.S.

Group Requirement - Not Applicable

Area of Concentration - Nursing

Nurs. 201 - Medical-Surgical Nursing II

3-6-5

(Prerequisite: Nurs. 151, Nurs. 152, and Nurs. 154, completion of or concurrent enrollment in Biol. 220 and Engl. 101, or approval of the Dean of Health Professions) applies the nursing process and critical thinking to the care of adult and geriatric clients with alterations in immune, respiratory, endocrine, cardiovascular, and hematologic systems. Assessment and nursing skills are emphasized. Situations are provided to challenge decision making and exercise sound judgments. Clinical experiences occur in a variety of health care settings.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Nursing

Nurs. 202 - Family Health Nursing

3-6-5

(Prerequisite: Nurs. 201, Nurs. 251, Biol. 220, and Engl. 101, concurrent enrollment in Nurs. 254, completion of or concurrent enrollment in Psych. 145, Socio. 110, and Humanities elective, or approval of the Dean of Health Professions) examines issues relevant to the promotion of sexual and reproductive health throughout the life span and the management of developmental needs and health problems that may occur from infancy through adolescence. The nursing process and critical thinking are applied to the management of clients and families from preconception through adolescence and to clients with diseases of breasts and the reproductive system. Individual and group teaching, assessment, and nursing skills are emphasized. Clinical experiences in clinics, hospitals, and selected community agencies are provided.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Nursing

Nurs. 203 - LPN Bridge Course

6-2-7

(Prerequisite: Illinois LPN license or license pending, Chem. 100, or High School Chemistry, CIS 110, Biol. 101, Biol. 201, Biol. 202, Hlth. 220, Psych 110, Psych 145, Math 106, and Nurs. 154, or approval of the Dean of Health Professions) presents the philosophy of Associate Degree Nursing and provides the nursing knowledge, cognitive and clinical skills from Nursing 101, 102, 151, 202 that allow the transition of LPN's into the Associate Degree Nursing program. This course focuses on the nursing process, critical thinking, the teaching and learning process, physical assessment, fluid and electrolytes, and the management of alterations in the renal system, burns, and selected gastrointestinal dysfunctions. The nursing process and critical thinking are applied to the management of clients and families from preconception through adolescence and to clients with diseases of breasts and the reproductive system. Critical nursing skills related to these content areas are validated in both laboratory simulations and clinical experiences. Students must receive a "C" or better to pass this course. Upon successful completion of this course and paying the appropriate fee for credit by advanced placement, students will receive credit for Nursing 101, 102, 151, and 202.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Nursing

Nurs. 210 - Health Assessment in Nursing

3-0-3

(Prerequisite: RN or LPN license or Biol. 201, Biol. 202, and Nurs. 251, or approval of the Dean of Health Professions) presents a systematic method for collecting subjective data and for performing a physical assessment. The content is organized around the developmental stages, from infancy to old age, and the systems approach. The purposes of the course are to provide (a) knowledge about assessment data needed for each system and the skill necessary for assessment and (b) an opportunity to perform the skills necessary for a complete assessment. The focus of this course is on normal findings along with basic information about common and important abnormal findings.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Nursing

Nurs. 215 - Registered Nurse First Assist**3-1-4**

(Prerequisite: RN with experience in the Operating Room) trains professional nurses to become skilled, efficient surgical assistants. In addition to intraoperative behaviors used by the operating room nurse, those unique to the first assistant include handling tissue, using instruments, suturing, and providing hemostasis. The intent of this course is to provide capable nurse assistants when physicians are not available.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Nursing

Nurs. 251 - Long-Term/Acute Care Nursing**2-6-4**

(Prerequisite: Nurs. 151, Nurs. 152, Nurs. 154, and Nurs. 201, completion of or concurrent enrollment in Biol. 220 and Engl. 101, or approval of the Dean of Health Professions) focuses on the use of the nursing process and critical thinking to manage adult and geriatric clients with alterations in neurological, musculoskeletal, and oncological functioning in both acute and long-term health care delivery systems. Students gain clinical experience in oncology care, acute care, and geriatric care. Students develop insight about the effects of an aging population as it relates to health care delivery systems. Emergency room and critical care experiences are also included in the clinical rotation.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Nursing

Nurs. 254 - Transition from Education to Practice**2-9-5**

(Prerequisite: Nurs. 201, Nurs. 251, Engl. 101, and Biol. 220, concurrent enrollment in Nurs. 202, completion of or concurrent enrollment in Socio. 110 and Humanities elective, or approval of the Dean of Health Professions) introduces nursing students to the work setting by involving them in as many situations common to everyday clinical practice as possible while providing support and guidance from a nurse preceptor and instructor. Students work one eight-hour day and/or evening shift per week, provide direct care to a group of clients, and manage care given by other health care workers. The course presents concepts and issues pertinent to the effective entry into nursing practice. Students are prepared to perform in their expected role, in regard to leadership, time management, and patient care management. The concepts of conflict management, accountability, quality assurance, employment, the health care delivery systems, diagnosis-related groups, and legal/ethical issues are also discussed. Opportunities and challenges related to lifelong learning and professional responsibilities are identified.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Nursing

Office Technology

O.T. 100 - Keyboarding Speed and Accuracy**1-1-1.5**

(Prerequisite: touch-keyboarding skills of 20 net words a minute) is designed to improve speed and accuracy on 1- to 5-minute timed writings using the touch-keying technique. Skill level range is 20 to 50 plus WAM. Students entering this class must have previously developed minimal keyboarding proficiency. There will be no keyboarding presentation.

Applicable toward graduation where program structure permits:

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

Group Requirements - Business (A.A.S. only)

Area of Concentration - Not Applicable

O.T. 112 - Document Formatting/Word Processing**2-2-3**

(Prerequisite: touch-key minimum skills of 25 NWAM for three minutes) helps students learn and develop efficient skills in producing business and personal documents using word processing concepts and applications. Students learn to create, edit, print, and maintain documents in a computerized word processing office environment.

Applicable toward graduation where program structure permits:

230 Course Descriptions

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. 115 - Operating Systems & Applications (formerly O.T. 102/104/105) 3-1-3

introduces students to computer and software applications. Students will be introduced to the Windows operating system and basic spreadsheet features focusing on designing and creating spreadsheets, entering data, and editing. Students will also be introduced to the database management features used in designing, creating, saving, editing, sorting, querying, and preparing and printing reports. (Students cannot receive credit for O.T. 115 and any of the following: O.T. 102, O.T. 104, or O.T. 105.)

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. 140 - Medical Terminology (formerly O.T. 141) 3-0-3

is designed to provide the student with knowledge of the meaning of word parts, pronunciation, and correct spelling of medical terms. Special emphasis is placed on the medical terminology as it relates to the human body.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

O.T. 141 - Medical Office - Anatomy (formerly O.T. 142) 3-0-3

(Prerequisite: O.T. 140) is a lecture course dealing with an introduction to the principles of anatomy and physiology. In association with each body system, common pathological conditions are also covered. This course is recommended for persons interested in allied health professions such as medical coding, transcription, or other medical clerical positions. This is a non-lab course, and a science background is not required.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

O.T. 142 - Medical Transcription 1 (formerly O.T. 242) 1-3-3

(Prerequisite: O.T. 112 and O.T. 141 or concurrent enrollment) provides experience in transcribing a variety of medical reports from machine dictation. Speed and accuracy are emphasized. A review of terminology is provided.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

O.T. 143 - ICD-9 Coding (formerly O.T. 242) 2-2-3

(Prerequisite: O.T. 141 or concurrent enrollment) focuses on the ICD-9 System of medical coding and is designed to provide students knowledge and practical experience encoding patient medical records into appropriate reporting documents.

Applicable toward graduation where program structure permits:

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

Group Requirements - Not Applicable

Area of Concentration - Not Applicable

O.T. 150 - Records Management 3-0-3

(Prerequisite: O.T. 115 and touch-keyboarding skills of 20 net words a minute) introduces students to records and information management systems including issues in planning, creating, managing, and controlling both paper and electronic records. This course includes hands-on database practice. Career opportunities in the field of records management are discussed.

Applicable toward graduation where program structure permits:

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

Group Requirement - Business (A.A.S. Only)

Area of Concentration - Not Applicable

O.T. 160 - Office Accounting

3-0-3

emphasizes the use of accounting in keeping financial records with special emphasis on the income statement, statement of owner's equity, and balance sheet. The course also covers payroll calculations, banking procedures, and petty cash operations.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

O.T. 170 - Professional Office Procedures (formerly O.T. 250)

3-0-3

(Prerequisite: O.T. 112 or concurrent enrollment, or equivalent competencies.) emphasizes the office skills necessary to succeed in a global business in the 21st century. It includes studying workplace ethics, functioning as a team member, managing stress and time, calendaring, developing communication skills, preparing computer-aided presentation, processing mail, arranging conferences and meetings, making travel arrangement, and developing employment-seeking skills.

Applicable toward graduation where program structure permits:

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

Group Requirement - Business (A.A.S. Only)

Area of Concentration - Not Applicable

O.T. 200 - Speedwriting (formerly O.T. 131)

3-0-3

(Prerequisite: Bus. 119 or concurrent enrollment, and O.T. 112 or equivalent competencies) 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.

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. 205 - Voicing & Transcription

2-2-3

(Prerequisite: Bus. 119, O.T. 112, and O.T. 115; or equivalent competencies) covers dictating, formatting, editing, and proofreading business documents using speech recognition software. Also included is transcribing business letters, memos, agendas and meeting minutes from dictation.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

O.T. 210 - Statistical Keyboard Entry

1-2-2

(Prerequisite: minimum touch-typing speed of 35 NWAM) provides students with a functional knowledge of electronic calculator and entry-level skills in data entry on the microcomputer. It also emphasizes speed development and accuracy in entering data with realistic production jobs and keyboarding exercises. Major emphasis is on numeric entry.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

O.T. 211 - Advanced Word Processing

2-2-3

(Prerequisite: O.T. 112 or equivalent competencies) covers projects using advanced word processing functions on microcomputers. Some of these processes include creating autotext, macros, tables, outlines, mail merge documents, forms, and styles; sorting, formatting data into columns, and working with multi-page documents.

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. 212 - Desktop Publishing Applications

2-2-3

(Prerequisite: O.T. 211 or equivalent competencies) covers projects which use desktop publishing fundamentals on microcomputers. Some of these processes include basic typography, design, graphics, and newsletter, brochure, and booklet creation.

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. 220 - QuickBooks Pro Fundamentals

2-2-3

(Prerequisite: Acct. 101 or O.T. 160, and O.T. 115, or equivalent competencies) provides students experience in using QuickBooks Pro software. Students learn to computerize accounting records for various types of business organizations, record transactions, manage accounts receivable, accounts payable and inventories, and prepare financial statements.

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. 225 - Peachtree Fundamentals

2-2-3

(Prerequisite: Acct. 101 or O.T. 160, and O.T. 115, or equivalent competencies) provides students experience in using Peachtree software. Students learn to computerize accounting records for various types of business organizations, record transactions, manage accounts receivable, accounts payable and inventories, and prepare financial statements.

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. 230 - Legal Terminology and Documents

1-3-3

(Prerequisite: O.T. 211 or concurrent enrollment and Bus. 119; or equivalent competencies) is a specialized course designed to acquaint students with legal terminology, definitions, and formatting of legal documents.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

O.T. 232 - Legal Research

3-0-3

(Prerequisite: O.T. 230 or equivalent competencies) provides students an understanding of legal libraries. Research skills are developed through the use of digests, encyclopedias, reporter systems, treatises, and practice manuals. An exposure to computerized research is also provided.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

O.T. 240 - Pharmacology Terminology

3-0-3

(Prerequisite: O.T. 140 or equivalent competencies) provides an introduction to the use of pharmacologic terminology. Medication actions, dosage forms, routes of administration, and uses will be covered. Course emphasis is on the terminology necessary for medical reports.

Applicable 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 Transcription 2 (formerly O.T. 243)

1-3-3

(Prerequisite: O.T. 142.) provides experience in transcribing recorded reports dictated by physicians in general offices, clinics, and hospitals. Speed and accuracy are emphasized.

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. 243 - CPT Coding (formerly O.T. 245)**2-3-3**

(Prerequisite: O.T. 141 or concurrent enrollment) focuses on the CPT system of medical coding and is designed to provide students with knowledge and practical experience encoding patient medical information into appropriate reporting documents.

Applicable toward graduation where program structure permits:

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

Group Requirements - Not Applicable

Area of Concentration - Not Applicable

O.T. 245 - Insurance/Patient Billing**2-2-3**

(Prerequisite: minimum touch-typing speed of 25 NWAM, O.T. 115, O.T. 140, and O.T. 160; or equivalent competencies) emphasizes computerized patient billing procedures in the medical office environment. The students will enter patient and case information, record appointments, process transactions, produce reports and patient statements, and process claims. MediSoft software will be used.

