# DEGREES, CERTIFICATES, COURSES DEGREE & CERTIFICATE PROGRAMS



# ACADEMIC DEGREES AND CERTIFICATES

Prairie State College offers associate's degrees that prepare students for transfer to four-year institutions, associate's degrees and certificates that prepare students for specific careers, and an associate's degree that recognizes completion of a broad range of college-level courses.

#### TRANSFER DEGREES

The Associate in Arts degree (A.A.) includes the first two years of study for students who plan to pursue a bachelor's degree in liberal arts.

The Associate in Science degree (A.S.) covers the first two years of study for students pursuing a bachelor's degree in engineering, mathematics or science.

The Associate in Fine Arts: Art degree (A.F.A.) is designed to prepare students to transfer as juniors into a bachelor's degree program (B.F.A.) in Studio Art. Students are encouraged to complete their core courses in Art before enrolling in mediaspecific studio courses. A portfolio review is usually required for transfer to a four-year institution.

The Associate of Arts in Teaching degree (A.A.T.) is a two-year program designed for students preparing for careers in secondary education. It provides a foundation in teacher education, field-based experiences and discipline-specific content. Current A.A.T. degrees are designed to facilitate transfer for students who intend to teach in high-need disciplines.

#### **GENERAL STUDIES DEGREE**

The Associate in General Studies degree (A.G.S.), while not intended for transfer or directed at a specific occupation, allows students to design their own two-year program. See page 69 for details.

#### **CAREER PROGRAM DEGREES AND CERTIFICATES**

The Associate in Applied Science (A.A.S.) represents completion of a minimum of 60 credit hours in a technical or career program.

Certificates are awarded after completion of up to 50 credits that focus on specific occupational or technical areas of study. For detailed information about career degree and certificate programs, see page 70.

CERTIFICATES,
COURSES

#### **ILLINOIS ARTICULATION INITIATIVE**

# ILLINOIS ARTICULATION INITIATIVE

(IAI) www.iTransfer.org

Prairie State College participates in the Illinois Articulation Initiative (IAI), a statewide agreement that allows transfer of the completed Illinois Transferable General Education Core Curriculum between participating institutions. Completion of the Transferable 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 became effective statewide in the Summer of 1998. It applies to students who enrolled in an associate or baccalaureate degree-granting institution as a first-time freshman in summer 1998 or later. More than 100 schools, including all community colleges and all public state universities in Illinois, as well as most independent colleges and universities in the state, participate in the IAI.

#### **UNDERSTANDING IAI**

- I. The IAI Agreement and the iTransfer Web site are designed to simplify transferring to any participating school. Always seek the advice of academic advisors at Prairie State College and the school you plan to attend when making transfer plans.
- Articulation is the process of transferring courses from one school to another and identifying the way the classes will be used at the receiving school.
- The Illinois General Education Core Curriculum is for transfer students only.
- 4. To guarantee that you receive full credit, you should complete the Illinois General Education Core Curriculum package before transferring. When it is not completed before transfer, each college or university decides how to apply each individual course.
- 5. The Illinois General Education Core Curriculum requires a total of 12 to 13 courses (37 to 41 semester credits).
- 6. The General Education requirements at Prairie State College are aligned with the five major areas (fields or categories) within the Illinois General Education Core Curriculum: Area A: Communication, Area B: Humanities and Fine Arts, Area C: Mathematics, Area D: Physical and Life Sciences, and Area E: Social and Behavioral Sciences.
- The Illinois General Education Core Curriculum became effective statewide in the summer of 1998.
- Application of credit earned prior to summer 1998 is the decision of the receiving institution. For information about IAI and graduation requirements, see page 171.
- 9. There are two types of undergraduate degrees: the associate's degree and the bachelor's degree.
- 10.The IAI is identifying courses which will apply to specific majors. Prairie State College students are encouraged to complete an Associate in Arts, Associate in Science, or Associate in Fine Arts degree prior to transfer.

#### **IAI PARTNERS**

Participating public and private institutions that grant bachelor's degrees are listed below. Institutions identified as [R] are receiving institutions only.

#### **Public:**

- Chicago State University
- Eastern Illinois University
- Governors State University [R]
- Illinois State University
- Northeastern Illinois University
- Northern Illinois University
- Southern Illinois University at Carbondale
- Southern Illinois University at Edwardsville
- · University of Illinois at Chicago
- · University of Illinois at Springfield
- · University of Illinois at Urbana-Champaign
- Western Illinois University

#### Independent:

- Argosy University [R]
- Aurora University
- Barat College
- Benedictine University
- Blackburn College
- · Bradley University
- · Columbia College Chicago
- Concordia University
- DePaul University
- DeVry University, Chicago and DuPage
- Dominican University
- East-West University [R]
- Ellis College of New York Institute of Technology [R]
- Elmhurst College
- Eureka College [R]
- Illinois Institute of Technology
- Judson College
- Kendall College
- Knox College [R]
- Lake Forest College [R]
- Lakeview College of Nursing [R]Lewis University
- Lexington College
- Lincoln Christian College
- Lincoln College
- MacMurray College
- McKendree College [R]
- Midstate College
- Milliken University
- NAES College [R]
- National-Louis University
- North Central College
- North Park University
- Olivet Nazarene University
- Quincy University
- Robert Morris College
- Rockford College
- · Roosevelt University
- Saint Anthony College of Nursing [R]
- Saint Francis Medical Center, College of Nursing [R]
- Saint Xavier University
- Trinity Christian College
- University of St. Francis
- West Suburban College of Nursing [R]

Additional information about the IAI is available from the Prairie State College Transfer Coordinator or by visiting the IAI Web site at www.iTransfer.org.

# TRANSFER DEGREE GUIDELINES

The A.A., A.S., A.A.T. and A.F.A. degrees meet the guidelines of the Illinois Articulation Initiative "Transferable General Education Core Curriculum" and the Illinois Community College Board "Guidelines for Associate Degrees Designed for Transfer" (see page 171).

#### TRANSFER DEGREE ADMISSIONS REQUIREMENTS

Students applying for admission to a baccalaureate transfer program must have 15 high school credits distributed as follows:

- 4 credits in English (written and oral communication, literature)
- 3 credits in Mathematics (introductory through advanced algebra plus geometry)
- 3 credits in Social Studies (emphasizing history and government)
- 3 credits in Science (laboratory science)
- 2 credits in electives (foreign language, art, music, vocational education)

(Illinois Public Act 86-0954)

Students who have academic deficiencies in these minimum requirements can satisfy these deficiencies upon successful completion of 24 transferable credit hours (with a minimum GPA of 2.0) which must include ENG 101 Composition I (3), COMM 101 Principles of Communication (3), one social science course, one four-credit laboratory science course and one college-level mathematics course.

# TRANSFER DEGREE GRADUATION REQUIREMENTS

Prairie State College offers four transfer degrees:

- Associate in Fine Arts: Art (A.F.A.),
- Associate in Arts (A.A.),
- Associate in Science (A.S.), and
- Associate of Arts in Teaching (A.A.T.).

Candidates for these degrees must fulfill the following requirements:

- Enrolled at Prairie State College for the two semesters immediately preceding graduation, successfully completing at least 15 credit hours at Prairie State College (excluding proficiency credits).
- Candidates for the A.F.A. Degree must complete 61 credit hours including the Transferable General Education Core Curriculum of 31-32 credits. Candidates for the A.A. or A.S. Degree must complete 62 semester hours of college credit as specified, including Transferable General Education Core Curriculum of 37-41 credits.
- 3. Attained a minimum cumulative grade point average of 2.0 on a 4.0 scale in all Prairie State College courses.
- Filed appropriate evidence of high school graduation or GED certification with the Admissions and Records Office.
- 5. Satisfied the U.S. and State of Illinois Constitution requirements by submitting a high school transcript that proves the test was successfully completed in high school, or by taking POLSC 140 or 152 or a proficiency exam.

#### TRANSFER DEGREE COMPONENTS

There are three components of degree programs: The Transferable General Education Core Curriculum, the area of concentration or major field, and electives.

# I. TRANSFERABLE GENERAL EDUCATION CORE CURRICULUM REQUIREMENTS

A.A./A.S. Degrees: 37-41 credit hours A.F.A. Degree: 31-32 credit hours A.A.T. Degree: 39-40 credit hours

The goal of general education is to develop individuals with sensitivity to and a comprehensive understanding of the world in which they live. A general education encourages development of moral values, habits of critical thinking and introspection, intellectual sophistication and an orientation to learning and investigation that will last a lifetime. The complexity and diversity of American society challenges individuals to widen their sympathies and visions, and develop and adapt their skills to understand the human condition and function in and respond to changing world needs. In order to be a successful and contributing member of American society and a citizen of the world, a person needs both to value diversity and recognize and reinforce similarities among people. To meet these goals, the general education curriculum requires courses that enhance written, oral communication and quantitative reasoning skills.

#### **AREA A: COMMUNICATION**

A.F.A., A.A., A.S., A.A.T.: 9 credit hours

Communication is the art of expressing and exchanging ideas creatively in speech or writing, in an organized manner, using critical judgment skills. The complexities of the modern world demand that individuals develop the ability to think independently and have a mastery of both oral and written communication skills. Because these skills provide a foundation for success in later academic work, these courses must be completed early in the degree program. These acquired skills form the basis for all other courses in the undergraduate curriculum. These skills will continue to be developed, reinforced and refined throughout the entire academic program. Satisfactory completion of the required writing course sequence, ENG101 Composition I and ENG102 Composition II, will mean a grade of "C" or better in both courses.

The following 3 courses (9 credit hours), including a two-course sequence in writing and one course in oral communication, are required:

#### Writing Course Sequence [IAI Code]

ENG 101 [CI 900] Composition I - with a grade of C or better (3) Note: All students must complete the English 101 Exit Test with a passing grade in order to pass ENG101

ENG 102 [CI 901R] Composition II - with a grade of C or better (3) Oral Communication [IAI Code]

COMM 101 [C2 900] Principles of Communication (3)

# **AREA B: HUMANITIES AND FINE ARTS**

- A.A., A.S., A.A.T.: 9 credit hours
- A.F.A.: 6 credit hours

Study in the humanities and fine arts develops an understanding of what it means to be human as individuals confront the struggles and aspirations, comedies and tragedies, achievements and failures of human existence. These courses examine the dreams, traditions and cultural expressions of people throughout time who have wrestled with the basic questions that confront all human beings in the course of their lives—identity, beauty, courage, love, truth, justice and morality. To understand what it means to be human, one must understand oneself in relation to the natural world and in relation to others. One must be able to reflect on ideas and confront presuppositions from one's own and other cultures, and respond creatively. By moving beyond personal and cultural limits and relating to common human experiences and traditions, individuals can choose thoughtful and constructive action, both in the present and the future.

Select 2 or 3 courses (6 or 9 credit hours), with at least one course selected from fine arts and at least one course from the humanities:

#### **Fine Arts Courses** Art [IAI Code] ART121 [F2 901 History of Western Art I (3) History of Western Art II (3) ART122 [F2 902] History of Photography (3) ART126 [F2 904] ART129 [F2 900] Art Appreciation (3) [not accepted for AFA Degree] ART131 [F2 903N] Survey of Non-Western Art (3) Music [IAI Code] MUSIC 130 [F1 900] Introduction to Music Appreciation (3) MUSIC 132 [FI 904] American Music (3) Theatre [IAI Code] THTRE 101 [FI 907] Understanding Theatre (3) THTRE 104 [FI 908] History of Theatre (3) **Humanities Courses** Foreign Languages [IAI Code] FRENC 202 [HI 900] French IV (4)\* GERM 202 [HI 900] German IV (4)\* SPAN 202 [HI 900] Spanish IV (4)\* \*While few baccalaureate institutions require a foreign or second language in their campus-wide general education requirements, competency through two, three or four college semesters (or high school equivalent) in a single foreign/second language is required for the Bachelor of Arts degree at some universities. Thus, community college students who intend to transfer should complete the foreign language courses required by their intended institution

HUMAN 101 [H5 904N] Comparative Religions (3)
HUMAN 201 [H9 900] Humanities Themes: Myth, Reason & God (3)
Literature [IAI Code]
ENG 211 [H3 914] American Literature I (3)
ENG 212 [H3 915] American Literature II (3)
ENG 215 [H3 910D] African-American Literature (3)
ENG 221 [H3 903] Introduction to Poetry (3)

ENG 221 [H3 903] Introduction to Poetry (3) ENG 231 [H3 912] British Literature I (3) ENG 232 [H3 913] British Literature II (3) ENG 240 [H3 901] Introduction to Fiction (3)

ENG 243 [H3 908N] Non-Western Literature in Translation (3) ENG 252 [H3 902] Introduction to Drama (3)

ENG 261 [H3 906] Western/World Literature I (3) ENG 262 [H3 907] Western/World Literature II (3) ENG 271 [H3 905] Introduction to Shakespeare (3) Philosophy [IAI Code]

PHILO 201 [H4 900] Introduction to Philosophy (3)

prior to transferring.

Humanities [IAI Code]

PHILO 202 [H4 904] Ethics (3)

PHILO 203 [H4 906] Introduction to Logic (3)

Interdisciplinary Humanities and Fine Arts [IAI Code] may be used for either humanities or fine arts credit.

HUMAN 202 [HF 900] Form and Structure in the Arts (3)

# AREA C: MATHEMATICS (3-6 credit hours)

Mathematics focuses on quantitative reasoning as the basis for developing an understanding of the quantitative relationships found in both the world of work and in everyday life. Mathematics provides the tools and skills necessary to organize thoughts, to apply problem-solving techniques and understand patterns and processes in all fields. Mathematics is used to determine reasonableness, identify alternatives and select optimal results. Individuals need to apply simple mathematical methods to the solution of real-world problems.

Select I to 2 courses (3 to 6 credit hours) from:

# Mathematics [IAI Code]

MATH II2 [MI 904] General Education Math (3) MATH II5 [MI 902] General Education Statistics (3)

MATH 112 and 115 are recommended for A.A. and A.F.A. students who do not intend to take higher levels of mathematics.

BUS 240 [MI 902] Elementary Statistics (4)

MATH 153 [MI 902] Probability and Statistics (4)

MATH 153 is intended for students with advanced math skills; it may be taken in place of MATH 115. Students can receive credit for only one of BUS 240, MATH 115 and 153.

MATH 155 [MI 906] Finite Mathematics (4)

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[MI 900-B]
MATH 157
                           Calculus for Business and Social Science (4)
             [MI 900-I]
MATH 171
                           Calculus with Analytic Geometry I (5)
MATH 172
             [MI 900-2]
                           Calculus with Analytic Geometry II (5)
             [MI 900-3]
                          Calculus with Analytic Geometry III (5)
MATH 173
             [MI 903] Mathematics for Elementary Teaching II (4)**
MATH 206
MATH 210 [MI 905] Discrete Mathematics (3)
**Prerequisite: MATH 200 Mathematics for Elementary Teaching I (4)
**MATH 206 fulfills general education requirements only for students seeking
state certification as elementary teachers. Students must complete both
MATH 200 and 206 prior to transfer.
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#### **AREA D: PHYSICAL AND LIFE SCIENCES**

#### · A.S., A.A., A.F.A., A.A.T.: 7-8 semester hours

The study of science develops understanding of the methods of scientific inquiry, including the formulation and testing of hypotheses. Familiarity with scientific principles enables one to discover and apply methodology, investigate and understand phenomena in the natural and physical world and make informed decisions about personal and societal issues. An understanding of the scientific method helps one to examine components of the living world and their interaction with the physical world. By becoming knowledgeable about the contemporary world of science and technology, the individual can relate more effectively to environmental and technological issues facing a complex global society.

Select 2 courses (7-8 credit hours), with one course selected from the life sciences and one course from the physical sciences and including at least one laboratory course from:

(The "L" in the IAI code indicates a "lab science" course.)

#### Life Science Courses [IAI Code]

BIOL 100 [LI 900L] General Education Biology (4)
BIOL 103 [LI 901] Plants and Society (3)
BIOL 105 [LI 905] Environmental Biology (3)
BIOL 106 [LI 906L] Heredity and Society (4)
BIOL 112 [LI 900L] Organismal Biology (4)\*

\*This course is intended for science majors only and should not be selected by non-science majors to meet general education science requirements. Student cannot receive credit for both BIOL 100 and 112.

#### Physical Science Courses [IAI Code]

ASTRO 101 PI 906] Guide to the Universe (3)
ASTRO 104 [PI 906L] The Solar System and Beyond (4)

CHEM 105 [P1 902L] Survey of General Chemistry (4)

CHEM IIO [PI 902L] General Chemistry I (5)\*

\*This course is intended for science majors only and should not be selected by non-science majors to meet general education science requirements.

Student cannot receive credit for both CHEM 105 and 110.
GEOG 105 [PI 909] Introduction to Physical Geography (3)

GEOLO 101 [PI 907L] Physical Geology (4)
GEOLO 102 [PI 907L] Historical Geology (4)

METEO 150 [PI 905] Introduction to Meteorology (3)

PHYSC III [P9 900L] Physical Science (4) PHYSC II2 [P9 905L] Earth Science (4)

Students cannot receive credit for both METEO 150 and PHYSC 112.

PHYSI 101 [PI 901L] Conceptual Physics (4)
PHYSI 120 [PI 900L] College Physics I (4)\*
PHYSI 210 [P2 900L] University Physics I (4)\*

\*This course is intended for science majors only and should not be selected by non-science majors to meet general education science requirements. Student cannot receive credit for both PHYSI 120 and 210.

# AREA E: SOCIAL SCIENCES AND BEHAVIORAL SCIENCES

- · A.A., A.S., A.A.T.: 9 credit hours
- · A.F.A.: 6 credit hours

Social sciences focus on an appreciation of human continuity and change. By analyzing the past, developing insights into contemporary life and understanding the impact of individual and social actions on the future, students have a foundation for developing a sense of responsibility toward humanity and the environment. Through analysis of social, political, cultural, historical and economic institutions and relationships that both link and separate societies in the world, students are able to understand their own society and the world as part of a global human experience. Beyond understanding the broad perspective, individuals

are encouraged to develop a capacity for further social inquiry and action in resolving the world's complex societal problems.

Select 2 or 3 courses (6 or 9 credit hours), with courses selected from at least two disciplines, from:

Anthropology [IAI Code]
ANTHR 215 [SI 900N] Introduction to Anthropology (3)
ANTHR 222 [SI 901N] Introduction to Cultural and Social Anthropology (3)

Economics[IAI Code]ECON 201[S3 901]Macroeconomic Principles (3)ECON 202[S3 902]Microeconomic Principles (3)

Geography [IAI Code]

GEOG 101 [S4 900N] Cultural Geography (3)

GEOG 102 [S4 901] Geography of the Developed World (3)

History [IAI Code]

HIST 111 [S2 912N] World History: Origins to 1714 (3)
HIST 112 [S2 913N] World History: 1714 to Present (3)

HIST 115 [S2 906N] African Civilizations I (3) HIST 116 [S2 907N] African Civilizations II (3)

 HIST 140
 [S2 910N]
 History of Latin America (3)

 HIST 151
 [S2 902]
 History of Western Civilization I (3)

 HIST 152
 [S2 903]
 History of Western Civilization II (3)

 HIST 201
 [S2 900]
 U.S. History 1492-1877 (3)

HIST 202 [S2 901] U.S. History 1877 to Present (3)

Political Science [IAI Code]

POLSC 101 [S5 903] Principles of Political Science (3)

POLSC I40 [SS 900] Introduction to U.S. Government and Politics (3) POLSC I52 [SS 902] U.S., State and Local Government (3)

POLSC 230 [S5 905] Introduction to Comparative Government (3)

POLSC 240 [S5 904N] Introduction to International Relations (3)

Psychology [IAI Code]

PSYCH 101 [S6 900] Introduction to Psychology (3)

PSYCH 102 [S6 902] Human Growth and Development: Life-Span (3)

PSYCH 215 [S8 900] Social Psychology (3) **Sociology** [IAI Code]

SOCIO 101 [S7 900] Introduction to Sociology (3)
SOCIO 111 [S7 901] Contemporary Social Issues (3)

SOCIO 210 [S7 902] Marriage and the Family (3) SOCIO 215 [S7 904D] Sex, Gender and Power (3)

SOCIO 220 [S7 903D] Race Relations: A Multicultural Perspective (3) **Social Science** [IAI Code]

SOCSC 101 [S9 900] Introduction to Social Science (3)

#### II. AREA OF CONCENTRATION/MAJOR FIELD

A.A., A.S.: 12 credit hours A.F.A.: 21 credit hours A.A.T.: 25-26 credit hours

The Associate in Fine Arts Degree requires 21 credits of 100-level or above transfer courses from any of the following areas of concentration. The Associate of Arts and Associate in Science degrees require 12 credits from the same group of courses (of 100-level or above transfer courses from any of the following areas of concentration). To review the suggested curriculum for specific areas of concentration, see Transfer Degree Areas of Concentration on page 45. Depending upon the chosen course of study, additional credit hours may be recommended in the area of concentration, reducing the elective courses.

#### III. ELECTIVES (9-13 credit hours)

The A.F.A. Degree requires 9 semester hours of media specific courses to meet a total of 61 credits. The A.A. and A.S. Degrees require an additional 9-13 credit hours to meet a degree total of 62 credits. The elective courses must be selected from transfer courses of 100 level or above. Developmental, community service, apprentice and vocational-technical courses cannot be used to satisfy degree requirements in the A.F.A. or A.A./A.S. degree. No more than four credits of physical education courses can be applied to a degree.

# REQUIRED TRANSFER DEGREE CREDIT HOURS A.A./A.S.: 62 A.F.A.: 61 A.A.T.: 64

#### **DUAL DEGREE GRADUATION REQUIREMENT**

Students who wish to receive both the Associate in Arts and the Associate in Science degrees must complete an additional 12 credit hours in the second concentration area that is selected.

#### TRANSFER CREDIT GUARANTEE

Courses taken by students who earn an Associate in Fine Arts: Art (A.F.A.) Degree or an Associate in Arts (A.A.) or Associate in Science (A.S.) Degree will transfer to Illinois state colleges or universities (including Purdue University Calumet at Hammond) as identified and defined in the Course Equivalency Tables (CET) on file at PSC's Transfer Center.

If a course is taken and successfully completed in compliance with the CET and not accepted in transfer, Prairie State College will refund the tuition for the course. Call (708) 709-3508 for details.

#### IAI COURSE CODES

IAI has its own course numbering sequence for the Illinois Transferable General Education Core Curriculum. Here is an example of an IAI GECC course –

S7 903D: Racial and Ethnic Relations

This code would be noted for a PSC course listed in this catalog as follows:

SOCIO 220 Race Relations: A Multicultural Perspective (IAI: S7 903D)

The first letter in the IAI GECC code indicates the discipline field for the course. The letter S, for example, indicates Social/Behavioral Sciences. IAI letter codes and their corresponding disciplines are as follows:

#### General Education Core Curriculum Course Codes:

IAI: C Communications

IAI: F Fine Arts
IAI: H Humanities

IAI: HF Interdisciplinary Humanities and Fine Arts

IAI: HS Interdisciplinary Humanities/Fine Arts and

Social/Behavioral Sciences

IAI: L Life Sciences

IAI: M Mathematics

IAI: P Physical Sciences

IAI: S Social/Behavioral Sciences

The first number after the letter indicates the sub-area of the discipline. The S7 in this example represents the Sociology sub-area of Social/Behavioral Sciences. The next numbers represent the unique content category within this subdiscipline. Letters at the end of course numbers identify specific perspectives related to the course. The D in S7 903D, for example, represents courses that examine aspects of human diversity within the United States. Other end-of-course letters include:

- N for courses designed to examine aspects of human diversity from a non-U.S./non-European perspective.
- L for laboratory courses
- R for research paper courses

# TRANSFER DEGREE AREAS OF CONCENTRATION

A suggested curriculum of study is proposed for each transfer degree area based on PSC degree requirements, IAI majors panels and/or articulation agreements with specific four-year institutions.

degree	page
Art (A.F.A.)	46
Art/Art History (A.A.)	46
Art Education (A.A.)	47
Astronomy (A.S.)	48
Biological Sciences (A.S.)	48
Business (A.A.)	49
Chemistry (A.S.)	49
Clinical Laboratory Science (A.S.)	50
Communication Disorders (A.A.)	50
Computer Science: Information Systems Emphasis (A.S.)	51
Computer Science: Technical Emphasis (A.S.)	51
Criminal Justice (A.A.)	52
pre-Dentistry (A.S.)	52
Earth Science/Geology (A.S.)	53
Education: Early Childhood Education (A.A.)	53
Education: Secondary Mathematics (A.A.T.)	54
Education: Teacher Education (A.A.)	55
pre-Engineering (A.S.)	56
English/Literature (A.A.)	56
General Math/Science (A.S.)	57
pre-Health Administration (A.A.)	57
History (A.A.)	58
pre-Law (A.A.)	58
Liberal Arts (A.A.)	59
pre-Manufacturing Technology (A.S.)	59
Mass Communication (A.A.)	60
Mathematics (A.S.)	60
pre-Medicine (A.S.)	61
Music Education (A.A.)	61
Music Performance (A.A.)	62
pre-Nursing (A.S.)	62
pre-Occupational Therapy (A.S.)	63
pre-Pharmacy (A.S.)	63
Photography (A.A.)	64
Physical Science (A.S.)	64
pre-Physical Therapy (A.S.)	65
Physics (A.S.)	65
Political Science (A.A.)	66
Psychology (A.A.)	66
Social Work (A.A.)	67
Sociology (A.A.)	67
Speech Communication (A.A.)	68
Theatre Arts (A.A.)	68

For information about the Associate in General Studies degree, turn to page 69.

For information about Career Programs, both A.A.S. degrees and certificates, turn to page 70.

#### **ART**

#### A.F.A. Degree • Suggested Curriculum

The Associate in Fine Arts degree (A.F.A.) is designed to prepare students to transfer as juniors into a bachelor's degree program (B.F.A.) in Studio Art. Students are encouraged to complete their core courses in Art before enrolling in media-specific studio courses. A portfolio is usually required for transfer to a four-year institution. Students are strongly encouraged to consult with their instructors and with counselors and advisors in the PSC Counseling & Academic Advising Center (or with the university where they expect to transfer) for information regarding the most appropriate courses to take while at Prairie State College.

# I. GENERAL EDUCATION CORE (31-32)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities & Fine Arts (6 credits)

Select one course from humanities and one course from the fine arts from the list for Area B on pages 42-44.

#### Area C: Mathematics (3 credits)

MATH 112 [MI 904] General Education Mathematics (3) OR

# MATH 115 [MI 902] General Education Statistics (3)

#### Area D: Physical & Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

# Area E: Social & Behavioral Sciences (6 credits)

Select 2 courses from different disciplines from the list for Area E on pages 42-44.

# II. AREA OF CONCENTRATION/MAJOR FIELD (21)

ART 101	[ART 907]	Two Dimensional Design (3)
ART 102	[ART 908]	Three Dimensional Design (3)
ART 104	[ART 904]	Drawing I (3)
ART 106	[ART 905]	Drawing II (3)
ART 121	[ART 901]	History of Western Art I (3)
ART 122	[ART 902]	History of Western Art II (3)
ART 162	[ART 906]	Life Drawing (3)

#### III. ELECTIVES/STUDIO COURSES (9)

Select 9 credits of media specific studio courses from at least two media. Choose from the following areas of concentration in consultation with an art department advisor:

#### Art:

ART 109		Ceramics (3)
ART 201	[ART 911]	Painting I (3)
ART 202		Painting II (3)
ART 205	[ART 914]	Printmaking (3)
ART 207	[ART 915]	Jewelry Making - Fabrication (3)
Graphic	Design:	
ART 115	[ART 919]	Introduction to Computer Art (3
00 151	F 4 B T 0 1 0 7	D

GC 151 [ART 918] Principles of Graphic Design (3)

#### Photography:

PHOTO 171 [ART 917] Introduction to Black & White Photography (3)

#### Required A.F.A. Degree Program Total: 61 credits

## ART / ART HISTORY

#### A.A. Degree • Suggested Curriculum

Prairie State College offers the foundation courses in art appreciation, art history and studio art required in the first two years of the Art major. Through painting, drawing, graphic design and photography, students may pursue a variety of interests. Students planning to pursue a baccalaureate degree should be aware that transfer admission to art-related programs is competitive, and a portfolio is generally required for admission to the major as well as for registration in advanced art courses and for scholarship consideration. Each senior institution has its own transfer policies. Therefore, we cannot guarantee the accuracy of this information in regard to every individual school. Consult the school of your choice and/or the Prairie State College Counseling & Academic Advising Center to discuss the transferability of courses.

#### I. GENERAL EDUCATION CORE (37-38)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses other than Art History from the list for Area B on pages 42-44 with at least one course from humanities and one course from fine arts.

#### Area C: Mathematics (3 credits)

Select one math course from:

MATH 112 [MI 904] General Education Mathematics (3)

MATH 115 [MI 902] General Education Statistics (3)

# Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II. AREA OF CONCENTRATION/MAJOR FIELD (24-25)

ART IOI	[ART 907]	Two Dimensional Design (3)
ART 102	[ART 908]	Three Dimensional Design (3)
ART 104	[ART 904]	Drawing I (3)
ART 106	[ART 905]	Drawing II (3)
ART 131	[ART 901]	History of Western Art I (3)
ART 132	[ART 902]	History of Western Art II (3)
<b>C</b> L.:	C . I . A .	

Completion of the Art Core courses is recommended before enrolling in Media-Specific courses. Select studio art courses from at least two media. Students should complete the core courses listed above before enrolling in studio courses. (6-7 credits)

#### Art: ART ING

AIXI 107		Ceramics (3)
ART 162	[ART 906]	Life Drawing (3)
ART 201	[ART 911]	Painting I (3)
ART 202		Painting II (3)
ART 205	[ART 914]	Printmaking (3)
ART 207	[ART 915]	Jewelrymaking-Fabrication (3)
Graphic	Design:	
ART 115	[ART 919]	Introduction to Computer Art (3)
GC 151	[ART 918]	Principles of Graphic Design (3)

Caramics (3)

# Photography:

PHOTO 171 [ART 917] Introduction to Black & White Photography (3)

# Required A.A. Degree Program Total: 62 credits

# **ART EDUCATION**

#### A.A. Degree • Suggested Curriculum

To teach art in Illinois public schools, teachers must be certified by the State of Illinois. To transfer into an approved baccalaureate program in art education as a junior, students must complete a minimum of 60 semester credits. Since admission is competitive, completion of the courses recommended below does not guarantee admission. Community and junior college students are strongly encouraged to complete an Associate in Arts degree prior to transfer. Students should be aware that a minimum grade point average of 2.5 on a 4.0 scale is required for program admission, and passage of a basic skills (reading, writing, grammar, and math) test is also required.

SPECIAL NOTE: Before enrolling in any additional courses with an "ECED," "ED" or "EDU" prefix at Prairie State College, consult a PSC counselor or advisor to determine the transferability of these courses. Most senior institutions prefer that students complete as many general education courses as possible at the community college and take their professional education courses at the senior institution. The State Certification Board will accept no more than 9 credits of "professional education" courses from a community college.

#### I. GENERAL EDUCATION CORE (38)

#### Area A: Communication (9 credits)

ENG I01 [CI 900] Composition I - with a grade of C or better (3) ENG I02 [CI 901R] Composition II - with a grade of C or better (3) COMM I01 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44 with at least one course selected from humanities and one course from fine arts.

ART 121 [F2 901] History of Western Art I (3)
ART 122 [F2 902] History of Western Art II (3)
ENG (200 Level) Select any Literature Course (3)

OR

HUMAN 101 [H5 904N] Comparative Religions (3)

#### Area C: Mathematics (3 credits)

Select one math course from:

MATH 112 [MI 904] General Education Mathematics (3) MATH 115 [MI 902] General Education Statistics (3)

#### Area D: Physical and Life Sciences (8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

## Area E: Social and Behavioral Sciences (9 credits)

HIST 201 [S2 900] U.S. History: 1492 to 1877 (3) **OR** 

OK

HIST 202 [S2 901] U.S. History: 1877 to Present (3)

POLSC 140 [S5 900] Introduction to U.S. Government & Politics (3)

PSYCH 101 [S6 900] Introduction to Psychology (3)

#### II. AREA OF CONCENTRATION/MAJOR FIELD (15-21)

Art Core Courses (12 credits)

ART 101 [ART 907] Two Dimensional Design (3)

ART 102 [ART 908] Three Dimensional Design (3)

ART 104 [ART 904] Drawing I (3)

ART 106 [ART 905] Drawing II (3)

Media-Specific Studio Art Course (3-9 credits)

Select at least one studio art course from the following:

ART 109 Ceramics (3)

ART 162 [ART 906] Life Drawing (3)

ART 201 [ART 911] Painting I (3)

ART 205 [ART 914] Printmaking (3)

ART 207 [ART 915] Jewelrymaking-Fabrication (3)

GC 151 [ART 918] Principles of Graphic Design (3)

PHOTO 171 [ART 917] Introduction to Black & White Photography (3)

#### III. ELECTIVES (3-9)

Select from the following teacher education electives.

HLTH 101 Health and Human Development (2)

Additional non-Western course from: ART 131, GEOG 101, HUMAN

101, or HIST 115, 116, 140 (3)

#### Required A.A. Degree Program Total: 62 credits

#### **ASTRONOMY**

#### A.S. Degree • Suggested Curriculum

The astronomer is concerned with the earth and its position in the solar system and the universe. Employment opportunities include the National Aeronautics and Space Administration (NASA), air traffic control, and weather forecasting and monitoring. In the typical four-year curriculum, the first two years are spent studying the basic sciences, including mathematics and physics. The last two years emphasize advanced mathematics and science courses. Prairie State College offers courses comparable to the first two years of the curriculum and will grant the Associate in Science degree to successful students.

#### I. GENERAL EDUCATION CORE (39-40)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one course from fine arts.

#### Area C: Mathematics (5 credits)

MATH 171 [MI 900-1] Calculus with Analytic Geometry I (5)

#### Area D: Physical and Life Sciences (7-8 credits)

ASTRO 104 [PI 906L] The Solar System and Beyond (4) Life Science Elective (3-4)

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

# II.AREA OF CONCENTRATION/MAJOR FIELD (17)

MATH 172 Calculus with Analytic Geometry II (5)

PHYSI 210 University Physics I (4)

PHYSI 220 University Physics II (4)

PHYSI 230 University Physics III (4)

#### III. ELECTIVES (5-6)

Select additional science, calculus, and foreign language courses or other general education core courses.

# Required A.S. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

# **BIOLOGICAL SCIENCES**

#### A.S. Degree • Suggested Curriculum

Biology, the study of living organisms, is an extremely large and diverse field. Career opportunities exist in many areas such as research, government agencies (conservation department, environmental protection, etc.), industry, sales, and teaching at all educational levels. In addition, the biology curriculum provides the pre-professional foundation for many of the health career areas. Baccalaureate biological science programs are diverse. Some programs emphasize cell and molecular biology, whereas others emphasize organismal, ecological, and evolutionary biology. Research universities offer specific programs of study, optional tracks, or specializations within biology. Students should decide the direction or specialization within biology as early as possible, preferably by the beginning of sophomore year. Students are strongly encouraged to complete the Associate in Science degree prior to transfer.

# I. GENERAL EDUCATION CORE (39-41)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

# Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one course from fine arts.

#### Area C: Mathematics (3-5 credits)

Select one math course from:

MATH II5 [MI 902] General Education Statistics (3)

MATH 153 [MI 902] Probability and Statistics (4)

MATH 171 [MI 900-I] Calculus with Analytic Geometry I (5)

# Area D: Physical and Life Sciences (9 credits)

BIOL 112 [BIO 910] Organismal Biology (4)

CHEM II0 [BIO 906] General Chemistry I (5)

# Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II. AREA OF CONCENTRATION/MAJOR FIELD (17-19)

Select a minimum of 21-22 credits from the foundation courses listed below.

BIOL III [BIO 910] Cellular and Molecular Biology (4) required CHEM 130 [BIO 907] General Chemistry II (5) required Select 2 courses in physics, or 2 courses in chemistry, or I course each in each from:

CHEM 203 [BIO 908] Organic Chemistry I (5) CHEM 204 [BIO 909] Organic Chemistry II (5)

PHYSI 210 [BIO 903] University Physics I (4)

PHYSI 220 [BIO 904] University Physics II (4)

#### III. ELECTIVES (2-6)

Select one course from CHEM 203, 204 or PHYSI 210, 220 if not already selected from Area II above, or any additional BIOL course. Courses such as microbiology and human anatomy and physiology sometimes will transfer for credit in allied health majors, but most often do not transfer as biology major credit.

#### Required A.S. Degree Program Total: 62 credits

#### **BUSINESS**

#### A.A. Degree • Suggested Curriculum

Business programs at community colleges and bachelor's degree institutions include courses and majors in general business, accounting, finance, marketing and management. The following recommendations apply to programs in all of these fields. These are suggested courses which are designed to satisfy requirements in the Associate in Arts Degree at Prairie State College and to provide the basis for transferring to a four-year institution.

# I. GENERAL EDUCATION CORE (38-40)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one course from fine arts. PHILO 202 [H4 904] Ethics (3) recommended

#### Area C: Mathematics (4-5 credits)

Select one math course from:

MATH 157 [MI 900-B] Calculus for Business & Social Science (4) MATH 171 [MI 900-1] Calculus with Analytic Geometry I (5)

#### Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

ECON 201 [S3 901] Macroeconomic Principles (3) recommended ECON 202 [S3 902] Microeconomic Principles (3) recommended

#### II. AREA OF CONCENTRATION/MAJOR FIELD (14)

BUS 131	[BUS 903]	Financial Accounting (4)
BUS 132	[BUS 904]	Managerial Accounting (3)
BUS 240	[BUS 901]	Elementary Statistics (4)
ITAPP 101	[BUS 902]	Introduction to Computers (3)

#### III. ELECTIVES (8-10)

	[BUS 911]	Introduction to Modern Business (3)
BUS 201	[BUS 912]	Business Law I (3)
OR		

BUS 210 [BUS 913] Business Law and Its Environment (3) Select any other course (2-4)

SPECIAL NOTE: Courses such as Principles of Management, Principles of Marketing, Principles of Finance, Intermediate Accounting, and Cost Accounting, etc., are considered junior-level or upper-division courses at most universities. Some universities, though, will accept these courses as elective credit (but it often will not count toward the hours you need for a major in business). Some have provisions for validating this credit. In this case, a student may be requested to take a proficiency examination, take the next course in sequence, or take a specific CLEP subject examination. Students are strongly advised to consult the information for the school of their choice before registering for these courses.

#### Required A.A. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

# **CHEMISTRY**

#### A.S. Degree • Suggested Curriculum

The chemist is concerned with the application of scientific principles to practical problems. Employment opportunities for chemists include the complete spectrum of the workforce, theoretical research activities, and problem-solving in management, marketing and production. Bachelor's programs in chemistry are built on an in-depth foundation of sequential courses in science and math, while upper-division courses provide the preparation necessary for graduate studies and/or work in industry.

#### I. GENERAL EDUCATION CORE (39-40)

## Area A: Communication (9 credits)

ENG 101 [C1 900] Composition I - with a grade of C or better (3) ENG 102 [C1 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44 with at least one course from humanities and one course from fine arts.

#### Area C: Mathematics (5 credits)

MATH 171 [MI 900-I] Calculus with Analytic Geometry I (5)

# Area D: Physical and Life Sciences (7-8 credits)

PHYSI 210 [P2 900L] University Physics I (4) recommended Select one life science from the list for Area D on pages 42-44 (3-4) Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II. AREA OF CONCENTRATION/MAJOR FIELD (22-23)

Select a minimum of 22-23 credits from the foundation courses listed below. Be aware that because of differences among schools in the number of credits for which various courses are offered, and the possible need for prerequisite courses, it may be difficult to complete an Associate in Science degree without taking more credits than will be accepted in transfer.

CHEM 110 [CHM 911] General Chemistry I (5)
CHEM 130 [CHM 912] General Chemistry II (5)
CHEM 203 [CHM 913] Organic Chemistry I (5)
CHEM 204 [CHM 914] Organic Chemistry II (5)
MATH 172 [MTH 902] Calculus with Applytic Ge

MATH 172 [MTH 902] Calculus with Analytic Geometry II (5) MATH 173 [MTH 903] Calculus with Analytic Geometry III (5)

PHYSI 220 [BIO 904] University Physics II (4)

#### Required A.S. Degree Program Total: 62 credits

# CLINICAL LABORATORY SCIENCE

#### A.S. Degree • Suggested Curriculum

Clinical Laboratory Scientists play an important role in the detection, diagnosis and treatment of many diseases. Baccalaureate programs in the field are called clinical laboratory science or medical laboratory science and prepare students to perform complex analyses and manage all areas of the laboratory as a Level III practitioner.

#### I. GENERAL EDUCATION CORE (39-40)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

#### Area C: Mathematics (3-4 credits)

Select one math course from:

MATH 115 [MI 902) General Education Statistics (3)

MATH 153 [MI 902] Probability and Statistics (4)

#### Area D: Physical and Life Sciences (9 credits)

BIOL 112 [CLS 901] Organismal Biology (4)

CHEM II0 [CLS 906] General Chemistry I (5)

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II. AREA OF CONCENTRATION/MAJOR FIELD (22-23)

BIOL 211 [CLS 905] Microbiology (4) required CHEM 130 [CLS 907] General Chemistry II (5) required CHEM 203 [CLS 908] Organic Chemistry I (5) CHEM 204 [CLS 909] Organic Chemistry II (5) Select two biology courses from the following: BIOL III [CLS 902] Cellular and Molecular Biology (4)

#### BIOL 221 [CLS 903] Human Anatomy & Physiology I (4) BIOL 222 [CLS 904] Human Anatomy & Physiology II (4)

# Required A.S. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

#### COMMUNICATION DISORDERS

#### A.A. Degree • Suggested Curriculum

This program is designed for students who plan to transfer to Governors State University for a Bachelor of Health Science Degree in Communication Disorders. The undergraduate major in Communication Disorders at Governors State offers preprofessional education in speech-language pathology, audiology and related areas. The Associate of Arts Degree at Prairie State and Bachelor of Health Science Degree at Governors State do not qualify students for state teaching and national certification, but rather provide the foundation necessary for the graduate curriculum which leads to certification. Students will begin taking the General Education and Professional Education requirements for Illinois teaching certificates (Type 10 or Type 03/09) endorsed as Speech and Language Impaired, or the School Service Personnel certificate (Type 73), endorsed as Speech-Language Pathologist.

PLEASE NOTE: Each senior institution has its own transfer policies. We strongly urge you to consult the school of your choice and/or the Prairie State College Counseling & Academic Advising Center to discuss the transferability of courses in relation to the school and major selected.

#### I. GENERAL EDUCATION CORE (38)

#### Area A: Communication (9 Credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

## Area B: Humanities and Fine Arts (9 credits)

Select from three courses from the list for Area B on pages 42-44, with at least one course selected from humanities and one from fine arts.

#### Area C: Mathematics (3 credits)

MATH 115 [MI 902] General Education Statistics (3)

#### Area D: Physical and Life Sciences (8 credits)

Select one life science and physical science course from the list for Area D on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits)

POLSC 140 Introduction to U.S. Government and Politics (3)

PSYCH 101 [S6 900] Introduction to Psychology (3) HIST 201 [S2 900] U.S. History: 1492-1877 (3)

OR

HIST 202 [S2 901] U.S. History 1877-Present (3)

#### II. AREA OF CONCENTRATION/MAJOR FIELD (6)

ED 100 Introduction to Education (3) ED 101 Child Growth and Development (3)

#### III. ELECTIVES (18)

ECED 103 Health, Safety and Nutrition (3) OR HLTH 101 Health and Human Development (2) ECED 201 Sign Language I (3) suggested Sign Language II (3) suggested **FCFD 202** 

One Non-Western Culture Course (3) One English literature course (3)

Any additional general education course from the list on pages 42-44.

# Required A.A. Degree Program Total: 62 credits

## **COMPUTER SCIENCE**

A.S. Degree • Suggested Curriculum

#### **INFORMATION SYSTEMS EMPHASIS**

The study of computer science and business focuses on the development of problem-solving skills and tools, and the ability to analyze situations and effectively use these tools. Career opportunities exist for business and financial analysts and information systems specialists. Students are strongly encouraged to complete the Associate in Science degree prior to transfer.

#### I. GENERAL EDUCATION CORE (38-40)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one course from fine arts.

#### Area C: Mathematics (4-5 credits)

Select one math course from:

MATH 155 [MI 906] Finite Mathematics (4)

MATH 157 [M1 900-B] Calculus for Business and Social Sciences (4)

MATH 171\* [MI 900-I] Calculus with Analytic Geometry I (5)

# Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the from the list for Area D on pages 42-44. One course must have a lab component.

PHYSI 210 [P2 900L] University Physics I (4) recommended Life Science Course (3-4)

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44 including:

ECON 201 [S3 901] Macroeconomic Principles (3)

ECON 202 [S3 902] Microeconomic Principles (3)

Select one course other than ECON (3)

# II.AREA OF CONCENTRATION/MAJOR FIELD (9)

ITAPP 101 [CS 910] Introduction to Computers (3)

Select one programming language sequence from the following:

ITPRG 142 Introduction to Visual Basic Programming (3)

and ITPRG 242 Advanced Visual Basic Programming (3)

OR

ITPRG 144 Introduction to C++ Programing (3)

and ITPRG 244 Advanced C++ Programming (3)

OR

ITPRG 147 Introduction to JAVA Programming (3)

and ITPRG 247 Advanced JAVA Programing (3)

#### III. ELECTIVES (13-15)

BUS 131 [BUS 903] Financial Accounting (4)

BUS 132 [BUS 904] Managerial Accounting (3)

BUS 240 [BUS 901] Elementary Statistics (4)

MATH 210 [CS 915] Discrete Mathematics (3)

Select additional general education courses from the list on pages 42-44, or contact the planned transfer institution for additional course recommendations.

#### Required A.S. Degree Program Total: 62 credits

\* Students should complete the entire sequence of MATH 171, 172 and 173 in the same school prior to transfer, since topics are covered in different order by different schools.

## **COMPUTER SCIENCE**

A.S. Degree • Suggested Curriculum

#### **TECHNICAL EMPHASIS**

The Computer Science-Technical Emphasis curriculum focuses on algorithms, theoretical foundations of computer science, and development of software. A strong foundation in mathematics and science is needed for this emphasis. Graduates of this emphasis will be prepared to work for a variety of companies including those that have a software, engineering, scientific or mathematical focus. Baccalaureate schools may have multiple computer degree programs, often located in different departments, which build on the recommendations for the Computer Science: Technical Emphasis. This major is typically found in a department named Computer Science or Mathematics and Computer Science or within a College of Engineering. Some schools may not require all of the courses listed below. Consult the baccalaureate schools you are considering and an advisor to select the appropriate courses for you.

#### I. GENERAL EDUCATION CORE (39-40)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course selected from humanities and one from fine arts.

#### Area C: Mathematics (5 credits)

MATH 171 [MI 900-I] Calculus with Analytic Geometry I\* (5)

# Area D: Physical and Life Sciences (7-8 credits)

PHYSI 210 [P2 900L] University Physics I \* (4)

Life Science course (3-4)

# Area E: Social and Behavioral Sciences (9 credits)

ECON 201 [S3 901] Macroeconomic Principles (3) ECON 202 [S3 902] Microeconomic Principles (3)

Social & Behavioral Science Course, other than ECON (3)

# II.AREA OF CONCENTRATION/MAJOR FIELD (9)

MATH 172 [EGR 900-2] Calculus with Analytic Geometry II\* (5)

MATH 173 [EGR 900-3] Calculus with Analytic Geometry III\* (5)

MATH 210 [CS 915] Discrete Mathematics (3)

PHYSI 220 [EGR 912] University Physics II\* (4)

PHYSI 230 [EGR 914] University Physics III\* (4)

## III. ELECTIVES (13-14)

Students should select electives from the general education course list on pages 42-44.

# Required A.S. Degree Program Total: 62 credits

\* Students should complete the entire calculus and physics sequences at the same school prior to transfer, since topics are covered in different order by different schools. Second and third courses in each sequence can be used as electives.

# CRIMINAL JUSTICE

#### A.A. Degree • Suggested Curriculum

This curriculum is designed for students pursuing baccalaureate degrees in the fields of corrections, criminal justice, law enforcement and security management. Students are strongly encouraged to complete the Associate in Arts degree prior to transfer.

#### I. GENERAL EDUCATION CORE (37-38)

#### Area A: Communication (9 credits)

ENG I01 [CI 900] Composition I - with a grade of C or better (3) ENG I02 [CI 901R] Composition II - with a grade of C or better (3) COMM I01 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

#### Area C: Mathematics (3 credits)

Select one math course from:

MATH II2 [MI 904] General Education Mathematics (3)

MATH 115 [MI 902] General Education Statistics (3)

#### Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

## Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines.

PSYCH 101 [S6 900] Introduction to Psychology (3) recommended SOCIO 101 [S7 900] Introduction to Sociology (3) recommended

#### II. AREA OF CONCENTRATION/MAJOR FIELD (15)

CJ 101	[CRJ 901]	Introduction to Criminal Justice (3
CJ 102	[CRJ 912]	Introduction to Criminology (3)
CJ 106	[CRJ 911]	Introduction to Corrections (3)
CJ 201	[CRJ 913]	Introduction to Criminal Law (3)
CJ 204	[CRJ 914]	Juvenile Justice (3)

#### III. ELECTIVES (9-10)

Select additional general education electives or refer to the program requirements for the university you plan to attend.

ITAPP 101 Introduction to Computers (3) recommended

#### Required A.A. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

#### PRE-DENTISTRY

#### A.S. Degree • Suggested Curriculum

This program provides the foundation coursework in biology, chemistry and math for students who plan to apply to dental school. Admission to dental school is very competitive. These courses also help prepare students to take the Dental Admission Test (DAT), which is required as part of the admissions screening program.

#### I. GENERAL EDUCATION CORE (41)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one course from fine arts.

#### Area C: Mathematics (5 credits)

MATH 171 [MI 900-I] Calculus with Analytic Geometry I (5)

Area D: Physical and Life Sciences (9 credits)
BIOL 112 [LI 900L] Organismal Biology (4)

CHEM II0 [PI 902L] General Chemistry I (5)

# Area E: Social and Behavioral Sciences (9 credits)

PSYCH 101 [S6 900] Introduction to Psychology (3)

Select two additional courses from the list for Area E on pages 42-44. At least one course must be from a discipline other than PSYCH.

#### II.AREA OF CONCENTRATION/MAJOR FIELD (14)

BIOL III	Cellular and Molecular Biology (4)
CHEM 130	General Chemistry II (5)

MATH 172 Calculus with Analytic Geometry II (5)

#### III. ELECTIVES (7) Select at least 7 credits from:

BIOL 221	Human Anatomy and Physiology I (4)
BIOL 222	Human Anatomy and Physiology II (4)
BIOL 225	Functional Human Anatomy Lab (2)
CHEM 203	Organic Chemistry I (5)
CHEM 204	Organic Chemistry II (5)

#### Required A.S. Degree Program Total: 62 credits

## **EARTH SCIENCE/GEOLOGY**

#### A.S. Degree • Suggested Curriculum

The geologist and earth scientist are concerned with the surface of the earth and forces acting upon it. Employment opportunities include oil and mineral searches, weathering and enrichment of the soil, and ocean and air dynamics. Opportunities are also available in teaching and research institutions. In the typical four-year curriculum, the first two years are spent studying basic sciences, including mathematics, chemistry and physics. The last two years emphasize advanced science courses. Students are strongly encouraged to complete the Associate in Science degree prior to transfer.

#### I. GENERAL EDUCATION CORE (40)

#### Area A: Communication (9 credits)

ENG I01 [CI 900] Composition I - with a grade of C or better (3) ENG I02 [CI 901R] Composition II - with a grade of C or better (3) COMM I01 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course selected from the humanities area and at least one course from the fine arts area.

#### Area C: Mathematics (5 credits)

MATH 171 [MI 900-1] Calculus with Analytic Geometry I (5)

# Area D: Physical and Life Sciences (8 credits)

BIOL I I 2 [LI 900L] Organismal Biology (4)

PHYSC II2 [PI 905L] Earth Science (4)

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area B on pages 42-44.

GEOG 102 [S4 901] Geography of the Developed World (3)

recommended

#### II.AREA OF CONCENTRATION/MAJOR FIELD (22)

Select a minimum of 22 hours from the following courses. Check with the school you plan to transfer to before selecting courses in this area

the school you plan to transfer to before selecting courses in this a		
ASTRO 101	Guide to the Universe (3)	
ASTRO 104	The Solar System and Beyond (4)	
CHEM II0	General Chemistry I (5)	
CHEM 130	General Chemistry II (5)	
GEOLO 101	Physical Geology (4)	
GEOG 105	Introduction to Physical Geography (3)	
MATH 172	Calculus with Analytic Geometry II (5)	
MATH 173	Calculus with Analytic Geometry III (5)	
METEO 150	Introduction to Meteorology (3)	
PHYSC III	Physical Science (4)	
PHYSC 112	Earth Science (4)	
Foreign Language Courses (4-16)		

# Required A.S. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

# EDUCATION: EARLY CHILDHOOD EDUCATION

A.A. Degree • Suggested Curriculum

This curriculum has been designed to help students select courses which are likely to apply to a major in Early Childhood Education. This program meets the guidelines of the Illinois Articulation Initiative Baccalaureate Major Panel for Early Childhood Education. Students should obtain a copy of the Associate in Arts Degree Worksheet and should visit the IAI Web site at www.itransfer.org to get specific transfer course equivalencies for participating Illinois colleges and universities.

# STATE CERTIFICATION REQUIREMENTS IN EARLY CHILDHOOD EDUCATION

To teach young children (birth to age 8) in Illinois public schools, teachers must be certified by the State of Illinois upon completion of their baccalaureate degree program. To transfer into an approved baccalaureate program in Early Childhood Education as a junior, students must complete a minimum of 60 semester credits. Since admission is competitive, completion of the courses recommended below does not guarantee admission. Community college students are strongly encouraged to complete an Associate in Arts degree prior to transfer. A minimum grade point average of 2.5 on a 4.0 scale is usually required for program admission, and passage of a basic skills test (reading, writing, grammar, and math) is also required.

#### I. GENERAL EDUCATION CORE (38-39)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course selected from humanities and one course from fine arts, including one English course numbered 200 or above.

# Area C: Mathematics (3-4 credits)

Select one math course from:

MATH 112 [MI 904] General Education Mathematics or (3)
MATH 115 [MI 902] General Education Statistics (3)
MATH 206 [MI 903] Mathematics for Elementary Teaching II (4)

#### Area D: Physical and Life Sciences (8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

# Area E: Social and Behavioral Sciences (9 credits)

HIST 201 [S2 900] U.S. History: 1492 to 1877 (3)

OR

HIST 202 [S2 901] U.S. History: 1877 to Present (3)

POLSC 140 [S5 900] Introduction to U.S. Government and Politics (3)

PSYCH 101 [S6 900] Introduction to Psychology (3)

#### II. AREA OF CONCENTRATION/MAJOR FIELD (9)

Professional Early Childhood Education Courses

ECED 103 [ECE 902] Health, Safety and Nutrition (3)\*

ECED 104 [ECE 911] Introduction to Early Childhood Education (3)\*
ECED 299 [ECE 914] Early Childhood Education Internship (3)
ED 101 [ECE 912] Child Growth and Development (3)

ED 101 [ECE 912] Child Growth and De ED 212 [ECE 913] Exceptional Child (3)

EDU 120 Child, Family and Community (3)

\*Note: Before enrolling in any additional courses with an ECED or ED prefix at Prairie State College, consult the Transfer Guides in the Counseling & Academic Advising Center to determine the transferability of these courses. Most senior institutions prefer that students complete as many general education courses as possible at the community college and take their professional education courses at the senior institution. The State Certification Board will accept no more than nine (9) credits of "professional education" courses from a community college.

Continued

# CERTIFICATES COURSES

# EDUCATION: EARLY CHILDHOOD EDUCATION

#### Continued

#### III. ELECTIVES (14-15)

Additional Humanities course (3)

Additional Science course (4)

Select one non-Western or Third World Cultures course: ART131, GEOG102, HUMAN101, HIST111, 115, 116 or 140 (3)

Additional general education course from the lists on pages 42-44.

MATH 200 is recommended if MATH 206 is selected to fulfill the Area C: Mathematics requirement.

Select up to 9 credits in one academic discipline at the sophomore level or above. Select these courses in consultation with the college to which you plan to transfer this degree. Acceptable disciplines include art, biology, chemistry, economics, English, history, music, philosophy, physics, political science, psychology, sociology, theatre or a single foreign language.

Other courses recommended by the selected senior institution.

#### Required A.A. Degree Program Total: 62 credits

PLEASE NOTE: Each senior institution has its own transfer policies. We strongly urge you to consult the school of your choice early in your program and/or the Prairie State College Counseling & Academic Advising Center to discuss the transferability of courses.

# EDUCATION: SECONDARY MATHEMATICS

A.A.T. Degree • Required Curriculum

The A.A.T in Secondary Mathematics is a two-year transfer degree program designed for students preparing for careers as secondary education mathematics teachers. The program incorporates foundation coursework in teacher education, field-based experiences and content coursework in mathematics. Students who successfully complete the program should be able to begin their upper-division coursework upon transfer.

#### I. GENERAL EDUCATION CORE (39-40)

#### Area A: Communication (9 credits)

ENG 101 Composition I (3)

ENG 102 Composition II (3)

COMM 101 Principles of Communication (3)

# Area B: Humanities and Fine Arts (9 credits) \*\*

Select three courses from the list for Area B on pages 42-44, with at least one from humanities and one fine arts.

#### Area C: Mathematics (5 credits)

MATH 171\* Calculus with Analytic Geometry I (5)

\*Note:The Calculus sequence (MATH 171, 172, 173) must be completed prior to transfer.

#### Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits) \*\*

Select three courses in at least two disciplines from the list for Area E on pages 42-44.

\*\* Note: Select at least one course designated by IAI as non-Western (N) or Diversity (D) from either Social and Behavioral Sciences or Humanities and Fine Arts: Any of these courses will fulfill this requirement: ANTHR 215, 222; ART 131; ENG 215, 243; GEOG 101; HIST 111, 112, 115, 116, 140; HUMAN 101; POLSC 240; SOCIO 215, 220

#### **II. PROGRAM REQUIREMENTS (25-26)**

ED 100 Introduction to Education (3)

MATH 172 Calculus with Analytic Geometry II\* (5)

MATH 173 Calculus with Analytic Geometry III\* (5)

MATH 220 Linear Algebra (3)

Choose one professional education course from the following courses (3)

ED 101 Child Growth and Development

#### OR

PSYCH 102 Human Growth and Development: Life Span

ED 160 Technology for Teachers

ED 212 Exceptional Child

PSYCH 202 Educational Psychology

Select one  $\underline{\text{mathematics}}$  course from the following (3-4)

MATH 153 Probability and Statistics (4)

MATH 216 Differential Equations (3)

Select one additional course (3-4):

Select EITHER one mathematics course from

MATH 153 Probability and Statistics (4)

MATH 216 Differential Equations (3)

#### OR

one professional education course from

ED 101 Child Growth and Development (3)

#### OR

one course from

PSYCH 102 Human Growth and Development: Life Span (3)

ED 212 Exceptional Child (3)

PSYCH 202 Educational Psychology (3)

# Required A.A.T Degree Program Total: 64 credit hours

# EDUCATION: TEACHER EDUCATION

#### A.A. Degree • Suggested Curriculum

This curriculum suggests courses which are likely to apply to a major in Elementary, Secondary or Special Education. This program meets the guidelines of the Illinois Articulation Initiative Baccalaureate Major Panel for Teacher Education. Students should obtain a copy of the Associate in Arts Degree Worksheet and should visit the IAI Web site at www.iTransfer.org to get specific transfer course equivalencies for participating Illinois colleges and universities.

#### STATE CERTIFICATION REQUIREMENTS

To teach in Illinois public schools, teachers must be certified by the State of Illinois. To transfer into a baccalaureate program in education as a junior, students must have 60-64 semester credits. Admission to university teacher preparation programs is competitive; completion of recommended courses does not guarantee acceptance into a program. Students must pass the Illinois Basic Skills test, which includes reading, writing, grammar and math, as a university requirement for program admission. Students should consult their community college advisor and an advisor at the senior university early and often.

# I. GENERAL EDUCATION CORE (43)

#### Area A: Communication (9 credits)

ENG 101 Composition I (3)

ENG 102 Composition II (3)

COMM 101 Principles of Communication (3)

# Area B: Humanities and Fine Arts (9 credits) \*\*

ART 131 [F2 903N] Survey of Non-Western Art (3) recommended Select any English literature course (ENG 200 level courses) (3) Select any additional course from the list for Area B on pages 42-44. (3)

Area C: Mathematics (8 credits)

MATH 200 Mathematics for Elementary Teaching I (4)

MATH 206 [MI 903] Mathematics for Elementary Teaching II (4) Note: Students should consult advisors to determine the appropriate math course for their area of interest.

#### Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

# Area E: Social and Behavioral Sciences (9 credits) \*\*

HIST 201 [S2 900] U.S. History: 1492 to 1877 (3)

#### OR

HIST 202 [S2 901] U.S. History: 1877 to Present (3)

POLSC 140 [S5 900] Introduction to U.S. Government and Politics (3)

PSYCH 101 [S6 900] Introduction to Psychology (3)

#### II.AREA OF CONCENTRATION/MAJOR FIELD (19)

Select 19 credits from:

ED 100 Introduction to Education (3)

ED 101 Child Growth and Development (3)

#### OR

PSYCH 102 Human Growth and Development: Life Span (3)

ED 160 Technology for Teachers (3)

ED 212 Exceptional Child (3)

PSYCH 202 Educational Psychology (3)

HLTH 101 Health and Human Development (2)

Additional Humanities course (3)

Additional Science course (4)

Select 3-6 credits in one academic discipline at the 200 level in consultation with an academic advisor.

Note: Select at least one course designated by IAI as non-Western (N) or Diversity (D) from either Social and Behavioral Sciences or Humanities and Fine Arts: Any of these courses will fulfill this requirement: ANTHR 215, 222; ART 131; ENG 215, 243; GEOG 101; HIST 111, 112, 115, 116, 140; HUMAN 101; POLSC 240; SOCIO 215, 220

#### Required A.A. Degree Program Total: 62 credits

# PRE-ENGINEERING

#### A.S. Degree • Suggested Curriculum

The engineer is concerned with the application of scientific principles to practical problems. Employment opportunities for engineers include the complete spectrum of the workforce and theoretical research activities. In the typical four-year curriculum, the first two years concentrate on the basic sciences including mathematics, chemistry and physics. The last two years emphasize advanced mathematics and science courses. Prairie State College offers courses applicable to the first two years of the curriculum and will grant an Associate in Science degree to successful students.

#### I. GENERAL EDUCATION CORE (39-40)

# Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select 3 courses from the list for Area B on pages 42-44, with at least one course from humanities and one course from fine arts.

Area C: Mathematics (5 credits)

MATH 171 [EGR 901] Calculus with Analytic Geometry I (5)

## Area D: Physical and Life Sciences (7-8 credits)

PHYSI 210 [EGR 911] University Physics I (4)

Select one life science course (3-4)

#### Area E: Social and Behavioral Sciences (9 credits)

Select 3 courses in at least two different disciplines from list for Area E on pages 42-44.

ECON 201 [S3 901] Macroeconomic Principles (3) recommended ECON 202 [S3 902] Microeconomic Principles (3) recommended Select one Social & Behavioral Science Course, other than ECON (3)

#### II. AREA OF CONCENTRATION/MAJOR FIELD (22)

Essential Engineering prerequisite courses: Select from the following:

CHEM II0 [EGR 961] General Chemistry I (5)

MATH 172 [EGR 902] Calculus with Analytic Geometry II (5)

MATH 173 [EGR 903] Calculus with Analytic Geometry III (5)

MATH 216 [EGR 904] Differential Equations (3)

PHYSI 220 [EGR 912] University Physics II (4)

# III. ELECTIVES (minimum of 0-1)

Engineering Speciality Courses For Chemical Engineering

CHEM 130 [EGR 931] General Chemistry II (5)

CHEM 203 [EGR 932] Organic Chemistry I (5)

CHEM 204 [EGR 933] Organic Chemistry II (5)

Engineering Speciality Courses For Civil Engineering

CADMD 245 [EGR 941] Computer Aided Design (3)

PHYSI 235 [EGR 942] Statics (3) PHYSI 240 [EGR 943] Dynamics (3)

Engineering Speciality Courses For Computer Engineering Majors

PHYSI 230 [EGR 914] University Physics III (4)

Engineering Speciality Courses For Electrical Engineering Majors

PHYSI 230 [EGR 914] University Physics III (4)

Engineering Speciality Courses For Industrial Engineering Majors

PHYSI 235 [EGR 942] Statics (3)

PHYSI 240 [EGR 943] Dynamics (3)

#### Required A.S. Degree Program Total: 62 credits

# **ENGLISH/LITERATURE**

#### A.A. Degree • Suggested Curriculum

Four-year degree programs in English emphasize study of literature and literary criticism. Specializations in creative and/or technical writing prepare a student for certification as a highschool English teacher as well as for a wide range of professional writing jobs. An English major is considered good preparation for some professional programs. Students seeking a bachelor's degree in English are strongly encouraged to complete an A.A. or A.S. degree prior to transfer. Since all literature courses require substantial formal writing, it is highly recommended that students complete the two-course writing sequence before enrolling in literature courses. Students are encouraged to keep course syllabi and a personal writing portfolio.

#### I. GENERAL EDUCATION CORE (37-38)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one course from fine arts.

#### Area C: Mathematics (3 credits)

Select one math course from:

MATH 112 [MI 904] General Education Mathematics (3)

MATH II5 [MI 902] General Education Statistics (3)

# Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

# II.AREA OF CONCENTRATION/MAJOR FIELD (12)

Select up to three courses from the following survey courses:

ENG 211 [EGL 911] American Literature I (3)

ENG 212 [EGL 912] American Literature II (3)

ENG 231 [EGL 913] British Literature I (3)

ENG 232 [EGL 914] British Literature II (3)

In addition to the survey courses, or in place of one of them, select one course from the following genre courses:

ENG 221 [EGL 915] Introduction to Poetry (3)

ENG 240 [EGL 917] Introduction to Fiction (3)

ENG 252 [EGL 916] Introduction to Drama (3)

# III. ELECTIVES (12-13)

Some universities require multicultural dimensions within the major. The following courses will fulfill that requirement:

[H3 910D] African-American Literature (3)

[EGL 919] Non-Western Literature in Translation (3)

Universities offering a creative writing specialization will accept the

following course in the creative writing specialization only:

ENG 110 [EGL 922] Creative Writing: Poetry (3)

ENG III [EGL 924] Creative Writing: Nonfiction Prose (3)

Foreign Language\* (4-16)

#### Required A.A. Degree Program Total: 62 credits

#### **GENERAL MATH/SCIENCE**

#### A.S. Degree • Suggested Curriculum

This curriculum has been designed for students who plan to transfer into a bachelor of science degree program but are undecided about their specific major. It provides the basic foundation in math, the sciences and general education required by universities for entry into math/science-related programs.

#### I. GENERAL EDUCATION CORE (41)

#### Area A: Communication (9 credits)

ENG I01 [CI 900] Composition I - with a grade of C or better (3) ENG I02 [CI 901R] Composition II - with a grade of C or better (3) COMM I01 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one course from fine arts.

#### Area C: Mathematics (5 credits)

MATH 171 [MI 900-1] Calculus with Analytic Geometry I (5)

#### Area D: Physical and Life Sciences (9 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component. BIOL 112 [L1 900L] Organismal Biology (4) recommended CHEM 110 [P1 902L) General Chemistry I (5) recommended

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II. AREA OF CONCENTRATION/MAJOR FIELD (21)

Select 21 credits from college-level transfer-oriented courses such as: A. Science and math foundation courses

Suggested science/math foundation courses include:

BIOL III Cellular and Molecular Biology (4)

CHEM 130 General Chemistry II (5)

MATH 172 Calculus with Analytic Geometry II (5)
MATH 173 Calculus with Analytic Geometry III (5)

PHYSI 210 University Physics I (4) PHYSI 220 University Physics II (4)

B. Additional general education core courses from Areas B through E on pages 42-44.

C. Entry level courses in baccalaureate majors you wish to explore D. Foreign language courses\*

#### Required A.S. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

# PRE-HEALTH ADMINISTRATION

#### A.A. Degree • Suggested Curriculum

This curriculum is designed for students who plan to transfer to Governors State University for a Bachelor of Health Science degree in Health Administration. Health administrators develop and manage health services organizations and programs. Graduates of bachelor's degree programs become unit or department heads in large and complex health care institutions such as hospitals, clinics, nursing homes, insurance companies, ambulatory care facilities and medical group management teams.

PLEASE NOTE: Each senior institution has its own transfer policies. We strongly urge you to consult the school of your choice and/or the Prairie State College Counseling & Academic Advising Center to discuss the transferability of courses in relation to the school and major selected

## I. GENERAL EDUCATION CORE (37-38)

# Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one course from fine arts.

#### Area C: Mathematics (3 credits)

MATH 115 [MI 902] General Education Statistics (3)

#### Area D: Physical and Life Sciences (7-8 credits)

Select one life science and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits)

ECON 201 [S3 901] Macroeconomic Principles (3) ECON 202 [S3 902] Microeconomic Principles (3)

Select one additional course from an area other than ECON from the list for Area E on pages 42-44.

# II.AREA OF CONCENTRATION/MAJOR FIELD (24-25)

BUS 101 Introduction to Modern Business (3)

BUS 13 Financial Accounting (4)
BUS 132 Managerial Accounting (3)
ITAPP 101 [BUS 902] Introduction to Computers (3)

Any additional courses in Business

Any Course in Human Services

Any general education course from the lists on pages 42-44. Other elective courses recommended by the senior institution to which this degree will transfer.

#### Required A.A. Degree Program Total: 62 credits

This program represents an Articulation Agreement between Prairie State College and Governors State University. Students transferring to other universities should consult their institution of choice for course recommendations in each area.

#### **HISTORY**

#### A.A. Degree • Suggested Curriculum

This transfer program is designed for students pursuing a baccalaureate degree in various areas of history. The history curriculum at Prairie State College provides students with the background in history and general education courses necessary for advanced work at a four-year institution. Students are strongly encouraged to complete the Associate in Arts degree prior to transfer.

# I. GENERAL EDUCATION CORE (37-38)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and at least one from fine arts.

#### Area C: Mathematics (3 credits)

Select one math course from:

MATH II2 [MI 904] General Education Mathematics (3) MATH II5 [MI 902] General Education Statistics (3)

#### Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44. Students seeking certification as high school history teachers should select the following social and behavioral science courses:

GEOG 101 [S4 900N] Cultural Geography (3)

POLSC 140 [S5 900] Introduction to U.S. Government and Politics (3)

PSYCH 101 [S6 900] Introduction to Psychology (3)

# II.AREA OF CONCENTRATION/MAJOR FIELD (12)

HIST 201 [HST 911] U.S. History: 1492 to 1877 (3)

HIST 202 [HST 912] U.S. History: 1877 to Present (3)

Select one of the following sequences depending on recommendations at the intended transfer school:

HIST III [HST 915] World History: Origins to 1714 (3)

and HIST II2 [HST 916] World History: I714 to Present (3) OR

HIST 151 [HST 913] History of Western Civilization I (3) and HIST 152 [HST 914] History of Western Civilization II (3)

#### III. ELECTIVES (12-13)

I) Additional history courses may transfer either for history major credit or as general education credits, depending upon the transfer school.

- 2) Minor Field: Students who have decided on a minor field may complete one or more courses in their minor.
- 3) High School Teacher Certification: Students planning to seek high school teacher certification may complete one or more of the following professional education courses:

ED 100 [SED 901] Introduction to Education (3)

PSYCH 102 [SED 903] Human Growth & Development: Life-Span (3)

PSYCH 202 [SED 902] Educational Psychology (3)

HLTH 101 Health and Human Development (2)

4) Foreign Language: Competency through the fourth semester of a single foreign language is required for the B.A. degree in History in some schools, and for all majors in the College of Arts and Sciences at many schools.

# Required A.A. Degree Program Total: 62 credits

#### **PRE-LAW**

#### A.A. Degree • Suggested Curriculum

This transfer program is designed to provide students with the background necessary for advanced work at a four-year institution. A baccalaureate degree from an accredited college and a satisfactory score on the Law School Admission Test (LSAT) are required for admission to most law schools. Most law schools have no specific requirements with regard to the courses chosen in pre-legal study.

Common majors among pre-law students include business, history, political science, psychology and sociology. These subject areas help to develop the skills of thinking, comprehension and expression. Proficiency in these skills is considered essential for a career in law. Students are strongly encouraged to complete an Associate in Arts degree prior to transfer.

#### I. GENERAL EDUCATION CORE (37-38)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

#### Area C: Mathematics (3 credits)

Select one math course from:

MATH 112 [MI 904] General Education Mathematics (3)

MATH 115 [MI 902] General Education Statistics (3)

# Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

# Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II.AREA OF CONCENTRATION/MAJOR FIELD (12)

Select four courses from the baccalaureate major you plan to pursue.

#### III. ELECTIVES (12-13)

Select any additional courses from the general education core courses listed on pages 42-44.

# Required A.A. Degree Program Total: 62 credits

# **LIBERAL ARTS**

#### A.A. Degree • Suggested Curriculum

This curriculum is designed for students who plan to transfer into a bachelor of arts degree program but are undecided about their specific major. It provides the basic foundation in the humanities, fine arts, social and behavioral sciences, mathematics, communication, and physical and life sciences required by universities for entry into arts- and sciences-related programs.

#### I. GENERAL EDUCATION CORE (37-38)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

#### Area C: Mathematics (3 credits)

Select one math course from:

MATH 112 [MI 904] General Education Mathematics (3) MATH 115 [MI 902] General Education Statistics (3)

#### Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II. AREA OF CONCENTRATION/MAJOR FIELD (12-16)

Select four courses from college-level transfer-oriented courses such as additional general education core courses from Areas B through E on pages 42-44, or beginning-level courses in baccalaureate majors you wish to explore, or foreign language courses.

Liberal Arts Elective or Entry-Level Major Course or Foreign Language

#### III. ELECTIVES (8-13)

Select any additional courses from general education core courses listed in Areas B through E on pages 42-44.

#### Required A.A. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

# PRE-MANUFACTURING TECHNOLOGY

#### A.S. Degree • Suggested Curriculum

Manufacturing Technology is a combination of a technical (math/science) education with hands-on skills. It is a field of study that specializes in the application of manufacturing concepts, principles and processes to plan, design and manage machines and people.

Employment in manufacturing industries in Illinois accounts for nearly 17 percent of Illinois' non-farm employment. Three subcategories of durable goods manufacturers—primary metals, fabricated metals and industrial machinery-together employ more than 300,000 Illinoisans.

Programs of study as described in this recommendation include machining standards that comply with those outlined by the National Institute for Manufacturing Skills and the Illinois Occupational Skills Standards Machining Skills Cluster.

#### I. GENERAL EDUCATION CORE (37-39)

# Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3)

COMM 101 [C2 900] Principles of Communication (3)

## Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

#### Area C: Mathematics (3-4 credits)

Select one math course from:

MATH 115 [MI 902] General Education Statistics (3)

MATH 153 [MI 902] Probability and Statistics (4)

# Area D: Physical and Life Sciences (7-8 credits)

PHYSI 120 [PI 900L] College Physics I (4)

Select one life science course from the list for Area D on pages 42-44.

#### Area E: Social and Behavioral Sciences (9 credits)

ECON 201 [S3 901] Macroeconomic Principles (3) recommended ECON 202 [S3 902] Microeconomic Principles (3) recommended Select one from an area other than Economics from the list for Area E on pages 42-44.

# II. AREA OF CONCENTRATION/MAJOR FIELD (25)

CADMD 243 [MTM 911] Introduction to AutoCAD (3) General Chemistry I (5) CHFM 110

MATH 151 College Algebra (4) MATH 161 Plane Trigonometry (3) MT 115 Manufacturing Processes (3) MT 206 Materials of Industry (3) CNC Programming I (3) MT 210 CNC Programming II (3) MT 211 PHYSI 130 College Physics II (4)

#### Required A.A. Degree Program Total: 62 credits

# MASS COMMUNICATION

A.A. Degree • Suggested Curriculum

# ADVERTISING/PUBLIC RELATIONS; RADIO/TV/FILM; JOURNALISM/NEWS EDITORIAL/PHOTO

It is recommended that students complete the entire sequence at one institution.

Mass Communication encompasses four major program areas: Advertising/Public Relations; Radio/TV/Film; Journalism/News Editorial/Photojournalism; and Mass Communication (Integrated). For each major, nine credit hours in the major in addition to the General Education Core Curriculum are recommended. Remaining credits needed to complete an associate's degree should be chosen with the assistance of an academic advisor. Some schools have specific requirements for admission to the major (e.g., minimum GPA, portfolio review, or other forms of assessment). Check with an advisor.

# I. GENERAL EDUCATION CORE (37-38)

#### Area A: Communication (9 credits)

ENG I01 [CI 900] Composition I - with a grade of C or better (3) ENG I02 [CI 901R] Composition II - with a grade of C or better (3) COMM I01 [C2 900] Principles of Communication (3)

### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one course from fine arts

Area C: Mathematics (3 credits) recommended

Select one math course from:

MATH II2 [MI 904] General Education Mathematics (3) MATH II5 [MI 902] General Education Statistics (3)

## Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II.AREA OF CONCENTRATION/MAJOR FIELD (12)

BUS 261 [MC 912] Advertising (3)

COMM III [MC 911] Introduction to Mass Communication (3)

COMM 105 [MC 914] Introduction to Broadcasting (3)

JRNLM 101 [MC 919] Introduction to Journalism (3)

#### III. ELECTIVES (12-13)

Students should select electives from the list on pages 42-44. Students planning to teach at the high school level should also refer to the recommended curriculum for Secondary Education for additional course selections.

#### Required A.A. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

#### **MATHEMATICS**

A.S. Degree • Suggested Curriculum

It is recommended that students complete the entire sequence at one institution. Bachelor's degree programs in mathematics prepare students with diverse career goals by developing rigorous, logical thinking; an appreciation and familiarity with complex structures and algorithms; and the ability to learn technical material and abstract concepts. Students are strongly encouraged to complete an Associate in Arts or Associate in Science degree prior to transfer into a baccalaureate Mathematics program. Since admission is competitive, completing the courses recommended below does not by itself guarantee admission.

#### I. GENERAL EDUCATION CORE (39-40)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one course from fine arts.

#### Area C: Mathematics (5 credits)

MATH 171 [MI 900-I] Calculus with Analytic Geometry I (5)

#### Area D: Physical and Life Sciences (7-8 credits)

PHYSI 210 [P2 900L] University Physics I (4)

Select one life science course from the list for Area D on pages 42-44.

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II.AREA OF CONCENTRATION/MAJOR FIELD (16)

MATH 172	[MTH 902]	Calculus with Analytic Geometry II (5)
MATH 173	[MTH 903]	Calculus with Analytic Geometry III (5)
MATH 201	[MTH 922]	Engineering Computer Programming (3)
MATH 216	[MTH 912]	Differential Equations (3)

#### III. ELECTIVES (6-7)

Select additional general education electives from the list on pages 42-44 or refer to the recommended curriculum for Computer Science or Secondary Education for additional course choices.

#### Required A.S. Degree Program Total: 62 credits

Note: Students who intend to teach mathematics at the secondary level should pursue the A.A.T. degree in Secondary Mathematics. See page 54.

#### **PRE-MEDICINE**

#### A.S. Degree • Suggested Curriculum

This program provides the foundation course work in biology, chemistry and mathematics for students who plan to apply to medical school. Admission to medical school is highly competitive and it is important for students to maintain a high overall grade point average, as well as to excel in laboratory science courses. This course work also helps to prepare the student to take the Medical College Admissions Test (MCAT), which is required as part of the admissions screening program.

### I. GENERAL EDUCATION CORE (41)

#### Area A: Communication (9 credits)

ENG IOI [CI 900] Composition I - with a grade of C or better (3) ENG IO2 [CI 901R] Composition II - with a grade of C or better (3) COMM IOI [C2 900] Principles of Speech Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

#### Area C: Mathematics (5 credits)

MATH 171 [MI 900-1] Calculus with Analytic Geometry I (5)

# Area D: Physical and Life Sciences (9 credits)

BIOL 112 [LI 900L] Organismal Biology (4)

CHEM I 10 [PI 902L] General Chemistry I (5)

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

PSYCH 101 [S6 900] Introduction to Psychology (3) recommended

#### II. AREA OF CONCENTRATION/MAJOR FIELD (14)

BIOL III Cellular and Molecular Biology (4)

CHEM 130 General Chemistry II (5)

MATH 172 Calculus with Analytic Geometry II (5)

#### III. ELECTIVES (7)

Select at least 7 credits from:

BIOL 106 Heredity and Society (4)

BIOL 221 Human Anatomy & Physiology I (4)

BIOL 222 Human Anatomy & Physiology II (4)

BIOL 225 Functional Human Anatomy Lab (2)

CHEM 203 Organic Chemistry I (5)

CHEM 204 Organic Chemistry II (5)

#### Required A.S. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

#### MUSIC EDUCATION

A.A. Degree • Suggested Curriculum

This curriculum has been designed for students who plan to transfer into a Bachelor of Arts degree program with a major in music education. A broad background in music theory, literature, keyboarding skills, aural skills, ensemble performance and applied music instruction is offered at the community college level to provide a foundation for advanced study in music at a senior institution. Transfer admission in music education is competitive! Students may need to demonstrate their skill level through auditions and/or placement testing at the senior institution. To teach music in the Illinois public schools, teachers must be certified by the State of Illinois. All senior institutions require passage of basic skills tests in reading, writing, grammar and math.

#### I. GENERAL EDUCATION CORE (38)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

ART 131 [F2 903N] Survey of Non-Western Art (3) recommended

#### Area C: Mathematics (3 credits)

Select one math course from:

MATH 112 [MI 904] General Education Mathematics (3)

MATH 115 [MI 902] General Education Statistics (3)

#### Area D: Physical and Life Sciences (8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

# Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44. The following courses are recommended to fulfill teacher certification requirement:

HIST 201 [S2 900] U.S. History: 1492 to 1877 (3)

OR

HIST 202 [S2 901] U.S. History: 1877 to Present (3)

POLSC 140 [S5 900] Introduction to U.S. Government and Politics (3)

PSYCH 101 [S6 900] Introduction to Psychology (3)

#### II. AREA OF CONCENTRATION/MAJOR FIELD (min. of 24)

Take one musicianship course each term for a total of 16 credits.