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. 260 - Payroll Records & Procedures**2-2-3**

(Prerequisite: Acct. 101 or O.T. 160, and O.T. 115, or equivalent competencies) explores basic payroll accounting procedures covering each area of payroll through examples, illustrations, and exercises. Students will maintain employee time and payroll records including calculation of gross earnings and deductions using a variety of payroll systems. The course will also include preparing and filing the required governmental payroll forms.

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. 272 - Web Page Development**2-2-3**

(Prerequisite: O.T. 115 and O.T. 211, or equivalent competencies) introduces the student to Webpage design concepts using popular Web-authoring software. Students will plan, design, create, publish, maintain, and improve interactive Web sites containing graphics and animations. Tables, frames, forms and templates will be used to create functional Web pages.

Applicable 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. 290 - Work Experience Practicum & Seminar**1-10-3**

(Prerequisite: sophomore standing and a minimum completion of 45 credit hours towards an O.T. degree; or approval from the Office Technology full-time faculty) provides students in the 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 student to succeed in the workplace.

Applicable 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. 295 - Workplace Simulation & Project (formerly O.T. 251)**1-10-3**

(Prerequisite: sophomore standing and a minimum completion of 45 credit hours toward an O.T. degree; or approval from the Office Technology full-time faculty) is a capstone course designed to give students the opportunity to apply their technical skills and ability to work successfully in the workforce, to demonstrate learning and thinking skills, and to develop individual resourcefulness. The student will have an opportunity to work independently and as a team member on a specific project(s) under the guidance of a faculty mentor. (Students cannot receive credit for both O.T. 295 Workplace Simulation & Project and O.T. 251 Administration Assistant - Work Simulation).

Applicable 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

Personal Development

P. Dev. 100 - Human Potential Seminar

0-2-1

is a structured, positive group process. Its goals are increasing awareness of the student's present value system, personal achievements, and strengths and relating this awareness to plans for the future. Activities are aimed toward enhancing regard for oneself and others.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P. Dev. 101 - Orientation

1-0-1

provides motivation, access to inner resources as well as college and community resources, and specific, practical study skills and coping strategies to help each student take control of his or her lifelong self-education and personal development, which can lead to personal and academic success.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P. Dev. 109 - How to Market Yourself

1-0-1

is a self-esteem and introspective course that helps students to understand their own personal strengths and skills capabilities so they can better present themselves to prospective employers. (Students may not receive credit for C. Dev. 112 and P. Dev. 109, 110, and/or 111.)

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P. Dev. 110 - Career Exploration

0-2-.5

provides the individual with an opportunity to explore his or her interests, values, abilities, and other significant factors as they relate to vocational choice and the world of work. Various tests, career materials, guest speakers, and group discussion sessions are used to assist the individual in making educational and career plans. (Students may not receive credit for C. Dev. 112 and P. Dev. 109, 110, and/or 111.)

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P. Dev. 111 - Job Preparation

1-0-1

is designed to teach effective job search techniques to students. Students prepare a resumé and cover letter, prepare for an interview, practice interviewing skill, and organize a job search. The course includes a review of current job search literature. (Students may not receive credit for C. Dev. 112 and P. Dev. 109, 110, and/or 111.)

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Personnel Relations

P. Rel. 100 - Human Relations

3-0-3

(Prerequisite: successful completion of Bus. 119 or eligibility for Engl. 101.) explores the fundamentals of human relations in all fields of everyday life. Study includes interpersonal relationships in both the work and home environment. The course is designed to improve the student's understanding of individual behavior and group dynamics. Topics covered include communication skills, assertiveness, setting goals, interviewing, cooperation, and handling conflict. Class activities are used to illustrate various human relations skills.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

P. Rel. 110 - Supervisory Techniques and Personnel Development

3-0-3

is designed for practicing or potential first-line supervisors and/or managers who hold or expect to hold up to middle-level management positions. The course consists of a survey of basic management concepts in proper combination to assist the individual to diagnose situations encountered by supervisors in their day-to-day activities, to analyze problems, and to work toward solutions. The course emphasizes human relations, motivation, conference leading, leadership training, and the basic managerial functions.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

P. Rel. 120 - Labor Management Relations

3-0-3

is designed to aid union members and persons currently employed or who desire employment in management positions to obtain a deeper understanding of union-management relations. It includes the history and development of the labor movement, labor laws, union structure, collective bargaining, arbitration, and administration of the collective bargaining agreement.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

P. Rel. 200 - Personnel Administration

3-0-3

studies the blending of the needs of the individual with the needs of the organization. Study is made of personnel decisions, the impact of training on future performance, performance evaluation and human resource accounting, and motivating performance in an organizational setting. Current issues in personnel, such as women, minorities, and the disadvantaged, are also investigated.

Applicable toward graduation where program structure permits:

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

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

Area of Concentration - Not Applicable

Philosophy

Phil. 100 - Critical Thinking (IAI: H4 906)

3-0-3

(Prerequisite: eligibility for Engl. 101) develops the student's ability to identify and correct faulty reasoning, to distinguish between scientific and pseudoscientific reasoning, and to reason according to elementary valid argument patterns. Throughout the course, students examine and evaluate examples of good and bad reasoning and construct several extended arguments of their own on a variety of topics.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - Philosophy

236 Course Descriptions

Phil. 110 - Introduction to Philosophy (IAI: H4 900)

3-0-3

(Prerequisite: eligibility for Engl. 101) surveys the major methods and systems of philosophy through discussion of questions such as what is really real, what is truth, does God exist, why is there evil in the world, and how should moral issues be resolved. Students are encouraged to formulate their own answers to such questions through reading, discussion, and logical argument.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - Philosophy

Phil. 120 - Introduction to Ethics (IAI: H4 904)

3-0-3

(Prerequisite: eligibility for Engl. 101) surveys major systems for distinguishing right and wrong conduct such as divine command theory, utilitarianism, and natural law theory. Attention is also given to issues such as the free will/determinism debate, ethical relativism, and selected contemporary moral issues such as abortion, euthanasia, and capital punishment. Students are encouraged to formulate their own responses to ethical issues through reading, discussion, and logical argument.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - Philosophy

Phil. 200 - Symbolic Logic

3-0-3

(Prerequisite: eligibility for Engl. 101) surveys the basic elements of deductive reasoning on which the logic of fields such as data processing, electronics, algebra, and geometry are based. Topics include translation from English to symbolic notation, rules of deduction, techniques for proving validity and invalidity of arguments, and basic quantification. The course is useful as preparation for academic and technical fields using deductive logic and as a powerful tool for sound reasoning in any area. It assumes no mathematical or technical background.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Philosophy

Phil. 210 - Introduction to World Religions (IAI: H5 904N)

3-0-3

(Prerequisite: eligibility for Engl. 101) surveys the major religions of the world in order to promote an understanding of the variety of religious beliefs. Major religions studied include Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, and Islam. The course may also include other religious traditions, if time permits.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - Philosophy

Phil. 215 - Asian Philosophy (IAI: H4 903N)

3-0-3

(Prerequisite: eligibility for Engl. 101) surveys the basic philosophical aspects of Hinduism, Buddhism, Confucianism, and Taoism as a means of expanding the student's understanding of Eastern culture. Emphasis is on concepts of knowledge, reality, and ethics. Meets third world course requirements.

Applicable toward graduation where program permits:

Certificate or Degree - All Certificates and Degrees

Group Requirement - Humanities

Area of Concentration - Philosophy

Phil. 220 - Current Issues in Ethics

3-0-3

(Prerequisite: eligibility for Engl. 101) examines selected topics from the fields of professional and business ethics, bio-medical ethics, environmental ethics, ethics of public policy, and other fields of current interest to moral philosophers. Emphasis is on providing students with experience in thinking about moral issues currently encountered in professional and private life.

Applicable toward graduation where program permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Philosophy

Phil. 230 - Philosophy of Religion (Pending ICCB approval)

3-0-3

(Prerequisite: Eligibility for Engl.101) is a study of selected religious concepts and theories, such as the existence and nature of a deity, the nature of good and evil, reason and faith, ethics, the nature and possibility of an afterlife, and the nature of religious language.

Applicable toward graduation where program permits:

Certificate or Degree - All Certificates and Degrees

Group Requirement - Humanities

Area of Concentration - Philosophy

Physical Education

Note: Students may repeat P.Ed. 100 and/or 110, 114, 120, or 214 up to three times for credit. A maximum of four credit hours in P.Ed. may be counted toward graduation. After four credit hours P.Ed. classes may be taken on an audit basis or through the Lifelong Learning Non-Credit option.

P.Ed. 100 - Aerobics

0-2-1

is a low impact and/or step aerobics activity class designed to improve health and fitness, to increase energy levels, and to minimize stress. The class is coeducational and will meet the needs of all adults and levels of aerobic fitness from the beginner to the more advanced.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 110 - Personal Fitness

0-2-1

is a class designed to emphasize the student's body development based on his or her abilities and fitness goals. The course uses stationary bicycles, treadmills, and stairclimbers along with universal weight machines and free weights.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 111 - Basketball

0-2-1

is an activity course designed to provide instruction and practice of the basic skills used in playing the game of basketball. Special emphasis is placed on rules interpretation, skill development, and strategies.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 112 - Volleyball

0-2-1

is an activity course designed to provide instruction and practice of the basic skills used in playing the game of volleyball. Instruction includes terminology and rules interpretation, skill development of the set, serve, block, and the spike as well as the playing of the game.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 113 - Badminton

0-2-1

is an activity course designed to provide instruction in the basic skills of playing badminton. Special emphasis is placed on singles and doubles play, rules interpretation, terminology, and game strategy.

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Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 114 - Golf - Beginners

0-2-1

is an activity course designed to provide instruction in the basic skills used in the playing of golf. Special emphasis is placed on rules interpretation, terminology, and practice using the various clubs.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 115 - Tennis

0-2-1

is an activity course designed to provide instruction in the basic skills used in the playing of tennis. Singles and doubles play, rules interpretation, terminology, and various tennis strokes will be emphasized.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 116 - Flag Football

0-2-1

is an activity course designed to provide instruction in the playing of flag football. Emphasis is placed on rules interpretation, team play, and game strategy.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 117 - Soccer

0-2-1

is an activity course designed to provide instruction and techniques in the playing of soccer. Team play, rules interpretation, and game strategy are emphasized.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 118 - Racquetball

0-2-1

is a course designed to provide instruction and to play the game of racquetball. Emphasis is placed on strategy, singles, and doubles play, rules, and special strokes.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 120 - Personal Defense

0-2-1

is a course designed to provide students with basic self-defense skills, either in the form of generic self-defense training, or in the form of one of the various martial arts schools such as jujutsu, judo, aikido, or karate. In addition to physical self-defense skills, students will develop basic skills in awareness, self-control, avoidance of physical confrontations, and defusing imminent physical confrontations.

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Physical Education

P.Ed. 121-Bowling

0-2-1

is a basic skills class to introduce students to bowling as a lifetime activity. Repeatability – 3 times.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 122-Softball**0-2-1**

is designed for students who wish to compete in softball at the intercollegiate athletic level. Repeatability – 3 times.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 140-Beginning Ballet**0-2-1**

is designed to help students to understand the ballet technique used in barre exercises, center floor work, and dance combinations and is concerned with correct body alignment of students and their basic understanding of ballet terminology. Course may be repeated two times for a total of two accrued credits.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 145-Beginning Jazz Dance**0-2-1**

is designed to help students to understand jazz technique used in warm-up exercises at the barre and in the center, center floor work, combinations, and dance routines and to help their basic understanding of jazz terminology. Course may be repeated one time for a total of two accrued credits.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 160-Beginning Swimming**0-2-1**

is designed to aid the non-swimmer in acquiring such fundamental skills as floating, treading water, bobbing, elementary crawl strokes, and the elementary backstroke.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 161-Intermediate Swimming**0-2-1**

(Prerequisite: P.Ed. 160 or equivalent swimming skills as evaluated by the instructor) is designed for the novice swimmer. Emphasis is placed on improving the crawl stroke, the sidestroke, and the breaststroke. Each student's endurance should improve considerably by the completion of this intermediate swimming course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 162 - Advanced Swimming**0-2-1**

(Prerequisite: P. Ed. 161 or equivalent swimming skills as evaluated by the instructor) allows the student to improve his/her ability to use all basic swimming strokes. Emphasis is on safety, endurance, timing, and water games. Water safety involving boats is included.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 163 - Lifeguard Training**0-2-1**

(Prerequisite: P.Ed. 162 or equivalent swimming skills as evaluated by the instructor) offers the American Red Cross principles and techniques of lifesaving. Instruction is given in water safety, accident prevention, defense mechanisms, and the ability to assist and rescue others. Upon successful completion of the course, the student will be eligible for certification as a lifeguard by the American Red Cross.