MUSIC 101 Musicianship I (4)
MUSIC 102 [MUS 902] Musicianship II (4)
MUSIC 201 [MUS 903] Musicianship III (4)
MUSIC 202 [MUS 904] Musicianship IV (4)

Select from Ensemble Groups I-IV: Take one each term for total of 4 credits.

MUSIC 120 [MUS 908] Community Chorus (I)
MUSIC 120 [MUS 908] Wind Ensemble (I)

MUSIC 152 [MUS 908] Jazz Ensemble I (I) MUSIC 153 [MUS 908] Jazz Ensemble II (I)

MUSIC 162 [MUS 908] Vocal Ensemble II (1)
MUSIC 163 [MUS 908] Vocal Ensemble II (1)
MUSIC 163 [MUS 908] Vocal Ensemble II (1)

Select from Applied Music Instruction I-IV (Private Music Lessons): Take one each term for a total of 8 credits.

MUSIC 191 [MUS 909] Private Applied Music I (2)
MUSIC 192 [MUS 909] Private Applied Music II (2)
MUSIC 291 [MUS 909] Private Applied Music III (2)
MUSIC 292 [MUS 909] Private Applied Music IV (2)

#### Required A.A. Degree Program Total: 62 credits

# MUSIC PERFORMANCE

#### A.A. Degree • Suggested Curriculum

This curriculum is designed for students who plan to transfer into a Bachelor of Arts degree program with a major in music performance. A broad background in music theory, literature, keyboarding skills, aural skills, ensemble performance and applied music instruction is offered at the community college level to provide a foundation for advanced study in music at a senior institution. Transfer admission in music is competitive, and most senior colleges require auditions and placement testing as part of the transfer admissions process.

# I. GENERAL EDUCATION CORE (37-38)

# Area A: Communication (9 credits)

ENG IOI [CI 900] Composition I - with a grade of C or better (3) ENG IO2 [CI 901R] Composition II - with a grade of C or better (3) COMM IOI [C2 900] Principles of Communication (3)

# Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

#### Area C: Mathematics (3 credits)

Select one math course from:

MATH II2 [MI 904] General Education Mathematics (3) MATH II5 [MI 902] General Education Statistics (3)

#### Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area B on pages 42-44. One course must have a lab component.

# Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

# II. AREA OF CONCENTRATION/MAJOR FIELD (min. of 24-25)

Take one musicianship course each term for a total of 16 credits.

	Musicianship I (4)
[MUS 902]	Musicianship II (4)
[MUS 903]	Musicianship III (4)
[MUS 904]	Musicianship IV (4)
	[MUS 903]

Select from Ensemble Groups I-IV: Take one each term for a total of 4 credits.

MUSIC 110	[MUS 908]	Community Chorus (1)
MUSIC 120	[MUS 908]	Wind Ensemble (I)
MUSIC 152	[MUS 908]	Jazz Ensemble I (I)
MUSIC 153	[MUS 908]	Jazz Ensemble II (I)
MUSIC 162	[MUS 908]	Vocal Ensemble I (I)
MUSIC 163	[MUS 908]	Vocal Ensemble II (1)
		L L IV/ /D

Select from Applied Music Instruction I-IV (Private Music Lessons): Take one each term for a total of 8 credits.

		0. 0 0. 00.00.
MUSIC 191	[MUS 909]	Private Applied Music I (2)
MUSIC 192	[MUS 909]	Private Applied Music II (2)
MUSIC 291	[MUS 909]	Private Applied Music III (2)
MUSIC 292	[MUS 909]	Private Applied Music IV (2)

# Required A.A. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

#### PRE-NURSING

#### A.S. Degree • Suggested Curriculum

A registered nurse (RN) supervises, teaches and delegates nursing care to health team members and delivers direct care and treatment. The RN also prepares patients for surgery, administers intravenous therapy, establishes patient care plans, assesses and evaluates patient needs, and supervises nursing care. Students who earn a bachelor's degree in nursing are also licensed RN's by the Illinois Department of Professional Regulation. For optimum transfer, students should take courses in chemistry, math and humanities.

#### I. GENERAL EDUCATION CORE (39)

#### Area A: Communication (9 credits)

ENG 101 [C1 900] Composition I - with a grade of C or better (3)
ENG 102 [C1 901R] Composition II - with a grade of C or better (3)
COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

#### Area C: Mathematics (3 credits)

MATH 115 [MI 902] General Education Statistics (3)

## Area D: Physical and Life Sciences (9 credits)

BIOL 112 [LI 900L] Organismal Biology (4) CHEM 110 [NUR 906] General Chemistry I (5)

# Area E: Social and Behavioral Sciences (9 credits)

PSYCH 101 [S6 902] Introduction to Psychology (3)

PSYCH 102 [S6 900] Human Growth & Development: Life-Span (3) One course other than PSYCH from the list for Area E on pages 42-44.

#### II.AREA OF CONCENTRATION/MAJOR FIELD (23)

BIOL 211 [NUR 905]	Microbiology (4)
BIOL 221 [NUR 903]	Human Anatomy & Physiology I (4)
BIOL 222 [NUR 904]	Human Anatomy & Physiology II (4)
CHEM 120 [NUR 907]	General Chemistry II (4)
CHEM 205	Survey of Organic & Biochemistry (4)
CHEM 203 [NUR 908]	Organic Chemistry I (5)

# Required A.S. Degree Program Total: 62 credits

#### PRE-OCCUPATIONAL THERAPY

#### A.S. Degree • Suggested Curriculum

This curriculum is designed to help students select courses which are likely to apply to a major in Occupational Therapy. The courses listed are suggested courses which are designed to satisfy requirements in the Associate in Science degree program at Prairie State College and to provide the basis for transferring to a four-year institution.

Occupational therapists are concerned with people's ability to perform their work, self-care and play in a competent, self-satisfying manner. When disease, trauma, or stress interferes with performance, the occupational therapist uses various methods of mutual problem-solving, environmental modification and adaptive devices to support and enhance performance. This program provides the foundation course work necessary for admission to an occupational therapy program. Occupational therapy programs are masters degree level programs which require two years of prerequisite course work followed by four years in an approved occupational therapy program. Admission to occupational therapy programs is very competitive!

#### I. GENERAL EDUCATION CORE (39-40)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

#### Area C: Mathematics (3-4 credits)

Select one math course from:

MATH I15 [MI 902] General Education Statistics (3) MATH I53 [MI 902] Probability and Statistics (4)

## Area D: Physical and Life Sciences (9 credits)

BIOL 112 [LI 900L] Organismal Biology (4)

CHEM II0 [PI 902L] General Chemistry I (5)

#### Area E: Social and Behavioral Sciences (9 credits)

PSYCH 101 [S6 900] Introduction to Psychology (3) recommended SOCIO 101 [S7 900] Introduction to Sociology (3) recommended One additional course from the list for Area E. on pages 42-44.

#### II.AREA OF CONCENTRATION/MAJOR FIELD (22-23)

BIOL 22 I Human Anatomy & Physiology I (4)
BIOL 222 Human Anatomy & Physiology II (4)
ED 101 Child Growth and Development (3)

OR

PSYCH 102 Human Growth and Development: Life-Span (3)

PSYCH 203 Abnormal Psychology (3)

Other courses recommended by the senior institution (8-9)

#### Required A.S. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

PLEASE NOTE: Each senior institution has its own transfer policies. Consult the school of your choice and/or the Prairie State College Counseling & Academic Advising Center to discuss the transferability of courses in relation to the school you have selected.

#### PRE-PHARMACY

#### A.S. Degree • Suggested Curriculum

This curriculum is designed to help students select courses which are likely to apply to a pre-Pharmacy program. The courses listed are suggested courses which are designed to satisfy requirements in the Associate in Science degree program at Prairie State College and to provide the basis for transferring to a four-year institution.

The practice of clinical pharmacy promotes optimal, safe and appropriate drug use by patients. The clinical pharmacist is trained in all aspects of drug therapy management and patient drug education. The Pre-Pharmacy program provides students with the foundation course work necessary to meet the pre-requisites for admission to a school of pharmacy. Pharmacy schools require applicants to complete two years of pre-pharmacy course work. The colleges of Pharmacy then offer the final four years of a six-year program leading to the Doctor of Pharmacy degree (PharmD). Admission to these programs is very competitive.

#### I. GENERAL EDUCATION CORE (41)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

#### Area C: Mathematics (5 credits)

MATH 171 [MI 900-I] Calculus with Analytic Geometry (5)

# Area D: Physical and Life Sciences (9 credits)

BIOL I 12 [LI 902L] Organismal Biology (4)

# CHEM 110 [P1 902L] General Chemistry I (5) Area E: Social and Behavioral Sciences (9 credits)

ECON 201 [S3 901] Macroeconomic Principles (3) recommended ECON 202 [S3 902] Microeconomic Principles (3) recommended Select one course from a discipline other than ECON from the list for Area B on pages 42-44.

# II.AREA OF CONCENTRATION/MAJOR FIELD (min. of 21)

Select from:
BIOL 111 Cellular & Molecular Biology (4)
BIOL 221 Human Anatomy & Physiology I (4)
CHEM 130 General Chemistry II (5)
CHEM 203 Organic Chemistry I (5)
CHEM 204 Organic Chemistry II (5)

#### Required A.S. Degree Program Total: 62 credits

PLEASE NOTE: Each senior institution has its own transfer policies. We strongly urge you to consult the school of your choice and/or the Prairie State College Counseling & Academic Advising Center to discuss the transferability of courses in relation to the school you have selected.

# PHOTOGRAPHY

#### A.A. Degree • Suggested Curriculum

This curriculum is designed for students who plan to pursue a baccalaureate program in fine arts photography, photojournalism or professional photography. The program provides basic courses for building technical competency as well as the general education foundation needed to enhance creativity and appreciation for aesthetics. Students are strongly encouraged to complete the Associate in Arts degree prior to transfer. Admission to baccalaureate programs is highly competitive. Students are encouraged to begin development of a substantial portfolio.

# I. GENERAL EDUCATION CORE (37-38)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3)

COMM 101 [C2 900] Principles of Communication (3) Area B: Humanities and Fine Arts (9 credits)

ART 126 [F2 904] History of Photography (3)

Select two additional courses from the list for Area B on pages 42-44, with at least one course from humanities.

#### Area C: Mathematics (3 credits)

Select one math course from:

MATH II2 [MI 904] General Education Mathematics (3) MATH II5 [MI 902] General Education Statistics (3)

#### Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II. AREA OF CONCENTRATION/MAJOR FIELD (12)

ART IOI	Two Dimensional Design (3)
ART 102	Three Dimensional Design (3)

PHOTO 171 Introduction to Black & White Photography (3) PHOTO 291 Survey of Contemporary Photography (3)

#### III. ELECTIVES (12-13)

Select any additional electives in photography or general education in consultation with an advisor. Some recommended courses include:

PHOTO 170
PHOTO 175
PHOTO 275
PHOTO 281
PHOTO 285
PHOTO 286
PHOTO 297
PHOTO 297
Film and Digital Camera Skills (1)
Passic Lighting Skills (2)
Photographic Design (3)
Pigital Applications (4)
Pigital Color Production (3)
Photographic Design (3)
Pigital Color Production (3)
Photographic Design (3)
Professional Portfolio (3)

Any additional PHOTO course

Any additional general education course from the list on pages 42-44.

#### Required A.A. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

#### PHYSICAL SCIENCE

#### A.S. Degree • Suggested Curriculum

This program provides the foundation work for students planning to transfer to upper-division physical science programs or to teach physical science at the high school level. Students are strongly encouraged to complete the Associate in Science Degree prior to transfer.

#### I. GENERAL EDUCATION CORE (39-40)

#### Area A: Communication (9 credits)

ENG I01 [CI 900] Composition I - with a grade of C or better (3) ENG I02 [CI 901R] Composition II - with a grade of C or better (3) COMM I01 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

#### Area C: Mathematics (5 credits)

MATH 171 [MI 900-1] Calculus with Analytic Geometry I (5)

#### Area D: Physical and Life Sciences (7-8 credits)

PHYSC II2 [P9 900L] Earth Science (4)

One life science course from the list for Area D on pages 42-44. (3-4)

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II.AREA OF CONCENTRATION/MAJOR FIELD (12)

Select courses from Astronomy, Geology, Meteorology or Physical Science:

ASTRO 101 Guide to the Universe (3)
ASTRO 104 The Solar System and Beyond (4)
GEOG 105 Introduction to Physical Geography (3)
GEOLO 101 Physical Geology (4)

GEOLO 101 Physical Geology (4) GEOLO 102 Historical Geology (4)

METEO 150 Introduction to Meteorology (3)

PHYSC III Physical Science (4)

#### III. ELECTIVES (10-11)

Select any additional courses from the general education core courses listed above. Students planning to teach at the high school level should also refer to the recommended curriculum for Secondary Education for additional course choices.

#### Required A.S. Degree Program Total: 62 credits

# PRE-PHYSICAL THERAPY

#### A.S. Degree • Suggested Curriculum

Physical therapy is the promotion of optimum human health and function through the application of scientific principles to prevent, identify, correct or alleviate dysfunction of anatomy or physiology origin. This program provides the student with a sound background in the basic sciences and mathematics necessary for admission to a physical therapy program. Admission to these programs is very competitive! Physical therapy programs look for students with high grade point averages, especially in the science and math courses. In addition, documented clinical experience is a prerequisite for admission to most programs.

# I. GENERAL EDUCATION CORE (41)

#### Area A: Communication (9 credits)

ENG I01 [CI 900] Composition I - with a grade of C or better (3) ENG I02 [CI 901R] Composition II - with a grade of C or better (3) COMM I01 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

#### Area C: Mathematics (5 credits)

MATH 171 [MI 900-I] Calculus with Analytic Geometry (5)

#### Area D: Physical and Life Sciences (9 credits)

BIOL 112 [LI 902L] Organismal Biology (4)

CHEM II0 [PI 902L] General Chemistry I (5)

# Area E: Social and Behavioral Sciences (9 credits)

PSYCH 101 [S6 900] Introduction to Psychology (3)

Select two remaining courses from the list for Area E on pages 42-44. One course must be in a discipline other than PSYCH.

#### II.AREA OF CONCENTRATION/MAJOR FIELD (21)

BIOL III	Cellular & Molecular Biology (4)
CHEM 130	General Chemistry II (5)
MATH 153	Probability and Statistics (4)
PHYSI 120	College Physics I (4)
PHYSI 130	College Physics II (4)

#### III. ELECTIVES (0)

Although no elective hours are required for this degree, two semesters of Anatomy and Physiology are highly recommended for students who wish to gain admission to a physical therapy program.

BIOL 221 Human Anatomy & Physiology I (4)
BIOL 222 Human Anatomy & Physiology II (4)

#### Required A.S. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

#### **PHYSICS**

#### A.S. Degree • Suggested Curriculum

The physicist is concerned with theoretical scientific principles. Employment opportunities for engineers and physicists include the complete spectrum of the workforce and theoretical research activities. In the typical four-year curriculum, the first two years concentrate on the basic sciences including mathematics, chemistry and physics. The last two years emphasize advanced mathematics and science courses. Prairie State College offers courses applicable to the first two years of the curriculum, and will grant an Associate in Science degree to successful students.

#### I. GENERAL EDUCATION CORE: (39-40)

#### Area A: Communication (9 credits)

ENG 101 [C1 900] Composition I - with a grade of C or better (3) ENG 102 [C1 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

#### Area C: Mathematics (5 credits)

MATH 171 [MI 900-1] Calculus with Analytic Geometry I (5)

Area D: Physical and Life Sciences (7-8 credits)

CHEM IIO [PI 902L] General Chemistry I (5)

One life science course from the list for Area D on pages 42-44 (3-4).

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II. AREA OF CONCENTRATION/MAJOR FIELD (a min. of 23)

University Physics I (4)

Physics core courses:

PHYSI 210

PHYSI 220	University Physics II (4)
PHYSI 230	University Physics III (4)
Support courses:	
CHEM 130	General Chemistry II (5)

MATH 172 Calculus with Analytic Geometry II (5)
MATH 173 Calculus with Analytic Geometry III (5)
MATH 201 Engineering Computer Programming (3)

MATH 216 Differential Equations (3)

# Required A.A. Degree Program Total: 62 credits

# **POLITICAL SCIENCE**

#### A.A. Degree • Suggested Curriculum

This curriculum is designed for students pursuing a baccalaureate degree in Political Science. The transfer program provides students with a broad background to examine all aspects of public life, and prepares them to be alert and well-informed participants in a wide variety of local, state, national and international issues. Students are strongly encouraged to complete the Associate in Arts degree prior to transfer.

#### I. GENERAL EDUCATION CORE (37-38)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one course from fine arts.

#### Area C: Mathematics (3 credits)

Select one math course from:

MATH II2 [MI 904] General Education Mathematics (3)

# MATH 115 [MI 902] General Education Statistics (3) Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area B on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II. AREA OF CONCENTRATION/MAJOR FIELD (12)

LS 911] Introdu	ction to U.S. Government and Politics (3)
LS 912] U.S., Sta	ate and Local Government (3)
LS 914] Introdu	ction to Comparative Government (3)
LS 915] Introdu	ction to International Relations (3)
l	LS 912] U.S., Sta LS 914] Introdu

# III. ELECTIVES (12-13)

Select additional courses as recommended by the senior institution you plan to attend. Typical elective courses include, but are not limited to, economics, foreign language, geography, history, etc.

# Required A.A. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

# **PSYCHOLOGY**

#### A.A. Degree • Suggested Curriculum

The Psychology transfer program provides a broad general education background and prepares students for the specialized coursework undertaken during the last two years of a baccalaureate program. Students who plan to major in psychology are encouraged to complete foundation coursework in sciences and mathematics in addition to completing a core of basic psychology courses. It is recommended that students complete the Associate in Arts degree prior to transfer.

### I. GENERAL EDUCATION CORE: (37-40)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course selected from the humanities area and one course from the fine arts area.

#### Area C: Mathematics (3-5 credits)

Select one math course from:

MATH 115	[MI 902]	General Education Statistics (3)
MATH 153	[MI 902]	Probability & Statistics (4)
MATH 155	[MI 906]	Finite Mathematics (4)
MATH 171	[MI 900-I]	Calculus with Analytic Geometry I (5)

#### Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits)

PSYCH 101 [S6 900] Introduction to Psychology (3)

Select two additional courses from the list for Area E on pages 42-44. At least one course must be from a discipline other than psychology.

#### II. AREA OF CONCENTRATION/MAJOR FIELD (9)

Select three of the following courses:

PSYCH 102	[PSY 904]	Human Growth & Development: Life-Span (3)
PSYCH 203	[PSY 905]	Abnormal Psychology (3)
PSYCH 204	[PSY 906]	Industrial/Organizational Psychology (3)
PSYCH 212	[PSY 907]	Theories of Personality (3)
PSYCH 215	[PSY 908]	Social Psychology (3)
	PSYCH 203 PSYCH 204 PSYCH 212	PSYCH 203 [PSY 905] PSYCH 204 [PSY 906]

# III. ELECTIVES (13-16)

Select any additional courses as recommended by the senior institution you plan to attend. Students who plan to major in psychology are encouraged to complete additional foundation courses in sciences (e.g. biology, chemistry, physics, anatomy and physiology) and mathematics (e.g. college algebra, calculus and statistics). The number of psychology courses taken at the freshman/sophomore level should generally not exceed 12 credits and should be limited to the courses recommended above. Other recommended electives include foreign language, social science and sociology.

#### Required A.A. Degree Program Total: 62 credits

# **SOCIAL WORK**

#### A.A. Degree • Suggested Curriculum

The profession of social work is devoted to helping people function optimally in their environment by providing direct and indirect services to individuals, families, groups and communities and by working to improve social conditions. Bachelor's degree programs in social work prepare students for careers in public and private agencies such as child welfare, mental health, corrections, shelters and many other workplaces. Community college students interested in completing bachelor's degrees in social work are strongly encouraged to complete an Associate in Arts degree prior to transfer. Students should see their advisors about particular social work baccalaureate programs for specific entry requirements since admission to these programs is competitive and completion of courses does not guarantee admission to a program at a senior institution.

#### I. GENERAL EDUCATION CORE: (37-38)

#### Area A: Communication (9 credits)

ENG 101 [C1 900] Composition I - with a grade of C or better (3)
ENG 102 [C1 901R] Composition II - with a grade of C or better (3)
COMM 101 [C2 900] Principles of Communication (3)

## Area B: Humanities and Fine Arts (9 credits)

PHILO 201 [H4 900] Introduction to Philosophy (3) recommended PHILO 202 [H4 904] Ethics (3) recommended

Select an additional course in fine arts or interdisciplinary

humanities/fine arts from the list for Area B on pages 42-44.

#### Area C: Mathematics (3 credits)

MATH 115 [MI 902] General Education Statistics (3)

#### Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits)

Select 3 courses in at least two different disciplines from the list for Area E on pages 42-44. The following are recommended:

ANTHR 222 [SI 901N] Introduction to Cultural & Social

Anthropology (3)

PSYCH 101 [S6 900] Introduction to Psychology (3) SOCIO 101 [S7 900] Introduction to Sociology (3)

# II. AREA OF CONCENTRATION/MAJOR FIELD (15)

Recommended Social Work Core Courses:

PSYCH 102 [S6 902] Human Growth and Development: Life-Span (3) PSYCH 203 [PSY 905] Abnormal Psychology (3)

PSYCH 215 [S8 900] Social Psychology (3) SOCIO 111 [S7 901] Contemporary Social Issues (3) SOCIO 201 Introduction to Social Work (3)

#### III. ELECTIVES (10-11)

Select additional courses as recommended by the senior institutions you plan to attend. Typical elective courses include:

ECON 201 [S3 901] Macroeconomic Principles (3) PHILO 203 [H4 906] Introduction to Logic (3)

POLSC 140 [SS 900] Introduction to U.S. Governments and Politics (3) PSYCH 217 Human Sexuality (3)

SOCIO 220 [SOC 913] Race Relations: A Multicultural Perspective (3) Foreign Language (4-16)

Other elective courses recommended by the senior institution of your choice

#### Required A.A. Degree Program Total: 62 credits

#### **SOCIOLOGY**

#### A.A. Degree • Suggested Curriculum

This curriculum is designed for students who plan to pursue a bachelor's degree in such fields as behavioral science, and sociology. The Sociology transfer program provides students with a broad, general education background and prepares them for the specialized coursework undertaken during the last two years of a baccalaureate program and for eventual graduate-level study in social work. Students are strongly encouraged to complete the Associate in Arts degree prior to transfer.

### I. GENERAL EDUCATION CORE (37-39)

# Area A: Communication (9 credits)

ENG I01 [CI 900] Composition I - with a grade of C or better (3) ENG I02 [CI 901R] Composition II - with a grade of C or better (3) COMM I01 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one from fine arts.

#### Area C: Mathematics (3-4 credits)

Select one math course from:

MATH II5 [MI 902] General Education Statistics (3)

MATH 153 [M1 902] Probability & Statistics (4)

MATH 155 [MI 906] Finite Mathematics (4)

#### Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits)

ANTHR 215 [SI 900N] Introduction to Anthropology (3)
ANTHR 222 [SI 901N] Introduction to Cultural and Social
Anthropology (3)

Select one additional course in a discipline other than ANTHR from the list for Area E on pages 42-44.

#### II. AREA OF CONCENTRATION/MAJOR FIELD (12)

SOCIO 101 [S7 900] Introduction to Sociology (3)
SOCIO 111 [SOC 911] Contemporary Social Issues (3)
SOCIO 210 [SOC 912] Marriage and the Family (3)
SOCIO 215 [SOC 914] Sex, Gender and Power (3)
SOCIO 220 [SOC 913] Race Relations: A Multicultural Perspective (3)

# III. ELECTIVES (11-13)

Select any additional courses from the general education core courses, foreign language, or courses which are non-Western or multicultural in content. Students planning to teach at the high school level should refer to the Recommended Curriculum for Secondary Education for additional elective choices.

# Required A.A. Degree Program Total: 62 credits

# SPEECH COMMUNICATION

#### A.A. Degree • Suggested Curriculum

This program provides the foundation for students planning to transfer to speech communication programs and speciality areas such as interpersonal, organization or persuasive communication; speech performance; or high school teaching. It is recommended that students complete a well-rounded general education core curriculum. Students are strongly encouraged to complete the Associate in Arts degree prior to transfer.

#### I. GENERAL EDUCATION CORE (37-38)

#### Area A: Communication (9 credits)

ENG 101 [CI 900] Composition I - with a grade of C or better (3) ENG 102 [CI 901R] Composition II - with a grade of C or better (3) COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one course from fine arts.

#### Area C: Mathematics (3 credits)

Select one math course from:

MATH II2 [MI 904] General Education Mathematics (3)

MATH 115 [MI 902] General Education Statistics (3)

#### Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

#### Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II. AREA OF CONCENTRATION/MAJOR FIELD (9)

Recommended Speech Communication Courses

COMM 102 [SPC 911] Advanced Public Speaking (3)

COMM 108 [SPC 921] Interpersonal Communication (3)

COMM 141 [SPC 915] Oral Interpretation (3)

# III. ELECTIVES (15-16)

Select additional courses as recommended by the senior institution you plan to attend. Typical elective courses include, but are not limited to:

COMM III Introduction to Mass Communication (3)

COMM 196 Applied Forensics I (I)

COMM 197 Applied Forensics II (I)

COMM 198 Applied Forensics III (I)

COMM 199 Applied Forensics IV (I)

THTRE 131 Voice and Articulation (3)

Foreign Language courses (4-16)

Other elective courses

#### Required A.A. Degree Program Total: 62 credits

Foreign Language Requirements: Some universities have a foreign language requirement. Generally, four years of a single foreign language in high school or four semesters of language in college will fulfill this requirement. It is recommended that students complete the entire sequence at one institution.

#### THEATRE ARTS

#### A.A. Degree • Suggested Curriculum

Students planning to pursue a baccalaureate degree are encouraged to complete an Associate in Arts degree prior to transfer. Transfer admission to theatre arts-related programs is competitive and some schools require an audition for admission to the program. Because each senior institution has its own transfer policies, we cannot guarantee the accuracy of this information for every school. Consult the school of your choice and/or the Prairie State College Counseling & Academic Advising Center to discuss the transferability of courses.

#### I. GENERAL EDUCATION CORE (37-38)

#### Area A: Communication (9 credits)

ENG I01 [CI 900] Composition I - with a grade of C or better (3) ENG I02 [CI 901R] Composition II - with a grade of C or better (3)

COMM 101 [C2 900] Principles of Communication (3)

#### Area B: Humanities and Fine Arts (9 credits)

Select three courses from the list for Area B on pages 42-44, with at least one course from humanities and one course from fine arts (other than THTRE).

#### Area C: Mathematics (3 credits)

Select one math course from:

MATH 112 [MI 904] General Education Mathematics (3)

MATH 115 [MI 902] General Education Statistics (3)

#### Area D: Physical and Life Sciences (7-8 credits)

Select one life science course and one physical science course from the list for Area D on pages 42-44. One course must have a lab component.

## Area E: Social and Behavioral Sciences (9 credits)

Select three courses in at least two different disciplines from the list for Area E on pages 42-44.

#### II. AREA OF CONCENTRATION/MAJOR FIELD (12)

COMM 141 [TA 916] Oral Interpretation (3)
THTRE 111 [TA 914] Fundamentals of Acting (3)
THTRE 112 [TA 918] Theatre Practicum/Acting (3)
THTRE 121 [TA 911] Stagecraft (3)

#### III. ELECTIVES (12-13)

Select additional courses as recommended by the senior institution you plan to attend. Typical elective courses include but are not limited to:

ENG 271 [H3 905] Introduction to Shakespeare (3)
HUMAN 202 [HF 900] Form and Structure in the Arts (3)
THTRE 101 [F1 907] Understanding Theatre (3)
THTRE 103 History of Theatre (3)
THTRE 103 Introduction to the Theatre (3)
THTRE 131 Voice and Articulation (3)

Foreign Language courses (4-16)

Other elective courses

#### Required A.A. Degree Program Total: 62 credits

# CERTIFICATES COURSES

# ASSOCIATE IN GENERAL STUDIES DEGREE (A.G.S.) GUIDELINES

The Associate in General Studies (A.G.S.) degree, while not intended for transfer or directed at a specific occupation, allows students to design their own two-year program. It provides an opportunity for you to complete an associate's degree of your own making. This degree has minimal general education requirements and thus allows you considerable freedom in designing and pursuing a course of study that meets your individualized learning goals. Note, however, that this degree is not recommended as a stepping-stone toward a baccalaureate degree; nor is it covered by the College's Educational Guarantee. Students considering the Associate in General Studies degree should meet with an advisor or counselor to determine whether this degree is well suited to their educational goals and needs.

#### **A.G.S. DEGREE REQUIREMENTS**

A student will be recommended for an Associate in General Studies degree upon completion of the following requirements:

- I. Enrolled at Prairie State College for one semester immediately preceding graduation, with passing grades in at least 15 semester hours of credit at Prairie State College (excluding proficiency credits).
- Completed 62 semester hours of college credit, 20 of which are specified below.
- 3. Attained a minimum grade point average of 2.0.
- 4. Completed at least one course in each of the major General Education components (communication, humanities, science and mathematics and the social sciences).
- 5. Completed the remaining 47 credit hours for the degree based on the student's area of interest, and including any baccalaureate or occupationally oriented courses offered by the College and numbered 100 or higher.

# CERTIFICATES

# ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.) GUIDELINES

The Associate in Applied Science (A.A.S.) represents completion of a minimum of 60 credit hours in a technical or career program. Certificates are awarded after completion of up to 50 credits that focus on specific occupational or technical areas of study.

#### **A.A.S. DEGREE REQUIREMENTS**

An Associate in Applied Science degree is awarded to those students who successfully complete a program of study for a specific occupational area.

Candidates for the A.A.S. Degree must fulfill the following requirements:

- Enrolled at Prairie State College for two semesters immediately preceding graduation and successfully completed at least
   semester hours of credits at Prairie State College (excluding proficiency credits).
- Completed program requirements as specified by the occupational/technical degree program (minimum of 60 semester hours). This includes a General Education Core Curriculum, program-mandated occupational/technical courses, and electives as determined by the A.A.S. degree program.
- 3.Attained a minimum cumulative grade point average of 2.0 on a 4.0 scale in all Prairie State College courses.
- Filed appropriate evidence of high school graduation or GED certificate with the Admissions and Records Office.
- Satisfied the U.S. and State of Illinois Constitution requirements by submitting a high school transcript that proves the test was successfully completed in high school, or by taking POLSC 140 or 152 or a proficiency exam.

## **A.A.S. DEGREE COMPONENTS**

The A.A.S. degree is composed of a general education component, a core concentration of occupational/technical courses, and other program electives.

# I. GENERAL EDUCATION CORE CURRICULUM FOR THE A.A.S. DEGREE

#### AREA A: Communication (6 semester hrs)

ENG 101 [CI 900] Composition I - with a grade of C or better COMM 101 [C2 900] Principles of Communication

# AREA B: Humanities and Fine Arts (3 semester hours)

One course, specified by program or selected from list for Area B on pages 42-44.

#### AREA C: Mathematics - demonstrate competence by:

- a) Placing into MATH 095 or above on the Prairie State College Assessment Test; or
- b) Completing MATH 090 with a grade of C or better; or
- c) Completing a math course(s) as specified by the degree program.

#### AREA D: Physical and Life Sciences (3-4 semester hours)

One course, specified by program or selected from the list for Area D on pages 42-44.

#### AREA E: Social and Behavioral Sciences (3 semester hours)

One course, specified by program or selected from the list for Area E on pages 42-44.

#### II.AREA OF CONCENTRATION/PROGRAM REQUIREMENTS

Program requirements are established by each department to reflect the core competencies expected in the workplace for specific occupations.

#### III. ELECTIVES

Electives are determined by each department based on options for specialization within a program or to provide students with choices related to their career goals.

#### **CERTIFICATE GUIDELINES**

Certificates are awarded after completion of up to 50 credits that focus on specific occupational or technical areas of study. Certificates are awarded to those students completing education and training in a particular occupational field of study. A student will be recommended for a certificate if the following requirements are met:

#### CERTIFICATE REQUIREMENTS

- Completed the certificate requirements as specified in the certificate program.
- 2. Attained a minimum grade point average of 2.0 in the courses identified in the certificate program.
- 3. Completed 15 credit hours or one-half of the required credit hours for programs that exceed 30 credit hours, as a student at Prairie State College and enrolled at Prairie State College during the regular semester immediately preceding the awarding of the certificate.

# CERTIFICATES COURSES

## **CAREER PROGRAMS**

The following list designates career degree and certificate programs by specific areas of study. Consult each program for the required curriculum. Curriculum for career programs reflects current workforce trends, skills standards and licensure/ accreditation standards where applicable.

#### **AUTOMOTIVE**

Automotive Technology (A.A.S.)

Auto Body Services (Cert.)

Automotive Alignment Specialist (Cert.)

Automotive Brake Specialist (Cert.)

Automotive Driveability Specialist (Cert.)

Automotive Engines Specialist (Cert.)

Automotive Heating/Air Conditioning Specialist (Cert.)

Automotive Parts Specialist (Cert.)

Automotive Service Management Specialist (Cert.)

Automotive Services Technology (Cert.)
Automotive Transmission Specialist (Cert.)

#### **BUSINESS**

Management (A.A.S.)

Accounting Technician (Cert.)

Bookkeeping (Cert.)

E-Business (see Information Technology)

Global Supply Chain (Cert.)

Management & Supervision (Cert.)

Supply Chain Management (Cert.)

# **COMPUTER AIDED DESIGN (CAD)**

CAD/Mechanical Design Technology (A.A.S.)

CAD/Mechanical Design Technology (Cert.)

CAD Drafter (Cert.)

CAD Technician (Cert.)

#### **COMPUTER ELECTRONICS**

Computer Electronics Technology (A.A.S.)

Computer Electronics Technician (Cert.)

# **CRIMINAL JUSTICE**

Criminal Justice Services (A.A.S.)

Criminal Justice Services (Cert.)

# **EARLY CHILDHOOD**

Child and Family Studies(A.A.S.)

Child Care Assistant (Cert.)

Early Childhood Director (Cert.)

Early Childhood Teacher Basic (Cert.)

#### **EDUCATION—PARAPROFESSIONAL**

Paraprofessional Educator (A.A.S.)

Paraprofessional Educator (Cert.)

#### **EMERGENCY SERVICES**

Paramedicine (A.A.S.)

Emergency Medical Technician (Cert.)

First Responder (Cert.)

#### FIRE SCIENCE

Fire Science Technology (A.A.S.)

Fire Science Technology (Cert.)

Firefighter II (Cert.)

Firefighter III (Cert.)

Firefighter/EMT (Cert.)

#### **FITNESS**

Fitness and Exercise (A.A.S.)

Group Fitness Instructor (Cert.)

Personal Trainer (Cert.)

#### **GRAPHIC COMMUNICATIONS**

Graphic Communications (A.A.S.)

Digital Design (Cert.)

E-Business (see Information Technology)

Interactive Design (Cert.)

#### **HEALTH PROFESSIONS**

Dental Hygiene (A.A.S.)

Nursing (A.A.S.)

Advanced Bedside Care Provider (Cert.)

CNA/Nurse Assistant (Cert.)

Paramedicine (see Emergency Services)

RN First Surgical Assistant (Cert.)

Surgical Technology (Cert.)

#### INDUSTRIAL TECHNOLOGY

CNC Programmer/Operator (Cert.)

Heating, Ventilation, A/C & Refrigeration (Cert.)

Hydraulics Apprentice (Cert.)

Industrial Electrician - Apprentice (A.A.S.)

Industrial Electrician-Apprentice (Cert.)

Industrial Maintenance Technician (Cert.)

Machinist-Apprentice (Cert.)

Manufacturing Technology (Cert.)

Manufacturing Technology (A.A.S.)

Millwright-Apprentice (Cert.)

Tool & Die Making Apprentice (A.A.S.)

Tool & Die Making Apprentice (Cert.)

Welder-Apprentice (Cert.)

Welding Specialist (Cert.)

# **INFORMATION TECHNOLOGY**

Information Technology (A.A.S.)

Computer Repair Specialist (Cert.)

Database - Expert (Cert.)

Desktop Publishing (Cert.)

E-Business (Cert.)

Networking Specialist (Cert.)

Office Assistant (Cert.)

Office Support (Cert.)

Programming (Cert.)

Software Specialist (Cert.)

Software Suite Applications (Cert.)

Software Technician (Cert.)

Software User (Cert.)

Spreadsheet - Proficient (Cert.)

Spreadsheet - Expert (Cert.)

Web Developer (Cert.)

Webmaster (Cert.)

Word Processing - Proficient (Cert.)

Word Processing - Expert (Cert.)

#### **PERSONAL TRAINER**

(see Fitness)

#### **PHOTOGRAPHY**

Photographic Studies (A.A.S.)

Photography (Cert.)

Portrait Photography (Cert.)

#### **CAREER PROGRAMS**

#### **AUTOMOTIVE TECHNOLOGY**

	page	
Automotive Technology (A.A.S.)	72	
Auto Body Services	72	
Automotive Alignment Specialist	73	
Automotive Brake Specialist	73	
Automotive Driveability Specialist	73	Our Automotive Technology program has received certification by the
Automotive Engines Specialist	73	National Automotive Technicians Education Foundation (NATEF) and
Automotive Heating/Air Conditioning Specialist	73	the National Institute for Automotive Service Excellence (ASE).
Automotive Parts Specialist	73	Certification was awarded in automatic transmission and transaxle,
Automotive Service Management Specialist	74	brakes, electrical/electronic systems, engine performance, engine repair,
Automotive Services Technology	73	heating and air conditioning, manual drive train and axles, and suspen-
Automotive Transmission Specialist	74	sion and steering.

### **AUTOMOTIVE TECHNOLOGY**

#### A.A.S. Degree

This program provides the balance of theory and practical knowledge necessary for students preparing for careers in the automotive technology industry. Students may choose to specialize in automotive services or auto body repair.

#### I. GENERAL EDUCATION CORE (20)

#### Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better (3)

COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits)

Select one course from Area B on pages 42-44 (3)

Area C: Mathematics (4 credits)

TECH 109 Technical Mathematics I (4) required

Area D: Physical and Life Sciences (4 credits)

TECH 221 Technical Physics I (4) required

Area E: Social and Behavioral Sciences (3 credits)

Select one course from Area E on pages 42-44 (3)

# II. AREA OF CONCENTRATION/PROGRAM REQUIREMENTS (50)

AUTO 101 Basic Automobile Service and Systems (3)

AUTO 102 Automotive Engines (4)

AUTO 107 Automotive Electricity/Electronics I (4)
AUTO 108 Suspension and Steering Systems (4)
ITAPP 101 Introduction to Computers (3)

Specialization: Select one option (29-32)

#### Option A:

#### **AUTOMOTIVE SERVICE TECHNICIAN (32)**

Service Technicians are trained to maintain and repair cars, vans, small trucks and other vehicles. Using both hand tools and specialized diagnostic test equipment, they learn to pinpoint problems and make necessary repairs or adjustments. In addition to forming complex and difficult repairs, technicians handle a number of routine maintenance procedures such as oil changes, tire rotation and battery replacement. Technicians also interact with customers to explain repair procedures and discuss maintenance needs.

AUTO 202 Automotive Brake Systems (4)

AUTO 205 Manual Transmissions and Transaxles (4)

AUTO 206 Automotive Engine Performance (4)

AUTO 207 Automotive Heating/Air-Conditioning (4)

AUTO 208 Automotive Transmissions/Transaxles (4)

AUTO 210 Automotive Electricity/Electronics II (4)
AUTO 211 Automotive Engine Performance II (4)

AUTO 215 Advanced Automotive Service and Systems (4)

#### Option B:

#### **AUTOMOTIVE BODY TECHNICIAN (29)**

Body Technicians are trained to repair, replace and refinish (repaint) damaged parts and components of automobiles, buses and light trucks. They learn to use hand tools and power tools to straighten bent frames and body sections, replace badly damaged parts, smooth out minor dents and creases, remove rust, fill small holes or dents and repair damaged surfaces. Students are also trained in giving repair estimates.

APPW 101 Principles of Flat Welding (2)

AUTO III Auto Body Welding (3)

AUTO 112 Sheet Metal Repairs - Body Adjustments (4)

AUTO 214 Collision Repair I: Frame/Body (4)
AUTO 216 Body Preparation and Refinishing (4)

AUTO 220 Collision Repair II: Frame/Body/Glass (4)

Select from AUTO 202, 207, 211, 298, 299; BUS 127 or ENG 104; MT101 (8)

Program Total: 67-70 credits

# **AUTO BODY SERVICES**

#### Certificate

This program will prepare service specialists in areas of sheet metal repairs, body adjustments, fiberglass component repairs, glass service, surface preparation and vehicle refinishing. It will provide service experience in a body service establishment.

#### PROGRAM REQUIREMENTS

AMATH 100 Basic Mathematics for the Skilled Trades (2)

AMATH 101 Algebra for the Skilled Trades (2)

AUTO 101 Basic Automobile Service and System (3)

AUTO III Auto Body Welding (3)

AUTO 112 Sheet Metal Repairs - Body Adjustments (4)

AUTO 214 Collision Repair I: Frame-Body (4)

AUTO 216 Body Preparation and Refinishing (4)

AUTO 298 Internship Seminar (I) AUTO 299 Internship: Automotive (2)

APPW 101 Principles of Flat Welding (2)

Select from AUTO 107, 108, 207; MT 101 (3-4)

# Program Total: 30-31 credits

**CAREER PROGRAMS** 

# AUTOMOTIVE ALIGNMENT SPECIALIST

#### Certificate

This short-term program trains students to function as frontend mechanics. Students learn to align and balance wheels, as well as repair steering mechanisms and suspension systems.

#### **PROGRAM REQUIREMENTS**

AUTO 101 Basic Automobile Service and Systems (3) AUTO 108 Steering and Suspension Systems (4)

Program Total: 7 credits

# **AUTOMOTIVE BRAKE SPECIALIST**

#### Certificate

Students in this program are trained to work on drum and disk braking systems, parking brakes and their hydraulic systems. Students learn to inspect, adjust, remove, repair and reinstall brake shoes, disk pads, drums, rotors, wheel and master cylinders, and hydraulic fluid lines.

#### **PROGRAM REQUIREMENTS**

AUTO 101 Basic Automobile Service and Systems (3)
AUTO 107 Automotive Electricity/Electronics I (4)
AUTO 202 Automotive Brake Systems (4)

Program Total: 11 credits

# AUTOMOTIVE DRIVEABILITY SPECIALIST

# Certificate

This short-term program trains students to diagnose driveability problems. Students learn the basics of the engine, engine performance, how the electronics work, as well as the computer system functions of the vehicle. Students are taught to adjust the ignition timing and valves, and adjust or replace spark plugs or other parts to ensure efficient engine performance. Electronic test equipment is used to adjust and locate malfunctions in fuel, ignition and emissions control systems.

#### **PROGRAM REQUIREMENTS**

AUTO 101 Basic Automobile Service and Systems (3)

AUTO 102 Automotive Engines (4)

AUTO 107 Automotive Electricity/Electronics I (4) AUTO 206 Automotive Engine Performance (4)

AUTO 211 Automotive Engine Performance II (4)

**Program Total: 19 credits** 

# **AUTOMOTIVE ENGINES SPECIALIST**

#### Certificate

This short-term program trains the student to function as an engine mechanic. Students learn to overhaul engines, as well as service the electrical needs of the engine.

#### **PROGRAM REQUIREMENTS**

AUTO 101 Basic Automobile Service and Systems (3)

AUTO 102 Automotive Engines (4)

AUTO 107 Automotive Electricity/Electronics I (4)

# AUTOMOTIVE HEATING/ AIR CONDITIONING SPECIALIST

#### Certificate

This short-term program prepares technicians to install and repair air-conditioners as well as service components such as compressors and condensers.

#### **PROGRAM REQUIREMENTS**

AUTO 101 Basic Automobile Service and Systems (3) AUTO 107 Automotive Electricity/Electronics I (4) AUTO 207 Automotive Heating/Air Conditioning (4)

Program Total: 11 credits

# **AUTOMOTIVE PARTS SPECIALIST**

#### Certificate

This short-term program trains the student for positions in parts management. Students learn the parts management system as well as basic business management techniques and introductory computer skills.

#### **PROGRAM REQUIREMENTS**

AUTO 101 Basic Automobile Service and Systems (3) AUTO 223 Automotive Parts Management (2)

ITAPP 101 Introduction to Computers (3)

Business Elective: Select one course from BUS 107, 127, 170 or 241 (3)

Program Total: II credits

# AUTOMOTIVE SERVICES TECHNOLOGY

# Certificate

This program prepares students for employment in automotive servicing and repair, engine testing, automotive field services, and automotive parts and shop management.

#### **PROGRAM REQUIREMENTS**

AUTO 101 Basic Automobile Service and System (3)

AUTO 102 Automotive Engines (4)

AUTO 107 Automotive Electricity/Electronics I (4)

AUTO 108 Suspension and Steering Systems (4)

AUTO 202 Automotive Brake Systems (4)

AUTO 205 Manual Transmissions and Transaxles (4)

AUTO 206 Automotive Engine Performance (4)

AUTO 208 Automatic Transmissions and Transaxles (4)

AUTO 210 Automotive Electricity/Electronics II (4) AUTO 211 Automotive Engine Performance II 4)

Program Total: 39 credits

**CAREER PROGRAMS** 

# AUTOMOTIVE SERVICE MANAGEMENT SPECIALIST

#### Certificate

Service management specialists are the link between the customers seeking repair or maintenance for their vehicles and the technicians who perform the work. Students are trained to write repair orders, inspect vehicles to determine work that needs to be done, determine costs of the work, and prepare itemized estimates. In addition, students learn basic computer skills and basic business management skills. After gaining experience in entry-level positions, successful students can go on to the management/supervisory levels in auto shops.

#### **PROGRAM REQUIREMENTS**

AUTO 101 Basic Automobile Service and Systems (3)

AUTO 218 Auto Body Shop Management (2)

OR

AUTO 224 Automotive Services Management (2)

BUS 103 Business Mathematics (3)
ENG 104 Technical Report Writing (3)
OR

BUS 127 Business Communications (3) ITAPP 101 Introduction to Computers (3)

Business Elective: Select from BUS 105, 107, 109, 170, 241, 242, 249 (3)

**Program Total: 17 credits** 

# AUTOMOTIVE TRANSMISSION SPECIALIST

# Certificate

This short-term program trains mechanics to work on gear trains, couplings, hydraulic pumps and other parts of automotive transmissions. Because these are complex mechanisms and include electronic parts, their repair requires considerable experience and training, including a knowledge of hydraulics.

# PROGRAM REQUIREMENTS

AUTO 101 Basic Automobile Service and Systems (3)

AUTO 102 Automotive Engines (4)

AUTO 205 Manual Transmissions and Transaxles (4)
AUTO 208 Automatic Transmissions/Transaxles (4)

**Program Total: 15 credits** 

#### **BUSINESS**

	þage
Management (A.A.S.)	75
Accounting Technician	75
Bookkeeping	76
E-Business [see Information Technology]	
Global Supply Chain	76
Management and Supervision	76
Supply Chain Management	76

#### **MANAGEMENT**

#### A.A.S. Degree

This program is designed for working adults who wish to develop or enhance skills for positions of greater responsibility. The program draws from business, finance and economics to give prospective supervisors and managers guidelines for directing the work of others in a business environment and institutional organizations. Students may specialize in the functional areas of financial, marketing, human resources or supply chain management.

#### I. GENERAL EDUCATION CORE (18-19)

#### Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better. (3)

COMM 101 Principles of Communications (3)

Area B: Humanities and Fine Arts (3 credits)

Select one course from Area B on pages 42-44. (3)

Area C: Mathematics (3 credits)

MATH 112 General Education Mathematics (3)

Area D: Physical and Life Sciences (3-4 credits)

Select one course from Area D on pages 42-44. (3-4)

Area E: Social and Behavioral Science (3 credits)

ECON 201 Macroeconomic Principles (3)

#### II. AREA OF CONCENTRATION/PROGRAM **REQUIREMENTS (39-41)**

BOS	101	Introduction	to Modern Business	(3)

BUS 105 Human Relations (3)

BUS 127 Business Communications (3)

BUS 131 Financial Accounting (4) BUS 201 Business Law I (3)

BUS 241 Principles of Management (3)

ECON 202 Microeconomic Principles (3)

BUS 251 Principles of Marketing (3) BUS 298 Seminar (1)

BUS 299 Internship (I-3)

ITAPP 101 Introduction to Computers (3)

Select ONE of the Specialization Options listed below (9-10)

#### Option A:

#### **FINANCIAL MANAGEMENT**

BUS 132 Managerial Accounting (3)

BUS 138 Accounting Software I (1.5)

BUS 139 Accounting Software II (1.5)

BUS 165 Personal Asset Management (4)

#### Option B:

#### **MARKETING MANAGEMENT**

BUS 120 Sales (3)

BUS 170 Small Business Management (3)

BUS 261 Advertising (3)

#### Option C:

#### **HUMAN RESOURCES MANAGEMENT**

BUS 109 Principles of Supervision (3) BUS 209 Supervisors as Trainers (3) BUS 242 Human Resources Management (3)

#### **Option D:**

#### **SUPPLY CHAIN MANAGEMENT**

Select 9 hours from the following:

TWL 100 Transportation and Physical Distribution (3)

TWL II0 Supply Chain Management (3)

Introduction to Import/Export (3) TWI 120

Principles of Operations Management (3) TWL 130

TWL 140 Transportation and Cargo Security (2)

#### III. ELECTIVES (1-3)

Select any additional college-level course(s). (1-3)

#### Program Total: 60-64 credits

#### **ACCOUNTING TECHNICIAN**

#### Certificate

This certificate program prepares students for entry-level employment as an accounting assistant, junior accountant, junior auditor, head or full-charge bookkeeper, or junior analyst. This program is not designed for students who plan to become professional accountants and CPAs. Students interested in these careers should follow the Associate in Arts degree program for Pre-Business Majors.

#### **PROGRAM REQUIREMENTS**

BUS 101 Introduction to Modern Business (3)

BUS 103 Business Mathematics (3)

BUS 127 Business Communications (3)

Financial Accounting (4) BUS 131

BUS 132 Managerial Accounting (3)

BUS 138 Accounting Software I (1.5)

BUS 139 Accounting Software II (1.5)

BUS 201 Business Law I (3)

BUS 298 Seminar (1)

BUS 299 Internship (1-3)

ECON 201 Macroeconomic Principles (3)

ITAPP 125 Introduction to Spreadsheets (2)

ITAPP 126 Advanced Spreadsheet Applications (2)

#### Program Total: 31-33 credits

#### **BOOKKEEPING**

#### Certificate

This career certificate program is designed for individuals interested in pursuing careers as bookkeepers, accounts receivable or payable clerks, or payroll clerks. This program is not designed for students who plan to become professional accountants and CPAs. Students interested in these careers should follow the Associate in Arts Degree program for Pre-Business Majors.

#### **PROGRAM REQUIREMENTS**

BUS 101 Introduction to Modern Business (3)

BUS 103 Business Mathematics (3)

BUS 107 Bookkeeping and Procedural Accounting (3)

BUS 138 Accounting Software I (1.5)

BUS 139 Accounting Software II (1.5)

Program Total: 12 credits

#### **GLOBAL SUPPLY CHAIN**

#### Certificate

The Global Supply Chain curriculum is designed to meet the educational and training needs of advancement-oriented individuals working in fields associated with the flow of materials from the supplier to the customer. Such activities include inventory and warehouse management, physical distribution, order management, materials handling, and capacity management. In addition, the curriculum provides individuals with the conceptual and applied skills necessary for advancement to positions of enhanced responsibilities including written and oral communication skills, human resource management skills, and basic computer literacy skills. The curriculum may also provide a review of content for various certification exams in the field.

#### PROGRAM REQUIREMENTS

TWL 100 Transportation and Physical Distribution (3)

TWL 110 Introduction to Supply Chain Management (3)

TWL 120 Introduction to Import/Export (3)

TWL 130 Principles of Operations Management (3)

TWL 140 Transportation and Cargo Security (3)

BUS 101 Introduction to Modern Business (3)

BUS 105 Human Relations (3)

BUS 127 Business Communications (3)

BUS 241 Principles of Management (3)

ITAPP 101 Introduction to Computers (3)

**Program Total: 29 credits** 

#### **MANAGEMENT & SUPERVISION**

#### Certificate

This program is intended for adult employees in public service, business and industry who wish to develop or enhance skills in management and supervision for positions of greater responsibility. Courses in management and supervision have been developed in cooperation with area business and industry. Classes are open to adult employees in public service, business and industry.

#### **PROGRAM REQUIREMENTS**

BUS 101 Introduction to Modern Business (3)

BUS 105 Human Relations (3)

BUS 109 Principles of Supervision (3)

BUS 209 Supervisors as Trainers (3)

BUS 241 Principles of Management (3)

BUS 242 Human Resources Management (3)

BUS 298 Seminar (1)

BUS 299 Internship (2-3)

ITAPP 101 Introduction to Computers (3)

Select additional courses as recommended by program coordinator. (6)

Program Total: 30-31 credits

#### **SUPPLY CHAIN MANAGEMENT**

#### Certificate

The Supply Chain Management curriculum is designed to meet the educational and training needs of advancement-oriented individuals working in fields associated with the flow of materials from the supplier to the customer. Such activities include inventory and warehouse management, physical distribution, order management, materials handling, and capacity management. In addition, the curriculum may provide pre-service education and training for individuals seeking entry-level positions in supply chain management and provide a review of content for various certification exams in the field.

#### PROGRAM REOUIREMENTS

TWL 100 Transportation and Physical Distribution (3)

TWL 110 Introduction to Supply Chain Management (3)

TWL 120 Introduction to Import/Export (3)

TWL 130 Principles of Operations Management (3)

TWL 140 Transportation and Cargo Security (2)

Program Total: 14 credits

#### **COMPUTER AIDED DESIGN (CAD)**

	puge
CAD/Mechanical Design Technology (A.A.S.)	77
CAD Drafter	77
CAD/Mechanical Design Technology	77
CAD Technician	78

# CAD/MECHANICAL DESIGN TECHNOLOGY

#### A.A.S. Degree

This program prepares students for careers as drafters, mechanical designers and CAD technicians. Areas of potential employment include drafter, detailer, layout designer, design technician, CAD operator and CAD technician. The courses emphasize basic drafting and drawing skills, design and analysis of mechanisms and mechanical parts, and the use of CAD systems to draw, design and analyze mechanical devices.

#### I. GENERAL EDUCATION CORE (20)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better (3)

COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits)

Select one course from Area B on pages 42-44 (3)

Area C: Mathematics (4 credits)

TECH 109 Technical Mathematics I (4)

Area D: Physical and Life Sciences (4 credits)

TECH 221 Technical Physics I (4)

Area E: Social and Behavioral Sciences (3 credits)

Select one course from Area E on pages 42-44 (3)

## II. AREA OF CONCENTRATION/PROGRAM REQUIREMENTS (39)

141	Technical Drafting I (3)
201	Mechanical Layout and Design I (3)
203	Statics and Strength of Materials (4)
241	Advanced Drafting Mechanisms I (3)
242	Advanced Drafting Mechanisms II (3)
243	Introduction to Auto-CAD (3)
244	Intermediate Auto-CAD (3)
245	Computer Aided Design (3)
101	Metal Working Processes I (3)
102	Metal Working Processes II (3)
110	Technical Mathematics II (4)
222	Technical Physics II (4)
	201 203 241 242 243 244 245 101 102 110

#### III. ELECTIVES (2)

Select from CADMD 246, 247, 248

Program Total: 61 credits

#### **CAD DRAFTER**

#### Certificate

This program is designed to prepare students for employment as entry-level CAD Drafters. Students will learn the skills and knowledge necessary to produce drawings, diagrams, charts, etc., using the Auto-CAD software. Hands-on experiences will include CAD system operation, drawing set-up, original drawings, copy and modification of existing drawings and plotting.

#### **PROGRAM REQUIREMENTS**

CADMD 141 Technical Drafting I (3)
CADMD 243 Introduction to Auto-CAD (3)
CADMD 244 Intermediate Auto-CAD (3)
TECH 109 Technical Mathematics I (4)

Program Total: 13 credits

## CAD/MECHANICAL DESIGN TECHNOLOGY

#### Certificate

This certificate program prepares students for entry-level positions in mechanical drafting and CAD. The skills developed will enable the student to work as a drafter, detailer, technical illustrator and CAD operator.

#### PROGRAM REQUIREMENTS

CADMD 141	Technical Drafting I (3)
CADMD 201	Mechanical Layout and Design I (3)
CADMD 203	Statics and Strength of Materials (4)
CADMD 241	Advanced Drafting - Mechanisms I (3)
CADMD 242	Advanced Drafting - Mechanisms II (3)
CADMD 243	Introduction to Auto-CAD (3)
CADMD 244	Intermediate Auto-CAD (3)
CADMD 246	Architectural Desktop (2)
MT 101	Metal Working Processes I (3)
TECH 109	Technical Mathematics I (4)

Program Total: 31 credits

#### **CAD TECHNICIAN**

#### Certificate

This program is designed to prepare students for a career as a CAD Technician and Designer. It provides a concentrated exposure in computer-aided drafting and design. This program is especially suitable for those currently employed in the field of mechanical design to update their design skills in the context of CAD systems. Persons seeking positions such as checker, layout designer, specifications writer, mechanical design technician and CAD technician or designer will benefit from this program.

#### **PROGRAM REQUIREMENTS**

CADMD 141	Technical Drafting I (3)
CADMD 201	Mechanical Layout and Design I (3)
CADMD 241	Advanced Drafting - Mechanisms I (3)
CADMD 243	Introduction to Auto-CAD (3)
CADMD 244	Intermediate Auto-CAD (3)
CADMD 245	Computer-Aided Design (3)
TECH 109	Technical Mathematics I (4)

**Program Total: 22 credits** 

CERTIFICATES COURSES

#### **COMPUTER ELECTRONICS**

Computer Electronics Technology (A.A.S.) 79
Computer Electronics Technician 79

# COMPUTER ELECTRONICS TECHNOLOGY

#### A.A.S. Degree

This program prepares students to work with the electronics components of computers and related equipment.

#### I. GENERAL EDUCATION CORE (18-20)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better (3)

COMM 101 Principles of Communication (3) Area B: Humanities and Fine Arts (3 credits) Select one course from Area B on pages 42-44. (3)

Area C: Mathematics (3-4 credits)
Select from the following courses:

ITPRG106, MATH 151, TECH 109, or AMATH 100 and 101 (3-4)

Area D: Physical and Life Sciences (3-4 credits)
Select one course from Area B on pages 42-44. (3-4)
Area E: Social and Behavioral Sciences (3 credits)
Select one course from Area E on pages 42-44. (3)

## II. AREA OF CONCENTRATION/PROGRAM REQUIREMENTS (34)

CADMD 243	Introduction to Auto-CAD (3)
CET 101	Fundamentals of Electricity (2)
CET 103	Alternating Current (2)
CET III	Electronic Principles (4)
CET 114	Digital Fundamentals (4)
CET 203	Instrumentation Fundamentals (4)
CET 211	Communication Electronics (4)
CET 220	Programmable Logic Controllers (4)
ITNET 160	Computer Repair (4)
ITPRG 140	Introduction to Operating Systems (3)

#### III. ELECTIVES (10)

Select from the following courses: (10) APPIE 108, 109, 203, 204, 290; CADMD 244; ITWEB 101, 102, 103, 201

#### **Program Total: 62 credits**

# COMPUTER ELECTRONICS TECHNICIAN

#### Certificate

This program provides the electronics foundation for servicing computers and related electronics equipment.

#### **PROGRAM REQUIREMENTS (18-19)**

CADMD 243	Introduction to Auto-CAD (3)
CET 101	Fundamentals of Electricity (or APPIE 101) (2)
CET 103	Alternating Current (2)
CET III	Electronic Principles (or APPIE 111 and 112) (4)
CET 114	Digital Fundamentals (or APPIE 201 and 202) (4)
ITNET 160	Computer Repair (4)
ITPRG 140	Introduction to Operating Systems (3)

Select a minimum of 3 credit hours in mathematics from the following

courses: (3-4)

AMATH 100 Basic Mathematics for the Skilled Trades (2)

and

AMATH 101 Algebra for the Skilled Trades (2)
ITRPG 106 Mathematics for Computers (3)
MATH 151 College Algebra (4)
TECH 109 Technical Mathematics I (4)

Select from the following courses: (9)

APPIE 108, 109, 203, 204, 290; CADMD 244; ITWEB 101, 102, 103, 201

#### **Program Total: 34-35 credits**

#### **CRIMINAL JUSTICE**

Criminal Justice Services (A.A.S.) 80
Criminal Justice Services 80

#### CRIMINAL JUSTICE SERVICES

#### A.A.S. Degree

This program provides a foundation in criminal justice services for individuals who plan careers in the social and criminal justice fields. The program includes a general education component, a core of criminal justice foundation courses, and a choice of two options. All Criminal Justice courses have both a writing and speaking component to ensure that students are proficient in these skills when they enter the work place. Students in this program learn to think critically, use complex problem-solving skills, manage information and apply the principles of communication and human behavior to their jobs as decision makers and community problem solvers.

#### I. GENERAL EDUCATION CORE (16)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better (3)

COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits)

Select one course from the list for Area B on pages 42-44. (3)

Area C: Mathematics (demonstrated competence required)
Placement into MATH 095 or completion of MATH 090 - with C or better

Area D: Physical And Life Sciences (4 credits)

One laboratory course from the list for Area D on pages 42-44. (4) required

Area E: Social and Behavioral Sciences (3 credits)

POLSC 140 Introduction to U.S. Government & Politics (3) required

## II. AREA OF CONCENTRATION/PROGRAM REQUIREMENTS (45)

CJ 101	Introduction to Criminal Justice (3)
CJ 102	Introduction to Criminology (3)
CJ 201	Introduction to Criminal Law (3)

CJ 204 Juvenile Justice (3)

BUS 127 Business Communications (3)

OR

ENG 102 Composition II (3)

PSYCH 101 Introduction to Psychology (3) SOCIO 101 Introduction to Sociology (3)

Computer literacy requirement: Select one course or combination from ITAPP 101; ITAPP 105 and ITOFS 100; or ITAPP 150, 151, 152 (3) Select one option for Specialization (21)

#### Option A:

#### LAW ENFORCEMENT ADMINISTRATION (21 credits)

This option focuses on the law enforcement system and its administration, organization and processes. It is designed for individuals who wish to enter the law enforcement field as well as for working police officers who wish to obtain a college degree. (Proficiency credit is available for working police officers who have completed Illinois 400 Hour Basic Law Enforcement Training. Contact the Testing Office for further information.)

CJ 103 Law Enforcement Organization and Administration (3)

CJ 110 Community-Based Policing (3)

CJ 202 Civil and Criminal Laws/Procedures (3)

Cl 203 Principles of Criminal Investigation (3)

CJ 208 Principles of Criminalistics (3)

Select 6 hours from:

CJ 106 Introduction to Corrections (3)
CJ 299 Criminal Justice Internship (3)

COMM 108 Interpersonal Communications (3)

FRESP 101 First Responder (3)

SOCIO III Contemporary Social Issues (3)

SOCIO 212 Urban Sociology (3)

#### Option B:

#### **CORRECTIONS ADMINISTRATION (21 credits)**

This option prepares individuals to apply the theories, principles and techniques of corrections science to the development, administration and implementation of procedures for the incarceration, supervision and rehabilitation of legal offenders. This program provides the skills and technical understanding necessary for work as probation, parole and corrections officers. This program also serves individuals currently working in the corrections field who wish to obtain a college degree.

CJ 106 Introduction to Corrections (3)
CJ 108 Probation, Parole and Community-Based

Corrections (3) SOCIO III Contemporary Social Issues (3)

Select any course in Human Services (HS) (3) Select 12 hours from:

CJ 202 Civil and Criminal Laws/Procedures (3)
CJ 208 Principles of Criminalistics (3)
CJ 299 Criminal Justice Internship (3)
PSYCH 215 Social Psychology (3)

PSYCH 217 Human Sexuality (3) SOCIO 212 Urban Sociology (3)

#### Program Total: 61 credits

#### **CRIMINAL JUSTICE SERVICES**

#### Certificate

This program is designed for part-time students already employed in the fields of law enforcement, corrections and private security. The curriculum prepares students to advance their careers as public police officers and investigators, correctional officers, 911 telecommunicators, or private security officers and investigators.

#### **PROGRAM REQUIREMENTS**

CJ 101 Introduction to Criminal Justice (3)

CJ 102 Introduction to Criminology (3)

CJ 103 Law Enforcement Organization and Administration (3)

CJ 201 Introduction to Criminal Law (3)

CJ 204 Juvenile Justice (3)

Computer Literacy option: ITOFS 100 and ITAPP 150(3); ITAPP 101(3); ITAPP 150, 151, and 152 (3)

Select from CJ 106, 108, 110, 202, 203, 208; ENG 101 (15)

#### Program Total: 30 credits

#### **EARLY CHILDHOOD**

	þage
Child and Family Studies (A.A.S.)	81
Child Care Assistant	81
Early Childhood Director	82
Early Childhood Teacher Basic	82

#### **CHILD AND FAMILY STUDIES**

#### A.A.S. Degree

The Child and Family Studies Associate in Applied Science degree program is designed for individuals who want to work directly with young children and their families in early care and education programs, human service organizations, or professional development services. The program provides both theoretical knowledge and practical skills.

Please note: Students interested in teaching in the elementary schools in Illinois should enroll in the Associate in Arts Degree in pre-elementary or pre-early childhood education. Consult a counselor or advisor for further information.

#### I. GENERAL EDUCATION CORE (19)

#### Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better. (3)

COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits)

Select one course from Area B on pages 42-44. (3)

Area C: Mathematics

MATH III Mathematics for Paraprofessionals (3)\*\*

#### Area D: Physical and Life Sciences (4 credits)

Select one laboratory science course from the courses for Area D on pages 42-44. (3-4)

#### Area E: Social and Behavioral Science (3 credits)

PSYCH 101 Introduction to Psychology (3)

### II. PROGRAM REQUIREMENTS (42)

בט וטו	Cilila di owali alia Developinent (3)
ED 212	Exceptional Child (3)
ECED 102	Observation and Guidance of Children (3)
ECED 103	Health, Safety, and Nutrition (3)
ECED 104	Introduction to Early Childhood Education (3)
ECED 120	Child, Family and Community (3)
ECED 130	Classroom Management (3)
ECED 213	Multicultural Education (3)
ECED 299	Early Childhood Education Internship (3)

#### Select 6 hours from:

ECED 205	Language Arts for Children (3)
EDU 105	Principles of Reading (3)
ED 220	Children's Literature (3)

#### Select 9 credit hours from the following courses:

	0
ECED 106	Art for Teachers
ECED 108	Science for Children

ECED 214 Admin. of Early Childhood Educ. Prog (3)
ECED 215 Music and Movement for Children (3)
ECED 220 Teaching the Exceptional Child (3)

#### Program Total: 61 credits

#### **CHILD CARE ASSISTANT**

#### Certificate

This program teaches the practical skills necessary to provide direct care to young children in day care and preschool centers, home day care sites, hospital child-life programs, and community-based centers. Students are prepared for employment as child care assistants, assistant teachers and other entry-level positions in the child care field.

(According to the Department of Children and Family Service regulations, child care workers in Illinois must be at least 19 years of age and have a high school diploma or GED equivalency certificate).

#### PROGRAM REQUIREMENTS:

ENG 101	Composition I (3)
ED 101	Child Growth and Development (3)
ED 212	Exceptional Child (3)
ECED 102	Observation and Guidance of Children (3)
ECED 103	Health, Safety and Nutrition (3)
ECED 104	Introduction to Early Childhood Education (3)
Select one of t	the following methods courses:
ECED 106	Art for Teachers
ECED 108	Science for Children
ECED 215	Music and Movement for Children (3)
ECED 220	Teaching the Exceptional Child (3)
ECED 120	Child, Family and Community (3)
OR	
ECED 213	Multicultural Education (3)
ECED 205	Language Arts for Children
OR	
EDU 220	Children's Literature (3)
ECED 299 E	arly Childhood Education Internship (3)

#### MATH III Math for Paraprofessionals (3)

Note: Students seeking a Level 2 credential should substitute MATH 112 or MATH 115 for MATH 111.

#### **Program Total: 33 credits**

<sup>\*\*</sup> Note: Students who plan to continue studies beyond the A.A.S. degree should substitute MATH 112 or 115 for MATH 111.

#### **EARLY CHILDHOOD DIRECTOR**

#### Certificate

This program prepares students to meet basic requirements to be an Early Childhood Care Director. DCFS requires two years of college credit in any area, with at least 18 hours in Early Childhood Education.

#### PROGRAM REQUIREMENTS

ED 101 Child Growth and Development (3)
ECED 102 Observation and Guidance of Children (3)
ECED 103 Health, Safety and Nutrition (3)

ECED 104 Introduction to Early Childhood Education (3) ECED 214 Administration of Early Childhood Education

Programs (3)

ECED 299 Early Childhood Education Internship (3)

Program Total: 18 credits

#### **EARLY CHILDHOOD TEACHER BASIC**

#### Certificate

This program prepares students to meet basic requirements for day care teacher approval. DCFS requires two years of college credit in any area including at least 6 hours in Early Childhood Education. Students completing this work are eligible for entry-level teaching in early childhood programs.

#### **PROGRAM REQUIREMENTS**

ED 101 Child Growth and Development (3)

ECED 104 Introduction to Early Childhood Education (3)

#### **Program Total: 6 credits**

DEGREES, CERTIFICATES, COURSES

#### **EDUCATION - PARAPROFESSIONAL**

Paraprofessional Educator (A.A.S.) 83
Paraprofessional Educator 84

#### PARAPROFESSIONAL EDUCATOR

#### A.A.S. Degree

The Paraprofessional Educator Associate in Applied Science Degree program is designed to prepare students to assist teachers in a variety of classroom settings, and to meet the standards for paraprofessional educators developed in response to the federal No Child Left Behind Act (NCLB). This curriculum is based on professional standards developed by the American Federation of Teachers, as well as the Paraprofessional Task Force convened by the Illinois State Board of Education (ISBE) and the Illinois Community College Board (ICCB).

This program is not for students planning to become regularly certified professional teachers in Illinois public schools!

Consult an advisor for more information.

#### I. GENERAL EDUCATION CORE (22)

#### Area A: Communication (9 credits)

ENG 101 Composition I - with a grade of C or better (3)

ENG 102 Composition II (3)

COMM 101 Principles of Communication (3)

#### Area B: Humanities and Fine Arts (3 credits)

Select one course from Area B on pages 42-44.

Strongly recommended courses include ART 131; HUMAN 101; ENG 215

Area C: Mathematics (demonstrated competence required)

#### Area D: Physical and Life Sciences (4 credits)

Select one IAI approved laboratory science course from the courses for Area D on pages 42-44. (4)

#### Area E: Social and Behavioral Science (6 credits)

PSYCH 101 Introduction to Psychology (3) required Select one additional course from Area E on pages 42-44. (3)

Strongly recommended courses include:

ANTHR 222 Introduction to Cultural and Social Anthropology (3)

HIST 112 World History: 1714 to Present (3)
HIST 115 African Civilizations I (3)

HIST 116 African Civilizations II (3)
HIST 140 History of Latin America (3)
HIST 201 U. S. History: 1492 to 1877 (3)
HIST 202 U.S. History: 1877 to Present (3)

POLSC 140 Introduction to U.S. Government & Politics (3) SOCIO 220 Race Relations: A Multicultural Perspective (3)

#### **II. PROGRAM REQUIREMENTS (28)**

ED 100 Introduction to Education (3)
ED 212 Exceptional Child (3)
ED 160 Technology for Teachers (3)
ED 220 Children's Literature (3)
EDU 105 Principles of Reading (3)

EDU III Mathematics for Paraprofessionals (3)

EDU 221 Clinical Experience (3)

Note: Students already working as aides should arrange for proficiency credit

for EDU 221

Select one course in child/human development from the following: ED 101 Child Growth and Development (3)

OR

PSYCH 102 Human Growth and Development: Life-Span (3)

(for students interested in secondary education)

Select one cultural awareness course from the following:

EDU 213 Multicultural Education (3)
OR

EDU 120 Child, Family and Community (3) Select one teaching strategies course from the following:

EDU 106 Art for Teachers (3)

EDU 205 Language Arts for Children (3)
EDU 215 Music and Movement for Children (3)
EDU 216 Teaching Mathematics to the Young Child (3)

#### III. ELECTIVES (12)

Select 12 credit hours from the following courses:

CJ 204 Juvenile Justice (3) ECED 103 Health, Safety and Nutrition (3)

ECED 104 Introduction to Early Childhood Education (3)

EDU 130 Classroom Management (3)

EDU 201 Sign Language I – Manual Communications I (3)

EDU 213 Multicultural Education (3)

OR

EDU 120 Child, Family and Community (3)
PSYCH 202 Educational Psychology (3)
PSYCH 203 Abnormal Psychology (3)
SOCIO 210 Marriage & the Family (3)

Any Physical or Life Science course from the list on pages 42-44. (3-4) Any Social/Behavioral Science course (non-Western or diversity emphasis) listed on pages 42-44. (3)

Any of the following courses required for elementary teacher certification:

HIST 201 U.S. History: 1492 to 1877 (3)
HIST 202 U.S. History: 1877 to Present (3)

POLSC 140 Introduction to U.S. Government & Politics (3) Other identified courses related to content specialization. Consult

with program coordinator.

#### **Program Total: 62 credits**

#### PARAPROFESSIONAL EDUCATOR

#### Certificate

The Paraprofessional Educator Certificate program provides a foundation of important skills and standards that prepare paraprofessionals to work in non-Title I programs. Professional Education core requirements are combined with general education and special emphasis electives. Paraprofessionals who possess college credits that, when combined with this certificate total 60 credit hours, meet requirements of NCLB and are eligible to work in Title I positions.

#### **PROGRAM REQUIREMENTS**

ENG 101 Composition I - with a grade of C or better (3)

ED 100 Introduction to Education (3) COMM 101 Principles of Communication (3)

Note: ENG 101 should be taken prior to or concurrently with ED 100. These two courses and COMM 101 should be completed prior to enrollment in remaining courses.

ED 212 Exceptional Child (3)
ED 160 Technology for Teachers (3)

Select one course in child/human development from the following:

ED 101 Child Growth and Development (3)

OR

PSYCH 102 Human Growth and Development: Life-Span (3)

(for students interested in secondary education)
ED 220 Children's Literature (3)
EDU 105 Principles of Reading (3)

EDU III Mathematics for Paraprofessionals (3)

SOCIO 101 Introduction to Sociology (3)

OR

SOCIO 210 Marriage and the Family (3)

Select one of the following courses:

CJ 204; ECED 104; HUMAN 101; PSYCH 202; SOCIO 101, 210 (3)

#### Program Total: 33 credits

CERTIFICATES COURSES

#### **EMERGENCY SERVICES**

	þage
Paramedicine (A.A.S.)	85
Emergency Medical Technician	85
Firefighter/EMT	(see page 87)
First Responder	85

#### **PARAMEDICINE**

#### A.A.S. Degree

This program prepares men and women for careers as advanced pre-hospital care providers, trained to administer care to clients who have experienced acute medical or trauma emergencies. As skilled health care providers, paramedics function independently in the field or under the guidance of standing medical orders. The program provides a combination of general education courses, core courses in paramedicine, and selected clinical and field experiences in hospitals and EMS departments. Upon successful completion, students will be eligible to write the National Registry licensing examination. No student will be permitted to write the licensing exam prior to completion of the Associate in Applied Science degree.

Prior to admission to the Paramedicine program, students must submit a Paramedicine Intent Form. The deadline for the intent form is June I of each year. To be eligible to enroll in the core paramedicine courses, students must have successfully completed the EMT-B course, passed the state licensing exam, presented documentation of a minimum of six months of field experience as an EMT-B and be "in good standing" with required continuing education credits. Students must also complete SRT 100 Medical Terminology, BIOL 221 Anatomy and Physiology I, and BIOL 222 Anatomy and Physiology II, all with a grade of C or better, before being eligible to enroll in EMS 200-level courses.

#### PROGRAM REQUIREMENTS

#### I. GENERAL EDUCATION CORE (24)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better (3)

COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits)

Any IAI General Education course.

Area C: Mathematics (4 credits)
MATH 151 College Algebra (4)

Area D: Physical and Life Sciences ( 8 credits)

BIOL 221 Anatomy and Physiology I (4)

BIOL 221 Anatomy and Physiology I (4)

Area E: Social and Behavioral Sciences (3 credits)

PSYCH 101 Introduction to Psychology (3)

## II. AREA OF CONCENTRATION/PROGRAM REQUIREMENTS (43)

EMS 101	Emergency	Medical	Tec	hnician	(7)	,
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SRT 100 Medical Terminology (2)

EMS 200 Paramedicine I (12)

EMS 205 Paramedicine: Field Practicum I (2)

EMS 210 Paramedicine: Hospital Practicum (2)

EMS 215 Paramedicine: Seminar I (1)

EMS 220 Paramedicine II (12)

EMS 225 Paramedicine: Field Practicum II (2)

EMS 230 Paramedicine: Leadership Practicum (2)

EMS 235 Paramedicine: Seminar II (1)

#### **EMERGENCY MEDICAL TECHNICIAN**

#### Certificate

The EMT program provides students with the knowledge and skill needed to handle the critically ill and injured in emergency room situations. Areas covered include cardiac arrests, fractures, injuries and childbirth. Students are prepared for the certification exam, which requires them to be at least 18 years of age. Students may obtain an information packet about prerequisite physical examination and immunizations from the Nursing Department at Prairie State College prior to the start of the course.

#### **PROGRAM REQUIREMENTS**

EMS 101 Emergency Medical Technician (7)

Program Total: 7 credits

#### FIREFIGHTER/EMT

(See Fire Science Technology)

#### **FIRST RESPONDER**

#### Certificat

This program trains citizens, fire fighters, police officers and others to respond to emergency situations in the home, community or workplace.

#### **PROGRAM REQUIREMENTS**

FRESP 101 First Responder (3)

**Program Total: 3 credits** 

FIRE SCIENCE

	þage
Fire Science Technology (A.A.S.)	86
Fire Science Technology	86
Firefighter II	86
Firefighter III	87
Firefighter/EMT	87

#### FIRE SCIENCE TECHNOLOGY

#### A.A.S. Degree

This curriculum prepares the student for employment as a volunteer, paid-on-call part-time or full-time municipal firefighter.

#### I. GENERAL EDUCATION CORE (19)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better (3)

COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits)

Select one course from Area A on pages 42-44.

Area C: Mathematics (3 credits)

MATH 112 General Education Mathematics (3)

OR

MATH 115 General Education Statistics (3)

#### Area D: Physical and Life Sciences (4 credits)

Select one course from:

BIOL 100 General Education Biology (4) BIOL 112 Organismal Biology (4)

CHEM 105 Survey of General Chemistry (4)

PHYSC III Physical Science (4) PHYSC II2 Earth Science (4) PHYSI I I 0 Conceptual Physics (4)

Area E: Social and Behavioral Sciences (3 credits)

PSYCH 101 Introduction to Psychology (3) required

#### II. AREA OF CONCENTRATION/PROGRAM **REQUIREMENTS (37)**

BUS 127 Business Communications (3)

Introduction to Fire Science Technology (3)

FST 102 Fire Prevention Principles I (3) Fire Tactics and Strategy I (3) FST 104

FST 105 Construction and Fire Systems (3)

FST 106 Hazardous Materials Operations (3)

FST 119 Firefighter II (7)

FST 202 Vehicle and Machinery Operations (3)

Fire Tactics and Strategy II (3) FST 204

FST 210 Fire Apparatus Engineer (3)

FST 212 Fire Service - Instructor I (3)

#### III. ELECTIVES (6)

Select from EMS 101; FST 201, 205, 207, 208, 209, 211, 213, 218, 219; FRESP 101; PHOTO 171 (6)

Program Total: 62 credits

#### FIRE SCIENCE TECHNOLOGY

#### Certificate

This curriculum prepares the student for employment as a volunteer, paid-on-call part-time or full-time firefighter.

#### PROGRAM REQUIREMENTS

FST 101 Introduction to Fire Technology (3) FST 102 Fire Prevention Principles I (3) FST 104 Fire Tactics & Strategy I (3) Construction & Fire Systems (3) FST 105 FST 106 Hazardous Materials Operations (3) FST 207 Fire Department Management I (3) Fire Department Management II (3) FST 208 FST 210 Fire Apparatus Engineer (3)

Program Total: 24 credits

#### FIREFIGHTER II

#### Certificate

This program is designed for students seeking employment in fire service by preparing them for the State Firefighter II certification exam. Students receive training in areas that include fire behavior, safety, fire control, communication, hazardous materials and fire prevention. Students demonstrate basic firefighter skills such as the use of ladders, hose, ropes and breathing apparatus in a supervised setting.

Students must complete FST 101 Introduction to Fire Science Technology with a grade of C or better, or document current affiliation with a fire department prior to admission to this program.

#### PROGRAM REQUIREMENTS

FST 119 Firefighter II (7)

Program Total: 7 credits

#### **FIREFIGHTER III**

#### Certificate

This program continues the study of fire department organization, fire behavior, safety issues and rescue techniques begun in Firefighter II. Students with valid Firefighter II certification prepare to challenge the State Fire Marshal Firefighter III and Rescue Awareness certification examinations.

Students must hold a current Illinois Firefighter II certification to qualify for admission to this program.

#### **PROGRAM REQUIREMENTS**

FST 120 Firefighter III (6)

Program Total: 6 credits

#### **FIREFIGHTER/EMT**

#### Certificate

The Firefighter/EMT certificate will provide the beginning student in the emergency response occupations with fundamental skills in basic fire fighting techniques and emergency medical care. Both areas have independent certification exams that must be successfully completed to obtain employment in the field.