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Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 214 - Golf - Intermediate

0-2-1

is designed to continue to develop the fundamental skills necessary to swing a golf club and to apply those skills strategically to improve play on the golf course.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

P.Ed. 215 - Wilderness Camping

0-4-2

provides, beginning with preparatory handouts and readings intended to familiarize the student with the skills, risks, and regulations associated with wilderness camping, a general overview of trip planning, equipment and clothing selection and packing, along with food selection and packaging. Field work will provide for hands-on learning experiences in primitive camping skills, food preparation, wilderness safety and survival, map reading, and backpacking.

Repeatability - 3 times

Applicable toward graduation where program structure permits:

Certificates or Degree - All Certificates and All Degrees

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Physical Science

Phys. S. 105 - Physics and Astronomy (IAI: P9 900L)

3-2-4

(*Prerequisite: eligibility for Engl. 101 and completion of Math. 091 ["C" or better grade].*) is a laboratory course designed for non-science or education majors. The students are introduced to the fundamental topics of astronomy, including an introduction to the night sky, the prominent constellations, planets, stars, and galaxies, cosmology, the Big Bang, and the ultimate fate of the universe. In addition, students are introduced to the scientific method and its development from early Aristotelian physics, through Galileo and Newtonian physics, up to the modern physics of Einstein and the 20th Century. Real-world applications and experiments with planetarium computer programs are used to illustrate the concepts and material of interest to the course.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - Not Applicable

Phys. S. 220 - Physical Science

3-2-4

(*Prerequisite: admission to Honors Opportunities Program, eligibility for Math. 121, and two years of high school science, including one year of physics or chemistry or equivalent.*) is an honors seminar and laboratory providing qualified students an opportunity to examine a variety of topics normally presented in separate courses. The course emphasizes the interdisciplinary nature of science and mathematics. The unifying theme is atomic theory, an abstract, mathematical model of the structure of matter that has profound implications for the conduct of science.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Not Applicable

Physics

Phys. 100 - Physics and Society (IAI: P1 901)

4-0-4

(*Prerequisite: eligibility for Engl. 101 and completion of Math. 091 ["C" or better grade]*) is an elementary course that emphasizes principles and applications of mechanics, heat, sound, and electricity. The course is presented with an emphasis on observations with descriptions being used to illustrate basic problem-solving principles and laws, with students learning to solve problems applying these principles and laws. Both the subject material and the illustrations used in the course

are drawn from common experiences.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/ Physical Science

Area of Concentration - General Science

Phys. 101 - Introduction to Physics 1 (IAI: P1 900L)

3-2-4

(Prerequisite: successful completion of Math. 098 ["C" or better grade] or equivalent competencies and eligibility for Engl. 101) is the first physics laboratory course introducing students to contents and methods useful for careers in engineering, bio-medicine, physics, or mathematics. It is an algebra-based study of the physical world, covering topics such as mechanics, matter, work, energy, rotational dynamics, and sound. Student experiments in the laboratory are used to illustrate the concepts studied in the lecture and practiced in the problems. This course is also a useful introduction for students who have not had physics in high school but are planning on taking the engineering physics sequence starting with Phys. 151.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - General Science

Phys. 102 - Introduction to Physics 2

3-2-4

(Prerequisite: successful completion of Phys. 101 ["C" or better grade] or equivalent competencies and eligibility for Engl. 101) is the second laboratory course introducing students to contents and methods useful for careers in bio-medicine, physics, or mathematics. It is an algebra-based study of the physical world, covering topics such as electricity and magnetism, optics, wave interactions, and atomic and nuclear physics. Student experiments in the laboratory are used to illustrate the concepts studied in the lecture and practiced in the problems.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - General Science

Phys. 111-Nuclear Weapons and Society (IAI: P1 901L)

4-0-4

(Prerequisite: successful completion ["C" or better] of Math. 091 and eligibility for Engl. 101) is an elementary physics course designed for non-science-oriented students who are interested in how science has affected the course of human events and the development of our society, especially in the latter half of the 20th century. Specifically, the course explores the development of atomic and nuclear weapons and their impact on society. Students learn of the development of modern physics from the early models of the atom through the discovery of nuclear fission, Einstein's theories of relativity, the first controlled nuclear chain reactions, the first atomic bomb, boosted atomic bombs, and thermonuclear fusion devices. In addition, students cover the development of peaceful uses of nuclear technology, such as nuclear fission energy, the race for nuclear fusion power, nuclear medicine, and industrial uses of nuclear technology. Finally, the students also study the aftermath of the Cold War: the clean up of nuclear weapon sites and the control of nuclear arms. While studying all of these topics, the students learn of the interactions of physics and society.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and Degrees

Group Requirement - Natural/Physical Science

Area of Concentration - General Science

Phys. 120 - Basic Statics and Strength of Materials

3-0-3

(Prerequisite: Phys. 115 or equivalent competencies) introduces students to the study of forces on elastic members. Basic theory of the stress-strain relationship, basic flexure, shear and deflection, and column and beam loading is emphasized. Students work basic applied mechanics problems in designing basic footings, bearing walls, connections, columns, and beams.

Applicable toward graduation where program structure permits:

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

Group Requirement - Natural Science

Area of Concentration - Not Applicable

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Phys. 151 - Mechanics and Wave Motions (IAI: P2 900L, EGR 911)

3-2-4

(Prerequisite: Math. 121 or equivalent, Math. 122 or equivalent or concurrent enrollment, and one year of high school physics or Phys. 101) is a laboratory course designed for students who plan to major in the field of engineering, physics, or mathematics. It is a calculus-based study of the physical world, introducing students to such topics as vectors, motion, force, work, energy, momentum, torque, and simple harmonic motion.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - General Science, Physics

Phys. 152 - Electricity and Magnetism (IAI: EGR 912)

3-2-4

(Prerequisite: Phys. 151 or equivalent competencies and Math. 122 or concurrent enrollment) is the second semester of the laboratory courses designed for students who plan to major in the field of engineering, physics, or mathematics. It is a calculus-based study of the physical world, introducing students to such topics as electric charges, electric potential, capacitance and dielectrics, current and resistance, direct current circuits, magnetic fields, magnetic forces, inductance, magnetic properties of matter, electromotive forces, alternating currents, and electromagnetic waves.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - General Science, Physics

Phys. 153 - Thermodynamics and Modern Physics (IAI: EGR 914)

3-2-4

(Prerequisite: Phys. 152 or equivalent competencies and Math. 122 or concurrent enrollment) is the third semester of the laboratory courses designed for students who plan to major in the field of engineering, physics, or mathematics. It is a calculus-based study of the physical world, introducing students to such topics as optics, the nature and properties of light, reflection, refraction, lenses and optical instruments; temperature, transfer of heat, thermal properties of matter, and the laws of thermodynamics; atoms, electrons and protons, the structure of the atom and the nucleus, radioactive decay and an introduction to nuclear physics.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - General Science, Physics

Political Science

Pol. S. 100 - People and Politics (IAI: S5 903)

3-0-3

provides a basic introduction to what politics is all about. It looks at why we think and feel as we do about politics and politicians and better informs the student about his/her own and other governmental systems. It also introduces the student to specific political concepts such as the ideologies of democracy, socialism, and communism. Leading political personalities of our time are discussed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Not Applicable

Pol. S. 110 - American National Government (IAI: S5 900, PLS 911)

3-0-3

(Prerequisite: eligibility for Engl. 101) uses a contemporary approach to American political behavior by viewing the forces that shaped our constitution, modern attitudes of liberalism and conservatism, the role played by political parties and the independent voter, Congress and the impact of special interest groups on that body, the modern presidency, and the important role the media plays in modern politics. Current topics of political interest are discussed throughout this course. This course is required for state teacher certification.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Political Science, Social Science

Pol. S. 120 - Politics in States and Communities (IAI: S5 902, PLS 915) 3-0-3

(Prerequisite: eligibility for Engl. 101) is a brief introduction into the history of state and local governments with emphasis on modern decision-making at the state and local level. Special consideration is given to current problems of modern urban America, including the topics of taxes, attempts to cut waste, pollution, and crime, and how government can effectively serve the needs of citizens without excessive cost. In addition, this course better acquaints the student with his/her own local political environment through guest lectures, possible field trips to local and state seats of power, and other related experiences in the field.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Political Science, Social Science

Pol. S. 230 - Issues in International Relations (IAI: S5 904N, PLS 912) 3-0-3

(Prerequisite: eligibility for Engl. 101) is an introduction to the politics of the international arena of world power relationships. Emphasis is on current issues such as the development of nations into world powers, global economic factors, warfare and arms control as devices in international politics, and the concept of policy by crisis. This course depends greatly on contemporary international events for case study material and class discussions.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Political Science, Social Science

Practical Nursing

PN 101 – Fundamental Concepts and Skills 6-6-8

(Prerequisite: grade of “C” or better in Biol. 201, Math.106, Ed. 101, and Psych. 145, or concurrent enrollment) is the study of basic concepts, principles, and skills, that are fundamental to the practice of nursing. The student will develop basic skills in utilizing the nursing process through application of Gordon’s 11 Functional Patterns. The roles as caregiver, teacher, communicator, leader, and advocate are introduced and practiced. The student will review the history and roles of the Licensed Practical Nurse, legal and ethical responsibilities, and health team relationships. The student will acquire the basic concepts in the care of the older adult in the long-term care setting. Students are introduced to the Core Values.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Practical Nursing

PN 102 – Care of the Family (OB/Peds) 2-6-4

(Prerequisite: grade of “C” or better in PN 101 and Biol. 202) facilitates the correlation of knowledge from general education and PN 101 through a focus on the adaptive responses of the child and family. Nursing focus is on assessment and the decision-making and utilization of the nursing process in delivering care to the pregnant woman and family. The roles of caregiver, teacher, and communicator continue to be developed, and students build advocacy and leadership skills. Supervised clinical experiences in the hospital obstetric and pediatric settings are included. Values are developed and behaviors practiced with the guidance of faculty.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Practical Nursing

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PN 103 – Adult Nursing I (Med/Surg)

3-9-6

(Prerequisite: grade of “C” or better in PN 101, PN 102, and Biol. 202) facilitates the integration of knowledge from general education, PN 101, and PN 102 through a focus on the adaptive responses of the individual to internal and external threats during acute illness, as well as decision-making and utilization of the nursing process in delivering care. Nursing focus is on assessment of adaptive responses to internal and external threats during acute illness, as well as decision-making and utilization of the nursing process in delivering care. The nurse demonstrates core values and serves as a caregiver, teacher, communicator, and advocate with growing independence, in the care of the patient with acute illness. Behaviors demonstrating the values are practiced and with growing independence. Supervised clinical experience in hospital and nursing home settings are included.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Practical Nursing

PN 104 – Adult Nursing II (Med/Surg/Psych)

2-9-5

(Prerequisite: grade of “C” or better in PN 101, PN 102, PN 103, and Nurs. 154) facilitates the synthesis of knowledge from general education, PN 101, PN 102, and PN 103 through a focus on the adaptive responses of the individual, family, and groups in acute care and psychiatric settings. The roles of caregiver, teacher, communicator, and advocate are enhanced by individual leadership skills. Behaviors demonstrating the values are practiced independently. Topics include the theory and principles of nursing care related to common mental illnesses and physical conditions of the neurological, sensori-neural, integumentary, acute, and musculo-skeletal systems. Also discussed are trends in the field of practical nursing regarding education and employment opportunities; preparation for licensure; and job experience in the care of the adult with mental health, medical, and surgical conditions.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Practical Nursing

PN 113 – PN Transition/Licensure Preparation

1-0-1

(Prerequisite: grade of “C” or better in PN 101, PN 102, PN 103, PN 104, and Nurs. 154) is the concise review of the information necessary to pass the NCLEX-PN licensing examination. This review includes maternity nursing, pediatric nursing, medical/surgical nursing, care of the older adult, pharmacology, nutrition, and psychiatric-mental health nursing. The nursing content has been organized according to the nursing process to enable the student to study according to the patient needs. Test questions and answers with rationales for the correct and incorrect answers are provided for each chapter.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Practical Nursing

Production Control

Prod. C. 130 - Inspection and Quality Control (IAI: MTM 914)

3-0-3

deals with precision measurement and statistical quality control. Precision measurement is based on the knowledge of how measuring instruments can and should be used, including their advantages and limitations. Students are introduced to a variety of modern measuring tools. A portion of the course is devoted to the basics of statistical methods used in quality control. Applications and exercises are presented in the use of control charts; selection, use, and protection of sampling plans; and the types of information revealed by an analysis of data. Included in the course are field trips to local plants with up-to-date precision measuring laboratories.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Psychology