#### **PROGRAM REQUIREMENTS**

EMS 101 Emergency Medical Technician (7) FST 119 Firefighter II (7)

Program Total: 14 credits

#### **FITNESS**

gе
88
88
88

#### FITNESS AND EXERCISE

#### A.A.S. Degree

Fitness and exercise students will be taught the skills needed to pursue professions in the fitness/exercise industry. Students in the fitness/exercise program will acquire an academic foundation in the fundamentals, principles of exercise and nutrition as well as an understanding of human anatomy and physiology. Practical skills will focus on the development of expertise in fitness assessment, creative health and fitness programming, biomechanically sound exercise techniques, training methodology, lifestyle change prescription, personalized exercise leadership, and business practices. In addition, courses in English, math, communication, exercise physiology, special populations and administration of an exercise facility will prepare the student to be a qualified fitness professional.

#### I. GENERAL EDUCATION CORE (16)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better (3)

COMM 101 Principles of Communication (3)

Area B: Humanities (3 credits)

Select one course from Area B on pages 42-44. (3)

**Area C: Mathematics** (demonstrated competence required)

Placement into MATH 095 or completion of MATH 090 - with  $\it C$  or better

Area D: Physical and Life Sciences (4 credits)

BIOL III Cellular and Molecular Biology (4) required

Area E: Social and Behavioral Sciences (3 credits)

PSYCH 101 Introduction to Psychology (3) required

#### **II. PROGRAM REQUIREMENTS (47)**

BIOL 108\* Essentials of Anatomy and Physiology (4)

Note: Completion of BIOL 221 and 222, Anatomy and Physiology I and II with a grade of C or better will be accepted in place of BIOL 108.

BUS 101 Introduction to Modern Business (3)

COL 104 Leadership Development (2)

FRESP 101 First Responder (3)

HLTH 101 Health and Wellness (2)

PE 215 Group Fitness Instructor Training (3)

PE 220 Fitness Assessment/Program Design (3)
PE 225 Weight Training: Theory and Application

PE 225 Weight Training: Theory and Application (2) PE 230 Nutrition for Sports and Exercise (3)

PE 235 Athletic Training Techniques (3)

PE 250 Introduction to Biomechanics (3)

PE 255 Special Populations (3)

PE 260 Fitness/Exercise Facility Management (3)

PE 265 Physiology of Exercise (3)

PE 298 Internship Seminar (I)

PE 299 Internship (3)

PSYCH 212Theories of Personality (3)

#### III. ELECTIVES (2)

Select two of the following group exercise courses: PE 105, 106, 107, 108 (1)

#### Program Total: 65 credits

#### **GROUP FITNESS INSTRUCTOR**

#### Certificate

Group Fitness Instructor prepares students to provide group instruction in fitness. Students acquire basic knowledge of anatomy and physiology and nutrition as it relates to weight management. They are trained in first aid, CPR, and AED, and learn to motivate students using a full range of instructional strategies.

#### PROGRAM REQUIREMENTS

BIOL 108 Essentials of Anatomy & Physiology (4)

FRESP 101 First Responder (3)

PE 215 Group Fitness Instructor Training (3)

PE 230 Nutrition for Sports & Exercise (3)

Select one course from:

PE 105, 106, 107 or 108 Aerobics I-IV (I)

#### **Program Total: 14 credits**

#### **PERSONAL TRAINER**

#### Certificate

Personal Trainers will acquire an academic foundation in the fundamental principles of exercise and nutrition, and a basic understanding of human anatomy and physiology. Practical skill training will focus on the development of expertise in fitness assessment, creative health and fitness programming, biomechanically sound exercise techniques, training methodology, lifestyle change prescription, personalized exercise leadership and business practices.

#### **PROGRAM REQUIREMENTS**

BIOL 108 Essentials of Anatomy and Physiology (4)

BUS 101 Introduction to Modern Business (3)

COL 104 Leadership Development (2)

FRESP 101 First Responder (3)

HLTH 101 Health and Wellness (2)

PE 215 Group Fitness Instructor Training (3)

PE 220 Fitness Assessment/Program Design (3)

PE 225 Weight Training: Theory and Application (2)

PE 230 Nutrition for Sports and Exercise (3)

PE 235 Athletic Training Techniques (3)
PE 250 Introduction to Biomechanics (3)

PE 250 Introduction to Biomechanics (3)

PE 298 Internship Seminar (I)

PE 299 Internship for Personal Trainers (3)

#### **GRAPHIC COMMUNICATIONS**

	þage
Graphic Communications (A.A.S.)	89
Digital Design	89
E-Business	(see page 99)
Interactive Design	89

#### **GRAPHIC COMMUNICATIONS**

#### A.A.S. Degree

This visual communication program prepares students for entrylevel positions as digital designers and illustrators in the graphics publishing and multimedia industry. Students may choose to emphasize digital design, illustration or interactive design.

#### I. GENERAL EDUCATION CORE (15-16)

#### Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better. (3)

COMM 101 Principles of Communication

#### Area B: Humanities and Fine Arts (3 credits)

ART 131 Survey of Non-Western Art (3) recommended or Select one course from Area B on pages 42-44. (3)

Area C: Mathematics (demonstrated competence required)

Placement into MATH 095 or completion of MATH 090 - with C or better

#### Area D: Physical and Life Sciences (3-4 credits)

Select one course from Area D on pages 42-44. (3-4)

#### Area E: Social and Behavioral Science (3 credits)

Select one course from Area E on pages 42-44. (3)

#### **II. PROGRAM REQUIREMENTS (35-37)**

ART 101 Two Dimensional Design (3)

ART 102 Three Dimensional Design (3)

ART 104 Drawing I (3)

ART 106 Drawing II (3)

ART 115 Introduction to Computer Art (3)

ART 121 History of Western Art I (3)

ART 122 History of Western Art II (3)

GC 151 Introduction to Graphic Design (3)

GC 299 Internship/Seminar (3)

OR

ART 295 Portfolio Seminar (3)

Select one Option for Specialization from the list below: (9)

#### Option A:

#### **DIGITAL DESIGN (9 hrs)**

GC 160 Design for Publishing (3)

GC 287 Professional Design (3)

ART 205 Printmaking (3)

#### Option B:

#### **ILLUSTRATION (9 hrs)**

GC 171 Illustration I (3)

ART 162 Life Drawing (3)

ART 201 Painting I (3)

#### Option C:

#### **INTERACTIVE DESIGN SPECIALIZATION (9 hrs)**

GC 162 Introduction to Web Site Development (3)

GC 262 Flash/Interface Design (3)

GC 265 Interactive Design Project (3)

#### III. ELECTIVES (9)

Select 9 credits from ART, GC and/or PHOTO courses. Recommended electives for the Interactive Design Option include:

GC 175 Animation Techniques (2)

GC 182 Digital Video (2)

GC 185 Digital Sound (2)

#### **Program Total: 60 credits**

#### **DIGITAL DESIGN**

#### Certificate

This program provides a foundation in design and computer art and experience with specialized software and techniques required to work in the field of digital design. Students are prepared for entry-level or free-lance work in electronic and print media.

#### **PROGRAM REQUIREMENTS:**

ART 115 Introduction to Computer Art (3)

ART 205 Printmaking (3)

GC 151 Introduction to Graphic Design (3)

GC 160 Design for Publishing (3)

GC 287 Professional Design (3)

#### **Program Total: 15 credits**

#### **E-BUSINESS**

(See Information Technology)

#### INTERACTIVE DESIGN

#### Certificate

This program provides a foundation in design and computer art and experience with specialized software and techniques required to work in the field of interactive design. Students are prepared for entry-level or free-lance work in interactive design.

#### **PROGRAM REQUIREMENTS:**

ART 115 Introduction to Computer Art (3)

GC 151 Introduction to Graphic Design (3)

GC 162 Introduction to Web Site Development (3)

GC 262 Flash/Interface Design (3)

GC 265 nteractive Design Project (3)

#### Program Total: 15 credits

#### **HEALTH PROFESSIONS**

	þage
Dental Hygiene (A.A.S.)	90
Nursing (A.A.S.)	90
Advanced Bedside Care Provider	91
CNA/Nurse Assistant	91
R.N. First Surgical Assistant	91
Surgical Technology	91

#### **DENTAL HYGIENE**

#### A.A.S. Degree

This program prepares students for careers in dental hygiene. It combines courses in general education, basic science, dental science and clinical science with learning experiences in the Dental Hygiene Clinic. Graduates of this program are eligible to sit for the state and regional licensing examinations. Courses must be completed in sequence. Those who desire part-time college enrollment may enroll only in the general education courses prior to applying for entry into the Dental Hygiene program.

PLEASE NOTE: This program begins during Summer sessions only and has special admissions requirements! Contact the Office of Admissions and Records to obtain a copy of the Dental Hygiene Information Booklet.

#### I. GENERAL EDUCATION CORE (19)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better (3)

COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits)

Select one course from Area B on pages 42-44. (3)

Area C: Mathematics (demonstrated competence required)

Placement into MATH 095 or completion of MATH 090 - with  $\it C$  or better

Area D: Physical and Life Sciences (4 credits)
CHEM 105 Survey of General Chemistry (4)
Area E: Social and Behavioral Sciences (6 credits)
PSYCH 101 Introduction to Psychology (3)
SOCIO 101 Introduction to Sociology (3)

## II. AREA OF CONCENTRATION/PROGRAM REQUIREMENTS (64)

BIOL 211 Microbiology (4)

BIOL 221 Human Anatomy and Physiology I (4)

BIOL 222 Human Anatomy and Physiology II (4)

DH 101 Histology (2)

DH 103 Head & Neck Anatomy and Tooth Morphology (5)

DH 104 Dental Radiology (4)

DH 105 Nutrition (2)

DH 106 General and Oral Pathology (2)

DH 107 Fundamentals of Dental Hygiene (2)

DH 108 Clinical Dental Hygiene I (4)

DH 109 Clinical Dental Hygiene II (4)

DH II6 Periodontology (2)

DH 120 Care of Special Populations (2)

DH 201 Clinical Dental Hygiene III (3)

DH 202 Clinical Dental Hygiene IV (5)

DH 203 Clinical Dental Hygiene V (5)

DH 204 Ethics, Law and Administration (2)

DH 205 Pharmacology (2)

DH 207 The Science and Application of Dental Material (4)

DH 220 Community Dental Health (2)

#### **Program Total: 83 credits**

#### **NURSING**

#### A.A.S. Degree

This program prepares men and women for careers in nursing. The program combines courses in general and nursing education with selected learning experiences in hospitals and health agencies. Students will be required to perform at a predetermined satisfactory level on a nationally normed comprehensive exit exam at the conclusion of the program. Graduates of the Associate in Applied Science degree program may apply to take the NCLEX-RN examination for licensure as a registered nurse.

PLEASE NOTE: This program has special admissions requirements! Contact the Office of Admissions and Records to obtain a copy of the Nursing Information Booklet. (starts Fall only)

Prior to admission to the Nursing program, students must complete NURS 100 Nurse Assistant Training (7) with a grade of C or better or demonstrate current status on the Illinois Certified Nurse Assistant (CNA) Registry. Credit earned for NURS 100 is not included in the 66 credit hours required for the Nursing A.A.S. degree.

Students must also complete BIOL 221 Human Anatomy and Physiology I (4) with a grade of C or better prior to admission to the Nursing program.

Credit earned for BIOL 221 is included in the 66 credit hours required.

Students are encouraged to complete as many general education courses as possible before enrolling in the Nursing Core Courses listed below in Section II.

#### LPN Bridge Program

LPNs who are seeking the A.A.S. in Nursing degree should consult with the Nursing Advisor in the Admissions Office for information on bridging options.

#### I. GENERAL EDUCATION CORE (22)

Area A: Communication (9 credits)

ENG 101 Composition I - with a grade of C or better (3)

ENG 102 Composition II (3)

COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits)

Select one course from Area B on pages 42-44. (3)

Area C: Mathematics (demonstrated competence required)

Placement into MATH 095 or completion of MATH 090 - with C or better

Area D: Physical and Life Sciences (4 credits)

BIOL 221 Human Anatomy and Physiology I (4)

Area E: Social and Behavioral Sciences (6 credits)

PSYCH 101 Introduction to Psychology (3)

PSYCH 102 Human Growth & Development: Life-Span (3)

## II. AREA OF CONCENTRATION/PROGRAM REQUIREMENTS (44)

BIOL 211 Microbiology (4)

BIOL 222 Human Anatomy and Physiology II (4)

NURS 101 Basic Care Needs (6)

NURS 102 Acute Care Needs (7)

Continued

#### **NURSING**

#### Continued

NURS 111 Nursing as a Profession (I)
NURS 201 Family Care Needs (II)
NURS 202 Advanced Care Needs (II)

NURS 211 Preparation for Professional Nursing (2)

#### III. ELECTIVES (0)

There are no electives in this program.

Program Total: 66 credits

#### ADVANCED BEDSIDE CARE PROVIDER

#### Certificate

This certificate program will provide students with theoretical background and psychomotor skills needed to provide basic bedside care. CNA competencies are enhanced by instruction in communication strategies and human behavior. This will prepare the bedside care provider to improve his/her ability to interact with clients, families and other members of the health care team.

Note: Students must be actively listed in the State of Illinois CNA Registry in order to complete this certificate. Students currently listed in the State of Illinois CNA Registry may qualify for proficiency credit for NURS 100. Contact the Dean of Health Professions for information.

#### **PROGRAM REQUIREMENTS**

COMM 101 Principles of Communication (3) NURS 100 Nurse Assistant Training (7) PSYCH 101 Introduction to Psychology (3)

**Program Total: 13 credits** 

#### **CNA/NURSE ASSISTANT**

#### Certificate

The Nursing Assistant Training Program has been designed to provide students with the skills necessary to give basic patient care in a nursing home or hospital. The course includes instruction in basic nursing care such as bed baths, moving and lifting, enemas, and other techniques. Students will receive practice in a lab setting and in a nursing home. Successful completion of this program qualifies the student for the Illinois Basic Nursing Assistant Certificate and to take the state approved Competency Examination.

#### **PROGRAM REQUIREMENTS:**

NURS 100 Nurse Assistant Training\* (7)

#### **Program Total: 7 credits**

\* Along with regular lectures, students will have clinicals in some local facilities such as long-term care facilities, where they will perform basic nursing care under the guidance of a registered nurse.

#### **R.N. FIRST SURGICAL ASSISTANT**

#### Certificate

This program is designed for employed registered nurses with a minimum of four years' current acute care setting operating room experience. It provides further training to enable nurses to competently assist the surgeon during surgical procedures requiring an assistant.

#### **PROGRAM REQUIREMENTS**

RN 100 R.N. First Assistant (3)

RN 101 R.N. First Assistant Internship (3)

Program Total: 6 credits

#### SURGICAL TECHNOLOGY

#### Certificate

PLEASE NOTE: This program has special admissions requirements! Contact the Office of Admissions and Records to obtain a copy of the Surgical Technologist Application Procedures Booklet.

This program prepares students to work as surgical technologists in the operating room, labor and delivery, ambulatory surgical care centers, cardiac catheterization laboratories, physician's offices or central supply units. Surgical technologists work under medical supervision to facilitate safe and effective conduct of invasive surgical procedures and to optimize patient safety by ensuring that operating rooms are safe and equipment functions properly. This program meets nationally established standards for Surgical Technology. It has been approved by the Commission on Accreditation of Allied Health Programs (CAAHEP). Graduates may sit for the Surgical Technologist national certification exam administered by the Liaison Council on Certification for the Surgical Technologist (LCCSI).

This program begins only in the Fall Semester and takes one year to complete. It is essentially a 40-hour per week day-time program which includes both classes and clinical labs. Clinicals will be held in hospital operating rooms with students working with a preceptor. Students must have their own transportation to travel to a hospital site within a 45-mile radius. Upon completion of the program, students will take the certification examination administered by the Liaison Council on Certification for the Surgical Technologies (LCCST) to become a Certified Surgical Technologist (CST).

#### PROGRAM REQUIREMENTS

(All courses must be completed with a C grade or better) BIOL 115 Microbiology for Surgical Technologists (4) COL 100 Computing for College Success (1) HLTH 102 Workplace Issues for Allied Health (1) SRT 102 Patient Care I (2) SRT 103 Patient Care II (1) SRT IIO Introduction to Surgical Technology (7) Surgical Procedures I (3) SRT 120 SRT 122 Applied Surgical Procedures I SRT 130 Surgical Procedures II (2) SRT 132 Applied Surgical Procedures II (3) SRT 140 Surgical Procedures III (3) SRT 142 Applied Surgical Procedures III (3)

Surgical Technology Seminar (1)
Applied Surgical Procedures IV (3)

**Program Total: 37 credits** 

SRT 298

#### **INDUSTRIAL TECHNOLOGY**

	page		page
CNC Programmer/Operator	92	Manufacturing Technology	95
Heating, Ventilation, Air Conditioning and Refrigeration	92	Millwright - Apprentice	95
Hydraulics - Apprentice	92	Tool & Die Making (A.A.S.) - Apprentice	95
Industrial Electrician (A.A.S.) - Apprentice	93	Tool & Die Making - Apprentice	96
Industrial Electrician - Apprentice	93	Welder - Apprentice	96
Industrial Maintenance Technician	93	Welding Specialist	96
Machinist - Apprentice	94		
Manufacturing Technology (A.A.S.)	94		

#### **CNC PROGRAMMER/OPERATOR**

#### Certificate

This program is designed to prepare people to be CNC Programmers/Operators. The curriculum emphasizes programming and operation of both milling and turning CNC equipment. Additionally, the student will receive instruction in these important related areas: machine tool operation and applications, mathematics and drafting/CAD.

#### **PROGRAM REQUIREMENTS**

Introduction to AutoCAD (3)
Metal Working Processes I (3)
Metal Working Processes II (3)
CNC Programming I (3)
CNC Programming II (3)
CAD/CAM Systems (3)
Technical Mathematics I (4)
Technical Mathematics II (4)
CADMD 244, 245; MT 212, 215 (6)

#### Program Total: 32 credits

# HEATING, VENTILATION, AIR-CONDITIONING & REFRIGERATION

#### Certificate

This program prepares heating and cooling technicians to work on systems that control the temperature, humidity and air quality of enclosed environments. Students learn to assemble, install, maintain and service climate control equipment. Typical entry-level positions include service technicians, new installation technicians and sales positions.

#### **PROGRAM REQUIREMENTS**

AMATH 100	Basic Math for the Skilled Trades (2)
HVACR 101	Fundamentals of Refrigeration (2)
HVACR 102	Advanced Refrigeration (2)
HVACR 103	Air Conditioning (2)
HVACR 104	Advanced Air Conditioning (2)
HVACR 105	Heating System Applications (2)
HVACR 107	Electrical Control Applications (2)
HVACR 108	Advanced Controls (2)
HVACR 109	Installation & Service of HVACR Systems (2)
HVACR II0	Troubleshooting HVACR Systems (2)
HVACR 112	Sheet Metal Layout and Fabrication (2)
Electives: Select from	n APPW 101; HVACR 114; or courses chosen with
Coordinator's conser	nt. (4)

#### **Program Total: 26 credits**

#### **HYDRAULICS - APPRENTICE**

#### Certificate

This program is designed for apprentices who are working on machines in industry that have fluid control devices. After completing this training, the apprentice is qualified for a journey-man's rating.

#### **PROGRAM REQUIREMENTS**

AMATH 100	Basic Math for the Skilled Trades (2)
AMATH 101	Algebra for the Skilled Trades (2)
AMATH 103	Geometry for the Skilled Trades (2)
AMATH 106	Applied Trigonometry for the Skilled Trades (2)
APPH 101	Fundamental of Hydraulics (2)
APPH 102	Hydraulic Pumps (2)
APPH 103	Hydraulic Controls (2)
APPH 104	Basic Hydraulic Circuits (2)
APPH 106	Pneumatics (2)
APPH 107	Hydraulic Pneumatic Laboratory (2)
APPD 101	Drafting Essentials (2)
APPD 102	Drafting Conventions and Symbols (2)
APPIE 170	Electricity Non-Electrical Trades (2)
APPPF 101	Fundamentals of Plumbing (2)
APHYS 100	Applied Physics (2)
Select from AMATH	107;APPIE 100;APPMW 101 (6)

#### **Program Total: 36 credits**

#### **INDUSTRIAL ELECTRICIAN -APPRENTICE**

#### A.A.S. Degree

The industrial electrician degree program prepares students for work as electricians in industry. To meet the demands of changing technology, training encompasses electronics as well as electrician skills. Students pursing the A.A.S. degree on a fulltime schedule will be prepared for entry-level positions as industrial electricians. Because this training has been approved by the United States Bureau of Apprenticeship Training, students who are already employed in the field will qualify for a journeyman's card upon completion.

#### I. GENERAL EDUCATION CORE (17-18)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better. (3)

COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits)

Select one course from Area B on pages 42-44. (3)

Area C: Mathematics (2)

AMATH 101 Algebra for the Skilled Trades (2)

Area D: Physical and Life Sciences (3-4 credits)

Select one course from Area D on pages 42-44. (3-4)

Area E: Social and Behavioral Science (3 credits)

Select one course from Area E on pages 42-44. (3)

#### **II. PROGRAM REQUIREMENTS (37)**

APPIE 100	Electric Wiring I (2)
APPIE 101	Fundamentals of Electricity I (2)
APPIE 102	Fundamentals of Electricity II (2)
APPIE 103	Alternating Current I (2)
APPIE 105	Power, Transformers, Polyphase Circuits (2)
APPIE 106	DC Motors and Generators (2)
APPIE 107	AC Motors and Generators (2)
APPIE 108	Electrical Control for Machines I (2)
APPIE 109	Electric Control for Machines II (2)
APPIE III	Electronic Principles I (2)
APPIE I I 2	Electronic Principles II (2)
APPIE I I 3	Blueprint Reading for Electricians (2)
APPIE I I 4	National Electrical Code (2)
APPIE 203	Industrial Electronics I (2)
APPIE 204	Industrial Electronics II (2)
APPIE 208	Programmable Logic Controllers I (2)
APPIE 209	Programmable Logic Controllers II (2)
*APPIE 220	Programmable Logic Controllers (4)
may be taken in place	of APPIE 208 & 209.
APPIE 298	Electrical Seminar (1)

#### III. ELECTIVES (10)

APPIE 299

Select from APPIE 104, 110, 120, 141,142, 150, 160, 201, 202, 206, 207, 210, 290; APPMT 120; HVACR 107, 108; MT 212; TECH 109, 110, 221 (10)

Electrical Internship (2)

#### Program Total: 64-65 credits

#### **INDUSTRIAL ELECTRICIAN -APPRENTICE**

#### Certificate

Industrial Electricians are prepared to troubleshoot and maintain electrical devices used in a manufacturing industry; install electrical machines and wiring; and wire electrical panels.

#### **PROGRAM REQUIREMENTS**

AMATH 101	Algebra for the Skilled Trades (2)
APPIE 100	Electric Wiring I (2)
APPIE 101	Fundamentals of Electricity I (2)
APPIE 103	Alternating Current I (2)
APPIE 106	DC Motors and Generators (2)
APPIE 107	AC Motors and Generators (2)
APPIE 108	Electrical Control for Machines I (2)
APPIE 109	Electric Control for Machines II (2)
APPIE 113	Blueprint Reading for Electricians (2)
APPIE I I 4	National Electrical Code (2)
APPIE 203	Industrial Electronics I (2)
APPIE 204	Industrial Electronics II (2)
APPIE 298	Electrical Seminar (1)
APPIE 299	Electrical Internship (2)
Select from APPIE 10	2, 104, 105, 110, 111, 112, 120, 141, 142, 150, 160,
200, 201, 202, 206, 20	7, 208, 209, 210, 220, 290; APPMT 120; TECH 109,
110, 221 (8)	

#### Program Total: 35 credits

#### INDUSTRIAL MAINTENANCE **TECHNICIAN**

#### Certificate

This program will allow apprentices to be trained for a company's individual workplace needs. The student will complete a core program and then focus in one or several technical areas.

#### **PROGRAM REQUIREMENTS**

AMATH 100	Basic Mathematics for the Skilled Trades	(2)
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AMATH 101 Algebra for the Skilled Trades (2)

APPIF 100 Electric Wiring I (2)

APPMW 101 Industrial Maintenance Techniques I (2)

APPPF 101 Fundamentals of Plumbing (2) Principles of Flat Welding (2) APPW 101

Select one drafting or blueprint reading course from the following:

APPD 101, 102, 115; APPIE 113; CADMD 141 (2-3)

Select one OSHA mandated safety elective from APPIE 120 or APPMT

Select technical courses from the following areas: (18) HVACR 101, 102, 104, 105, 107, 108, 109 (Air Conditioning)

(Apprentice Math) AMATH 103, 106, 107, 108, 110

(Business) BUS 109, 242

APPD 101, 102, 105; CADMD 141 (Drafting)

(Hydraulics) APPH 101, 103, 106

(Industrial Electricity) APPIE 101, 102, 103, 104, 105, 106,

107, 109, 110, 111, 112, 113, 114, 120, 150, 200, 201, 202, 203, 204, 206, 207,

208, 209 210, 298, 299

(Information Technology)

ITAPP 101

(Manufacturing Technology) MT 101, 102, 206

APPMW 102, 103, 105, 106, 107, 108

(Millwright) (Applied Physics) APHYS 100

(Plumbing/Pipefitting) APPPF 101, 102, 103, 104

APPW 101, 102, 103, 104, 105 (Welding)

#### Program Total: 34-35 credits

**MACHINIST - APPRENTICE** 

#### Certificate

This program prepares apprentices to enter the machinist craftsmen field. The apprentice training allows them to custom build metal devices in both a job shop or a manufacturing establishment.

#### **PROGRAM REQUIREMENTS**

APPD 103	Three Dimensional Shapes (2)
APPD 104	Advanced Drafting Techniques (2)
AMATH 100	Basic Math for the Skilled Trades (2)
AMATH 101	Algebra for the Skilled Trades (2)
AMATH 103	Geometry for the Skilled Trades (2)
AMATH 106	Applied Trigonometry for the Skilled Trades (2)
AMATH 107	Trigonometry and Shop Applications for Skilled

Trades (2)
CADMD 141 Technical Drafting I (3)
MT 101 Metal Working Processes I (3)
MT 102 Metal Working Processes II (3)
MT 105 Metal Working Processes III (3)

MT 206 Metallurgy (3)

Select from AMATH 108, 110; APPD 115; APPH 101; APPIE 170; APPTD

108; APPW 101; PHYSI 100 (6)

#### Program Total: 35 credits

#### MANUFACTURING TECHNOLOGY

#### A.A.S. Degree

This program prepares personnel for a wide range of manufacturing related occupations. These include machine operator, machinist, CNC operator, CNC programmer and robotics programmer. Coursework includes basic machine shop operations and processes, CNC machine operation and programming, CAD/CAM fundamentals, robotics and automated manufacturing applications. This program prepares technicians to operate, program, design and install manufacturing, assembly and materials handling equipment. Students who wish to pursue a bachelor's degree in this program should consult an enrollment advisor regarding transfer information.

#### I. GENERAL EDUCATION CORE (20)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better (3)

COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits)

Select one course from the list for Area B on pages 42-44. (3)

Area C: Mathematics (4 credits)

TECH 109 Technical Mathematics I (4) required

Area D: Physical and Life Sciences (4 credits)

TECH 221 Technical Physics I (4) required

Area E: Social and Behavioral Sciences (3 credits)

Select one course from the list for Area E on pages 42-44. (3)

## II. AREA OF CONCENTRATION/PROGRAM REQUIREMENTS (39)

CADMD 141	Technical Drafting I (3)
CADMD 243	Introduction to Auto-CAD (3)
MT 101	Metal Working Processes I (3)
MT 102	Metal Working Processes II (3)
MT 105	Metal Working Processes III (3)
MT 210	CNC Programming I (3)
MT 211	CNC Programming II (3)
MT 212	Introduction to Robotics (3)
MT 214	CAD/CAM Systems (3)
MT 215	Manufacturing Systems (4)
TECH II0	Technical Mathematics II (4)
TECH 222	Technical Physics II (4)

#### III. ELECTIVES (2)

Select from APPW 101; APPH 101; CADMD 244 (2)

Program Total: 61 credits

#### MANUFACTURING TECHNOLOGY

#### Certificate

This certificate program is designed for individuals who do not seek the associate degree, yet still want the technical skills and knowledge necessary for successful employment in the field of manufacturing. The curriculum provides instruction for such occupations as machine operator, machinist and CNC operator.

#### **PROGRAM REQUIREMENTS**

CADMD 14	I Technical Drafting I (3)
MT 101	Metal Working Processes I (3)
MT 102	Metal Working Processes II (3)
MT 210	CNC Programming I (3)
MT 212	Introduction to Robotics (3)
TECH 109	Technical Mathematics (4)
Salact from	ΔΡΡΗ ΙΠΙ-ΔΡΡΙΕ ΙΠ3-ΔΡΡΙΛ/ ΙΠΙ- CΔDMD 243 244

Select from APPH 101; APPIE 103; APPW 101; CADMD 243, 244; CET 103; MT 206, 211, 214, 215 (12)

#### Program Total: 31 credits

#### **MILLWRIGHT - APPRENTICE**

#### Certificate

This program trains apprentices to move and install various metal-working machines according to a firm's management requests. Millwrights are high-skilled workers trained to dismantle, operate, repair, or lubricate industrial machinery. They are skilled in the use of basic tools and machinery and can read blueprints and schematic designs.

#### PROGRAM REQUIREMENTS

PROGRAM REQUIREMENTS				
AMATH 100	Basic Mathematics for the Skilled Trades (2)			
AMATH 101	Algebra for the Skilled Trades (2)			
APPD 101	Drafting Essentials (2)			
APPD 102	Drafting Conventions & Symbols (2)			
APPH 101	Fundamentals of Hydraulics (2)			
APPMW 101	Industrial Maintenance Techniques I (2)			
APPMW 102	Industrial Maintenance Techniques II (2)			
APPMW 103	Lubrication (2)			
APPMW 105	Rigging (2)			
APPMW 106	Power Train Elements (2)			
APPMW 107	Machine Vibration Analysis I (2)			
APPW 101	Principles of Flat Welding (2)			
MT 206	Metallurgy (3)			
PHYSI 100	Physics Mechanics (2)			
Select from AMATH	103, 106; APPD 105, 113, 115, 116, 122; APPIE 170;			

#### Program Total: 35 credits

APPMW 104, 108; APPPF 101; APPW 102 (6)

#### **TOOL AND DIE MAKING - APPRENTICE**

#### A.A.S. Degree

The Tool and Die Making curriculum meets the standards of the United States Bureau of Apprenticeship which requires a minimum of 144 contact hours of related classroom instruction per year for an apprenticeship. The program is coordinated with area firms.

#### I. GENERAL EDUCATION CORE (19-20)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better (3) COMM 101 Principles of Communication (3) Area B: Humanities and Fine Arts (3 credits)

Select one course from Area B on pages 42-44. (3)

Area C: Mathematics (4)

AMATH 100 Basic Math for the Skilled Trades (2)
AMATH 101 Algebra for the Skilled Trades (2)
Area D: Physical and Life Sciences (3-4 credits)
Select one course from Area D on pages 42-44.

Area E: Social and Behavioral Sciences (3 credits)

Select one course from Area E on pages 42-44. (3)

## II. AREA OF CONCENTRATION/PROGRAM REQUIREMENTS (38)

AMAIH 103	Geometry for the Skilled Irades (2)
AMATH 106	Applied Trigonometry for the Skilled Trades (2)
AMATH 107	Trigonometry & Shop Applications for the Skilled
	Trades (2)
AMATH 108	Compound Angles for the Skilled Trades (2)
AMATH II0	Gearing & Cams for the Skilled Trades (2)
APPD 105	Design Applications for Mechanical Trades (2)
APPH 101	Fundamentals of Hydraulics (2)
APPH 106	Pneumatics (2)
APPTD 101	Tool and Dies Processes (2)
APPTD 102	Tool and Die Maintenance (2)
CADMD 141	Technical Drafting I (3)
CADMD 243	Introduction to Auto-CAD (3)
MT 101	Metal Working Processes I (3)
MT 102	Metal Working Processes II (3)
MT 105	Metal Working Processes III (3)
MT 206	Metallurgy (3)

#### III. ELECTIVES (6)

Select from APPIE 120, 170; APPMW 101; APPW101; ITAPP 101 (6)

#### **Program Total: 63-64 credits**

### **TOOL AND DIE MAKING - APPRENTICE**

#### Certificate

This curriculum prepares apprentices to reconstruct and rebuild dies, maintain old dies, replace punches and redress, make adjustments on draw dies, redress and keep equipment to quality performance while in production.

#### **PROGRAM REQUIREMENTS**

AMATH 100	Basic Math for the Skilled Trades (2)
AMATH 101	Algebra for the Skilled Trades (2)
AMATH 103	Geometry for the Skilled Trades (2)
AMATH 106	Applied Trigonometry for the Skilled Trades (2)
AMATH 107	Trigonometry and Shop Applications for the
	Skilled Trades (2)
APPD 105	Design Applications for Mechanical Trades (2)
APPH 101	Fundamentals of Hydraulics (2)
APPH 106	Pneumatics (2)
APPTD 101	Tool and Die Processes (2)
APPTD 102	Tool and Die Maintenance (2)
CADMD 141	Technical Drafting I (3)
CADMD 243	Introduction to Auto-CAD (3)
MT 101	Metal Working Processes I (3)
MT 102	Metal Working Processes II (3)
MT 105	Metal Working Processes III (3)
MT 206	Metallurgy (3)

Program Total: 38 credits

#### **WELDER - APPRENTICE**

#### Certificate

The curriculum prepares apprentices to perform various welding jobs for maintenance manufacturing machines. The training also prepares the student to custom build devices by working from machine drawings and specifications.

#### **PROGRAM REQUIREMENTS**

APPD 101	Drafting Essentials (2)			
APPD 102	Drafting Conventions & Symbols (2)			
APPD 103	Three Dimensional Shapes (2)			
AMATH 100	Basic Mathematics for the Skilled Trades (2)			
AMATH 101	Algebra for the Skilled Trades (2)			
AMATH 103	Geometry for the Skilled Trades (2)			
AMATH 106	Applied Trigonometry for the Skilled Trades (2)			
APPW 101	Principles of Flat Welding (2)			
APPW 102	Horizontal and Vertical Welding (2)			
APPW 103	Inert and Specialty Welding (2)			
APPW 104	Resistance and Specialty Welding (2)			
APPW 105	A.W.S. Structural Certification (2)			
APHYS 100	Applied Physics (2)			
Select 8 credits from the following courses: APPD 116; APPH 101;				
APPPF 103; APPW 106, 201, 202; MT 101 (8)				

Program Total: 34 credits

#### **WELDING SPECIALIST**

#### Certificate

This certificate program is designed to concentrate on welding skills utilizing processes that are most widely employed in business and industry. The welding proficiency and knowledge gained in this program supplement most skilled construction trades.

#### PROGRAM REQUIREMENTS

AMATH 100	Basic Mathematics for the Skilled Trades (2)
APPD 101	Drafting Essentials (2)
APPW 101	Principles of Flat Welding (2)
APPW 102	Horizontal and Vertical Welding (2)
APPW 103	Inert and Specialty Welding (2)
APPW 104	Resistance and Specialty Welding (2)
APPW 105	A.W.S. Structural Certification (2)
APPW 106	Pipe and Pressure Vessel Certification (2)
APPW 201	Advanced Gas Metal Arc Welding (2)
APPW 202	Advanced Gas Tungsten Arc Welding (2)

Program Total: 20 credits

#### **INFORMATION TECHNOLOGY**

	þаge		þage
Computer Electronics Technology (A.A.S.)	(see page 79)	Office Assistant	100
Computer Electronics Technician	(see page 79)	Office Support	100
Information Technology (A.A.S.)	`	Programming	100
Administrative Assistant Option	97	Software Specialist	100
Networking Option	97	Software Suite Applications	100
Programming Option	98	Software Technician	101
Software Application Option	98	Software User	101
Webmaster Option	98	Spreadsheet - Proficient	101
Computer Repair Specialist	99	Spreadsheet - Expert	101
Database Expert	99	Web Developer	101
Desktop Publishing	99	Webmaster	101
E-Business	99	Word Processing - Proficient	102
Networking Specialist	100	Word Processing - Expert	102

#### INFORMATION TECHNOLOGY

#### A.A.S. Degree

This program prepares students for the rapidly changing world of computers, computer applications and the office environment. After completing introductory courses, students may choose one of the following options: administrative assistant, networking, programming, software applications or Webmaster. Career opportunities vary according to the option selected.

## INFORMATION TECHNOLOGY: ADMINISTRATIVE ASSISTANT OPTION

#### I. GENERAL EDUCATION CORE (18-19)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C of better (3)

COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits)

Select one course from Area B on pages 42-44. (3)

Area C: Mathematics (3 credits)

BUS 103 Business Mathematics (3)

Area D: Physical and Life Sciences (3-4 credits)

Select one course from Area D on pages 42-44. (3-4)

Area E: Social and Behavioral Sciences (3 credits)

Select one course from Area E on pages 42-44. (3)

## II. AREA OF CONCENTRATION/PROGRAM REQUIREMENTS (47)

Core	Courses:

BUS 101 Introduction to Modern Business (3) ITAPP 101 Introduction to Computers (3)

BUS 107 Bookkeeping and Procedural Accounting (3)

ITOFS 299 nternship (2)

Administrative Assistant Concentration Courses:

ITAPP 109 Introduction to the Internet (1)
ITAPP 121 Introduction to Word Processing (3)

ITAPP 122 Intermediate Word Processing Applications (3)

ITAPP 125 Introduction to Spreadsheets (2)
ITAPP 128 Introduction to Database (2)

ITAPP 132 Desktop Publishing (3)
ITAPP 133 Business Presentations (2)

ITOFS 111 Beginning Keyboarding Applications (2)
ITOFS 112 Intermediate Keyboarding Applications (2)
ITOFS 117 Keyboarding Skill Development (1)

ITOFS 117 Keyboarding Skill Development (1)
ITOFS 118 Office Language Skills (2)
ITOFS 119 Office Procedures (3)
ITOFS 122 Transcription Skills (2)

ITOFS 219 Office Management (3)

ITOFS 221 Advanced Keyboarding Applications (2)

Select from the following: ITAPP 126, 155, 232; ITOFS 100; ITPRG 103,

140, 142 (3)

Program Total: 65-66 credits

## INFORMATION TECHNOLOGY: NETWORKING OPTION

#### I. GENERAL EDUCATION CORE (18-19)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C of better (3)

COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits)

Select one course from Area B on pages 42-44. (3)

Area C: Mathematics (3 credits)

BUS 103 Business Mathematics (3)

Area D: Physical and Life Sciences (3-4 credits)

Select one course from Area D on pages 42-44. (3-4)

Area E: Social and Behavioral Sciences (3 credits)

Select one course from Area E on pages 42-44. (3)

## II. AREA OF CONCENTRATION/PROGRAM REQUIREMENTS (47)

Core Courses:

BUS 101 Introduction to Modern Business (3) ITAPP 101 Introduction to Computers (3)

BUS 107 Bookkeeping and Procedural Accounting (3)

ITNET 299 Internship (2)

Networking Concentration Courses:

ITNET 160 Computer Repair (4)
ITNET 165 Introduction to Networking (3)
ITNET 250 Intro to LAN Administration (3)
ITPRG 103 Intro to Programming (4)
ITPRG 140 Intro to Operating Systems (3)
ITPRG 142 Intro to Visual Basic Prog. (3)
ITPRG 201 Systems Design and Develop.(3)

ITPRG 240 Intro to Linux Operating System (3)
ITWEB 101 Web Page Authoring (3)

Select from the following:

ITAPP 133; ITNET 210, 215, 218; ITOFS 100; ITPRG 144, 147, 204, 242, 244, 247, 248 (7)

#### Program Total: 65-66 credits

INFORMATION TECHNOLOGY:
PROGRAMMING OPTION

#### I. GENERAL EDUCATION CORE (18-19)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C of better (3) COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits)

Select one course from Area B on pages 42-44. (3) Area C: Mathematics (3 credits)

BUS 103 Business Mathematics (3)

Area D: Physical and Life Sciences (3-4 credits)
Select one course from Area D on pages 42-44. (3-4)
Area E: Social and Behavioral Sciences (3 credits)
Select one course from Area E on pages 42-44. (3)

## II. AREA OF CONCENTRATION/PROGRAM REQUIREMENTS (47)

Core Courses:

BUS 101 Introduction to Modern Business (3) ITAPP 101 Introduction to Computers (3) BUS 131 Financial Accounting (4)

ITPRG 299 Internship (2)

Programming Concentration Courses:

ITPRG 103 Introduction to Programming (4)
ITPRG 140 Introduction to Operating Systems (3)
ITPRG 142 Introduction to Visual Basic Programming (3)
ITPRG 144 Introduction to C++ Programming (3)

OR

ITPRG 147 Introduction to JAVA Programming (3)
ITPRG 201 Systems Design and Development (3)
ITPRG 248 Introduction to COBOL Programming (3)
Select from the following:

ITAPP 133; ITOFS 100; ITPRG 141, 144, 147, 154, 202, 242, 244, 247,

249; ITWEB 101, 102, 103, 201 (16)

Program Total: 65-66 credits

## INFORMATION TECHNOLOGY: SOFTWARE APPLICATIONS OPTION

#### I. GENERAL EDUCATION CORE (18-19)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C of better (3)

COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits)

Select one course from Area B on pages 42-44. (3)

Area C: Mathematics (3 credits)

BUS 103 Business Mathematics (3)

Area D: Physical and Life Sciences (3-4 credits)

Select one course from Area D on pages 42-44. (3-4)

Area E: Social and Behavioral Sciences (3 credits)

Select one course from Area E on pages 42-44. (3)

## II. AREA OF CONCENTRATION/PROGRAM REQUIREMENTS (47)

Core Courses:

BUS 101 Introduction to Modern Business (3) ITAPP 101 Introduction to Computers (3)

BUS 107 Bookkeeping and Procedural Accounting (3)

ITOFS 299 Internship (2)

Software Applications Concentration Courses: ITAPP 109 Introduction to the Internet (1) ITAPP 121 Introduction to Word Processing (3)

ITAPP 122 Intermediate Word Processing Applications (3)

ITAPP 125 Introduction to Spreadsheets (2)

ITAPP 126 Intermediate Spreadsheet Applications (2)

ITAPP 128	Introduction to Database (2)
ITAPP 129	Intermediate Database Applications (2)
ITAPP 132	Desktop Publishing (3)
ITAPP 133	Business Presentations (2)
ITAPP 240	Application Development in Database (2)
ITOFS 100	Keyboarding (1)
ITPRG 103	Introduction to Programming (4)
ITPRG 140	Introduction to Operating Systems (3)
ITPRG 142	Introduction to Visual Basic Programming (3)
Select from the follow	wing: BUS 201; ITAPP 120, 232; ITPRG 144, 242;
ITWEB 102 (3)	

#### Program Total: 65-66 credits

TA DD 100

## INFORMATION TECHNOLOGY: WEBMASTER OPTION

#### I. GENERAL EDUCATION CORE (18-19)

Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C of better (3) COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits) Select one course from Area B on pages 42-44. (3)

Area C: Mathematics (3 credits)
BUS 103 Business Mathematics (3)

Area D: Physical and Life Sciences (3-4 credits)
Select one course from Area D on pages 42-44. (3-4)
Area E: Social and Behavioral Sciences (3 credits)
Select one course from Area E on pages 42-44. (3)

## II. AREA OF CONCENTRATION/PROGRAM REQUIREMENTS (47)

Core Courses:

BUS 101 Introduction to Modern Business (3)
ITAPP 101 Introduction to Computers (3)
BUS 131 Financial Accounting (4)
ITWEB 299 Internship (2)

Webmaster Concentration Courses:

BUS 287 E-Business (3)
ITAPP 128 Intro to Database (2)
ITNET 165 Intro to Networking (3)
ITPRG 103 Intro to Programming (4)
ITPRG 140 Intro to Operating Systems (3)
ITPRG 142 Intro to Visual Basic Programming (3)
ITWEB 101 Web Page Authoring (3)
ITWEB 103 Intro to Web Site Development (3)

ITWEB 103 Intro to Web Site Development (3)
ITWEB 201 Technology of E-Commerce (3)
ITWEB 225 Web Workshop: Advanced Topics (2)

Select from ITAPP 129, 240; ITPRG 147, 154, 157, 240; ITWEB 102, 205, 220 (6)

#### **Program Total: 65-66 credits**

#### **COMPUTER REPAIR SPECIALIST**

#### Certificate

This program is for those individuals who want to work with computer hardware and software. This certificate provides students with skills needed as a first-level troubleshooting technician in a computer facility.

#### **PROGRAM REQUIREMENTS**

CET III Electronic Principles (4) ITNET 160 Computer Repair (4)

ITPRG 140 Introduction to Operating Systems (3)

Select from CET 114; ITNET 250; ITWEB 101 (5)

#### Program Total: 16 credits

#### **DATABASE - EXPERT**

#### Certificate

This short-term program trains students to use Microsoft ACCESS in preparation for Microsoft certification testing. Students will learn to create a database, use forms, modify a database, view, organize and locate information, refine results of a query, analyze data, create sub forms, build a relational database, integrate information from other applications, utilize Web capability, and produce reports and prints. Typing or keyboarding skills recommended.

#### **PROGRAM REQUIREMENTS**

ITAPP 128	Introduction to Database (2)
ITAPP 129	Intermediate Database Applications (2)
ITAPP 240	Application Development in Database (2)
ITPRG 142	Introduction to Visual Basic Programming (3)

#### **Program Total: 9 credits**

#### **DESKTOP PUBLISHING**

#### Certificate

This program prepares students to produce professionallooking publications using desktop publishing software.

#### **PROGRAM REQUIREMENTS**

ITAPP 101	Introduction to Computers (3)
ITAPP 121	Introduction to Word Processing (3)
ITAPP 132	Desktop Publishing (3)
ITAPP 133	Business Presentations (2)
ITAPP 232	Advanced Desktop Publishing (3)
ITOFS 100	Keyboarding (1)

#### Program Total: 15 credits

#### **E-BUSINESS**

#### Certificate

This certificate program includes the experiences necessary to create and maintain a successful E-business site. Topics include business, marketing, legal issues, programming, online monetary security issues and graphic design considerations.

#### **PROGRAM REQUIREMENTS**

BUS 101	Introduction to Modern Business (3)
BUS 287	E-Business (3)
GC 162	Introduction to Web Site Development (3)
ITPRG 142	Introduction to Visual Basic Programming (3)

Introduction to Visual Basic Programming (3)

Technology of E-Commerce (3) ITWEB 201

#### Program Total: 15 credits

#### **NETWORKING SPECIALIST**

#### Certificate

This program provides a foundation in computer networking including network planning, installation, configuration, maintenance and troubleshooting. It includes coverage of both Microsoft and Linux operating systems. Upon completion, student may seek various industry certification credentials such as CompTIA's A+, Network +, and/or Linux+.

#### **PROGRAM REQUIREMENTS**

IINEI 160	Computer Repair (4)
ITNET 165	Introduction to Networking (3)
ITNET 250	Introduction to LAN Administration (3)
ITPRG 140	Introduction to Operating Systems (3)
ITPRG 240	Linux Operating System (3)

#### Program Total: 16 credits

#### **OFFICE ASSISTANT**

#### Certificate

This program prepares students to perform clerical duties for supervisors, including setting up and maintaining files, answering and placing telephone calls, compiling and maintaining reports and records, and performing office-related duties.

#### **PROGRAM REQUIREMENTS**

ITAPP 101	Introduction to Computers (3)
ITAPP 121	Introduction to Word Processing (3)
ITAPP 122	Intermediate Word Processing Applications (3)
ITOFS 100	Keyboarding (1)
ITOFS 111	Beginning Keyboarding Applications (2)
ITOFS 112	Intermediate Keyboarding Applications (I)
ITOFS 117	Keyboarding Skill Development (2)
ITOFS 118	Office Language Skills (2)
ITOFS 119	Office Procedures (3)
ITOFS 122	Transcription Skills (2)
ITOFS 221	Advanced Keyboarding Applications (2)

Elective: Select from BUS 101, 103, 105, 107\*, 132, 201, 203; ITAPP 109, 125, 126, 128, 129, 132, 133, 150, 151, 152, 153, 155, 232; ITOFS 219; ITPRG 140 (3)

\*BUS 131 Financial Accounting (4) will be accepted in place of BUS 107.

#### **Program Total: 27 credits**

#### OFFICE SUPPORT

#### Certificate

This short-term program provides intensive training for the basic skills needed to obtain employment in an entry-level office support position.

#### **PROGRAM REQUIREMENTS**

ITOFS 115 Office Support Skills (10)

**Program Total: 10 credits** 

#### **PROGRAMMING**

#### Certificate

This program is designed for working adults who need to update their skills and knowledge of programming languages. Object-oriented and event-driven languages, as well as traditional structured languages, are included in this curriculum. Some career opportunities include Visual Basic programmer, C++ programmer, JAVA programmer, object-oriented programmer and user interface designer.

#### **PROGRAM REQUIREMENTS**

ITPRG 103 Introduction to Programming (4)

ITPRG 142 Introduction to Visual Basic Programming (3) Select from the following programming courses: ITPRG 141, 144, 147, 201, 204, 242, 244, 247, 248, 249 (12)

Program Total: 19 credits

#### SOFTWARE SPECIALIST

#### Certificate

This program provides students with the information and skills needed to be marketable and productive in a microcomputer environment. Career opportunities include database programmer, BASIC programmer, spreadsheet specialist, technical support coordinator, office manager and office productivity coordinator.

#### **PROGRAM REQUIREMENTS**

BUS 107*	Bookkeeping and Procedural Accounting (3)
BUS 127	Business Communications (3)
ITAPP 101	Introduction to Computers (3)
ITAPP 109	Introduction to the Internet (I)
ITAPP 121	Introduction to Word Processing (3)
ITAPP 125	Introduction to Spreadsheets (2)
ITAPP 126	Intermediate Spreadsheet Application (2)
ITAPP 128	Introduction to Database (2)
ITAPP 129	Intermediate Data Base Applications (2)
ITAPP 130	Software Integration and Applications (2)
ITAPP 240	Application Development in Database (2)
ITPRG 140	Introduction to Operating Systems (3)
ITPRG 142	Introduction to Visual Basic Programming (3)
* BUS 131 - Financial	Accounting will be accepted in place of BUS 107

Program Total: 31 credits

#### SOFTWARE SUITE APPLICATIONS

#### Certificate

This program prepares students to use the components of a software suite and to integrate those components to business applications.

#### PROGRAM REQUIREMENTS

Software Suite Applications: Word Processing (1)
Software Suite Applications: Spreadsheets (1)
Software Suite Applications: Database (1)
Software Suite Applications: Presentation (1)
Integrated Software Suite Applications (I)

#### **Program Total: 5 credits**

#### **SOFTWARE TECHNICIAN**

#### Certificate

This program prepares students to be a software technician for a small or large company. As an employee, this technician could install, upgrade and maintain software programs and files, as well as diagnose and troubleshoot software-related problems. Career opportunities include computer troubleshooter, software maintenance technician and DOS/Windows Specialists.

#### **PROGRAM REQUIREMENTS**

ITAPP 101	Introduction to Computers (3)
ITAPP 109	Introduction to the Internet (I)
ITPRG 140	Introduction to Operating Systems (3)
ITPRG 220	Software Diagnostic Tools (2)
Electives: Select from:	ITNET 250; ITPRG 142, 144, 147 (3)

#### **Program Total: 12 credits**

#### **SOFTWARE USER**

#### Certificate

This program exposes students to a variety of application programs including spreadsheets, database and word processing software. Students will gain experience in operating systems (DOS and Windows), diagnostic tools and integration techniques. Some possible career opportunities include administrative assistant, secretary, office manager and office productivity coordinator.

#### PROGRAM REQUIREMENTS

ITAPP 101	Introduction to Computers (3)
ITAPP 109	Introduction to the Internet (I)
ITAPP 121	Introduction to Word Processing (3)
ITAPP 125	Introduction to Spreadsheets (2)
ITAPP 128	Introduction to Database (2)
ITAPP 130	Software Integration and Application (2)
ITPRG 140	Introduction to Operating Systems (3)
ITPRG 202	Software Diagnostic Tools (2)

#### Program Total: 18 credits

#### SPREADSHEET - PROFICIENT

#### Certificate

This short-term program trains students to use Microsoft EXCEL in preparation for Microsoft certification testing. Students will learn to create budgets, marketing and sales reports, expense reports, invoices and purchase orders, basic financial statements and spreadsheet information for use on the Intranet/Internet. Typing or keyboarding skills recommended prior to admission.

#### **PROGRAM REQUIREMENTS**

ITAPP 125 Introduction to Spreadsheets (2)
ITAPP 126 Intermediate Spreadsheet Applications (2)

#### **Program Total: 4 credits**

#### **SPREADSHEET - EXPERT**

#### Certificate

This short-term program trains students to use Microsoft EXCEL in preparation for Microsoft certification testing. In addition to the skills learned for Spreadsheet-Proficient, students will learn to create accounting financial statements, data analysis, statistical tables, amortization schedules, forecasts, personnel records and lists. Typing or keyboarding skills recommended prior to admission.

#### **PROGRAM REQUIREMENTS**

HAPP 125	Introduction to Spreadsneets (2)
ITAPP 126	Intermediate Spreadsheet Applications (2)
ITPRG 142	Introduction to Visual Basic Programming (3)

#### **Program Total: 7 credits**

#### **WEB DEVELOPER**

#### Certificate

This program is designed for students who wish to become Web developers or Web programmers. Students are offered hands-on experience in database, graphic design and Web programming using popular Web development software.

#### **PROGRAM REQUIREMENTS**

ITAPP 128	Introduction to Database (2)
ITPRG 140	Introduction to Operating Systems (3)
ITPRG 157	Javascript Programming (3)
ITWEB 101	Web Page Authoring (3)
ITWEB 103	Introduction to Web Site Development (3)
ITWEB 201	Technology of E-Commerce (3)
ITWEB 225	Web Workshop: Advanced Topics (2)

#### **Program Total: 19 credits**

#### WEBMASTER

#### Certificate

The Webmaster program is designed for students who wish to become Webmasters in small- to medium-sized companies. Students are offered hands-on experience in networking, operating systems and Web programming.

#### **PROGRAM REQUIREMENTS**

ITNET 165	Introduction to Networking (3)
ITNET 250	Introduction to LAN Administration (3)
ITPRG 140	Introduction to Operating Systems (3)
ITPRG 240	Linux Operating System (3)
ITWEB 101	Web Page Authoring (3)
ITWEB 103	Introduction to Web Site Development (3)
ITWEB 201	Technology of E-Commerce (3)

#### Program Total: 21 credits

#### **WORD PROCESSING - PROFICIENT**

#### Certificate

This short-term program trains students in the use of Microsoft WORD 2000 and prepares them for Microsoft certification testing. Students learn to create letters, memos, faxes, envelopes, basic reports, resumes, time sheets and WORD documents for Intranet/Internet.

#### **PROGRAM REOUIREMENTS**

ITAPP 121	Introduction to Word Processing (3)
ITAPP 122	Intermediate Word Processing Applications (3)

#### Program Total: 6 credits

#### **WORD PROCESSING - EXPERT**

#### Certificate

This short-term program trains students to use Microsoft WORD 2000 in preparation for Microsoft certification testing. In addition to the skills learned in Word Processing-Proficient, students will learn to create personalized form letters, formal reports, newsletters, brochures and forms.

#### PROGRAM REQUIREMENTS

ITAPP 121	Introduction to Word Processing (3)
ITAPP 122	Intermediate Word Processing Applications (3)
ITOFS 221	Advanced Keyboarding Applications (2)

#### **Program Total: 8 credits**

#### **PHOTOGRAPHY**

	page
Photographic Studies (A.A.S.)	102
Photography	102
Portrait Photography	103

#### **PHOTOGRAPHIC STUDIES**

#### A.A.S. Degree

This program is designed to provide the student with practical experience in creative and vocational applications of photography. Each student is challenged to explore their ideas through commercial, social and aesthetic visual problems. Options are available for specialization in print or studio production.

#### I. GENERAL EDUCATION CORE (15-16)

#### Area A: Communication (6 credits)

ENG 101 Composition I - with a grade of C or better (3)

COMM 101 Principles of Communication (3)

Area B: Humanities and Fine Arts (3 credits) Select one course from Area B on pages 42-44. (3)

Area C: Mathematics (demonstrated competence required)

Placement into MATH 095 or completion of MATH 090 - with C or better

Area D: Physical and Life Sciences (3-4 credits)

Select one course from Area D on pages 42-44. (3-4)

Area E: Social and Behavioral Science (3 credits)

Select one course from Area E on pages 42-44. (3)

## II. AREA OF CONCENTRATION/PROGRAM REOUIREMENTS (47)

ART 101	Two Dimensional Design (3)
ART 126	History of Photography (3)
PHOTO 171	Introduction to Black & White Photography (3)
PHOTO 174	Computer Techniques for Photography (2)
PHOTO 175	Basic Lighting Skills (2)
PHOTO 176	Electronic Flash Techniques (2)
PHOTO 180	Photoshop I (2)
PHOTO 196	Careers in Photography (1)
PHOTO 273	Photographic Methods (3)
PHOTO 275	Photographic Design (3)
PHOTO 285	Digital Color Production (3)
PHOTO 290	Color Slide Photography (4)
PHOTO 291	Survey of Contemporary Photography (3)

Option: Select one area of specialization from the options listed below (13)

#### Option A:

#### PRINT PRODUCTION

Select 13 credits from

PHOTO 280	Photoshop II (2)
PHOTO 281	Digital Applications (4)
PHOTO 282	Experimental Techniques (3)
PHOTO 286	Independent Photo Project (3)
PHOTO 292	Photo Workshop: Special Topics (4)
PHOTO 297	Professional Portfolio (3)

PHOTO 298 Seminar (1) PHOTO 299 Internship (1-3)

#### Option B:

#### STUDIO PRODUCTION

Select 13 credits from

PHOTO 276 Commercial Techniques (4)

PHOTO 283 Portraiture (3)

PHOTO 287 Independent Photo Studio (3)
PHOTO 292 Photo Workshop: Special Topics (4)

PHOTO 293 Advanced Portraiture (4) PHOTO 297 Professional Portfolio (3)

PHOTO 298 Seminar (I) PHOTO 299 Internship (I-3)

#### Program Total: 62-63 credits

#### **PHOTOGRAPHY**

#### Certificate

This program builds a technical and visual foundation using photographic techniques, which encourages students to become effective communicators with a camera.

#### **PROGRAM REQUIREMENTS**

ART IOI	Two Dimensional Design (3)
PHOTO 171	Introduction to Black & White Photography (3)
PHOTO 174	Computer Techniques for Photography (2)
PHOTO 175	Basic Lighting Skills (2)
PHOTO 176	Electronic Flash Techniques (2)
PHOTO 180	Photoshop I (2)
PHOTO 196	Careers in Photography (1)
PHOTO 273	Photographic Methods (3)
PHOTO 275	Photographic Design (3)
PHOTO 285	Digital Color Production (3)
PHOTO 290	Color Slide Photography (4)
PHOTO 291	Survey of Contemporary Photography (3)

#### Program Total: 31 credits

#### **PORTRAIT PHOTOGRAPHY**

#### Certificate

This program is designed to thoroughly prepare students in specific photographic techniques of portrait photography. Participants gain substantial experience creating successful studio and location portraits while working in a professional studio/lab environment.

#### PROGRAM REQUIREMENTS

PHOTO 171	Introduction to Black & White Photography (3)
PHOTO 174	Computer Techniques for Photography (2)
PHOTO 175	Basic Lighting Skills (2)
PHOTO 176	Electronic Flash Techniques (2)
PHOTO 180	Photoshop I (2)
PHOTO 283	Portraiture (3)
PHOTO 285	Digital Color Production (3)
PHOTO 293	Advanced Portraiture (4)
PHOTO 297	Professional Portfolio (3)*

#### **Program Total: 24 credits**

Note: Students must take the first four courses in sequence, or enroll in two consecutively numbered courses in the same semester. Students must earn a grade of B or better in PHOTO 171 or a score of 80% or better on a proficiency exam with portfolio review.

st PHOTO 298 and 299 (3 credits total) will be accepted in place of PHOTO 297.

#### CAREER COOPERATIVE PROGRAM

Prairie State College is a partner in CAREER (Comprehensive Agreement Regarding the Expansion of Educational Resources) Cooperative with the community colleges listed below. If PSC does not offer a particular degree or certificate program, residents of PSC District 515 may apply for a Cooperative Agreement. Upon approval, residents can enroll at any of these colleges. If accepted into the desired program they will be charged the in-district tuition rate at these partner colleges.

For more information about specific programs, contact the college where the program is offered. For more information about the CAREER application process, call the Counseling and Academic Advising Center at 709-3506.

DANVILLE AREA COMMUNITY COLLEGE, District 507 Danville, IL (217) 443-3222 www.dacc.edu

HEARTLAND COMMUNITY COLLEGE, District 540 Bloomington, IL (309) 268-8000 www.heartland.edu

ILLINOIS VALLEY COMMUNITY COLLEGE, District 513 Oglesby, IL (815) 224-2720 www.ivcc.edu

JOLIET JUNIOR COLLEGE, District 525 Joliet, IL (815) 729-9020 www.jjc.edu

KANKAKEE COMMUNITY COLLEGE, District 520 Kankakee, IL (815) 933-0345 www.kankakee.edu

KISHWAUKEE COLLEGE, District 523 Malta, IL (815) 825-2086 www.kishwaukeecollege.edu

MORAINE VALLEY COMMUNITY COLLEGE, District 524 Palos Hills, IL (708) 974-4300 www.morainevalley.edu

MORTON COLLEGE, District 527 Cicero, IL (708) 656-8000 www.morton.edu

PRAIRIE STATE COLLEGE, District 515 Chicago Heights, IL (708) 709-3500 www.prairiestate.edu RICHLAND COMMUNITY COLLEGE, District 537 Decatur, IL (217) 875-7200 www.richland.edu

SOUTH SUBURBAN COLLEGE, District 510 South Holland, IL (708) 596-2000 www.southsuburbancollege.edu

WAUBONSEE COMMUNITY COLLEGE, District 516 Sugar Grove, IL (630) 466-7900 www.waubonsee.edu

#### **TECH PREP**

#### COLLEGE CREDIT FOR HIGH SCHOOL STUDENTS

Just as Advanced Placement (AP) courses provide a way to earn college credit in subjects such as English, History and the Sciences, Tech Prep is a national program that grants college credit in career and technical disciplines. Its purpose is to prepare any student to enter and succeed in a career as well as further his or her education beyond high school.

Depending on the courses offered at the particular high school and the articulation (dual-credit) agreements made with PSC, Tech Prep courses include (but are not limited to) the following subjects: Business, Child Development, Graphic Communications, Industrial Technology (Automotive Technology, Industrial Electronics Technology, Welding, and more), Information Technology, and Photography.

If you are a high school student, contact your school's Guidance Office or career administrator for more information.

High school career administrators work with the Career Preparation Network, the consortium that coordinates Tech Prep programs in PSC's District 515:

Career Preparation Network
Tom Hysell, Director
Rich Central High School
3600 W. 203rd St.
Olympia Fields, IL 60461
phone (708) 679-5716; fax (708) 679-5632
e-mail: thysell@yahoo.com

# DEGREES, CERTIFICATES, COURSES



THR T FRO TO DL S DMD P EM DL DMM T	108 108 109 110 111 113 117 118 118 119 120 120 121 122 124 125 126	Information Technology — Programming Information Technology — Web Development Italian  Journalism  Maintenance Technician — Apprentice Manufacturing Technology Mathematics — Apprentice Mathematics (Developmental & College-Level) Mechanical Design Technology (see CAD/Mechanical Design Technology) Meteorology Millwright — Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies Physical Education	ITPRG ITWEB ITAL  JRNLM  APPMT MT AMATH  MATH  METEO APPMW MUSIC  NURS  PHILO PHOTO	144 146 148 147 149 150 150 152 153 153
T FRO TO  DL S  DMD P EM DL DMM T	108 109 110 111 113 117 118 118 119 120 120	Programming Information Technology — Web Development Italian  Journalism  Maintenance Technician — Apprentice Manufacturing Technology Mathematics — Apprentice Mathematics (Developmental & College-Level) Mechanical Design Technology (see CAD/Mechanical Design Technology) Meteorology Millwright — Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	ITWEB ITAL  JRNLM  APPMT MT AMATH  MATH  METEO APPMW MUSIC  NURS	146 148 147 149 150 150 152 153 153 156
T FRO TO  DL S  DMD P EM DL DMM T	108 109 110 111 113 117 118 118 119 120 120	Web Development Italian  Journalism  Maintenance Technician —    Apprentice Manufacturing Technology Mathematics — Apprentice Mathematics (Developmental &    College-Level) Mechanical Design Technology    (see CAD/Mechanical Design    Technology) Meteorology Millwright — Apprentice Music  Nursing  Office Administration and    Technology    (see Information Technology)  Philosophy Photographic Studies	JRNLM  APPMT MT AMATH  MATH  METEO APPMW MUSIC  NURS	148 147 149 149 150 150 153 153 156
T FRO TO  DL S  DMD P EM DL DMM T	108 109 110 111 113 117 118 118 119 120 120	Italian  Journalism  Maintenance Technician —     Apprentice Manufacturing Technology Mathematics — Apprentice Mathematics (Developmental &     College-Level) Mechanical Design Technology     (see CAD/Mechanical Design     Technology) Meteorology Millwright — Apprentice Music  Nursing  Office Administration and     Technology     (see Information Technology)  Philosophy Photographic Studies	JRNLM  APPMT MT AMATH  MATH  METEO APPMW MUSIC  NURS	148 147 149 149 150 150 153 153 156
T FRO TO  DL S  DMD P EM DL DMM T	108 109 110 111 113 117 118 118 119 120 120	Journalism  Maintenance Technician —    Apprentice Manufacturing Technology Mathematics — Apprentice Mathematics (Developmental &    College-Level) Mechanical Design Technology    (see CAD/Mechanical Design    Technology) Meteorology Millwright — Apprentice Music  Nursing  Office Administration and    Technology    (see Information Technology)  Philosophy Photographic Studies	JRNLM  APPMT MT AMATH  MATH  METEO APPMW MUSIC  NURS	147 149 149 150 150 153 153 156
TRO TO DL SS DMD P EM DL SMM T	109 110 111 113 117 118 118 119 120 120	Maintenance Technician — Apprentice Manufacturing Technology Mathematics — Apprentice Mathematics (Developmental & College-Level) Mechanical Design Technology (see CAD/Mechanical Design Technology) Meteorology Millwright — Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	APPMT MT AMATH MATH METEO APPMW MUSIC NURS	149 149 150 150 152 153 153 156
TRO TO DL SS DMD P EM DL SMM T	109 110 111 113 117 118 118 119 120 120	Maintenance Technician — Apprentice Manufacturing Technology Mathematics — Apprentice Mathematics (Developmental & College-Level) Mechanical Design Technology (see CAD/Mechanical Design Technology) Meteorology Millwright — Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	APPMT MT AMATH MATH METEO APPMW MUSIC NURS	149 149 150 150 152 153 153 156
TRO TO DL SS DMD P EM DL SMM T	109 110 111 113 117 118 118 119 120 120	Maintenance Technician — Apprentice Manufacturing Technology Mathematics — Apprentice Mathematics (Developmental & College-Level) Mechanical Design Technology (see CAD/Mechanical Design Technology) Meteorology Millwright — Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	APPMT MT AMATH MATH METEO APPMW MUSIC NURS	149 149 150 150 152 153 153 156
TRO TO DL SS DMD P EM DL SMM T	109 110 111 113 117 118 118 119 120 120	Apprentice Manufacturing Technology Mathematics — Apprentice Mathematics (Developmental & College-Level) Mechanical Design Technology (see CAD/Mechanical Design Technology) Meteorology Millwright — Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	MT AMATH  MATH  METEO APPMW MUSIC  NURS	149 150 150 152 153 153 156
DMD P EM P D MM T	110 111 113 117 118 118 119 120 120	Apprentice Manufacturing Technology Mathematics — Apprentice Mathematics (Developmental & College-Level) Mechanical Design Technology (see CAD/Mechanical Design Technology) Meteorology Millwright — Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	MT AMATH  MATH  METEO APPMW MUSIC  NURS	149 150 150 152 153 153 156
DL S DMD P EM DL DMM T	111 113 117 118 118 119 120 120	Manufacturing Technology Mathematics – Apprentice Mathematics (Developmental & College-Level) Mechanical Design Technology (see CAD/Mechanical Design Technology) Meteorology Millwright – Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	MT AMATH  MATH  METEO APPMW MUSIC  NURS	149 150 150 152 153 153 156
DMD P EM DL DMM T	113 117 118 118 119 120 120 121 121 122 124	Mathematics – Apprentice Mathematics (Developmental & College-Level) Mechanical Design Technology (see CAD/Mechanical Design Technology) Meteorology Millwright – Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	AMATH MATH METEO APPMW MUSIC NURS	150 150 152 153 153 156
DMD P EM DL DMM T	113 117 118 118 119 120 120 121 121 122 124	Mathematics (Developmental & College-Level) Mechanical Design Technology (see CAD/Mechanical Design Technology) Meteorology Millwright – Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	MATH  METEO APPMW MUSIC  NURS	150 152 153 153 156
DMD P EM PL DMM T	117 118 118 119 120 120 121 121 122 124	College-Level) Mechanical Design Technology (see CAD/Mechanical Design Technology) Meteorology Millwright – Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	METEO APPMW MUSIC NURS	152 153 153 156
P EM DL DMM T	118 118 119 120 120 121 121 122 124	Mechanical Design Technology (see CAD/Mechanical Design Technology) Meteorology Millwright – Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	METEO APPMW MUSIC NURS	152 153 153 156
P EM DL DMM T	118 118 119 120 120 121 121 122 124	(see CAD/Mechanical Design Technology)  Meteorology Millwright – Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	APPMW MUSIC NURS	153 153 156
P EM DL DMM T	118 118 119 120 120 121 121 122 124	Technology) Meteorology Millwright – Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	APPMW MUSIC NURS	153 153 156
EM DL DMM T	118 119 120 120 121 121 122 124	Meteorology Millwright – Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	APPMW MUSIC NURS	153 153 156
PD	119 120 120 121 121 122 124	Millwright – Apprentice Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	APPMW MUSIC NURS	153 153 156
omm T PD	120 120 121 122 124 125	Music  Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	MUSIC NURS PHILO	153 156 157
T PD ED	121 121 122 124	Nursing  Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	NURS PHILO	156
I PD ED	121 122 124 125	Office Administration and Technology (see Information Technology)  Philosophy Photographic Studies	PHILO	157
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PD ED	122 124 125	Technology (see Information Technology)  Philosophy Photographic Studies		
PD ED	122 124 125	(see Information Technology)  Philosophy Photographic Studies		
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PD ED	124 125	Photographic Studies		
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		Physical Science	PHYSC	162
	126	Physics (Applied Physics)	APHYS	162
U	127	Physics	PHYSI	162
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G	129	Steamfitter – Apprentice	APPPF	163
3	127	Political Science	POLSC	163
-	131	Psychology	PSYCH	163
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CD		Reading	RDG	164
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		Social Science	SOCSC	165
OG	133	Social Work	SWK	165
		Sociology		165
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т	136	Theatre	THTRE	167
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	OLO RM  TH  ACR T  MAN PH  PIE  PP  JET  DFS	RM 148 134  TH 135  ACR 136 TT 136 MAN 137 PH 138  PIE 138  PP 141  JET 143	RM 148 Spanish Surgical Technology  TH 135  ACR 136 Technology of Mathematics and Science Theatre Thool and Die Making – Apprentice Transportation, Warehousing and Logistics  PH 138 Welder  PP 141  JET 143	RM 148 Spanish SPAN Surgical Technology SRT  TH 135 Technology of Mathematics ACR 136 and Science TECH TH 137 Tool and Die Making – Apprentice APPTD PH 138 Transportation, Warehousing and Logistics TWL PP 141  JET 143

#### ILLINOIS ARTICULATION INITIATIVE

(IAI) www.iTransfer.org

Prairie State College participates in the Illinois Articulation Initiative (IAI), a statewide agreement that allows transfer of the completed Illinois Transferable General Education Core Curriculum between participating institutions. Completion of the Transferable 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 became effective statewide in the Summer of 1998. It applies to students who enrolled in an associate or baccalaureate degree-granting institution as a first-time freshman in summer 1998 or later. More than 100 schools, including all community colleges and all public state universities in Illinois, as well as most independent colleges and universities in the state, participate in the IAI.

#### IAI COURSE CODES

IAI has its own course numbering sequence for the Illinois Transferable General Education Core Curriculum (GECC). Here is an example of an IAI GECC course –

S7 903D: Racial and Ethnic Relations

This code would be noted for a PSC course listed in this catalog as follows:

SOCIO 220 (IAI: S7 903D)

Race Relations: A Multicultural Perspective

The first letter in the IAI GECC code indicates the discipline field for the course. The letter S, for example, indicates Social/Behavioral Sciences. IAI letter codes and their corresponding disciplines are as follows:

#### General Education Core Curriculum Course Codes:

IAI: C Communication

IAI: F Fine Arts

IAI: H Humanities

IAI: HF Interdisciplinary Humanities and Fine Arts

IAI: HS Interdisciplinary Humanities/Fine Arts and

Social/Behavioral Sciences

IAI: L, LP Life Sciences

IAI: M Mathematics

IAI: P, LP Physical Sciences

IAI: S Social/Behavioral Sciences

The first number after the letter indicates the sub-area of the discipline. The S7 in this example represents the Sociology sub-area of Social/Behavioral Sciences. The next numbers represent the unique content category within this subdiscipline. Letters at the end of course numbers identify specific perspectives related to the course. The D in S7 903D, for example, represents courses that examine aspects of human diversity within the United States. Other end-of-course letters include:

- N for courses designed to examine aspects of human diversity from a non-U.S./non-European perspective
- L for laboratory courses
- R for research paper courses

Codes which represent the IAI Baccalaureate Majors recommendations have two parts: a letter code that represents the field of study and a unique number that represents the course content.

#### Baccalaureate Major Course Codes:

IAI: AG Agriculture

IAI: ART Art & Art Education
IAI: BIO Biological Sciences

IAI: BUS Business
IAI: CHM Chemistry

IAI: CLS Clinical Laboratory Sciences

IAI: CS Computer Science
IAI: CRI Criminal Justice

IAI: ECE Early Childhood Education

IAI: EDU Teacher Education

IAI: EGL English
IAI: EGR Engineering
IAI: HST History

IAI: MC Mass Communication

IAI: MTH Mathematics

IAI: MTM Manufacturing Tech./Machining IAI: MUS Music & Music Education

IAI: NUR Nursing
IAI: PHY Physics
IAI: PLS Political Science

IAI: PLS Political Science
IAI: PSY Psychology
IAI: SOC Sociology

IAI: SPC Speech Communication

IAI: SW Social Work IAI: TA Theatre Arts

#### **ANTHROPOLOGY**

#### **ANTHR 215 (IAI: SI 900N)**

#### INTRODUCTION TO ANTHROPOLOGY

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

Introduction to the major areas: physical anthropology, cultural anthropology, ethnology and archeology. Topics include race, language, prehistory, the culture and social organization of contemporary primitive or preliterate peoples, human origins and basic research methods in anthropology.

#### **ANTHR 222** (IAI: SI 901N)

## INTRODUCTION TO CULTURAL AND SOCIAL ANTHROPOLOGY

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

The cultural and social systems of both simple and complex societies: technology, aesthetics, language, religion, family and kinship, and associational life. Basic theories and methods relevant to those topics are introduced. Of value to those interested in education, the humanities and the social sciences.

#### **APPLIED PHYSICS**

(See Physics)

#### **ART**

(See also Graphic Communications and Photographic Studies)

#### **ART 101** (IAI: ART 907)

#### TWO DIMENSIONAL DESIGN

Prerequisite: None

6 lab hrs per week: 3 hrs credit

This course introduces the theory and practice of 2-D visual communication. Students experiment with a variety of media as they develop an understanding of the elements and concepts of 2-D design.

#### **ART 102** (IAI: ART 908)

#### THREE DIMENSIONAL DESIGN

Prerequisite: ART 101

6 lab hrs per week: 3 hrs credit

ART 102 introduces the theory and practice of 3-D design. Students work with various media and techniques as they develop an understanding of such concepts as form, mass, contour, space and texture.

#### **ART 104** (IAI: ART 904)

#### DRAWING I

Prerequisite: None

6 lab hrs per week: 3 hrs credit

ART 104 introduces both the materials and the methods and techniques of drawing. Working in b/w and colored media, students explore the formal, conceptual and expressive dimensions of drawing. Emphasis is placed upon the observation, interpretation and rendering of visible form.

#### **ART 105**

#### **COLOR THEORY**

Prerequisite: ART 101

I lecture, 4 lab hrs per week: 3 hrs credit

This course is a study of color, its use, the perception, psychology and physical characteristics of color as related to aesthetics and creativity.

ART 106 (IAI: ART 905)

#### **DRAWING II**

Prerequisite: ART 104

6 lab hrs per week: 3 hrs credit

ART 106 reinforces the formal and technical concepts introduced in Drawing I, and focuses on both invention and self-expression. Working through a variety of subjects and materials, students explore a wide range of conceptual approaches, culminating in a final series of related drawings.

#### **ART 109**

#### **CERAMICS**

Prerequisite: None

6 lab hrs per week: 3 hrs credit

This studio course introduces ceramic clay-forming techniques with emphasis placed on wheel-throwing and hand-building methods of construction. Procedures on glazing, surface decorations, and clay and glaze theory are examined.

**ART 115** (IAI: ART 919)

(was ART 210)

#### INTRODUCTION TO COMPUTER ART

Prerequisite: None

6 lab hrs per week: 3 hrs credit

This software-based approach to art and design concepts introduces students to the history and use of computer applications in the visual arts. The integration of representative hardware, software and peripherals is emphasized. Students learn to generate, combine and manipulatetraditional and contemporary visual ideas using both raster paint/photo retouching programs and professional quality vector drawing programs. Written work includes critiques, proposals and artistic statements. (same as GC 115)

## ART 121 (IAI: F2 901; ART 901) HISTORY OF WESTERN ART I

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course surveys the chronological development of the visual arts in Western society from prehistory through the Gothic period. Emphasis is placed upon the analysis of form, style and content, as well as the historical context in which works of art are created.

## ART 122 (IAI: F2 902; ART 902) HISTORY OF WESTERN ART II

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course surveys the chronological development of the visual arts in Western society from the early Renaissance through the Modern period. Emphasis is placed upon the analysis of form, style and content, as well as the historical context in which works of art are created.

#### **ART 124**

#### **HISTORY OF ARCHITECTURE**

Prerequisite: None

3 lectures per week: 3 hrs credit

ART 124 surveys the chronological development of architecture from the earliest creations of human shelter to the present day.

#### **ART 126** (IAI: F2 904)

#### **HISTORY OF PHOTOGRAPHY**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course surveys the history of photography as an art form from 1839 to the present, with an emphasis upon the medium's technological and aesthetic development. Students will learn to examine photographs as expressions of ideas and beliefs of individual photographers within their social and cultural context.

#### **ART 129** (IAI: F2 900)

#### ART APPRECIATION

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

Art Appreciation serves as an introduction to the visual arts for non-art majors. Students examine selected works in painting, drawing, printmaking, sculpture and architecture from various cultures and periods. Emphasis is placed upon historical, social and technological factors that contribute to understanding the aesthetic form, function and meaning of art. Field trips may be included.

#### **ART 131** (IAI: F2 903N)

#### **SURVEY OF NON-WESTERN ART**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course surveys the visual arts of non-Western societies, including, India, China, Japan, Africa, and Native North and South America, and examines the influence of these traditions on Western art.

#### **ART 162** (IAI: ART 906)

#### LIFE DRAWING

Prerequisite: ART 101 & 104 6 lab hrs per week: 3 hrs credit

This advanced course in drawing focuses upon the direct observation and interpretation of visual form, with an emphasis on the human figure. Students are expected to demonstrate competence with diverse drawing materials and various compositional strategies.

#### **ART 201** (IAI: ART 911)

#### PAINTING I

Prerequisite: None

6 lab hrs per week: 3 hrs credit

This course introduces students to the technical and aesthetic dimensions of painting. Students will address both formal and expressive qualities of painting as they observe and interpret a variety of subjects from life. A final portfolio is required.

#### **ART 202**

#### PAINTING II

Prerequisite: ART 201

6 lab hrs per week: 3 hrs credit

This course is a continuation of ART 201 and introduces a wider range of both technical and conceptual approaches to painting. Students are encouraged to seek a more personal voice through exploring the expressive dimensions of painting and developing a final series of related works on a chosen theme.

#### ART 205 (IAI: ART 914)

#### **PRINTMAKING**

Prerequisite: ART 101 and 104

6 lab hrs per week: 3 hrs credit

This course is an introduction to traditional and contemporary fine art printmaking practices. Students will produce a portfolio that demonstrates a basic understanding of the technical and aesthetic dimensions of this art form.

#### **ART 207** (IAI: ART 915)

#### JEWELRYMAKING—FABRICATION

Prerequisite: None

6 lab hrs per week: 3 hrs credit

An introduction to jewelry with emphasis on basic fabrication techniques.

#### **ART 246**

#### INDEPENDENT STUDY

Prereauisite: None

I lecture, 4 lab hrs per week: 3 hrs credit

May be repeated two times.

The independent study in fine arts provides advanced students with the opportunity to pursue a specialized creative project that goes beyond the normal course offerings. Students contract a problem, present alternative directions to its solution and present a final portfolio of artwork accompanied by a written statement. Frequent critiques are conducted throughout the semester.

#### **ART 295**

#### **PORTFOLIO SEMINAR**

Prerequisite: Completion of first year of relevant degree, or 12 credit hrs toward Certificate program, or consent of instructor

2 lectures, 2 lab hrs per week: 3 hrs credit

This course is an interdisciplinary arts seminar that is intended to expose students to a wide range of artistic concerns and practices through lectures, discussions and critiques. Specific workshops will focus on the development of a résumé, an art portfolio and a statement of artistic purpose.

#### **ASTRONOMY**

#### **ASTRO 101** (IAI: PI 906)

#### **GUIDE TO THE UNIVERSE**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This is a one-semester conceptual astronomy course. It explores the night sky, stars and constellations, light and astronomical tools, and the history and origin of the solar system and the universe.