- Psych. 100 - Practical Psychology** 3-0-3
 is designed for students to develop a basic understanding of human behavior and the factors that influence human behavior and psychological development. Practical applications of psychological theories and research will be used to understand and explain psychological issues that most individuals experience. Topics include childhood, adulthood, aging, sexuality, schooling, career choices, stress, and health. Students who have earned credit for Psych. 110 may not register for this course.
 Applicable toward graduation where program structure permits:
 Certificate or Degree - All Certificates and All Degrees
 Group Requirement - Social Science (A.A.S. only)
 Area of Concentration - Not Applicable
- Psych. 110 - Introduction to Psychology** (IAI: S6 900, SPE 912) 3-0-3
(Prerequisite: eligibility for Engl. 101.) examines major psychological approaches to the study of human behavior and mental processes. It includes topics on the biological bases of behavior, learning, motivation, personality, stress, mental illness, memory, and perception.
 Applicable toward graduation where program structure permits:
 Certificate or Degree - All Certificates and All Degrees
 Group Requirement - Social Science
 Area of Concentration - Psychology, Social Science
- Psych. 130 - Psychology of Gender** 3-0-3
(Prerequisite: Psych. 100 or 110 or equivalent introductory Psychology course.) is designed to increase students' knowledge and appreciation of the biological, psychological, and social origins and implications of gender differences as well as the similarities between the genders.
 Applicable toward graduation where program structure permits:
 Certificate or Degree - All Certificates and All Degrees
 Group Requirement - Social Science (A.A.S. only)
 Area of Concentration - Psychology, Social Science
- Psych. 145 - Human Growth and Development** (IAI: S6 902, PSY 904) 3-0-3
(Prerequisite: Psych. 110) covers the interaction and development of human physical, intellectual, and psychosocial behavior from conception through old age. Similarities and differences in physical, social, emotional, and cognitive development at various stages of the life cycle are studied.
 Applicable toward graduation where program structure permits:
 Certificate or Degree - All Certificates and All Degrees
 Group Requirement - Social Science
 Area of Concentration - Psychology, Social Science
- Psych. 150 - Child Psychology** (IAI: S6 904, EED 902, PSY 901, SPE 913) 3-0-3
(Prerequisite: Psych. 110) examines the behavioral development of the individual from conception through early adolescence. Consideration is given to the effects of psychological, social, and biological factors on that development.
 Applicable toward graduation where program structure permits:
 Certificate or Degree - All Certificates and All Degrees
 Group Requirement - Social Science
 Area of Concentration - Psychology, Social Science, Teacher Education - Elementary/
 Secondary
- Psych. 155 - Adolescent Development** 3-0-3
(Prerequisite: Psych. 110) examines the biological, cognitive, and psychosocial development during the adolescent years. Research methods, research findings, and psychological theory will be used to study adolescent development. Topics to be covered include family relationships, friendships, relationships, education and school experiences, career exploration, college, adjustment, identity, intimacy and sexuality, health issues, mental health problems, stress and coping, and moral development.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Psychology, Social Science, Teacher Education - Secondary

Psych. 200 - Educational Psychology (IAI: SED 902)

3-0-3

(Prerequisite: Psych. 110) examines the application of psychological principles to education. Special emphasis is placed on understanding growth and development, the learning process, motivation, intelligence, evaluation, measurement, creativity, and the impact of culture on learning styles. The course requires formal classroom field experience to be arranged with the instructor. A student may not receive credit for both Ed. 200 and Psych. 200.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Psychology, Social Science, Teacher Education - Elementary/Secondary

Psych. 210 - Social Psychology (IAI: S8 900, PSY 908)

3-0-3

(Prerequisite: Psych. 110) studies the ways in which individuals are influenced by others. Topics include research methods, attitude development, person perception, interpersonal attraction, aggression, and group behavior.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Psychology, Social Science

Psych. 220 - Psychology of Death and Dying 3-0-3

(Prerequisite: Psych. 100 or Psych. 110) examines the psychological aspects of death and the dying process by focusing on the existential problem of dying and on the interaction between the dying person and the significant figures during the last phase of one's own death and the deaths of others, including an evaluation of some of the methods of dealing with the dying patient. It investigates the psychological dynamics involved in those who are left behind (the bereaved) by the dying person.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Psychology, Social Science

Psych. 230 - Psychology of Aging (IAI: S6 905)

3-0-3

(Prerequisite: Psych. 100 or 110) is a study of the psychological aspects of aging. This course offers theoretical framework relating to the aging process, as well as scientific information regarding the patterns of behavior and attitude formation relating to the aging process. It examines the psychological needs and sociological adjustment mechanisms of the aged. Included in the course is a review of psychological disorders of adults.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Psychology, Social Science

Psych. 250 - Human Sexuality

3-0-3

(Prerequisite: Psych. 110) examines the physiological, psychological, and social dimensions of human sexuality. Topics to be covered include genetic and environmental influences on sexual development, effects of motivation and emotion on sexual behavior, sex-role identification, variations of sexual behavior, sexual abuse, and AIDS and other sexually transmitted diseases.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Psych. 260 - Theories of Personality (IAI: PSY 907)

3-0-3

(Prerequisite Psych. 110) examines the classical theories of personality as outlined by major theorists of psychology. In addition to covering the basic concepts, the course also examines the origins, development, assumptions, and implications of each theory.

Applicable towards graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Psychology, Social Science

Psych. 280 - Abnormal Psychology (IAI: Psych 905)

3-0-3

(Prerequisite: Psych. 110) provides a description of abnormal behavior and an introduction to a variety of therapeutic approaches. Selected topics include a review of all major mental illnesses, including symptoms, proposed causes, statistics, and therapeutic treatments and interventions.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Psychology, Social Science

Radiologic Technology

Rad.T. 101 - Introduction to Radiography

3-0-3

(Prerequisite: admission to the Radiologic Technology (Radiography) Program, concurrent enrollment in Rad. T. 102 and Rad. T. 108) designed to introduce the new student to the profession of radiology technology and to the basics of the knowledge required to become a member of the profession. The students will be informed early in their program of study of what they can expect from a career in radiology technology, the opportunities for advancement, and the requirements of the profession.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 102 – Radiologic Patient Care

3-1-3

(Prerequisite: admission to the Radiologic Technology (Radiography) Program, concurrent enrollment in Rad.T. 101 and Rad.T. 108) designed to demonstrate the importance of effective interaction with the patient. The student will gain an understanding of patient needs, effective communication, various types of patients served, and how to interact with the patient's relatives and visitors.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 108 – Radiographic Procedures I

2-3-3

(Prerequisite: admission to the Radiologic Technology (Radiography) Program, concurrent enrollment in Rad. T. 101 and Rad. T. 102) is designed to provide a knowledge base necessary to perform standard radiographic procedures. This course includes radiographic anatomy, pathologic indications, and positioning for chest, abdomen, and upper extremities. Consideration will be given to the production of radiographs of optimal diagnostic quality. Laboratory experience will be used to complement the didactic portion of the course.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 110 – Principles of Radiography

3-0-3

(Prerequisite: completion of Rad.T 101, Rad.T 102 and Rad.T 108 with a grade of C or above and concurrent enrollment in or completion with a grade of C or above in Rad.T 115, Rad.T 116, Rad.T 118 and Biol. 101) is designed to establish a knowledge base in factors that govern and influence the production and recording of radiographic images. Topics included are radiographic quality, radiographic technique, radiographic exposure, beam-restricting devices, and grids.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 115 –Radiography Clinical I

0-18-3

(Prerequisite: completion of Rad.T. 101, Rad.T. 102 and Rad.T. 108 with a grade of C or above and concurrent enrollment in or completion with a grade of C or above in Rad.T. 110, Rad.T. 116, Rad.T. 118 and Biol. 101) Content and clinical practice experiences shall be designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of radiologic procedures. Through structured sequential, competency-based assignments in clinical setting, concepts of team practice, patient-centered clinical practice and professional development shall be discussed, examined and evaluated. Clinical practice experiences shall be designed to provide patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement shall ensure the well-being of the patient preparatory to, during and following the radiologic procedure

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 116 – Radiation Physics

3-0-3

(Prerequisite: completion of Rad.T. 101, Rad.T. 102 and Rad.T. 108 with a grade of C or above and concurrent enrollment in or completion with a grade of C or above in Rad.T. 110, Rad.T. 115, Rad.T. 118, and Biol. 101) is designed to establish a basic knowledge of atomic structure and terminology. Also presented are the nature and characteristics of radiation, x-ray production and the fundamentals of photon interactions with matter.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 118 – Radiographic Procedures II

2-3-3

(Prerequisite: Completion of Rad.T. 101, Rad.T. 102 and Rad.T. 108 with a grade of C or above and concurrent enrollment in or completion with a grade of C or above in Rad.T. 110, Rad.T. 115, Rad.T. 116 and Biol. 101) is designed to provide a knowledge base necessary to perform standard radiographic procedures. This course includes radiographic anatomy, pathologic indications, and positioning for lower limb, pelvis, cervical, thoracic and lumbar spines, ribs and sternum. Consideration will be given to the production of radiographs of optimal diagnostic quality. Laboratory experience will be used to complement the didactic portion of the course.:

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 120 – Principles of Radiography II

3-0-3

(Prerequisite: completion of Rad.T. 110, Rad.T. 115, Rad.T. 116, Rad.T. 118 and Biol. 101 with a grade of C or above and concurrent enrollment in or completion with a grade of C or above in Rad.T. 125, Rad.T. 126, Rad.T. 128, and Biol. 201) is designed to establish a knowledge base in factors governing and influencing film and electronic imaging. Also, the student will obtain knowledge in the use of digital x-ray imaging and quality control and assurance.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 125 – Radiography Clinical II

0-18-3

(Prerequisite: completion with a grade of C or above in Rad.T. 110, Rad.T. 115, Rad.T. 116, Rad.T. 118 and Biol. 101 and concurrent enrollment in or completion with a grade C or above in Rad.T. 120, Rad.T. 126, Rad.T. 128 and Biol. 201) Content and clinical practice experiences shall be designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of radiologic procedures. Through structured sequential, competency-based assignments in clinical setting, concepts of team practice, patient-centered clinical practice and professional development shall be discussed, examined and evaluated. Clinical practice experiences shall be designed to provide patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of

competency and outcomes measurement shall ensure the well-being of the patient preparatory to, during and following the radiologic procedure.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 126 – Imaging Equipment

3-0-3

(Prerequisite: completion with a grade of C or above in Rad.T. 110, Rad.T. 115, Rad.T. 116, Rad.T. 118 and Biol. 101 and concurrent enrollment in or completion with a grade C or above in Rad.T. 120, Rad.T. 125, Rad.T. 128 and Biol. 201.) is designed to establish a knowledge base in fluoroscopic, CT, and special radiographic equipment and design.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 128 – Radiographic Procedures III

2-3-3

(Prerequisites: completion with a grade of C or above in Rad.T. 110, Rad.T. 115, Rad.T. 116, Rad.T. 118 and Biol. 101 and concurrent enrollment in or completion with a grade C or above in Rad.T. 120, Rad.T. 125, Rad.T. 126 and Biol. 201) is designed to provide a knowledge base necessary to perform standard radiographic procedures. This course includes radiographic anatomy, pathologic indications, and positioning for skull and cranial bones; facial bones; paranasal sinuses, mastoids, and temporal bones; GI tracts; and urinary system. Consideration will be given to the production of radiographs of optimal diagnostic quality. Laboratory experience will be used to complement the didactic portion of the course.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 155 – Radiography Clinical III

0-21-3.5

(Prerequisite: completion with a grade of C or above in Rad.T. 120, Rad.T. 125, Rad.T. 126, Rad.T. 128 and Biol.201) Content and clinical practice experiences shall be designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of radiologic procedures. Through structured sequential, competency-based assignments in clinical setting, concepts of team practice, patient-centered clinical practice and professional development shall be discussed, examined and evaluated. Clinical practice experiences shall be designed to provide patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement shall ensure the well-being of the patient preparatory to, during and following the radiologic procedure.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 215 – Radiography Clinical IV

0-24-4

(Prerequisite: completion with a grade of C or above in Rad.T. 155 and concurrent enrollment in or completion with a grade C or above in Rad.T. 218, Rad.T. 219 and Biol. 202)

Content and clinical practice experiences shall be designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of radiologic procedures. Through structured sequential, competency-based assignments in clinical setting, concepts of team practice, patient-centered clinical practice and professional development shall be discussed, examined and evaluated. Clinical practice experiences shall be designed to provide patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement shall ensure the well-being of the patient preparatory to, during and following the radiologic procedure.

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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 - Radiologic Technology

Rad.T. 218 – Radiographic Procedures IV

2-3-3

(Prerequisite: completion with a grade of C or above in Rad.T. 155 and concurrent enrollment in or completion with a grade C or above in Rad.T. 215, Rad.T. 219 and Biol. 202) is designed to provide a knowledge base necessary to perform standard radiographic procedures. This course includes positioning for special procedures including arthrography, hysterosalipinography, myelography, sialography and long bone measurement. Consideration will be given to the production of radiographs of optimal diagnostic quality. Laboratory experience will be used to complement the didactic portion of the course.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 219 – Radiation Protection & Radiobiology

2-0-2

(Prerequisite: completion with a grade of C or above in Rad.T. 155 and concurrent enrollment in or completion with a grade of C or above in Rad.T. 215, Rad.T. 218, Biol. 202) is designed to present an overview of the principles of radiation protection including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations are incorporated. An overview of the principles of the interaction of radiation with living systems is covered. Radiation effects on molecules, cells, tissues and the body as a whole are presented. Factors affecting biological response are presented, including acute and chronic effects of radiation.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 225 – Radiography Clinical V

0-24-4

(Prerequisite: completion of Rad.T. 215, Rad.T. 218 and Rad.T. 219, and Biol. 202 with a grade of C or above and concurrent enrollment in or completion with a grade of C or above in Rad.T. 228, Rad.T. 230, Engl. 101 and Psych. 110) Content and clinical practice experiences shall be designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of radiologic procedures. Through structured sequential, competency-based assignments in clinical setting, concepts of team practice, patient-centered clinical practice and professional development shall be discussed, examined and evaluated. Clinical practice experiences shall be designed to provide patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement shall ensure the well-being of the patient preparatory to, during and following the radiologic procedure.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 228 – Radiographic Image Analysis

1.5-0-1.5

(Prerequisite: completion of Rad.T. 215, Rad.T. 218, and Rad.T. 219, and Biol. 202 with a grade of C or above and concurrent enrollment in or completion with a grade of C or above in Rad.T. 225, Rad.T. 230, Engl. 101 and Psych. 110) is designed to emphasize principles of image analysis as it relates to anatomy, density, collimation, shielding, positioning and radiographic quality. Evaluation of and recommendations for improvement will be stressed. Identifying pathology and including the changes in technique required to compensate for density differences produced by the underlying pathologic conditions will also be covered.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Rad.T. 230 – Radiography Seminar**2-3-3**

(Prerequisite: completion of Rad.T. 215, Rad.T. 218 and Rad.T. 219, and Biol. 202 with a grade of C or above and concurrent enrollment in or completion with a grade of C or above in Rad.T. 228, Rad.T. 225, Engl. 101 and Psych. 110) is designed to re-examine the knowledge, skills and attitudes required of the radiography profession. Topics addressed will be determined by the results of exams the students take that are similar in structure and content to the registry. Students create individual study plans to address their own areas of need.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Radiologic Technology

Robotics

Robot. 101 - Introduction to Robotics**2-2-3**

(Prerequisite: C.I.M. 100) provides an overview of the current robotics industry beginning with a brief history and an introduction to the basic terms used in the field. The course classifies robots by geometry, power source, application, path control, and intelligence and includes operation of different types of end effectors, robot controllers, and system sensors. Also covered in the class are the operation, installation, and maintenance of low technology robot systems, including operation and programming of programmable logic controllers as they apply to robotic control systems. Operation and programming of high-technology servo-robotics, including servo-hydraulic and electric robot systems, are major topics of the course.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Social Science

Soc. S. 199 - Topics/Issues in the Social Sciences (Variable Credit)**1-0-1**

provides the students an opportunity to participate in comprehensive discussion of a topic dealing with contemporary issue(s) in the social science (psychology, sociology, economics, history, political science, and public affairs). The course requires no prior depth of knowledge, but it is expected that the student has a particular interest in the seminar topic.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Not Applicable

Sociology

Socio. 100 - People, Society, and Culture**3-0-3**

is designed to provide an opportunity for students to develop a basic understanding of how culture, society, and groups in which they live and participate affect their lives. The course also can serve as a foundation for those who wish to familiarize themselves with fundamental concepts about behavior of people in groups prior to beginning a formal study of sociology. Students who have earned credit for Socio. 110 should not register for this course except upon special approval of the Dean of Arts and Sciences and may receive credit toward graduation for only one of these two courses.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Not Applicable

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Socio. 105 - Domestic Violence and Intervention Techniques

2-0-2

is an overview of historical and societal attitudes toward domestic violence issues. Emphasis is on cycles of violence, abusive family patterns, crisis intervention, advocacy skills, and applicable state laws.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Social Science, Sociology

Socio. 110 - Introduction to Sociology (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 humans, their society, and their culture, and the concept of social organizations.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Social Science, Sociology

Socio. 125 - Parenting

3-0-3

(*Prerequisite: one college-level course in sociology or psychology*) is the study of contemporary issues and trends in parenting. Topics include the nature of parenting; parent-child relationships through various developmental stages; parental guidance of child's personal, social, and educational growth; the influence of different family structures on children; and trends in social attitudes toward children and families.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Social Science, Sociology/Psychology

Socio. 130 - Criminology

3-0-3

(*Prerequisite: eligibility for Engl. 101*) is an introduction to criminology and includes basic concepts, coverage of the major criminological theories, and a brief look at the criminal justice system and the forms of crime. Special attention is given to white-collar crime.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Social Science, Sociology

Socio. 135 - The Study of Substance Abuse

3-0-3

(*Prerequisite: eligibility for Eng. 101*) is the social-psychological study of the characteristics of substance abuse and the ramifications for society.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Social Science, Sociology/Psychology

Socio. 141 - Introduction to Social Work (IAI: SW 911)

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.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Social Science, Sociology

Socio. 142 - Social Service Field Experiences

1-10-3

(*Prerequisite: completion of Socio. 141 and permission of the Academic Director for Sociology or the class instructor*) provides the student with an undergraduate practicum in social work. The student will work a minimum of 8-10 hours per week in an assigned social agency. One lecture hour includes evaluation of resources, referral and follow-up activity, awareness of unmet needs, and development of new resources when and where needed.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Social Science, Sociology

Socio. 150 - Social Problems (IAI: S7 901, SOC 911)

3-0-3

(*Prerequisite: Socio. 110*) provides exploratory studies of contemporary social problems using the concepts and techniques of sociological inquiry. Possible topics include alienation, population, drugs, work and leisure, poverty, aging, war, the environment, the sexual revolution, extremism and dissent, and technological progress.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Social Science, Sociology

Socio. 160 - Community Problems and Resources

3-0-3

(*Prerequisite: Socio. 100, 110, or 141*) is an examination of selected community problems such as child abuse, aging, poverty, physical and mental health care, and substance abuse and of the local community resources that exist for the purpose of alleviating these problems.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Social Science, Sociology

Socio. 200 - Marriage and the Family (IAI: S7 902, SOC 912)

3-0-3

(*Prerequisite: Socio. 110 or Psych. 110*) examines patterns of dating, courtship, and marriage with consideration given to the relationship between parents, children, and other members of the family unit.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Social Science, Sociology

Socio. 210 - Sociology of Deviant Behavior (IAI: SOC 915)

3-0-3

(*Prerequisite: Socio. 110*) explores causes and forms of deviant behavior. Topics covered include juvenile delinquency, substance abuse and related problems, violent crime, white-collar crime, victimless crime, and mental illness. Major sociological research and theory are reviewed and applied to explain deviant behavior.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Social Science

Area of Concentration - Sociology

Socio. 225 - Race, Class, and Gender in the United States (IAI: SOC 913)

3-0-3

(*Prerequisite: Socio. 110*) analyzes ways in which issues of race, class, and gender are embedded in ordinary communication and daily life in the United States. Topics include the social construction, economics, and consequences of difference, issues in U.S. law, maintaining hierarchies, and social control. Major sociological research and theory will be reviewed and applied.

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 Spanish by the communicative approach employing cultural materials. Together with Span. 102, it is designed for students with no previous study of Spanish and also is the appropriate first college course for students who have accumulated fewer than five quality points for high school Spanish and/or those whose prior study of Spanish was completed more than five years ago regardless of earned quality points. Two assigned 25-minute laboratory

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periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Foreign Language

Span. 102 - Beginning Spanish 2

4-0-4

(Prerequisite: Span. 101 or five to 11 quality points for high school Spanish completed within the past five years) is a continuation of Span. 101. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Foreign Language

Span. 198 - Selected Topics in Spanish: ICISP Summer Study Abroad

4-0-4

(Prerequisite: six quarters or four semesters of college or four years of high school Spanish or consent of instructor and acceptance into the ICISP Summer Study Abroad Program) is specifically designed to address topics which necessitate a broader scope, a greater depth, and fuller assimilation of the course methods and materials. The student may take this course three times for credit as long as a different topic is selected. The topic is specified in the subtitle of the course listed in the class schedule.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Foreign Language

Span. 201 - Intermediate Spanish 1

4-0-4

(Prerequisite: Span. 102 or 12 to 14 quality points for high school Spanish completed within the past five years) includes a wider range of reading selections than previous courses. Grammatical structure is reviewed, expanded, and incorporated in a communicative approach. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

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

Area of Concentration - Foreign Language

Span. 202 - Intermediate Spanish 2 (IAI: H1 900)

4-0-4

(Prerequisite: Span. 201 or 15 or more quality points for high school Spanish completed within the past five years) is a school continuation of Span. 201, with increased attention to composition and conversation. Two assigned 25-minute laboratory periods per week are required in addition to scheduled class hours.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Humanities

Area of Concentration - Foreign Language

Speech

Spch. 101 - Principles of Speech (IAI: C2 900)

2-2-3

(Prerequisite: eligibility for Engl. 101) instructs students in the fundamentals of the public speaking situation and provides students with an opportunity to build poise and confidence through practice. Units of study include listening, communication theory, and informative and persuasive speaking. Laboratory time is provided to allow additional opportunities for student presentations and discussions.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and All Degrees

Group Requirement - Communications

Area of Concentration - Not Applicable

- Spch. 110 - Discussion and Group Conference** (IAI: SPC 920) **2-2-3**
examines the nature and effects of interpersonal communication in small groups. Major areas of study include effective leadership and participation in groups, problem-solving and decision-making discussion, conference planning, and parliamentary procedure. Students plan, lead, participate in, and evaluate discussions.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Communications (A.A.S. only)
Area of Concentration - Speech and Drama
- Spch. 120 - Business and Professional Speaking** **2-2-3**
develops and polishes the student's communication skills for business and professional use. Self-inventories are combined with interviewing, group dynamics, listening, negotiating, and conflict resolution as well as practice in specific public speaking situations.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Communications (A.A.S. only)
Area of Concentration - Speech and Drama
- Spch. 140 - Forensic Activities** **0-2-1**
(*Prerequisite: Spch. 101 or consent of instructor*) provides opportunities for students to perform in actual communications situations in the community and/or interscholastic speech competition. This course may be taken a maximum of four times for credit. (Note: Students must be currently enrolled in nine or more credit hours.)
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Communications (A.A.S. only)
Area of Concentration - Speech and Drama
- Spch. 210 - Oral Interpretation of Literature** (IAI: SPC 915, TA 916) **2-2-3**
(*Prerequisite: Spch. 101*) emphasizes oral communication as a means of understanding, appreciating, and experiencing literature. Students learn theory and performance techniques through in-class presentations of a variety of literary forms. In addition to individual performances, each student will help plan and participate in a readers' theatre production.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Communications (A.A.S. only)
Area of Concentration - Speech and Drama
- Spch. 230 - Readers' Theatre (Group Interpretation)** **2-2-3**
(*Prerequisite: Spch. 210 or consent of instructor*) involves the compilation from the three basic genres of literature (prose, poetry, and drama) of a script on a common theme. Each selection is analyzed for character, plot, theme, and dramatic movement. The students will then develop oral interpretation skills in an effort to present this performance in one of several audience settings, i.e., college, community, and/or competition.
Applicable toward graduation where program structure permits:
Certificate or Degree - All Certificates and All Degrees
Group Requirement - Communications (A.A.S. only)
Area of Concentration - Speech and Drama

Surgical Technology

- Surg.T. 100 – Surgical Technology Orientation** **2-0-2**
(*Prerequisite: admission to Surgical Technology Certificate and/or A.A.S. program, completion of or concurrent enrollment in Biol. 220, Engl. 101, Hlth. 140, and Psych. 110, or approval of the Surgical Technology Director*) introduces and provides an orientation for students to the history of surgical technology, the surgical team members, hospital management, and the physical aspects of the operating room. Basic patient care concepts and issues concerning ethical, moral, and legal responsibilities are addressed. This introductory course includes classroom instruction and field trips to affiliate hospital facilities.