#### **ASTRO 104** (IAI: PI 906L)

(was ASTRO 200)

#### **INTRODUCTION TO ASTRONOMY**

Prerequisite: Placement into ENG 099 or higher

3 lectures, 2 lab hrs per week: 4 hrs credit

This course offers a non-mathematical survey of astronomical phenomena including the cycles of the night sky, the origins of modern astronomy, the solar system, galaxies, planetary motion and cosmology. Students cannot receive credit for both ASTRO 101 and ASTRO 104.

#### **AUTOMOTIVE TECHNOLOGY**

#### AUTO 101

#### **BASIC AUTOMOBILE SERVICE AND SYSTEMS**

Prerequisite: Placement into ENG 099 or higher 2 lectures, 2 lab hrs per week: 3 hrs credit

This course introduces automotive systems and service. It includes safety systems, drive lines, engines, transmissions, transaxles, heating and cooling systems, fuel systems, steering and brake systems, ignition systems, construction and operating systems.

#### **AUTO 102**

#### **AUTOMOTIVE ENGINES**

Prerequisite: AUTO 101

2 lectures, 4 lab hrs per week: 4 hrs credit

This course focuses on automotive engine repair, disassembly, adjustments, assembly and operation. Service units include block, cylinder heads, valve assembly, lubrication system and cooling system.

#### **AUTO 107**

#### **AUTOMOTIVE ELECTRICITY/ELECTRONICS I**

pertains to the automotive diagnostic-service field.

Prerequisite: Placement into ENG 099 or higher
2 lectures, 4 lab hrs per week: 4 hrs credit
Specialized training is provided in the basic automotive electrical system, including the electrical circuits, storage batteries, cranking systems, charging systems, ignition systems, electrical system-circuit-component tests and the testing equipment that

### AUTO 108

#### SUSPENSION AND STEERING SYSTEMS

Prerequisite: Placement into ENG 099 or higher 2 lectures, 4 lab hrs per week: 4 hrs credit Component repair operations, adjustments an

Component repair operations, adjustments and performance testing of front and rear suspension systems. Service units include control arm pivot shaft bushings, ball joints, springs, shocks, MacPherson struts, bearings, wheels, tires, steering linkages and gears.

#### AUTO III

#### **AUTO BODY WELDING**

Prerequisite: APPW 101

I lectures, 4 lab hrs per week: 3 hrs credit

Special tools and equipment are used in various lab applications to develop technician competency in welding and fastening techniques.

#### **AUTO 112**

#### **SHEET METAL REPAIRS - BODY ADJUSTMENTS**

Prerequisite: AUTO 111 (or concurrent registration)

2 lectures, 4 lab hrs per week: 4 hrs credit

Metal and fiberglass panel repairs, reshaping, sectioning, clipping and replacement operations are performed on the hood, deck, door, frame and door jamb. Various alignments are also performed.

#### **AUTO 202**

#### **AUTOMOTIVE BRAKE SYSTEMS**

Prerequisite: AUTO 101

2 lectures, 4 lab hrs per week: 4 hrs credit

Component repair operations, adjustments and performance testing of drum and disk brake systems. Service units include wheel cylinders, master cylinders, power boosters, parking brakes, control devices, shoe drums, rotors and fluid transfer lines. Students will also be introduced to the computer systems that control the brake system.

#### **AUTO 205**

#### MANUAL TRANSMISSIONS AND TRANSAXLES

Prerequisite: AUTO 101

2 lectures, 4 lab hrs per week: 4 hrs credit

Operation and maintenance service of clutches standard transmissions, overdrives, drive lines, differentials and major manual transaxles.

#### **AUTO 206**

#### **AUTOMOTIVE ENGINE PERFORMANCE**

Prerequisite: AUTO 102, 107

2 lectures, 4 lab hrs per week: 4 hrs credit

This course covers diagnosing and repairing complex engine and computer problems and driveability problems of the modern automobile.

#### **AUTO 207**

#### **AUTOMOTIVE HEATING/AIR CONDITIONING**

Prerequisite: AUTO 101, 107

2 lectures, 4 lab hrs per week: 4 hrs credit

This course focuses on component repair operations and adjustments. Performance testing on heating, defrosting and air conditioning systems is included. Retro fitting and alternative refrigerants will also be studied.

#### **AUTO 208**

#### **AUTOMATIC TRANSMISSIONS/TRANSAXLES**

Prerequisite: AUTO 101, 205

2 lectures, 4 lab hrs per week: 4 hrs credit

Component repair operations, adjustments and performance testing on automatic transmissions, transmission controls, auto transaxle transmissions, overdrives, and drive lines.

#### **AUTO 210**

#### **AUTOMOTIVE ELECTRICITY/ELECTRONICS II**

Prerequisite: AUTO 101 and 107

2 lectures, 4 lab hrs per week: 4 hrs credit

Electrical circuit identification, isolation, testing repair and component operation. Service units include batteries, starting system, ignition system, charging system, light circuits, gauges and electrical accessories, and diagnosis on chassis electronics and all electrical components of the vehicle.

#### **AUTO 211**

#### **AUTOMOTIVE ENGINE PERFORMANCE II**

Prerequisite: AUTO 101, 107, 206, 210

2 lectures, 4 lab hrs per week: 4 hrs credit

The student technician will cover the operational aspects of automotive computer output/input control systems, identifying performance diagnosis procedures and repair service and OBD I, OBD II, readiness codes and IM-240.

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**COURSE DESCRIPTIONS** 

## **AUTO 214**

## **COLLISION REPAIR I: FRAME-BODY**

Prerequisite: AUTO 111 & 112 (or concurrent registration)

2 lectures, 4 lab hrs per week: 4 hrs credit

Body-frame service equipment is used in the repair of frame and unibody type vehicles, along with panel replacement, panel alignment, sectioning, clipping and various repair services.

#### **AUTO 215**

# ADVANCED AUTOMOTIVE SERVICE AND SYSTEMS

Prerequisite: AUTO 211

2 lectures, 4 lab hrs per week: 4 hrs credit

This course focuses on advanced automotive engine, engine performance, brake, electric/electronic, computer, and transmission system operation and diagnosis.

#### **AUTO 216**

#### **BODY PREPARATION AND REFINISHING**

Prerequisite: AUTO 111 & 112 (or concurrent registration)

2 lectures, 4 lab hrs per week: 4 hrs credit

This course covers automotive body service preparation along with refinishing techniques that include masking, taping, refinishing, rubbing and polishing. Selection and matching are done with lacquer, enamel, acrylic finishes and water-based finishes.

## **AUTO 218**

# **AUTO BODY SHOP MANAGEMENT**

Prerequisite: AUTO 214 and 216

2 lectures per week: 2 hrs credit

Auto body shop operations are incorporated with damage estimating and the preparation of a legal document stating the costs for vehicle repair. This course will provide the auto body technician with a comprehensive understanding of the auto body repair business.

#### **AUTO 220**

# **COLLISION REPAIR II: FRAME-BODY-GLASS**

Prerequisite: AUTO 218 (or concurrent registration)

2 lectures, 4 lab hrs per week: 4 hrs credit

Using past training, students write estimates, complete frame or unibody repairs, replace glass as needed, prepare the body for service, and refinish the vehicle to provide total service.

## **AUTO 223**

# **AUTOMOTIVE PARTS MANAGEMENT**

Prerequisite: Placement into ENG 099 or higher

2 lectures per week: 2 hrs credit

Parts training includes the use of parts, equipment, and supply catalogs, descriptive nomenclature, stock familiarization, pricing procedures and inventory control.

#### **AUTO 224**

# **AUTOMOTIVE SERVICE MANAGEMENT**

Prerequisite: Placement into ENG 099 or higher

2 lectures per week: 2 hrs credit

This course covers automotive repair shop operations including the use of flat rate manuals, repair and order writing, familiarization with manufacturer and company policies and procedures and existing labor agreements.

## **AUTO 298**

## **INTERNSHIP SEMINAR**

Prerequisite: 12 hrs in AUTO courses I lecture per week: I hr credit

This course is structured to enable interns to participate in group discussions or current automotive repair practices and experiences related to their internship studies. A written report of work related activities is required.

## **AUTO 299**

## **INTERNSHIP: AUTOMOTIVE**

Prerequisite: 12 hrs in AUTO and consent of coordinator

20 lab hrs per week: 2 hrs credit

(variable hrs of credit)

This course provides on-the-job experience combined with supervision. It is designed to present the service technician with a performance view of the auto body and automotive service professions.

# **BIOLOGICAL SCIENCE**

## **BIOL 100 (IAI: LI 900L)**

## **GENERAL EDUCATION BIOLOGY**

Prerequisite: Placement into ENG 099 or higher

3 lectures, 2 lab hrs per week: 4 hrs credit

This is a one-semester introductory course for non-science majors designed to fill the general education requirement for life science with a laboratory. The course will cover cell biology, genetics, evolution and diversity, plant and animal structure and functions, animal behavior and ecology.

Students cannot receive credit for both BIOL 100 and 112.

# **BIOL 103** (IAI:LI 901)

# **PLANTS AND SOCIETY**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course emphasizes scientific inquiry through selected concepts in biology, such as organization, function, heredity, evolution and ecology, using plants as the type of organism. Topics include plant structure, growth, genetics, evolution, physiology, reproduction and the economic importance and inter-relationships between plants and humans. This course is for nonmajors.

# **BIOL 105** (IAI: LI 905)

# **ENVIRONMENTAL BIOLOGY**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

A consideration of the timely and urgent problems of mankind of a biological nature: pollution of air and water, adverse effects of radiation and insecticides on the environment, overpopulation, food production, thermal pollution, noise pollution and other related topics.

# **BIOL 106 (IAI: LI 906L)**

## **HEREDITY AND SOCIETY**

Prerequisite: Placement into ENG 099 or higher

3 lectures, 2 lab hrs per week: 4 hrs credit

This course is an introduction to basic genetic principles and contemporary issues in biotechnology. The ethical, political and social implications of biological advances in genetics will be addressed.

#### **BIOL 108**

#### **ESSENTIALS OF ANATOMY & PHYSIOLOGY**

Prerequisite: None

4 lectures per week: 4 hrs credit

The course involves the basic structure and function of the organs and systems of the human body. This one-semester lecture class is recommended for students in the Surgical Technology and Personal Trainer programs.

# **BIOL III** (IAI: BIO 910; CLS 902)

## **CELLULAR AND MOLECULAR BIOLOGY**

Prerequisite: High school biology or equivalent; placement into ENG 099 or higher

3 lectures, 3 lab hrs per week: 4 hrs credit

This is a course designed for science and health majors. It provides an introduction to biochemistry, molecular genetics, cell structure, cell function, cellular process and cell division. This course also includes an introduction to Mendelian inheritance and gene activity.

## BIOL 112 (IAI: LI 900L; BIO 910; CLS 901)

#### **ORGANISMAL BIOLOGY**

Prerequisite: High school biology or equivalent; placement into ENG 099 or higher

3 lectures, 3 lab hrs per week: 4 hrs credit

This is a course designed for science and health majors. It provides an introduction to the structure and function of microorganisms, fungi, plants and animals. This course also includes an introduction to evolutionary and ecological principles. Students cannot get credit for both BIOL 100 and 112.

## BIOL 115

# MICROBIOLOGY FOR SURGICAL TECHNOLOGISTS

Prerequisite: Admission to Surgical Technology program

4 lectures per week: 4 hrs credit

Students will learn the impact of microbiology on the practice of aseptic technique and how to apply these principles in controlling infection in the operating room. The immune response, hypersensitivity, vaccines, common pathogens and the process of infection will also be addressed.

#### **BIOL 120**

# **INDEPENDENT STUDIES IN ECOLOGY**

Prerequisite: Consent of instructor

15 lab hrs per week: 3 hrs credit (variable credit)

This course is designed to allow students to obtain hands-on experience in the various phases of ecosystem restoration and preservation, as well as the monitoring of factors involved in ecosystem functioning. Students will inventory flora and fauna of ecosystems, monitor water and soil quality, and perform activities needed to maintain viable ecosystems. The course consists of field work and writing reports on activities carried out in the field.

## **BIOL 150** (IAI: AG 905)

## INTRODUCTION TO HORTICULTURE

Prerequisite: BIOL 111

2 lectures, 2 lab hrs per week: 3 hrs credit

Familiarity with plant growing in all phases. Includes soil analysis, organic techniques and control of garden pests by natural and chemical means. Knowledge in grafting, layering, transplanting and all phases of reproduction.

#### BIOL 201

## **COMPARATIVE VERTEBRATE ANATOMY**

Prerequisite: BIOL 111

3 lectures, 4 lab hrs per week: 5 hrs credit

Emphasizes the comparative anatomy of the vertebrate animals with lesser emphasis on other related fields having direct bearing on the course: embryology, evolution and taxonomy. Appropriate specimens (shark, necturus and cat) are dissected in the laboratory.

## **BIOL 211** (IAI: CLS 905; NUR 905)

## MICROBIOLOGY

Prerequisite: BIOL III with C or better; or CHEM 105 with a C or better; or high school chemistry within the past 5 years, with a C or better.

3 lectures, 3 lab hrs per week: 4 hrs credit

This is an introduction to the study of microscopic organisms, with an emphasis on bacteria. Special attention is given to their structure, physiology and ecology. This course also includes an introduction to virology, medical parasitology, medical mycology and immunological concepts. This course is especially beneficial for health profession majors because of the emphasis on the microbial role in the disease process focusing on the epidemiology, clinical manifestation and treatment of microbial diseases.

#### **BIOL 220**

## **INVERTEBRATE ZOOLOGY**

Prerequisite: BIOL 111

2 lectures, 4 lab hrs per week: 4 hrs credit

This course is designed to introduce the various phyla of invertebrate organisms. Students will study the anatomical and physiological characteristics of the major invertebrate groups, as well as their role in the different ecosystems. In addition, the classification and culture techniques of representative organisms will be examined.

## **BIOL 221** (IAI: CLS 903; NUR 903)

# **HUMAN ANATOMY AND PHYSIOLOGY I**

Prerequisite: BIOL 111 with a C or better; or CHEM 105 with a C or better; or high school chemistry within the past 5 years, with a C or better.

3 lectures, 2 lab hrs per week: 4 hrs credit

This is Part I of a two-semester curriculum of study concerning anatomy and physiology of the human organism. Part I includes the study of basic principles of chemistry, cell biology, cellular metabolism and tissue histology. This semester also deals with the study of the integumentary system, skeletal system, muscle system and the nervous system.

# **BIOL 222** (IAI: CLS 904; NUR 904)

## **HUMAN ANATOMY AND PHYSIOLOGY II**

Prerequisite: BIOL 221

3 lectures, 2 lab hrs per week: 4 hrs credit

This is Part II of a two-semester curriculum of study concerning the anatomy and physiology of the human organism. This semester deals with special senses, endocrine system, digestive tract, nutrition, metabolism, respiratory system, cardiovascular system, lymphatic system, urinary system, water and electrolyte balance, reproductive system, human growth and development, and human genetics.

#### **BIOL 225**

#### **FUNCTIONAL HUMAN ANATOMY LAB**

Prerequisite: Health Services major and consent of instructor 4 lab hrs per week: 2 hrs credit

This course emphasizes the study of the human body utilizing cadavers in a regional anatomical approach.

## **BUSINESS**

(See also Transportation, Warehousing and Logistics)

## **BUS 101** (IAI: BUS 911)

## **INTRODUCTION TO MODERN BUSINESS**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course is designed to provide an overview of business and the environment in which it operates. The topics studied include organization of business, business environment, management and organization of business, management of employees, marketing, financial management, information for business strategy, and special topics. Students will develop a business plan.

#### **BUS 103**

#### **BUSINESS MATHEMATICS**

Prerequisite: Math 085 with a C or better or qualifying score on the Math Placement Test.

3 lectures per week: 3 hrs credit

Emphasizes development of skill in handling the mathematics of business transactions in business and as a consumer. Included are the fundamental processes of percentage, discounts, interests, profit and loss, payrolls, taxes, and installment buying.

#### **BUS 105**

# **HUMAN RELATIONS**

Prerequisite: None

3 lectures per week: 3 hrs credit

A course in getting along with other

people while dealing with them daily in a work situation: employers, fellow workers, subordinates and customers. In this course the student will learn the principles of oral, visual and written communication in the world of work; motivation dealing with organizational management in a changing society; the art of listening and giving orders; communications for leadership; business meetings; problems of communication; handling introductions; social responsibilities of business; and understanding of organizational members at work.

## **BUS 107**

# **BOOKKEEPING AND PROCEDURAL ACCOUNTING**

Prerequisite: None

3 lectures per week: 3 hrs credit

A one-semester course that emphasizes how to keep records rather than how to analyze them. Work is devoted to developing procedures within the framework of acceptable accounting concepts. The student also will acquire a vocabulary necessary to understand communications with others in the field.

#### **BUS 109**

## PRINCIPLES OF SUPERVISION

Prerequisite: None

3 lectures per week: 3 hrs credit

This course examines the principles of planning, organizing, directing and controlling the work of others by first-level managers. Real world applications and productivity are emphasized.

#### **BUS 115**

## **OCCUPATIONAL SAFETY AND HEALTH**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course presents those aspects of occupational safety and health which are essential to the first-level manager. Emphasis is placed on developing an understanding of the economic, legal and social factors related to providing a safe and healthful workplace.

#### **BUS 119**

## PRINCIPLES OF RETAILING

Prerequisite: None

3 lectures per week: 3 hrs credit

This course outlines the opportunities in the retailing field and the monies that are necessary for operating a retail firm. Additional areas covered include location, purchasing procedures, merchandising, pricing and operational management procedures.

#### **BUS 120**

#### **SALES**

Prerequisite: None

3 lectures per week: 3 hrs credit

The study of the sales process and the psychology involved in the sales process. Special emphasis is given to application of sales techniques and management of sales campaigns.

# **BUS 122**

# PRINCIPLES OF INSURANCE

Prerequisite: BUS 101

3 lectures per week, 3 hrs credit

Basic ideas, problems and principles of modern day insurance are studied. Emphasis is on life and casualty insurance, including auto, fire, health and accident, and workmen's compensation.

#### **BUS 127**

## **BUSINESS COMMUNICATIONS**

Prerequisite: ENG 101

3 lectures per week: 3 hrs credit

A comprehensive study of the types and methods of communications used in business in a variety of simulated business situations. The course is based on a series of practical assignments rather than being theoretical in nature. Emphasis is on business letters, memos and the in-depth business report. Problem situations are designed to evaluate the method of communication to be effectively used in various real-life business situations.

#### **BUS 129**

#### PRINCIPLES OF PHYSICAL DISTRIBUTION

Prerequisite: None

3 lectures per week: 3 hrs credit

This course describes 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. Distribution design and distribution system analysis are emphasized.

# BUS 131 (IAI: BUS 903) FINANCIAL ACCOUNTING

Prerequisite: COMPASS placement into ENG 099 or higher

4 lectures per week: 4 hrs credit

This is an introduction to financial accounting and the communication of relevant information to external parties. It includes the development of the accounting model, internal control, measurement processes, data classification and terminology. Interpretation and use of the resultant financial statements are emphasized. Sole proprietorships, corporations, service businesses and merchandisers are covered. The additional feature of this course is the inclusion of computer applications.

# **BUS 132** (IAI: BUS 904)

#### MANAGERIAL ACCOUNTING

Prerequisite: BUS 131

3 lectures per week: 3 hrs credit

This is an introduction to managerial accounting emphasizing information required for internal decision making. The fundamentals of product costing, cost/volume/profit analysis, absorption costing, variable costing, budgeting, standard costs, variance analysis, cost control, responsibility accounting, short-run decision analyses, capital budgeting, activity-based costing, just-intime concepts and quality management are included.

# **BUS 136**

# **INVENTORY CONTROL**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course is an overview of the dynamics of managing inventory in the constantly changing industrial and commercial environment. Topics include forecasting sales and inventory requirements, computer applications to inventory control problems, building inventory models, simulation, and the relationships of inventory control to marketing management and production control.

## **BUS 137**

# ACCOUNTING-MICROCOMPUTER APPLICATIONS

Prerequisite: BUS 107 or 131 or equivalent

3 lectures per week: 3 hrs credit

This course is for students who have completed one semester of accounting and wish to learn how computerized accounting systems function through a hands-on approach. The integrated skills approach is based upon commercial software packages. Students will complete the following modules: general ledger, accounts receivable, accounts payable, job cost and system.

#### **BUS 138**

## **ACCOUNTING SOFTWARE I**

Prerequisite: BUS 107 or BUS 131

1.5 lecture hrs per week: 1.5 hrs credit

This is an introductory course in the use of commercial microcomputer accounting software applications. General ledger, financial statements, customer, vendor, payroll and inventory applications are included. Students intending to transfer credit should take BUS 137.

#### **BUS 139**

## **ACCOUNTING SOFTWARE II**

Prerequisite: BUS 107 or 131

1.5 lecture hrs per week: 1.5 hrs credit

This course continues the study of commercial microcomputer accounting software applications. General ledger, financial statements, customer, vendor, payroll and inventory applications are included. Students intending to transfer credit should take BUS 137.

#### **BUS 140**

#### INTERNATIONAL BUSINESS

Prerequisite: BUS 101

3 lectures per week: 3 hrs credit

This course provides an understanding of the concepts, principles and practices of the international business environment. Included are a study of the nature of international business; differences between conducting business in the United States and in other countries; international organizations; functional management and monetary systems; foreign forces such as economic, labor, cultural, political and competitive; and the impact of a foreign country's economy and business practices on U.S. economy and business.

#### **BUS 157**

# **FINANCE AND CREDIT OPERATIONS**

Prerequisite: None

3 lectures per week: 3 hrs credit

The operations of financial institutions including banks, credit unions and savings and loans are covered. Described are the operations of the financial community: mortgage houses, financial firms and credit agencies. The course gives insight into the operations and the role they play in our economic life.

# **BUS 165**

## PERSONAL ASSET MANAGEMENT

Prerequisite: None

4 lectures per week: 4 hrs credit

This course is a study of investment vehicles and the securities market. The content includes a study of stocks, bonds, money market instruments, mutual funds and real estate; what they are used for and how; why and when they should be traded; who should invest in them; how interest rates affect them; investment strategies; and how a portfolio should be managed. The course also informs students of their financial responsibilities, helps them to develop strategies for managing their debt and explores skills for the wise use of credit.

#### **BUS 169**

#### MATERIALS HANDLING AND PACKAGING

Prerequisite: None

3 lectures per week: 3 hrs credit

This course presents materials handling and packaging as tools for use in a total system of materials management. Materials handling concepts include palletization, containerization, conveyor systems, fully automated warehousing and integrated production lines. Packaging is examined beyond its role in protecting the product.

#### **BUS 170**

## **SMALL BUSINESS MANAGEMENT**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course provides a study of the steps in founding, organizing, financing, developing, operating and managing a small business firm. The course also includes a study of the planning, budgeting, purchasing, inventory control, hiring, supervision, advertising, promotion, selling, record keeping, taxation, risk management and other topics as they pertain to the small business firm.

#### **BUS 190**

#### **PURCHASING**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course covers the nature and importance of procurement in modern business organizations. Principles, tools, methods and techniques for acquisition of materials, supplies and equipment are studied.

# **BUS 201** (IAI: BUS 912)

# **BUSINESS LAW I**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course emphasizes the development of law and effects on transacting business. Specifically, it deals with settlement of disputes, torts, contract sales, product liability and breach of contracts. Also included will be agency and the duties and responsibilities of an agent contract.

# **BUS 203**

## **BUSINESS LAW II**

Prerequisite: BUS 201

3 lectures per week: 3 hrs credit

The course emphasizes the legal principles in the formation and operation of business organizations including sole proprietorships, partnerships, and corporations, the duties of property ownership, negotiable instruments and credit transactions.

#### **BUS 209**

## **SUPERVISORS AS TRAINERS**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course presents principles, practices and basic methods of instruction as related to business and industry. Emphasis is on the supervisor as a trainer.

## **BUS 210** (IAI: BUS 913)

## **BUSINESS LAW AND ITS ENVIRONMENT**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course is a broad and general overview of legal precepts concerning personal property and its liability, forms of business organization and the regulations governing them and consumer protection as it affects business.

#### **BUS 215**

#### INDIVIDUAL'S FEDERAL INCOME TAXES

Prerequisite: BUS 131

3 lectures per week: 3 hrs credit

This course is a survey of the Internal Revenue Code and the practical application of tax rules in preparation of individual tax forms. This course applies accounting principles and tax law to determine individual tax returns of those who are employees and those who are self-employed.

#### **BUS 219**

# PRODUCTION CONTROL CONCEPTS

Prerequisite: None

3 lectures per week: 3 hrs credit

This course describes the development, scope and objectives of production control. Specific attention is given to scheduling, control, critical path, machine loading and materials requirements planning.

# **BUS 229**

#### **QUALITY MANAGEMENT**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course provides an introduction to quality management principles and related high-performance strategies. The course covers fundamental quality concepts, adapting quality to a specific setting, and tools and techniques for achieving and sustaining quality.

#### **BUS 233**

# **COST ACCOUNTING**

Prerequisite: BUS 132

3 lectures per week: 3 hrs credit

This course covers accounting production-management and control with particular emphasis on cost distribution and account analysis to present an interrelated system of accounting, planning and controlling for enterprises. Emphasis is on the function as a technician and a member of the management team. General accounting procedures are included to the extent necessary.

#### **BUS 234**

#### **ACCOUNTING FOR FEDERAL INCOMETAXES**

Prerequisite: BUS 132

3 lectures per week: 3 hrs credit

This course is intended for those who need an understanding of tax accounting to assist them in making managerial decisions. Principles and procedures for determining taxable income for federal income tax purposes as it pertains to single proprietorships, partnerships and corporations. This course will include topics dealing with history of taxes, tax research, income items, deductions, accounting periods, methods and installment sales and sales and exchanges.

#### **BUS 238**

# **MATERIALS REQUIREMENTS PLANNING (MRP)**

Prerequisite: BUS 136

3 lectures per week: 3 hrs credit

This course covers computer-based Materials Requirements Planning (MRP) systems important to modern materials management. It focuses on using MRP systems to reduce inventories, set priorities, initiate orders, initiate purchase requirements and develop master production schedules.

#### **BUS 239**

#### JUST-IN-TIME (JIT)

Prerequisite: BUS 136

3 lectures per week: 3 hrs credit

This course provides a comprehensive study of the JIT philosophy/technique for improving manufacturing practices. These practices result in improved material flow systems, low inventories, improved manufacturing activities, increased capital turnover and maximized profits.

# BUS 240 (IAI: MI 902; BUS 901)

# **ELEMENTARY STATISTICS**

Prerequisite: MATH 151 or qualifying score on Math Placement Test 4 lectures per week: 4 hrs credit

This is an introductory course in probability and statistics. Topics covered in the course include frequency distributions, percentiles, measures of central tendency, measures of dispersion, standard deviation, correlation, probability, line of regression, statistical inferences, the binomial distribution, the t-distribution and the chi-square distribution. Computer software such as minitab is used. A comprehensive project is assigned. Students who complete this course cannot also receive credit for MATH 115 and 153.

## **BUS 241**

# PRINCIPLES OF MANAGEMENT

Prerequisite: BUS 101

3 lectures per week: 3 hrs credit

This course introduces the concept of the managerial functions in the modern business enterprise including the presentation and development of managerial principles in all activities, most specifically in the business enterprise. Basic management philosophies and theories are presented in relation to planning, organizing, staffing, directing and controlling. Attention is given to basic management concepts and applications of motivation in the formal and informal organizational structures. Discussions and case studies are directed toward management theory and practice.

#### **BUS 242**

#### **HUMAN RESOURCES MANAGEMENT**

Prerequisite: None

3 lectures per week: 3 hrs credit

Modern concepts of supervisory principles and practice are studied. Emphasis is on the human relations aspects of supervision, as well as on the functions of staffing, training, compensation, employee services, fringe benefits, health and safety, job evaluation and industrial relations. Role playing and case studies supplement the course.

#### **BUS 243**

## INDUSTRIAL AND LABOR MANAGEMENT RELATIONS

Prerequisite: None

3 lectures per week: 3 hrs credit

A study of industrial relations, philosophy and functions, administration of common benefit plans (pensions, health and safety, supplemental compensation plans) and techniques and administration of collective bargaining (negotiations, procedures, labor agreements, day-to-day administration and grievance procedures).

#### **BUS 249**

#### MANAGERIAL COMMUNICATION

Prerequisite: None

3 lectures per week: 3 hrs credit

This course is designed to develop poise and self-confidence in situations requiring oral communication skills. Attention is given to technique and skills applications. The following interpersonal situations are emphasized: planning, organizing and conducting effective meetings and interviews; powerful presentation techniques; special communication and management considerations for teams; and cultural diversity in the workplace.

#### **BUS 25**

# PRINCIPLES OF MARKETING

Prerequisite: BUS 101

3 lectures per week: 3 hrs credit

This survey course presents the concepts, principles and functions of marketing in the dynamic business and economic environment. Emphasis is on the understanding of channels of distribution, marketing costs, motivations and pricing. Planning policies and strategies also are studied and casework is used as a supplement.

#### **BUS 260**

# PRINCIPLES OF FINANCE

Prerequisite: BUS 132

3 lectures per week: 3 hrs credit

This course explores managerial decisions reflecting upon the various types of business ownership (tracing the need for capital because of growth), the tools for financial analysis, the analysis of capital structures and the long- and short-term sources and uses of capital are covered. Securities markets, their regulation, their purposes and their relationships are studied.

# BUS 261 (IAI: MC 912)

# **ADVERTISING**

Prerequisite: None

3 lectures per week: 3 hrs credit

A survey of social and economic aspects of advertising, the advertising cycle, kinds of advertising, selection of media, costs, analysis of copy and displays, format, layout, labels, trademarks, slogans, campaigns and measurement of results. Preparation of magazine and advertising copy.

#### **BUS 270**

## INTERNATIONAL MATERIALS/LOGISTICS MANAGEMENT

Prerequisite: None

3 lectures per week: 3 hrs credit

This course provides a comprehensive study of the materials/logistics management function related to the international environment: business/cultural customs, legal consideration, purchasing strategies, financial aspects, international distribution and countertrade.

#### **BUS 287**

## **E-BUSINESS**

Prerequisite: BUS 101

3 lectures per week: 3 hrs credit

This course is designed to provide an overview of how business can profit from current technology, primarily the Internet. Topics studied include e-business versus e-commerce, foundations of e-business, business to business electronic commerce, e-business legal issues, electronic payment systems, and e-business strategy and implementation.

#### **BUS 290**

## **ADVANCED PURCHASING**

Prerequisite: BUS 190

3 lectures per week: 3 hrs credit

This course is a continuation of BUS 190. Emphasis is given to managerial aspects of purchasing, contract negotiation and administration and speculative purchasing.

## **BUS 298**

#### **SEMINAR**

Prerequisite: Consent of Coordinator I lectures per week: I hr credit

This seminar is taken in conjunction with BUS 299, Internship. The content of the seminar relates to internship work which is correlated with the student's field of study.

#### **BUS 299**

## **INTERNSHIP**

Prerequisite: Consent of Coordinator

15 lab hrs per week: 3 hrs credit (variable credit)

The student internship allows a student to earn a variable amount of college credits for managerial responsibilities while working in commerce or industry. A formalized work training program is structured to allow supervision by both the employer and the College's coordinator. The internship work should be directly related to student's field of study.

# CAD/MECHANICAL DESIGN TECHNOLOGY

#### CADMD 141

## **TECHNICAL DRAFTING I**

Prerequisite: None

2 lectures, 2 lab hrs per week: 3 hrs credit

A beginning course in drafting for students who have little or no drafting experience. Principal objectives are basic understanding of orthographic, isometric and assembly working drawings; understanding the principles and applications of descriptive geometry; experience in using handbooks and other resource materials; and use of simplified drafting practices in industry. ASA standards are stressed. Interpretation of industrial sketches and prints is introduced to emphasize accepted drawing practices.

#### CADMD 201

## **MECHANICAL LAYOUT AND DESIGN I**

Prerequisite: None

2 lectures, 2 lab hrs per week: 3 hrs credit

An advanced course in graphics for all students taking the mechanical design curriculum. The instructional unit provides experience in mechanical layout and design. Design problems require solution by math, graphics and creative imagination. Experience also is given in industrial filing systems, engineering specifications, blueprint corrections, manufacturing processes and other products.

#### **CADMD 203**

## STATICS AND STRENGTH OF MATERIALS

Prerequisite: TECH 109

4 lectures per week: 4 hrs credit

A study of the stress and deformation of mechanical parts and structural members. The properties of materials, the geometry of parts and the type of loading are considered for the design of shafts, beams, columns and welded joints based on both strength and stiffness requirements. Methods of analyzing force systems, shear and moment diagrams and the concepts of deflections and moments of inertia on an area will also be covered by the course. This course is to be calculator based.

#### CADMD 241

# ADVANCED DRAFTING—MECHANISMS I

Prerequisite: CADMD 141

2 lectures, 2 lab hrs per week: 3 hrs credit

This advanced course in drafting uses the basic techniques acquired in CADMD 141. The areas of study consist of design of gears, cams and splines. Production dimensioning, including fits and tolerances, is covered.

#### **CADMD 242**

# ADVANCED DRAFTING—MECHANISMS II

Prerequisite: CADMD 141

2 lectures, 3 lab hrs per week: 3 hrs credit

The course provides information and experience in the design and drawing of springs, bearings, linkage and other mechanisms. An in-depth study of drafting and design manuals and reference materials will be required with the SAE drafting standard being stressed.

# CADMD 243 (IAI: MTM 911) INTRODUCTION TO AUTOCAD

Prerequisite: CADMD 141

2 lectures, 2 lab hrs per week: 3 hrs credit

This is an introductory course in Computer Aided Drafting (CAD). Through lecture and hands-on experience, students will learn to use the most popular microcomputer CAD software, AutoCAD. Students will learn basic CAD skills that will enable them to produce mechanical drawings. Topics include: setting up AutoCAD, utility commands, drawing construction techniques, editing, display controls, layers, drawing aids, dimensioning and plotting. Although there are no specific prerequisites, prospective students should have a working knowledge of IBM-compatible PCs, an understanding of plane geometry, and be able to deal with both common and decimal fractions.

## **CADMD 244**

# **INTERMEDIATE AUTOCAD**

Prerequisite: CADMD 243

2 lecture, 2 lab hrs per week: 3 hrs credit

This course is a continuation of CADMD 243. Students will learn to use advanced AutoCAD commands to create complex mechanical drawings. The topics to be covered include: attributes and polylines, AutoCAD 3-D, customizing AutoCAD and a brief intro to AutoLisp.

# **CADMD 245** (IAI: EGR 941)

## **COMPUTER AIDED DESIGN**

Prerequisite: CADMD 244 and CADMD 201 or 241

2 lecture, 2 lab hrs per week: 3 hrs credit

This is a course in Computer Aided Design for the advanced CAD user. Students will learn to use a typical CAD system to design and analyze mechanical mechanisms. The course content stresses reinforcement of CAD capabilities covered in previous courses, creating AutoLisp programs using AutoCAD commands in AutoLisp, conditional and loop statements and programming logic. Design concepts such as design automation and product design analysis will be covered.

# **CADMD 246**

## ARCHITECTURAL DESKTOP

Prerequisite: CADMD 244

I lecture, 2 lab hrs per week: 2 hrs credit

This course teaches advanced CAD students to use Architectural Desktop software to create architectural drawings. It is not a course in architectural design. Students are expected to have previous AutoCAD experience and have a working knowledge of conventional architectural drawing techniques. Topics include creating typical architectural drawings such as floor plans, elevations, sections and site plans.

# **CADMD 247**

# **MECHANICAL DESKTOP**

Prerequisite: CADMD 244

I lecture, 2 lab hrs per week: 2 hrs credit

This course teaches students to create mechanical designs using Autodesk's Mechanical Desktop software. Students who are already proficient in 2-D CAD learn to convert rough sketches into working solid model mechanical drawings.

#### **CADMD 248**

## INTRODUCTION TO INVENTOR

Prerequisite: CADMD 244

I lecture, 2 lab hrs per week: 2 hrs credit

This course is an introduction to Autodesk Inventor, which is an advanced 3-D parametric solid modeling system with surface modeling capabilities. Students will learn to create solid parts, assemblies of solid parts, exploded presentations of assemblies and engineering drawings.

## CAPSTONE EXPERIENCE

# **CAP 290**

#### CAPSTONE EXPERIENCE

Prerequisite: Completion of at least 45 hrs toward an associate's degree.

3 lectures per week: 3 hrs credit

The Capstone Experience is designed to integrate the general education knowledge that a student has acquired while pursuing the associate's degree. The course will focus on topical projects that provide an opportunity to demonstrate critical thinking, teamwork and other skills necessary for lifelong learning.

# **CHEMISTRY**

# **CHEM 105** (IAI: PI 902L)

# **SURVEY OF GENERAL CHEMISTRY**

Prerequisite: MATH 090 with a C or better or qualifying score on Math Placement Test

3 lectures, 4 lab hrs per week: 4 hrs credit

This course includes the basic concepts of general chemistry such as nomenclature, mass relationships, solutions, acids and bases, and bonding. Students cannot receive credit for both CHEM 105 and 110.

CHEM 110 (IAI: P1 902L; BIO 906; CHM 911; CLS 906; EGR 961; NUR 906)

## **GENERAL CHEMISTRY I**

Prerequisite: MATH 095 with a C or better or placement in MATH 151 AND high school chemistry

4 lectures, 3 lab hrs per week: 5 hrs credit

This is the first course of a two-semester sequence and is strongly recommended for all science majors and pre-engineering students. It includes the mole concept, bonding theory, formulas and equations, periodic classification of the elements, and physical properties of gases, liquids, solids and solutions. Students cannot receive credit for both CHEM 105 and 110.

CHEM 130 (IAI: BIO 907; CHM 912; CLS 907; EGR 962; NUR 907)

## **GENERAL CHEMISTRY II**

Prerequisite: CHEM 110 with a C or better 4 lecture, 3 lab hrs per week: 5 hrs credit

This is the second course of the two-semester sequence and is strongly recommended for all science majors and preengineering students. This class includes a study of acids and bases, general equilibria, qualitative analysis electrochemistry oxidation-reduction, general descriptive chemistry, thermodynamics, molecular structure, coordination compounds and introduction to organic chemistry.

CHEM 203 (IAI: BIO 908; CHM 913; CLS 908; EGR 963;

NUR 908)

#### **ORGANIC CHEMISTRY I**

Prerequisite: CHEM 130 with a C or better 4 lectures, 3 lab hrs per week: 5 hrs credit

This course covers the preparation and study of representative compounds of aliphatic and aromatic series including organic synthesis, reaction mechanisms and structural theory.

# CHEM 204 (IAI: BIO 909; CHM 914; CLS 909; EGR 964)

## **ORGANIC CHEMISTRY II**

Prerequisite: CHEM 203 with a C or better 4 lectures, 3 lab hrs per week: 5 hrs credit

The course will focus on interpretation of NMR, IR and mass spectra, heterocyclic compounds, polymers, carbohydrates and proteins.

#### **CHEM 205**

#### SURVEY OF ORGANIC AND BIOCHEMISTRY

Prerequisite: CHEM 110 with a C or better 3 lectures, 4 lab hrs per week: 4 hrs credit

An introduction to organic and biochemistry intended for students in areas that study life processes. This course should not be taken by students in chemistry, pre-medicine, pre-dentistry or pre-veterinary. The student should seek advice on the applicability of this course to his or her curriculum.

# **COLLEGE SKILLS**

#### **COL 100**

# **COMPUTING FOR COLLEGE SUCCESS**

Prerequisite: None

I lecture per week: I hr credit

This course is designed to teach the basic computer skills necessary to be a successful college student. Topics covered will include computer hardware, the Windows operating environment, the Internet and electronic mail. In addition, the course includes the basic functions of word processing software and an overview of the main components of a software suite.

## **COL 101**

# **COLLEGE SUCCESS SEMINAR**

Prerequisite: None

I lecture per week: I hr credit

The purpose of this course is to provide an opportunity for students to learn and adapt methods that promote success in college. Students will learn about the challenges and choices they will face as college students as they set education and career goals, explore their values and decision-making skills, learn study strategies, and develop an appreciation for diversity. Students will complete a master academic plan.

# **COL 102**

## **CAREER DEVELOPMENT SEMINAR**

Prerequisite: None

I lecture per week: I hr credit.

This course provides the opportunity to explore career interests, skills, abilities and work-related values. Topics include the nature of various careers, labor market trends, job search strategies, education and training requirements and diversity in the workplace. Students will learn to develop a career and educational plan based upon informed career decisions.

#### **COL 103**

## LIFE EXPERIENCE CREDIT SEMINAR

Prerequisite: Counselor consent
I lecture per week: I hr credit

This seminar is required for students applying for life experience credit. Students will learn to develop a portfolio which will document learning experiences gained outside the traditional college classroom. Techniques for examining and documenting life experiences through certificates, diplomas, employer letter, vitae, personal narrative and related techniques will be discussed.

#### **COL 104**

# LEADERSHIP DEVELOPMENT

Prerequisite: None

2 lectures per week: 2 hrs credit

This course provides a basic understanding of leadership and group dynamics theory and assists students in developing a personal philosophy of leadership. An awareness of moral and ethical responsibilities of leadership and of one's own ability and style of leadership are developed.