256 Course Descriptions

Applicable toward graduation where program structure permits:

Certificate or Degree – Certificate

Group Requirement – Not Applicable

Area of Concentration – Surgical Technology

Surg.T. 101 – Surgical Technology I

4-6-6

(Prerequisite: Surg.T. 100 or approval of the Surgical Technology Director; concurrent enrollment in or completion of Biol. 201 with a “C” or better) presents the basic patient care concepts, asepsis, and the surgical environment. Students are introduced to the fundamentals of surgical procedural techniques. A basic survey of pharmacology and its application in surgery are discussed. This course includes classroom and laboratory instruction with observational clinical experiences in the operating room.

Applicable toward graduation where program structure permits:

Certificate or Degree - Certificate

Group Requirement - Not Applicable

Area of Concentration - Surgical Technology

Surg.T. 102 – Surgical Technology II

4-9-7

(Prerequisite: Surg.T. 101 or approval of the Surgical Technology Director) presents the basic patient care and safety concepts, asepsis and the surgical environment, and surgical procedures. The surgical procedures include general surgery, gastrointestinal, and obstetrics-gynecology. Students are introduced to laser use, endoscopic technique, and drainage systems and tubes. With supervision, students participate in the perioperative care of surgical clients, using the concepts and skills presented in this course.

Applicable toward graduation where program structure permits:

Certificate or Degree - Certificate

Group Requirement - Not Applicable

Area of Concentration - Surgical Technology

Surg.T. 201 – Surgical Technology III

8-15-13

(Prerequisite: Surg.T. 102 or approval of the Surgical Technology Director; concurrent enrollment in or completion of Biol. 202 with a “C” or better) studies the objectives, the role of the surgical technologist, and sequence of the following surgical procedures: genitourinary, ophthalmic, ear, nose, throat, plastic, orthopedic, neurological, thoracic, vascular, and cardiovascular. With supervision, students participate in the perioperative care of surgical clients, using the concepts and skills presented in this course.

Applicable toward graduation where program structure permits:

Certificate or Degree - Certificate

Group Requirement - Not Applicable

Area of Concentration - Surgical Technology

Surg.T. 202 – Work Experience Practicum

2-21-9

(Prerequisite: Surg.T. 201 or approval of the Surgical Technology Director) affords students the opportunity of applying the knowledge and skills learned in other courses to the realities of the work world. This course introduces students to the world of work and assists them with the transition from school to work. Students' assignments at the surgical facility provide full-shift experiences in the routines and practices of the surgical facilities. Students are introduced to skills for getting and keeping a job. Students also prepare for the certification process.

Applicable toward graduation where program structure permits:

Certificate or Degree - Certificate

Group Requirement - Not Applicable

Area of Concentration - Surgical Technology

Surg.T. 290 – Internship in Surgical Technology

1-20-5

(Prerequisite: permission of the instructor) allows the student pursuing a degree in Surgical Technology the opportunity to apply the principles learned in the course work to the work situation through employment. In addition, the internship also allows the student to acquire additional knowledge from the work place. The participating student will be paid an hourly wage by the employer, and it will consist of 16-20 hours per week of employment over the semester.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Certificates and Degrees

Group Requirement - Not Applicable

Area of Concentration - Surgical Technology

Theatre (See Drama)

Transportation

C.D.L. 1000 – Tractor/Trailer Driver Training

3.5-7-7

(Prerequisite: ability to read and write the English language, 21 years or older, physically meet Federal Department of Transportation guidelines, possession of a valid driver's license at time of registration, possession of a current Motor Vehicle Report (MVR) from the Secretary of State's Office (Driver's License Bureau), and approval of the CDL Admissions Coordinator) is designed to provide individuals who have little or no commercial driving experience with the knowledge and skills necessary to obtain a Commercial Driver's License Learner's Permit. At the end of the course, students will take a Class "A" License road test administered by the Illinois Secretary of State's personnel. This course will also cover endorsement preparation, state and federal regulation, log books, map reading, trip planning, and complete vehicle training to prepare the individual for an entry level position in the transportation industry.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.D.L. 1001 - Class "B" License Training

.5-1-1

(Prerequisite: ability to read and write the English language, 21 years of age or older, physically meet Federal Department of Transportation guidelines, possession of a valid driver's license at the time of registration) is designed to provide individuals with the knowledge and skills necessary to obtain a Commercial Driver's License Learner's Permit. The course will cover endorsement preparation, regulations and complete vehicle (over 26,001 lbs) training to prepare the individual for an entry-level position in the transportation industry. Administration of the Class "B" road test will be performed by Illinois Secretary of State's personnel. Upon successful completion of the course, students will receive certificates.

Applicable toward graduation where program structure permits:

Certificate or Degree – All Basic Certificates

Group Requirement – Not Applicable

Area of Concentration – Not Applicable

C.D.L. 1002 - CDL Refresher - 8 hours

.5-0-.5

(Prerequisite: possession of a valid class "A" License and an evaluation of the individual's current knowledge and skill level) is designed for individuals who currently possess a valid CDL License with an eight-hour overview of the knowledge and skills necessary to be employed in the transportation industry that requires a Class "A" License. Information reviewed will be in the areas of endorsement preparation, regulations, log books, map reading, trip planning, and complete vehicle review including basic skill and driving control.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.D.L. 1003 - CDL Refresher - 16 hours

1-0-1

(Prerequisite: possession of a valid Class "A" License and an evaluation of the individual's current knowledge and skill level) is designed for individuals who currently possess a valid CDL License with a sixteen-hour overview of the knowledge and skills necessary to be employed in the transportation industry that requires a Class "A" License. Information reviewed will be in the areas of endorsement preparation, regulations, log books, map reading, trip planning and complete vehicle review including basic skill and driving control.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.D.L. 1004 - CDL Refresher - 40 hours

2-0-2

(Prerequisite: possession of a valid Class "A" License and an evaluation of the individual's current knowledge and skill level) is designed for individuals who currently possess a valid CDL License (or those who has had a CDL license in the past) with a sixteen-hour overview of the knowledge and skills necessary to be employed in the transportation industry that requires a Class "A" License. Information reviewed will be in the areas of endorsement preparation, regulations, log books, map reading, trip planning, and complete vehicle review including basic skill and driving control.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

C.D.L. 1005 - CDL Permit

1-0-1

(Prerequisite: ability to read and write the English language, 21 years of age or older, physically meet Federal Department of Transportation guidelines, possession of a valid driver's license at the time of registration) is designed to provide individuals with the knowledge necessary to obtain a Commercial Driver's License Learner's Permit. The course will cover endorsement preparation and transportation regulations which will prepare students to take the CDL Learner's Permit Test administered by the Secretary of State.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Welding

Weld. 100 - Oxy-Acetylene and Plasma Arc Cutting

0-3-1.5

is designed to prepare students to perform oxy-acetylene and plasma arc cutting for production and maintenance work.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Weld. 101 - Shielded Metal Arc Welding

2-6-4

(Prerequisite: Weld. 100 or equivalent competencies) is designed to prepare students to perform production welding, millwright work, and general maintenance welding.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Weld. 102 - Shielded Metal Arc Welding, Advanced

0-8-4

(Prerequisite: Weld. 101 or equivalent competencies) is designed to prepare students to perform A.S.M.E. code welds in the 2-G, 3-G, and 4-G positions. This class prepares students for pipe welding.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Weld. 190 - Maintenance Welding

0-3-1.5

(Prerequisite: Weld. 100 and Weld. 101 or equivalent competencies) is designed to prepare students to perform basic industrial maintenance welds. These welds include oxy-acetylene brazing and soldering, arc welding of cast iron, and arc air cutting and gouging.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Weld. 195 – Welding Fundamentals for Millwrights**1-4-3**

introduces students to the basic welding processes commonly used in the mechanical maintenance areas where critical or certified welds are not required. The students learn the basic theory and application of the welding processes. The students become competent in flat position welding using the shielded metal arc welding and gas metal arc welding processes. Students also develop the basic ability to perform the following: oxy-acetylene welding and cutting; soldering and brazing; pipe repair welding; basic heat treat methods; periodic and preventative maintenance measures on welding equipment; and welding safety.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration – Not Applicable

Weld. 201 - Gas Metal Arc and Flux Core Arc Welding**0-4-2**

is designed to prepare students to perform A.S.M.E. code welds in the 1-G and 2-G positions using the GMAW and FCAW processes.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Weld. 202 - Welder Certification**0-4-2**

(Prerequisite: Weld. 102, Weld. 201 and Weld. 204 or equivalent competencies) is designed to prepare students to perform A.S.M.E. code welds on plate in the 3-G and 4-G positions and pipe in the 6-G position.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Weld. 204 - Pipe Welding**0-8-4**

(Prerequisite: Weld. 102 and Weld. 205 or equivalent competencies) allows students to develop the skills to weld pipe in 2-G, 5-G, and 6-G positions using the shielded metal arc welding process. The weld testing in this class is done in accordance with A.W.S. and A.S.M.E. standards.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Weld. 205 - Gas Tungsten Arc Welding**0-6-3**

(Prerequisite: Weld. 101 or equivalent competencies) is designed to prepare students to perform maintenance and production welding using the gas metal arc process.

Applicable toward graduation where program structure permits:

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

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

Adult Education Courses

All Adult Education classes (A.B.E., A.S.E., E.S.L., A.L.S.) may be repeated up to three (3) times.

Adult Basic Education - Beginning Level

A.B.E. 010 - Basic Reading 1 (Variable Credit) 2-2-.5 to 4
is designed for adult readers with a reading level of 0-5.9 who want to improve their reading comprehension. Individualized or small group instruction is offered for each student with consideration given to individualized needs. Adult reading material is provided for the class. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 011 - Basic Reading 2 (Variable Credit) 2-2-.5 to 4
is designed for adult readers with a reading level of 0-5.9 who want to improve their reading comprehension and writing skills. Individualized or small group instruction is offered for each student with consideration given to their individualized needs. Adult reading material is provided for the class. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 012 - Basic Reading 3 (Variable Credit) 2-2-.5 to 4
is designed for adult readers with a reading level of 0-5.9 who want to improve their reading comprehension, writing, and communication skills. Individualized or small group instruction is offered for each student with consideration given to individualized needs. Adult reading material is provided for the class. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 013 - Intermediate Reading 1 (Variable Credit) 2-2-.5 to 4
is designed for adult readers with a reading level of 6-8.9 who want to improve their reading comprehension, writing, and communication skills. Individualized or small group instruction is offered for each student with consideration given to individualized reading needs. Adult reading material is provided for the class. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 020B - Responsive Parenting (Effective Learning) 1-0-1
is designed to give parents reading at or below the 0-5.9 level ideas for dealing with the developmental needs of their children under five. Topics covered include helping children learn, setting limits, and parent-child communication. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 020I - Responsive Parenting (Effective Learning) 1-0-1
is designed to give parents reading at or below the 6-8.9 level ideas for dealing with the developmental needs of their children under five. Topics covered include helping children learn, setting limits, and parent-child communication. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 021B - Parent Participation (Classroom Involvement) 1-0-1

involves parents reading at or below an 0-5.9 level and their children under five in a lapsit. Parents and children learn together through activities designed to encourage interactive play. Emphasis is placed on language development and the parent-child relationship. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 021I - Parent Participation (Classroom Involvement) 1-0-1

involves parents reading at or below the 6-8.9 level and their children under five in a lapsit. Parents and children learn together through activities designed to encourage interactive play. Emphasis is placed on language development and the parent-child relationship. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 022B - Self-Esteem for the Family 1-0-1

is designed to give parents reading at or below the 0-5.9 grade level tools they need to support their child in school. They will be empowered to communicate with school staff, support school programming, and encourage their child's school success. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 022I - Self-Esteem for the Family 1-0-1

is designed to give parents reading at the 6-8.9 level the tools they need to support their child in school. They will be empowered to communicate with school staff, support school programming and encourage their child's school success. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 023B - Parents as Reading Partners 1-0-1

is designed to give parents reading at or below the 0-5.9 grade level instruction and experience for reading aloud to children of various ages. Parents are taught to read aloud to infants, toddlers, preschoolers, primary grade children, and intermediate grade children. Appropriate child development issues are explored and reading techniques adapted for the different age levels. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 023I - Parents as Reading Partners 1-0-1

is designed to give parents reading at the 6-8.9 level instruction and experience for reading aloud to children of various ages. Parents are taught to read aloud to infants, toddlers, preschoolers, primary grade children, and intermediate grade children. Appropriate child development issues are explored and reading techniques adapted for the different age levels. This course is offered tuition free.

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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. 024B - Practical Parenting

1-0-1

is designed to give parents reading at the 0-5.9 level instruction in dealing with issues that pose daily challenges to parents and their children. Parents focus on what works and what doesn't in dealing with their children and their everyday demands. Parents keep a journal of their own experiences, and at each class session, several children's books related to the course topics are presented and distributed to parents. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 024I - Practical Parenting

1-0-1

is designed to give parents reading at 6-8.9 level instruction in dealing with issues that pose daily challenges to parents and their children. Parents focus on what works and what doesn't in dealing with their children and their everyday demands. Parents keep a journal of their own experiences, and at each class session, several children's books related to the course topics are presented and distributed to parents. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 025B - Behavior Management

1-0-1

is designed to give parents reading at the 0-5.9 level the opportunity to explore the issues that affect how children learn acceptable behavior. Promoting respect for self and others and dealing constructively with negative behavior are discussed. A variety of views on discipline are shared. Parents will keep a journal of their personal experiences for class discussion. At each session, children's books related to the topics are presented and distributed to the parents. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 025I - Behavior Management

1-0-1

is designed to give parents reading at the 6-8.9 level the opportunity to explore the issues that affect how children learn acceptable behavior. Promoting respect for self and others and dealing constructively with negative behavior are discussed. A variety of views on discipline are shared. Parents will keep a journal of their personal experiences for class discussion. At each session, children's books related to the topics are presented and distributed to the parents. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 030B - Job Skills 1 (Variable Credit)

1-0-.5 to 4

is a course designed for adults reading at the 0-5.9 grade level in which employment skills and job search skills are presented and discussed. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - Not Applicable

Group Requirement - Not Applicable

Area of Concentration - Not Applicable

A.B.E. 030I - Job Skills 1 (Variable Credit)

1-0-.5 to 4

is a course designed for adults reading at the 6-8.9 level in which employment skills and job search skills are presented and discussed. This course is offered tuition free.

Applicable toward graduation where program structure permits:

- Certificate or Degree - Not Applicable
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

A.B.E. 031B - Job Skills 2 (Variable Credit) 1-0-.5 to 4

is a course designed for adults reading at the 0-5.9 level in which skills to obtain a job and to retain a job, the attitudes toward work, fellow employees, and the employing institution are reviewed. This course is offered tuition free.

Applicable toward graduation where program structure permits:

- Certificate or Degree - Not Applicable
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

A.B.E. 031I - Job Skills 2 (Variable Credit) 1-0-.5 to 4

is a course designed for adults reading at the 6-8.9 level in which skills to obtain a job and to retain a job, the attitudes toward work, fellow employees, and the employing institution are reviewed. This course is offered tuition free.

Applicable toward graduation where program structure permits:

- Certificate or Degree - Not Applicable
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

A.B.E. 032B - Job Skills 3 (Variable Credit)

1-0-.5 to 4

is designed for adults reading at the 0-5.9 grade level who wish to review and enhance their reading, writing, and math skills in preparation for job specific or employment training. This course is offered tuition free.

Applicable toward graduation where program structure permits:

- Certificate or Degree - Not Applicable
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

A.B.E. 032I - Job Skills 3 (Variable Credit)

1-0-.5 to 4

is designed for adults reading at the 6-8.9 level who wish to review and enhance their reading, writing, and math skills in preparation for job-specific or employment training. This course is offered tuition free.

Applicable toward graduation where program structure permits:

- Certificate or Degree - Not Applicable
- Group Requirement - Not Applicable
- Area of Concentration - Not Applicable

A.B.E. 040B - Integrated A.B.E. Study Skills (Variable Credit)

1-0-.5 to 4

is designed for adults with a reading level comparable to the 0-5.9 grade level who need integrated instructional review in reading, writing, arithmetic, and other basic skills. Individualized, small group instruction and computer-assisted learning are offered for each student with consideration given to individualized basic skills needs. This course is offered tuition free.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Basic Certificates in General Studies except Personal Development
- Group Requirement - Not Applicable
- Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 040I - Integrated ABE Study Skills (Variable Credit)

1-0-.5 to 4

is designed for adults reading at the 6-8.9 level who need integrated instructional review in reading, writing, arithmetic, and other basic skills. Individualized, small group instruction and computer-assisted learning are offered for each student with consideration given to individualized basic skills needs. This course is offered tuition free.

Applicable toward graduation where program structure permits:

- Certificate or Degree - All Basic Certificates in General Studies except Personal Development
- Group Requirement - Not Applicable
- Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 075 - Pre-beginning General Educational Development (Variable Credit) 1-0-.5 to 4

is designed for adults with a reading level of 0-5.9 who need to prepare for General Educational Development coursework. Emphasis in the course is placed on basic reading, writing, and math skills. A placement test is required prior to enrollment. This course is offered tuition free.

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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. 076 - Pre-General Educational Development 1 (Variable Credit) 4-0-.5 to 4

is designed for adults with a reading level of 6 - 8.9 who want to prepare for General Educational Development coursework. Emphasis in the course is placed on basic reading, writing, and arithmetic skills. A placement test is required prior to enrollment. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.B.E. 077 - Pre General Educational Development 2 (Variable Credit) 4-0-.5 to 4

is designed for adults with a reading level of 6-8.9 who want to prepare for General Educational Development coursework. Emphasis is placed on reading, writing, and mathematics. A placement test is required prior to enrollment. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All basic certificates in general studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic certificate in developmental, preparatory or basic skills

A.B.E. 078 - General Educational Development 3 (Variable Credit) 4-0-.5 to 4

is designed for adults with a reading level of 6-8.9 who want to prepare for General Educational Development coursework. Emphasis in the course is placed on basic reading, writing, and mathematics skills. A placement test is required prior to enrollment. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

Adult Secondary Education

A.S.E. 020A - Responsive Parenting (Effective Learning) 1-0-1

is designed to give parents reading at or above the 9th grade 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 grade level and their children in a lapsit. Parents and children learn together through activities designed to encourage interactive play. Emphasis is placed on language development and the parent-child relationship. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.S.E. 022A - Self-Esteem for the Family 1-0-1

is designed to give parents reading at or above the 9th grade level the tools they need to support their child in school. They will be empowered to communicate with school staff, support school programming and encourage their child's school success. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.S.E. 023A - Parents as Reading Partners**1-0-1**

is designed to give adults reading at or above the 9th level instruction and experience for reading aloud to children of various ages. Parents are taught to read aloud to infants, toddlers, preschoolers, primary grade children, and intermediate grade children. Appropriate child development issues are explored and reading techniques adapted for the different age levels. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.S.E. 024A - Practical Parenting**1-0-1**

is designed for parents reading at 9 grade + level instruction in dealing with issues that pose daily challenges to parents and their children. Parents focus on what works and what doesn't in dealing with their children and their everyday demands. Parents keep a journal of their own experiences, and at each class session, several children's books related to the course topics are presented and distributed to parents. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.S.E. 025A - Behavior Management**1-0-1**

is designed for parents reading at the 9 grade + level the opportunity to explore the issues that affect how children learn acceptable behavior. Promoting respect for self and others and dealing constructively with negative behavior are discussed. A variety of views on discipline are shared. Parents will keep journals of their personal experiences for class discussion. At each session, children's books related to the topics are presented and distributed to the parents. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.S.E. 030A - Job Skills 1 (Variable Credit)**1-0-.5 to 4**

is a course in which employment skills and job search skills are presented and discussed. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.S.E. 031A - Job Skills 2 (Variable Credit)**1-0-.5 to 4**

is a course designed for adults reading at or above the 9th grade level in which skills to obtain a job and to retain a job, the attitudes toward work, fellow employees, and the employing institution are discussed. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.S.E. 032A - Job Skills 3 (Variable Credit)**1-0-.5 to 4**

is designed for adults reading at or above the 9th level who wish to review and enhance their reading, writing, and math skills in preparation for job specific or employment training. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except
Personal Development
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

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A.S.E. 040A - G.E.D. Test Review Individualized Study (Variable Credit) 1-0-.5 to 4

is designed for adults with a reading level at or above the 9th grade level who need a review of test preparation skills and a specific overview of the General Education Development test (G.E.D.) to include the areas of writing skills, social studies, science, interpreting literature and the arts, and mathematics. Individualized, small group and computer-assisted learning is offered for each student with consideration given to individualized instructional needs. Simulated and predictive testing is included. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.S.E. 071 - Classroom Anxiety Reduction 1-0-1

provides instruction that will help reduce the effect of performance-related classroom anxieties such as test anxiety. Class provides activities to reduce tension and improve classroom performance. Topics include study and test taking skills, coping and relaxation exercises, and stress management. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

A.S.E. 079 - General Educational Development 4 (Variable Credit) 4-0-.5 to 4

is designed to help individuals reading at or above the 9th grade level to prepare for the G.E.D. test through a review of reading, writing, and mathematics skills. A placement test is required for enrollment in the course. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

English as a Second Language

E.S.L. 081 - Pre-Beginning (Variable Credit) 1-2-.5 to 4

is for students who function minimally in English. The course content covers beginning structure, pronunciation, vocabulary building, and limited reading and writing skills. The primary objective of the course is to help the students develop a basic comprehension of the English language. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

E.S.L. 082 - Beginning (Variable Credit) 1-2-.5 to 4

is for students who have minimal experience and/or instruction in English. The course content covers beginning structure, pronunciation, vocabulary building, and reading and writing skills. The primary objectives of the course is to provide repetitive practice toward a meaningful and communicative use of the English language. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

E.S.L. 083 - Intermediate (Variable Credit) 1-2-.5 to 4

is for students who have some experience and/or instruction in English. The course content reviews basic structure and pronunciation skills, continues vocabulary building, and devotes equal time to reading, speaking, and writing skills. The primary objectives of the course are to review and refine basic skills and to promote purposeful communication both in and out of the classroom. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except Personal Development
Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

E.S.L. 084 - Advanced (Variable Credit)**1-2-.5 to 4**

is for students who have considerable experience and/or instruction in English. The course content includes review, advanced refinement, and expansion of listening, reading, speaking, and writing skills. The primary objective of the course is to provide opportunities for the student to develop confidence to use English proficiency in his/her everyday life, specifically to succeed in personal, work, and education-related experiences. This course is offered tuition free.

Applicable toward graduation where program structure permits:

Certificate or Degree - All Basic Certificates in General Studies except

Personal Development

Group Requirement - Not Applicable

Area of Concentration - Basic Certificate in Developmental, Preparatory, or Basic Skills

Applied Learning Skills (A.L.S.)

A.L.S. 090A - Diagnostic Module for Reading, Writing

is designed to screen, test, and place students in the appropriate A.L.S. module. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirements - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 090B - Diagnostic Module for Math/Technology/Science**1-0-1**

is designed to screen, test, and place students in the appropriate math, technology, or science A.L.S. module. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirements - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 091A - Proportions, Ratios, Decimals, and Percents**1-0-1**

is a concentrated study designed for students who want to learn or improve skills in proportions, ratios, decimals, and percents. Instruction is individualized based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirements - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 091B - Operations of Signed Numbers and Combining Like Terms**1-0-1**

is designed for students who want to learn or improve their skills in operations of signed numbers and combining like terms. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirements - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 091C - Solving Linear Equations and Inequalities**1-0-1**

is designed for students who want to learn or improve their skills in solving linear equations and inequalities. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirements - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 091D - Geometry of Plane Figures and Solids**1-0-1**

is designed for students who want to learn or improve their skills necessary to solve geometric problems involving complex figures. This module is directly related to Math 090 and Math 091. The student is required to analyze figures, determine appropriate formulas of perimeter, area, volume, and surface area and then appropriately compute the volume or surface area of a figure. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

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A.L.S. 091F - Operations of Fractions and Mixed Numbers

1-0-1

is designed for students who want to improve their skills in working with fractions. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 091G - Operations of Decimals

1-0-1

is designed for students who want to improve their skills in working with decimals. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 091H - Measurement Systems (English-Metric)

1-0-1

is designed for students who want to improve their skills in working with metric and English measurements. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 091I - Factoring

1-0-1

is designed for students who want to improve factoring skills to prepare for a math course. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 091J - Solving Advanced Equations & Inequalities

1-0-1

is designed for students who want to improve their skills in the solving techniques for advanced equations. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 091K - Coordinate Graphing

1-0-1

is designed for students who want to improve their skills in coordinate graphing. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 091L - Solving Systems of Equations & Inequalities

1-0-1

is designed for students who want to improve their skills in solving systems of equations with two or three variables by three different methods. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 091M - Advanced Coordinate Graphing

1-0-1

is designed for students who want to improve their skills in graphing conic sections. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 091N - Inequalities and Absolute Value**1-0-1**

is designed for students who want to improve their skills in working with inequalities and absolute value. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 091P - Radicals and Rational Exponents**1-0-1**

is designed for students who want to improve their skills in working with radicals and rational exponents. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 092A - Introduction to Word Processing for Composition Course**1-0-1**

is designed to introduce students to word processing skills necessary for composition courses at Richland. Students will review the keyboard and learn to set up, retrieve, save, and print a document as well as learn other skills such as running spell check, blocking and moving text, and other formatting skills. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 093A - ESL: Listening Preparation For The TOEFL: Short Conversation**1-0-1**

is designed for advanced students of English as a second language who want to improve their listening skills in order to prepare for the short conversations, Part A, section of the Test of English as a Foreign Language (TOEFL). Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 093B - ESL: Listening Preparation For The TOEFL: Longer Conversation**1-0-1**

is designed for advanced students of English as a second language who want to improve their listening skills in order to prepare for the longer conversations, Part B, section of the Test of English as a Foreign Language (TOEFL). Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 093C - ESL: Preparation For The TOEFL: Idioms**1-0-1**

is designed for advanced students of English as a second language who want to improve their skills in recognizing and understanding idioms in order to prepare for the listening and reading sections of the Test of English as a Foreign Language (TOEFL). Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 093D - ESL: Listening Preparation For The TOEFL: Lectures/Talks**1-0-1**

is designed for advanced students of English as a second language who want to improve their listening skills in order to prepare for the lectures/talks, Part C, section of the Test of English as a Foreign Language (TOEFL). Individualized instruction is based on student skill level and goals.

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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. 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. 094D - Basic Comprehension II**1-0-1**

is designed for students who want to extend their reading ability to cover necessary skills for college reading success. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 094E - Improving Vocabulary Skills**1-0-1**

is designed for students who want to improve their vocabulary skills. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 095A - Sentence Structure I**1-0-1**

is designed for students who want to improve skills in basic sentence structure. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. - 095B - Phrases and Clauses**1-0-1**

is designed for students who want to improve skills in phrases and clauses and sentence variety. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 095C - Standard Punctuation: The Comma**1-0-1**

is designed for students who want to improve their use of the comma in order to write more clearly. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 095D - Basic Verb Review**1-0-1**

is designed for students who want to improve the identification and use of various verb forms as well as understanding reasons for using particular tenses. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 097A - The Living World**1-0-1**

is designed for students who want to improve their science vocabulary and analysis skills. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

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

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A.L.S. 097C - Diffusion And Osmosis

1-0-1

is designed for students who want to improve their understanding of the process of diffusion and osmosis. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

A.L.S. 103A - Research And APA Documentation

1-0-1

is designed for students who want to improve their research skills using the American Psychological Association (APA) documentation format. Individualized instruction is based on student skill level and goals.

Applicable toward graduation where program structure permits:

Certificate or Degree - Basic Certificates

Group Requirement - Preparatory to Other Studies

Area of Concentration - Preparatory to Other Studies

College Staff



274 Administration, Faculty, & Staff

- Jack Adwell**, Assistant Professor,
Information Technology (A.A.S., Richland
Community College; B.A., Mt. Vernon
College)
- Janice Altman**, Secretary, Student Support
Services/TRIO/Retention Services
(A.A.S., Richland, Community College)
- Anne Armbruster**, Counselor, Instructor,
Retention Services (B.A. Eastern IL
Univ.; M.S., National Lewis University)
- Keith Ashby**, Assistant Professor, Hospitality
Management (B.S., University of
Missouri)
- Robin Askins**, Accounting Technician,
Business Services
- Mary Atkins**, Learning Accommodation
Services, Program Coordinator,
Retention Services (B.S., Eastern Illinois
University; M.S., Illinois State University)
- Karen Baird**, Professor, Biology (B.A.,
Millikin University; M.A., Washington
University)
- Juanita Ball**, Library Technical Asst., LRC
- Thelma Ball**, Library Technical Asst., LRC
- Cathy Barillas**, Accounting Technician,
Business Services (A.A.S., Richland
Community College)
- Vikas Bhakta**, Instructional Lab Facilitator,
TRIO/Options (A.A.S., Richland
Community College)
- Donna Barnes**, Secretary, Assessment
Services (Associate in Business, Southern
Illinois University)
- Judy Barringer**, Student Records Assistant,
Enrollment Services
- Mike Bartimus**, Maintenance (B.A., Evangel
College)
- Yvonne Basden**, Secretary, Secretarial Center
(A.A.S., Richland Community College)
- Karen S. Becker**, Professor, English (B.A.,
Kansas State University; M.A., Kansas
State University)
- Carla Becker**, Switchboard Operator,
Enrollment Services
- Patricia Belote**, Secretary, Health
Professions (A.A.S., Richland
Community College)
- Rose Best**, Financial Aid Specialist (B.A.,
University of Illinois-Springfield)
- Sharon Beube**, Assistant Professor,
Office Technology (B.S., Eastern Illinois
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- Betty Black**, Administrative Assistant,
Student and Academic Services
(A.A.S., Richland Community College)
- Karen Black**, Administrative Assistant,
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& Fine Arts Division (A.A.S., Richland
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- Sheryl Blahnik**, Dean, Retention Services
(A.A., Black Hawk College; B.S.,
M.S., Western Illinois University; Ed.S.,
Northern Illinois University)
- David Bolduc**, Audio Visual Technician
(A.A.S., Richland Community College)
- Ethel Bond**, Administrative Assistant,
Enrollment Services (B.C., A.A.S.,
Richland Community College)
- Stephen G. Bopp**, Professor, Psychology
(B.A., Millikin University; M.S.,
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Retention Services
- Larry Boyer**, Instructional Lab Facilitator,
Surg Tech (Surg Tech Certificate, Parkland
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- Faith Brenner**, Instructor, Information
Technology (B.S. Illinois State University;
M.S., Illinois State University)
- Gail Bowman**, Secretary, Transfer Center,
Retention Services (A.A.S., Richland Com-
munity College)
- Jean Brooks**, Administrative Assistant, Kitty
Lindsay Learning Resources Center
(Secretarial Certificate, Brown's Business
College)
- Barbara Brown**, Career Specialist, Career
Services (B.A., University of Illinois)
- Marcus Brown**, Counselor, Assistant
Professor, Retention Services (B.A.,
Quincy University; M.A., University of
Connecticut)
- Diane Browning**, Secretary, Options/
Opportunities Program
- Scott Broyles**, Fitness Center, Program
Coordinator
- Debbie Buckley**, Press Technician,
Duplication Center
- Pearlene Bunch**, Secretary, Student Learning
Center, Retention Services (A.A.S.,
Richland Community College)
- Ranae Butler**, Preschool Teacher, Child Care
Learning Center (A.A.S., Richland
Community College)
- Steve Caldwell**, Manager, Corporate
Training Programs, Business and
Technology
- Judi Carpenter**, Literacy Field Representa-
tive, Project Read (B.S. Kansas State
Teachers College)

- Lisa Carr**, Program Coordinator, Adult Education (B.A., Millikin University)
- Kathryn Carter**, Executive Secretary, President's Office (A.A.S., Lake Land Community College)
- Sheryl Challans**, Instructional Lab Facilitator, Computer Lab (A.A.S., Richland Community College)
- Jody Chambers**, Administrative Assistant, Math and Sciences Division, (A.A.S., Richland Community College)
- Kathy Chambers**, Secretary, Decatur Correctional Center (A.A.S., Richland Community College)
- Jim Chiligris**, Maintenance
- Lynne Clark**, Secretary, Career Services, Enrollment Services
- Joyce Clay**, Instructor, Nursing (B.S.N., Illinois Wesleyan, M.S.N. University of Oklahoma)
- Ellen Colbeck-Taylor**, Program Director, Radiologic Technology x(Certificate, School of Radiologic Technology; B.A., University of Illinois)
- Carol Condon**, Executive Director of Foundation and Development (B.F.A., Millikin University)
- Nancy Cooper**, Dean, Enrollment Services (B.A., University of Illinois; M.A., University of Illinois-Springfield)
- John Cordulack**, Professor, History (A.A., Lyons Township Junior College; B.A., Illinois State University; M.A., University of Illinois; Ph.D., University of Illinois)
- Craig Cox**, Assistant Director for Technical Services (B.A., Monmouth College)
- Michael J. Cravatta**, Dean, Math and Sciences Division, (A.A., Clinton Community College; B.S., University of Dubuque; M.S., Eastern Illinois University; Ph.D., Southern Illinois University)
- Marcella Cremer**, Assistant Professor, Mathematics (B.S., University of Illinois; M.Ed., University of Illinois)
- Gail Crookshank**, Executive Director, Public Information and Shilling Center (B.S., Illinois State University; M.B.A., Illinois State University)
- Donna Curtner**, Food Service Vocational Instructor, Decatur Correctional Center (B.A., Southern Illinois University; M.A., University of Illinois)
- Donna Dare**, Dean, Communications, Education, Humanities, and Fine Arts (B.A., Southern Illinois University-Carbondale; M.A., Southern Illinois University-Carbondale; Ph.D., University of Illinois-Champaign)
- John Daum**, Associate Professor, Computer Integrated Manufacturing (B.S., University of Illinois; M.B.A., University of Illinois-Springfield)
- Michelle Denton**, Accountant, Business Services Office (A.A.S., Center for Degree Studies)
- Leslie DeVore**, ETC Program Coordinator, (B.A., Illinois College; M.P.A., University of Illinois-Springfield)
- Michael Diggs**, Director, Human Resources (B.A., University of Illinois-Champaign; M.S., Central Michigan University)
- Kendall Dolly**, Director, Workforce Program Development, Business and Technology (B.S., Southern Illinois University; M.S. Ed., Southern Illinois University)
- Shelba Donoho**, Assistant to the Dean of Health Professions (B.S., Emporia State University)
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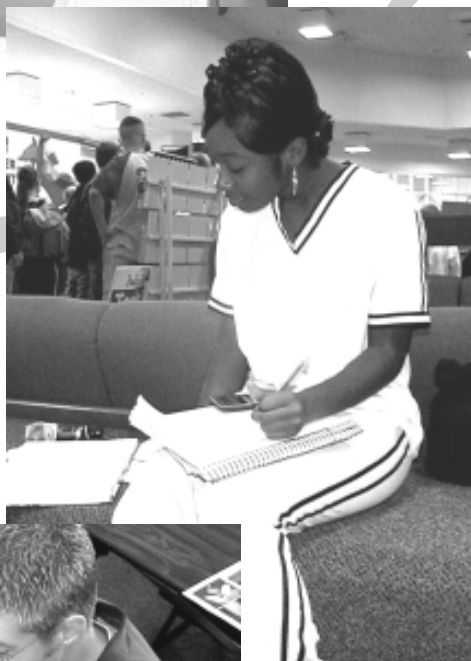
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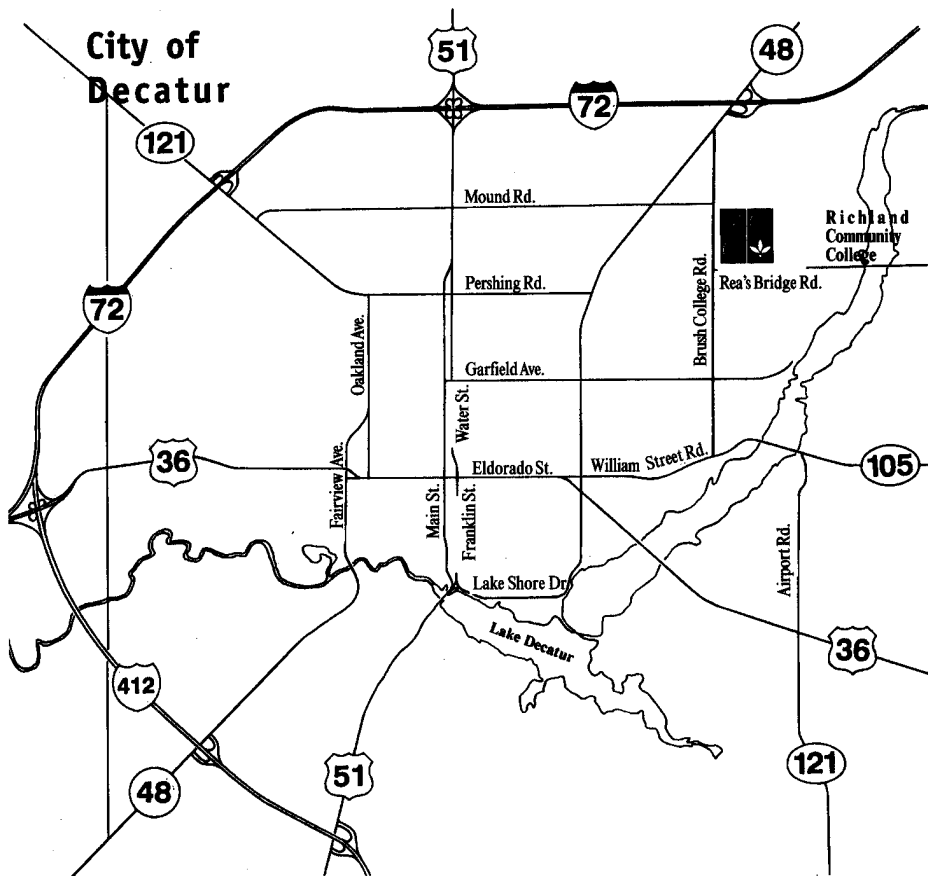


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