#### **COL 105**

#### **PERSONAL AWARENESS**

Prerequisite: None

I lecture per week: I hr credit

The focus of this course is to help each individual assess his or her personal resources and communication styles and then set realistic goals. The students will examine their own values, interpersonal relationships, emotions, decision-making processes, motivations, etc. Various personal growth theories will also be explored. Emphasis is placed on the application of these characteristics and theories to help students obtain and maintain positive control over their lives and lifestyles.

# **COL 106**

# **PERSONAL WELLNESS**

Prerequisite: None

I lecture per week: I hr credit

This course is designed for those desiring to improve their choice of lifestyle relative to personal responsibilities, balance, and personal enhancement of physical, mental and spiritual health. The course also assists individuals in making voluntary behavior changes which reduce health risks and enhance individual productivity.

# COMMUNICATION

#### COMM 101 (IAI: C2 900)

## PRINCIPLES OF COMMUNICATION

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This is a course in the theory and practice of interpersonal, group and public communication. Emphasis is placed on the speaker's confidence, audience reaction, ideas and materials, use of voice, body activity, organization and language. Students are given many opportunities to speak and are led to develop standards of criticism.

# COMM 102 (IAI: SPC 911)

## **ADVANCED PUBLIC SPEAKING**

Prerequisite: COMM 101

3 lectures per week: 3 hrs credit

This course develops an awareness of useful oral strategies and techniques used to combat communication barriers in the realms of social interaction, education, business and politics. Persuasion and group communication are stressed.

# **COMM 105** (IAI: MC 914)

# INTRODUCTION TO BROADCASTING

Prerequisite: None

3 lectures per week: 3 hrs credit

This is a beginning course in broadcasting. An understanding of the historical development, theory, writing, broadcasting and engineering is stressed. Classroom study is directed toward programming for actual broadcast on local stations.

# **COMM 108** (IAI: SPC 921)

# INTERPERSONAL COMMUNICATION

Prerequisite: None

3 lectures per week: 3 hrs credit

This course explores one-to-one, face-to-face communication through experience, theory and skill application.

Communication in family, work, and social contexts will be examined. Stress will be placed on satisfying individual needs, functioning in appropriate roles, resolving conflicts and communicating effectively.

# COMM III (IAI: MC 911)

## **INTRODUCTION TO MASS COMMUNICATION**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course provides an overview of the nature, functions and responsibilities of the mass communications industry in a global environment with an emphasis on the media's role in American society.

# **COMM 141** (IAI: SPC 915; TA 916)

## **ORAL INTERPRETATION**

Prerequisite: None

3 lectures per week: 3 hrs credit

Analysis and appreciation of literature will be communicated through the performance of various types of literature. The course includes fundamental methods of literary analysis as well as emphasis on the skills of oral reading. The emphasis is on the oral aspects of individual interpretation.

#### **COMM 196**

## **APPLIED FORENSICS I**

Prerequisite: None

2 lab hrs per week: I hr credit

This course provides instruction and experience on speech competition, including participation in a variety of competitive speech events. Students enrolled in this course are automatically part of the Forensics Team.

## **COMM 197**

## **APPLIED FORENSICS II**

Prerequisite: COMM 196 2 lab hrs per week: I hr credit Continuation of COMM 196.

#### **COMM 198**

#### **APPLIED FORENSICS III**

Prerequisite: COMM 197 2 lab hrs per week: I hr credit Continuation of COMM 197.

#### **COMM 199**

#### **APPLIED FORENSICS IV**

Prerequisite: COMM 198 2 lab hrs per week: 1 hr credit Continuation of COMM 198.

# COMPUTER ELECTRONICS TECHNOLOGY

# **CET 101**

# **FUNDAMENTALS OF ELECTRICITY**

Prerequisite: None

2 lectures per week: 2 hrs credit

This is an introductory course in the fundamentals of electricity. The nature of voltage, current, resistance and power will be studied. Students will analyze, calculate, measure and wire parameters of electrical devices and circuits. Included are series, parallel and combination circuits.

#### **CET 103**

#### **ALTERNATING CURRENT**

Prerequisite: CET 101

2 lectures per week: 2 hrs credit

This is a fundamental course in alternating current theory and analysis. Students analyze, calculate, measure, and wire circuits and electrical parameters involving transformers, relays, inductors, capacitors, series and parallel alternating current circuits.

# CET III

## **ELECTRONIC PRINCIPLES**

Prerequisite: Concurrently with CET 101

4 lectures per week: 4 hrs credit

This is an introductory course in the principles of how electronic devices work and how they are connected into basic electronic circuits. Students will calculate, measure and wire electrical components as they are used in electronic circuits. The content includes introductory analysis of device parameters and circuit application of switches, relays, diodes, transistors and digital integrated circuits.

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**COURSE DESCRIPTIONS** 

#### **CET 114**

## **DIGITAL FUNDAMENTALS**

Prerequisite: None

4 lectures per week: 4 hrs credit

This is an introductory course in digital systems. Numbering systems and codes are introduced along with logic representation and combination digital logic circuits. Logic gates, logic families and interfacing of components are studied. Related circuitry will be wired and analyzed.

#### **CET 203**

## **INSTRUMENTATION FUNDAMENTALS**

Prerequisite: CET 101

4 lectures per week: 4 hrs credit

This course is a study of electronic instrumentation with applications to the control of industrial processes. Topics include measuring instruments, an introduction to process control, transducers, controller principles and control elements.

#### **CET 211**

## **COMMUNICATION ELECTRONICS**

Prerequisite: CET 103

4 lectures per week: 4 hrs credit

This course is a continuation of electronic studies extending into communications applications. Topics include feedback, oscillators, modulation, demodulation, R.F. amplification, wave propagation, wave transmission and wave radiation. Analysis techniques will be extended from the time domain to frequency domain.

## **CET 220**

# PROGRAMMABLE LOGIC CONTROLLERS

Prerequisite: None

4 lectures per week: 4 hrs credit

Students will program, download and wire input and output devices using Allen-Bradley software for the SLC-500 and Micro-Logic 1000 programmable logic controllers.

# COMPUTER AND INFORMATION SYSTEMS

(see Information Technology)

# **CRIMINAL JUSTICE SERVICES**

# CI 101 (IAI: CRI 901)

# INTRODUCTION TO CRIMINAL JUSTICE

Prerequisite: None

3 lectures per week: 3 hrs credit

This is a survey and analysis of the criminal justice system, including a historical, developmental and philosophical overview of development of law as a means of social control. Special emphasis is placed on the system's primary components and the relationship of these components in the administration of criminal justice in America.

# CJ 102 (IAI: CRJ 912)

# INTRODUCTION TO CRIMINOLOGY

Prerequisite: None

3 lectures per week: 3 hrs credit

This course is an introduction to the multidisciplinary study and analysis of the nature, causes and control of crime in America. The measurement of crime and the interactive roles of the system, victim, offender and society are also covered.

#### **CI 103**

# LAW ENFORCEMENT ORGANIZATION AND ADMINISTRATION

Prerequisite: None

3 lectures per week: 3 hrs credit

This course focuses on the principles of organization and management as applied to law enforcement agencies. Topics covered include concepts of organization behavior, formulation of policy and procedure and coordination of operational units.

## CJ 106 (IAI: CRJ 911)

# INTRODUCTION TO CORRECTIONS

Prerequisite: None

3 lectures per week: 3 hrs credit

An overview and analysis of the American correction system is presented, including the history, evolution and philosophy of punishment and treatment. The operation and administration of criminal justice in both institutional and non-institutional settings is covered. Current issues in correctional law are also presented.

#### CI 108

# PROBATION, PAROLE AND COMMUNITY-BASED CORRECTION

Prerequisite: CJ 106

3 lectures per week: 3 hrs credit

The organization and operation of probation and parole systems, including history, laws, ideologies and problems are studied. Issues of supervision and evaluation of community-based correctional institutions such as halfway houses and work-release programs are investigated.

## **CJ 110**

## **COMMUNITY-BASED POLICING**

Prerequisite: CJ 101

3 lectures per week: 3 hrs credit

The philosophical and practical applications of community-based policing are presented.

## **CJ 120**

## INTRODUCTION TO HOMELAND SECURITY

Prerequisite: None

3 lectures per week: 3 hrs credit

This course examines the programs and activities that have been implemented to improve the safety of our country. Special emphasis is placed on the threat of terrorism and strategies to address that threat.

# CJ 201 (IAI: CRJ 913)

## INTRODUCTION TO CRIMINAL LAW

Prerequisite: None

3 lectures per week: 3 hrs credit

This course examines and analyzes the structure and functions of substantive criminal law. The principles of criminal law are presented, including the acts, mental state and attendant circumstances that are necessary elements of the crime.

# **CJ 202**

## **CIVIL AND CRIMINAL LAWS/PROCEDURES**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course examines legal concepts and criminal procedures in the areas of arrest, force, search and seizure, interrogation, and obtainment of physical evidence. Also included are studies on trials, indictments, bail, grand and petit juries, and the rules of evidence in the State of Illinois.

#### **CI 203**

#### PRINCIPLES OF CRIMINAL INVESTIGATION

Prerequisite: CJ 101

3 lectures per week: 3 hrs credit

This course covers the fundamentals and procedures of investigation including applications of deductive and inductive reasoning and other investigative techniques; collection, marking and preservation of evidence suitable for court presentation; due process; and techniques and procedures of follow-up investigation.

# CJ 204 (IAI: CRJ 914)

# **JUVENILE JUSTICE**

Prerequisite: None

3 lectures per week: 3 hrs credit

The history and philosophy of society's reaction to juvenile behavior and problems are covered. The interaction among the police, judiciary and corrections systems are examined within the context of cultural influences. Theoretical perspectives of causation and control are examined.

#### **CI 208**

## **PRINCIPLES OF CRIMINALISTICS**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course covers the application of the natural and physical sciences to crime solutions in law enforcement. All aspects of crime scene processing including evidence recognition, collection, protection and transmission, examination and evaluation of physical evidence, and identification and comparison of crime laboratory procedures are included. The role of the crime laboratory in modern law enforcement is also studied.

# CJ 299

# **CRIMINAL JUSTICE INTERNSHIP**

Prerequisite: Completion of 12 credits of CJ courses and consent of Coordinator.

I lecture, 10 lab hrs per week: 3 hrs credit Students are assigned to a criminal justice a

Students are assigned to a criminal justice agency for supervised exposure to the various aspects of a working agency. Students will spend a minimum of 10 hours per week on-site and one hour per week in a seminar setting.

# **DENTAL HYGIENE**

#### DH 100

## **ORIENTATION TO DENTAL CAREERS**

Prerequisite: None

I lecture per week: I hr credit

This course is an orientation to dentistry and dental auxiliaries. The course includes an overview of the dental professions and its job opportunities. This course is open to all interested students. Admission into the Dental Hygiene program is not a requirement to register for this course.

#### **DH 101**

# HISTOLOGY

Prerequisite: Consent of program coordinator

2 lecture hrs per week: 2 hrs credit

A basic course in the minute structural and functional units of living tissue. This course provides sufficient knowledge of that part of the body whose healthful condition is the particular responsibility of the dental hygienist.

#### **DH 103**

#### HEAD AND NECK ANATOMY AND TOOTH MORPHOLOGY

Prerequisite: Consent of program coordinator

3 lectures, 4 lab hrs per week: 5 hrs credit

This course deals with the study of structure, function and morphology of the teeth. Also included are surrounding anatomical structures such as salivary glands, muscles of mastication, bones of the skull and ligaments. Terminology is included so that the student may communicate effectively in the profession.

#### **DH 104**

## **DENTAL RADIOLOGY**

Prerequisite: DH 103

2 lectures, 4 lab hrs per week: 4 hrs credit

This in-depth introduction to dental radiography concentrates on the history and characteristics of radiation in dentistry, technical aspects of radiation production, computerized digital radiography and the components and functions of the dental X-ray machine. Hazards, safety precautions and infection control are covered. Intraoral techniques, landmarks, processing of radiographs and the mounting and viewing of films are emphasized. Regulations and management of clients with special needs are covered. Students assess clients, complete treatment plans, and perform a required number of examinations and radiographic surveys on manikins and selected clients in a laboratory setting. Students are responsible for client recruitment.

#### **DH 105**

#### **NUTRITION**

Prerequisite: DH 101

2 lectures per week: 2 hrs credit

A lecture-seminar which provides comprehensive review of the components of a diet and the principles of nutritional requirements as they relate to health and disease. Attention is given to the consideration of diet in reference to body tissues in general and to the teeth in particular. Special emphasis will be placed on the method of controlling dental caries through patient nutritional counseling, gingivitis and periodontics. An independent study research project is required on preventive dentistry.

# **DH 106**

# **GENERAL AND ORAL PATHOLOGY**

Prerequisite: DH 101

2 lectures per week: 2 hrs credit

An introduction to general pathology with consideration of the more common diseases affecting the human body, clinical pathology of the diseases affecting the teeth and supporting structures including the physiological and pathological changes which affect the gingivae and the hard and soft structures of the oral cavity.

#### **DH 107**

# **FUNDAMENTALS OF DENTAL HYGIENE**

Prerequisite: Consent of program coordinator I lecture, 2 lab hrs per week: 2 hrs credit

This first of five clinical dental hygiene courses is designed for the entry-level, first-year dental hygiene student. Students perform selected services on clients, student partners, and a laboratory manikin, but do not provide a full range of client services. Didactic and clinical studies include infection control, clinical barriers, patient reception and positioning, instrument grasp, finger rests, tooth brushing and interdental care. Students are responsible for client recruitment.

#### **DH 108**

#### **CLINICAL DENTAL HYGIENE I**

Prerequisite: DH 107

2 lectures, 8 lab hrs per week: 4 hrs credit

This course provides lecture, pre-clinical and laboratory instruction in the techniques utilized for the assessment, diagnosis, planning, implementation and evaluation of client treatment care plans. Clinical activities are coordinated with Dental Hygiene Fundamentals (DH 107). Students deliver some client care including histories and vitals, oral examinations, occlusion determination, evaluation of teeth, tooth brushing and interdental care. Patient care plans and health care issues are addressed. Instrument design in relation to strokes used with hand instruments is covered. Students practice demonstrated techniques on manikins, student partners and clients. Students are responsible for client recruitment.

#### **DH 109**

## **CLINICAL DENTAL HYGIENE II**

Prerequisite: DH 108

2 lectures, 8 lab hrs per week: 4 hrs credit

Students continue to apply and refine skills of dental prophylaxis acquired in Clinical Dental Hygiene I. Dental calculus identification, records and charting, mouth rinse, dentifrices, care of dental appliances, topical application of fluoride, clinical technique of irrigation, indice and scoring methods, rubber cup polishing, and the use of Gracey curets are emphasized. Also included is application skills on clients. Students recruit clients.

#### **DH 116**

# **PERIODONTOLOGY**

Prerequisite: DH 108

2 lectures per week: 2 hrs credit

This course emphasizes the etiology, classification, symptomatology, treatment and prognosis of periodontal disease. A basic understanding of periodontics is necessary for the dental hygiene student to realize the significance of client education and of the dental prophylaxis. Non-surgical periodontal therapy and current treatment modalities are emphasized.

## **DH 120**

(was DH 208)

# CARE OF SPECIAL POPULATIONS

Prerequisite: DH 108

2 lectures per week: 2 hrs credit

This course emphasizes care of clients with special oral and general systemic conditions. Variations in age and degree of disability are considered. Students integrate knowledge from medical and social sciences into dental hygiene aspects of care.

## DH 201

# **CLINICAL DENTAL HYGIENE III**

Prerequisite: DH 109

I lectures, 4 lab hrs per week: 3 hrs credit

This continuation of Clinical Dental Hygiene II expands students' clinical patient care skills. Instrument sharpening, ultrasonic and sonic technique, advanced root debridement, advanced fulcruming techniques, and air polishing are emphasized. Students learn maintenance practices for oral health including special practices for clients who use tobacco products. Students are responsible for client recruitment.

#### **DH 202**

## **CLINICAL DENTAL HYGIENE IV**

Prerequisite: DH 201

I lecture, 16 lab hrs per week: 5 hrs credit

Students provide comprehensive client care, learning to make independent decisions about client care needs. Students provide non-surgical care for periodontally involved clients. This includes assessment, treatment planning, documentation, development of a self-care plan, evaluation and maintenance of care for the client. Students build on clinical skills and knowledge, studying pain and pain control, dentinal hypersensitivity and sealant application. Students are responsible for selected client recruitment.

#### **DH 203**

## **CLINICAL DENTAL HYGIENEV**

Prerequisite: DH 202

I lecture, 16 lab hrs per week: 5 hrs credit

Dental Hygiene students deliver comprehensive client care in a clinical setting. This course includes the practice of up-to-date concepts of dental hygiene in the clinical environment.

#### DH 204

#### **ETHICS, LAW AND ADMINISTRATION**

Prerequisite: DH 202

2 lectures per week: 2 hrs credit

This course examines the relationship of the dental hygienist to the practice of dental hygiene and dentistry. It explores the ethics, laws and administrative issues involved in the practice of dental hygiene.

# **DH 205**

# **PHARMACOLOGY**

Prerequisite: DH 109

2 lectures per week: 2 hrs credit

A study of drugs by groups, with special consideration of those used in dentistry, including their physical and chemical properties, dosage, and therapeutic effects, including the vaso-constrictors, dentifrices, dental adhesive powders, detergents and mouth washes.

#### **DH 207**

# THE SCIENCE AND APPLICATION OF DENTAL MATERIAL

Prerequisite: DH 201

2 lectures, 4 lab hrs per week: 4 hrs credit

This course covers the basic science, clinical indications, manipulative variables and procedures, physical and mechanical characteristics and clinical performance of materials used in dentistry. Lecture emphasizes reasons for using various materials. Laboratory and clinic emphasizes clinical dental hygiene skills using a comprehensive oral health care approach.

## **DH 220**

(was DH 114)

# **COMMUNITY DENTAL HEALTH**

Prerequisite: DH 201 (or taken concurrently with DH 201)

2 lectures per week: 2 hrs credit

Students learn the history and influence of public health concepts and practices on the dental hygiene profession. The theory, functions, services and administration of public health organizations are summarized. Students use research tools and statistical analysis to review and interpret dental scientific literature.

#### **DH 280**

#### **DENTAL HYGIENE NATIONAL BOARD REVIEW**

Prerequisite: Minimum 5 semesters of DH curriculum (including 2 summers) or graduate of accredited Dental Hygiene program 2 lectures per week: 2 hrs credit (may be repeated three times) This course is designed for the dental hygienist—whether a new graduate, a practicing dental hygienist who is moving to another licensing jurisdiction or a dental hygienist who wishes to begin practicing again after an extended period of inactivity—to assist in the preparation of the Board examinations.

#### **DH 281**

#### **BOARD REVIEW OF CLINICAL SKILLS**

Prerequisite: Current enrollment in or graduate of DH program 2 labs per week: 2 hrs credit (may be repeated three times) This course provides the student an opportunity to work on and improve clinical skills before taking the state examination. The course is also for dental hygiene graduates who have relocated or allowed their state licenses to lapse.

# **DRAFTING - APPRENTICE**

#### APPD 101

## **DRAFTING ESSENTIALS**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course provides an introduction to blueprint reading and drafting which includes class exercises in interpreting lines, view positions, conventions and standards found on prints; use of drawing tools, simple geometric construction, fundamentals of orthographic construction, use of finish symbols, and the application of scale and precision dimensioning.

#### APPD 102

## **DRAFTING CONVENTIONS AND SYMBOLS**

Prerequisite: APPD 101

2 lectures per week: 2 hrs credit

Assembly and detail drawings are used to illustrate print identification, holes, sections, tapers and castings. Emphasis is placed on reading shop prints.

# APPD 103

## **THREE DIMENSIONAL SHAPES**

Prerequisite: CADMD 141

2 lectures per week: 2 hrs credit

This course employs pictorial drawings to enable practice in three dimensional visualization interpretation, the accuracy of such interpretation being determined by the clay models each student produces.

# APPD 104

## **ADVANCED DRAFTING TECHNIQUES**

Prerequisite: APPD 103

2 lectures per week: 2 hrs credit

The study and application of true position tolerance dimensioning, based upon prints and drawings of single and double auxiliaries, weldments, and symmetrically opposite parts.

## APPD 105

#### **DESIGN APPLICATIONS FOR MECHANICAL TRADES**

Prerequisite: AMATH 101

2 lectures per week: 2 hrs credit

This course deals with the application of geometry and trigonometry to fundamental design problems in the mechanical trades. The areas of instruction include such topics as: computing pulley distances, finding patch diameter, finding the chord length on a bolt hole pattern, determining diameter given part of a circle and determining fillet radius.

#### APPD III

#### TOOL DETAILING AND ASSEMBLY

Prerequisite: APPD 104

2 lectures per week: 2 hrs credit

The drawing and detailing of outline and working tool assemblies with special attention to drafting standards. Drawing assignments are interspersed with reading of tool assembly prints which illustrates methods currently employed.

#### APPD 113

#### **CONVEYORS**

Prerequisite: CADMD 141

2 lectures per week: 2 hrs credit

Blueprint reading and simplified drawing of chair, slat, piano hinged, rubber belt, roller, monorail, power and free type-conveyors.

#### APPD 115

## **BLUEPRINT READING FOR MECHANICAL TRADES**

Prerequisite: CADMD 141

2 lectures per week: 2 hrs credit

This course in blueprint reading emphasizes the sketching and reading of mechanical drawings. Topics include sketching of machine parts, common notations, fits and finish marks, threads and tapers, sectioning, isometric, and oblique drawings.

## APPD 116

# STRUCTURAL DRAWING

Prerequisite: APPD 103

2 lectures per week: 2 hrs credit

Emphasis is given to the use of Steel Construction Manual charts in the selection and drawing of framed beams, stiffened and unstiffened beam seats, columns, right and left hand parts. Other topics include types of stress, fastening methods with rivets, bolts and weld, welding symbol applications, and determining the strength of a fillet weld.

# APPD 122

# PLANT EQUIPMENT AND LAYOUT

Prerequisite: APPD 103

2 lectures per week: 2 hrs credit

Blueprint reading and simplified drawings related to the fabrication and installation of hoists, catwalks, platforms and machinery foundations. Practice in making simple plant layouts.

# **EARLY CHILDHOOD EDUCATION**

#### **ECED 102**

## **OBSERVATION AND GUIDANCE OF CHILDREN**

Prerequisite: ED 101 or concurrent enrollment in ED 101

3 lectures per week: 3 hrs credit

Observational techniques and guidance practices facilitating child development are studied along with the theories of behavior that support the analysis of the child.

## **ECED 103** (IAI: ECE 902)

# **HEALTH, SAFETY AND NUTRITION**

Prerequisite: None

3 lectures per week: 3 hrs credit

Personal health of the child, including nutrition, health and safety issues are taught. This course meets the State of Illinois teacher certification requirement in health and general education.

#### **ECED 104** (IAI: ECE 911)

## INTRODUCTION TO EARLY CHILDHOOD EDUCATION

Prerequisite: None

3 lectures per week: 3 hrs credit

This overview of early childhood care and education includes basic values, structure, organization and programming in early childhood education.

## **ECED 106**

## **ART FOR TEACHERS**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course focuses on the developmental stages in children's use of art materials and their ability to express thoughts and emotions creatively. The appropriate use and care of art media are stressed with emphasis on creativity and exploration. (same as EDU 106)

## **ECED 108**

# **SCIENCE FOR CHILDREN**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course studies the science concept development in children through hands-on activities.

# **ECED 120** (IAI: ECE 915)

# **CHILD, FAMILY AND COMMUNITY**

Prerequisite: None

3 lectures per week: 3 hours credit

This course examines ways in which the structure, values and resources of family and community affect children. It explores the relationships between the child, family, community and educators including parent education and involvement, family and community lifestyles, child abuse, and current family life issues. (same as EDU 120)

## **ECED 130**

## **CLASSROOM MANAGEMENT**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course studies different approaches to classroom management with the aim of analyzing and modifying classroom behavior to facilitate the learning of diverse and exceptional students. (same as EDU 130)

#### **ECED 201**

#### SIGN LANGUAGE I—MANUAL COMMUNICATIONS I

Prerequisite: None

3 lectures per week: 3 hrs credit

This is an introductory level course in "signed English" with emphasis on building vocabulary, syntactic sign principles and development of expression and signing skills. (same as EDU 201)

#### **ECED 202**

## SIGN LANGUAGE II—MANUAL COMMUNICATIONS II

Prerequisite: ECED 201

3 lectures per week: 3 hrs credit

This is an intermediate level "signed English" course concentrating on vocabulary and expressive/receptive signing skills.

#### **ECED 205**

## LANGUAGE ARTS FOR CHILDREN

Prerequisite: None

3 lectures per week: 3 hrs credit

This course deals with techniques and methods of encouraging the development of language in the young child. Methods for stimulating speech, discussion and increasing vocabulary are included. (same as EDU 205)

#### **ECED 213**

## **MULTICULTURAL EDUCATION**

Prerequisite: None

3 lab hrs per week: 3 hrs credit

Multicultural education examines social factors that affect education decision-making and student achievement in United States schools. It addresses the need for intercultural competence, culturally informed instructional strategies, promotion of social justice and reduction of racism in order to create democratic classrooms. (same as EDU 213)

#### **ECED 214**

# ADMINISTRATION OF EARLY CHILDHOOD EDUCATION PROGRAMS

Prerequisite: None

3 lectures per week: 3 hrs credit

This course is for teachers or program directors who wish to improve their skills in administration and supervision. Included are discussion of program planning, selection and use of staff, the role of the supervisor, in-service training for supplementing a center's services, funding resources and proposal writing.

# **ECED 215**

## MUSIC AND MOVEMENT FOR CHILDREN

Prerequisite: None

3 lectures per week: 3 hrs credit

This course focuses on the relationship of music and movement with development of the child. (same as EDU 215)

# **ECED 216**

## TEACHING MATHEMATICS TO THE YOUNG CHILD

Prerequisite: MATH 090 with a C or better

3 lectures per week: 3 hrs credit

This is a methods course in the teaching of mathematics to children through grade 3. Topics covered include the study of math concept development in young children, hands-on activities, development of problem-solving skills and methods for encouraging exploration. (same as EDU 216)

#### **ECED 220**

#### **TEACHING THE EXCEPTIONAL CHILD**

Prerequisite: ED 212

3 lectures per week: 3 hrs credit

This is a methods course for teaching children with learning disabilities through grade 3. Emphasis is on principles, techniques and services to help special needs children develop to their fullest potential.

## **ECED 299** (IAI: ECE 914)

## **EARLY CHILDHOOD EDUCATION INTERNSHIP**

Prerequisite: ED 101 and ECED 104 and consent of instructor I lecture, 10 lab hrs per week: 3 hrs credit

Emphasis is on the practical application of early childhood education theories in a supervised setting. Students will spend a minimum of 10 hours per week on site and one hour per week in a seminar setting.

# **ECONOMICS**

## ECON 201 (IAI: S3 901)

## **MACROECONOMIC PRINCIPLES**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

Provides an understanding of the structure, institutions and general economic principles governing the operation of the American economy. Included are a study of the basic economic concepts and theories and the forces which determine the level of production and employment in the economy; presentation of the basic principles of money and banking; and a study of the role that monetary and fiscal policy play in the determination of the economy's level of production, employment and income.

#### ECON 202 (IAI: S3 902)

## MICROECONOMIC PRINCIPLES

Prerequisite: ECON 201

3 lectures per week: 3 hrs credit

Factors that determine the structure of resource and product markets, the sources that determine the level of production and employment in individual industries, and the factors which govern the level of price and output at which individual firms choose to operate are covered. Attention is given to a study of international economics and certain contemporary economic problems.

# **ECON 289**

# **COMPARATIVE ECONOMIC SYSTEMS**

Prerequisite: None

3 lectures per week: 3 hrs credit

Analysis of economic conditions in different economic systems with special focus on the European economic community. Includes tradeoffs between efficiency and equity, economic freedom and economic order, and market mechanism and economic planning.

# **EDUCATION**

#### **ED 100**

#### INTRODUCTION TO EDUCATION

Prerequisite: None

3 lectures per week: 3 hrs credit

This course is an overview of American education as both a profession and a public enterprise. The social, historical and philosophical foundations are used to give perspective to an examination of current issues, policies and trends in the field of education, including cultural diversity and the standards movement. The organization and structure, financing and curriculum issues in education are also discussed.

# ED 101 (IAI: ECE 912; EDU 902)

## CHILD GROWTH AND DEVELOPMENT

Prerequisite: None

3 lectures per week: 3 hrs credit

This is a foundation course in the theories and principles of child growth and development from the prenatal through the adolescent years. It is an in-depth study of physical growth patterns, cognitive, language and social-emotional development. Some of the major theorists to be considered as Piaget, Vygotsky, Erickson, Kohlberg and Chomsky. There is a special emphasis on the application of this knowledge in planning, implementing and assessing student activities.

## **ED 160**

# **TECHNOLOGY FOR TEACHERS**

Prerequisite: Basic skills in keyboarding and word processing, spreadsheet and database software or consent of instructor recommended. 3 lectures per week: 3 hours credit

This course introduces educators to the use of the computer as an educational tool. The course focuses on a solid understanding of educational technology, including how to use computers, how to access information on the World Wide Web, and how to integrate computers into the classroom curriculum. Hands-on technology activities will be an important part of the course. Students should have basic keyboarding skills and basic knowledge of word processing, spreadsheet and database software. (same as ITAPP 160)

## **ED 212** (IAI: ECE 913)

# **EXCEPTIONAL CHILD**

Prerequisite: ED 101

3 lectures per week: 3 hrs credit

This course provides an overview of children with exceptional cognitive, physical, social and emotional characteristics. It includes an analysis of developmental and emotional needs imposed by exceptionality. Students consider identification protocols, intervention strategies, and teaching methods and programs designed to meet the needs of exceptional children (including but not limited to children with learning disabilities). Applicable federal and state laws and requirements are covered including the Individuals with Disabilities Education Act, Americans with Disabilities Act, Individualized Family Service Plan, Individualized Education Plan and inclusive programs. This course fulfills the requirements of School Code, Article 21-2a.

#### **ED 220**

## **CHILDREN'S LITERATURE**

Prerequisite: ENG 101 with a C or better 3 lectures per week: 3 hours credit

This course will focus on the importance of children's literature for children from preschool to adolescence and its enjoyment at home and in the classroom. Through reading a varied selection of books, students will learn to evaluate, select, discuss and use literature for children. It is recommended for teachers, aides, librarians and parents. (same as ENG 220)

#### FD 221

#### **CLINICAL EXPERIENCE**

Prerequisite: Consent of program coordinator

5 lab hrs: I hr credit

This course provides documented clinical experiences involving observation of the interaction between children and practitioners according to specified guidelines, within the appropriate subject matter and age category. Clinical sites are arranged in a variety of educational settings, including those with diverse student populations. Student work will be planned, guided and evaluated by a mentor or supervisor. (same as EDU 221)

# **EDUCATION - PARAPROFESSIONAL**

#### **EDU 105**

# PRINCIPLES OF READING

Prerequisite: None

3 lectures per week: 3 hrs credit

This course provides an introduction to the teaching of reading.

#### **EDU 106**

# ART FOR TEACHERS

Prerequisite: None

3 lectures per week: 3 hrs credit

This course focuses on the developmental stages in children's creative growth with respect to their use of art materials and their ability to express thoughts and emotions through visual language. Use and care of art media are stressed with emphasis on providing an environment conducive to creative exploration, discovery and self-expression. (same as ECED 106)

#### **EDU III**

# MATHEMATICS FOR PARAPROFESSIONALS

Prerequisite: MATH 085 or placement into MATH 090

3 lectures per week: 3 hrs credit

This course is designed for the elementary school paraprofessional. This course will strongly emphasize hands-on learning; thus, manipulatives will be used extensively. Topics covered will include problem solving, sets, number theory, statistics, probability, geometry and measurement. Students seeking general education mathematics credit for transfer are advised to register for the MATH 200/206 sequence. (same as MATH 111)

# **EDU 120** (IAI: ECE 915)

#### **CHILD, FAMILY AND COMMUNITY**

Prerequisite: None

3 lectures per week: 3 hours credit

This course examines how the structure, values and resources of family and community affect children. It explores the relationships between the child, family, community and educators including parent education and involvement, lifestyles, child abuse, and current family life issues. (same as ECED 120)

#### **EDU 130**

## **CLASSROOM MANAGEMENT**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course studies different approaches to classroom management with the aim of analyzing and modifying classroom behavior to facilitate the learning of diverse and exceptional students. (same as ECED 130)

#### **EDU 201**

## SIGN LANGUAGE I—MANUAL COMMUNICATIONS I

Prerequisite: None

3 lectures per week: 3 hrs credit

This is an introductory level course in "signed English" with emphasis on building vocabulary, syntactic sign principles and development of expression and signing skills. (same as ECED 201)

#### **EDU 205**

#### LANGUAGE ARTS FOR CHILDREN

Prerequisite: None

3 lectures per week: 3 hrs credit

This course deals with techniques and methods of encouraging the development of language in the young child. Methods for stimulating speech, discussion and increasing vocabulary are included. (same as ECED 205)

## **EDU 213**

# **MULTICULTURAL EDUCATION**

Prerequisite: None

3 lab hrs per week: 3 hrs credit

Multicultural education examines social factors that affect education decision-making and student achievement in United States schools. It addresses the need for intercultural competence, culturally informed instructional strategies, promotion of social justice and reduction of racism in order to create democratic classrooms. (same as ECED 213)

#### **EDU 215**

## MUSIC AND MOVEMENT FOR CHILDREN

Prerequisite: None

3 lectures per week: 3 hrs credit

This course focuses on the relationship of music and movement with development of the child. (same as ECED 215)

#### **EDU 216**

## TEACHING MATHEMATICS TO THE YOUNG CHILD

Prerequisite: MATH 090

3 lectures per week: 3 hrs credit

This is a methods course in the teaching of mathematics to children through grade 3. Topics covered include the study of math concept development in young children, hands-on activities, development of problem-solving skills and methods for encouraging exploration. (same as ECED 216)

## **EDU 221**

#### **CLINICAL EXPERIENCE**

Prerequisite: Consent of program coordinator

5 lab hrs: I hr credit

This course provides documented clinical experiences involving observation of the interaction between children and practitioners according to specified guidelines, within the appropriate subject matter and age category. Clinical sites are arranged in a variety of educational settings, including those with diverse student populations. Student work will be planned, guided and evaluated by a mentor or supervisor. (same as ED 221)

# **EMERGENCY MEDICAL SERVICES**

(including First Responder)

#### **EMS 101**

## **EMERGENCY MEDICAL TECHNICIAN**

Prerequisite: 18 years of age and COMPASS reading score of 78 or better or placement in ENG 101. Immunizations, CPR certification. Obtain information packet from Prairie State College Nursing department prior to start of course.

6 lectures, 2 lab hrs per week: 7 hrs credit

Care, handling and extrication of the critically ill and injured is taught. Emphasis is on the development of student skills in recognition of symptoms of illnesses and injuries and proper emergency care and procedures. Subjects covered include the human body, cardiac arrest, resuscitation, fractures, injuries, childbirth, lifting and moving patients, and extrication from automobiles.

#### EMS II0

#### **EMS INSTRUCTOR**

Prerequisite: Program Coordinator consent required.

3 lecture hrs per week: 3 hrs credit

This course prepares licensed health care personnel to conduct effective training courses in emergency medical services. Students will develop tools, skills and knowledge about teaching/learning. Special attention is paid to the unique characteristics of adult learners and to learning theory as a foundation for comprehensive instructional programs.

#### **EMS 200**

# PARAMEDICINE I

Prerequisite: BIOL 221, 222 with C or better; concurrent enrollment in EMS 205, EMS 210 and EMS 215

12 lecture hours per week: 12 hours credit

This course introduces the field of paramedicine. Students will study the roles and responsibilities of the pre-hospital care provider, medical/legal issues, ethics, principles of pathophysiology, pharmacology, medication administration, airways management and ventilation, patient assessment, trauma, and gynecological and obstetrical emergencies. Skill acquisition will be integrated into the course of study.

#### **EMS 205**

# PARAMEDICINE: FIELD PRACTICUM I

Prerequisite: Concurrent Enrollment in EMS 200, EMS 205 and EMS 215  $\,$ 

8 lab hours per week: 2 hours credit

This course will allow students opportunities to perform or observe assessments and procedures learned in the classroom in a pre-hospital setting under the supervision of a licensed paramedic. Students will focus on trauma, acute/chronic illness and life threatening emergencies of various etiologies. They will function as team members while riding with the assign ALS unit.

#### **EMS 210**

#### PARAMEDICINE: HOSPITAL PRACTICUM

Prerequisite: Concurrent Enrollment in EMS 200, EMS 205 and EMS 215

8 lab hours per week: 2 hours credit

This course will allow students opportunities to perform or observe assessments and procedures learned in the classroom in various departments within a hospital setting. Students will focus on trauma, acute/chronic illness and obstetrics. They will function as team members in the respective hospital units. Upon successful completion of the required activities and skill sets, students will be able to advance to the Paramedicine II course and the final program practicums.

#### **EMS 215**

#### PARAMEDICINE: SEMINAR I

Prerequisite: Concurrent Enrollment in EMS 200, EMS 205 and EMS 210

I lecture hour per week: I hour credit

This course is designed to provide students with an opportunity to discuss their first-semester field and hospital-based experiences. It provides a forum to help insure the successful transition to the work world. Previously determined topics will be discussed that go beyond the scope of the core curriculum. Students will present small group projects based on real-world issues in pre-hospital care to the class that will involve both written and oral communication skills.

#### **EMS 220**

# **PARAMEDICINE II**

Prerequisite: EMS 200, 205, 210, 215 with a C or better 12 lecture hours per week: 12 hours credit

This course is a continuation of Paramedicine I. Students will study medical emergencies including, but not limited to: cardiac, neurology, endocrinology, allergies and anaphylaxis, gastrointestinal disorders, urinary and renal disorders, toxicology, hematology and environmental conditions, infectious and communicable diseases, and psychiatric disorders. Additionally, students will focus on the use of the intravenous route of administration in all its forms, pharmacology, and life span considerations from neonatal, to pediatrics and through gerontological considerations.

## **EMS 225**

#### PARAMEDICINE: FIELD PRACTICUM II

Prerequisite: Concurrent enrollment in EMS 200, EMS 230 and EMS 235  $\,$ 

8 lab hours per week: 2 hours credit

This course is a continuation of Field Practicum I. Students will perform or observe assessments and procedures learned in the classroom in a pre-hospital setting under the supervision of a licensed Paramedic. This practicum focuses more heavily on care of the cardiac client and the standard medical orders related to the treatment of cardiac conditions. Related to treatment of cardiac conditions, students will function as team members while riding with the assigned advanced life support (ALS) unit. This course must be completed successfully in order to be eligible to write the State licensure exam.

#### **EMS 230**

#### PARAMEDICINE: LEADERSHIP PRACTICUM

Prerequisite: Concurrent Enrollment in EMS 220, EMS 225 and EMS 235

8 lab hours per week: 2 hours credit

This course will focus on the management and leadership responsibilities of a professional paramedic. Students will have a project-based experience that introduces the paramedic to the role of instructor, EMS coordinator, quality assurance manager and the like. Students will be assigned to observe and assist various individuals who function in a management or leadership role in emergency pre-hospital care or the education of pre-hospital care providers. Assignments will reflect hands-on experience related to the preceptor's daily responsibilities. This experience will also include observational and hands-on experience with end-of-life and pastoral care.

#### **EMS 235**

## **PARAMEDICINE: SEMINAR II**

Prerequisites: Concurrent Enrollment in EMS 220, EMS 225 and EMS 235

I lecture hour per week: I hour credit

This course is designed to provide students with an opportunity to discuss field and hospital-based experiences they encounter during the final semester of their core curriculum. It provides a forum to help insure the successful transition to the work world. Previously determined topics will be discussed that go beyond the scope of the core curriculum. Students will present group projects to the class that deal with leadership or staff development topics. This presentation will require the use of several instructional methodologies that match the topic being presented.

## FRESP 101

## **FIRST RESPONDER**

Prerequisite: None

2 lectures, 2 lab hrs per week: 3 hrs credit

This course provides students with the knowledge and skills necessary in an emergency to sustain life, reduce pain and minimize the consequences of injury or of sudden illness until advanced medical help can arrive.

# **ENGLISH**

(including Literature)

#### **ENG 097**

# FUNDAMENTAL ENGLISH I

Prerequisite: Qualifying score on English Placement Test

4 lectures per week: 4 hrs non-degree, non-transfer credit (may be repeated two times)

This course provides basic writing skills for students who need individualized instruction. The emphasis is on grammar and sentence structure.

# **ENG 098**

#### **FUNDAMENTAL ENGLISH II**

Prerequisite: ENG 097 with a C or better or qualifying score on English Placement Test

4 lectures per week: 4 hrs non-degree, non-transfer credit (may be repeated two times)

This course provides basic writing skills for students who need additional work before taking college-level courses. It focuses on writing good paragraphs and short essays with an emphasis on correctness.

#### **ENG 099**

## **FUNDAMENTAL ENGLISH III**

Prerequisite: ENG 098 and RDG 098 with a C or better or qualifying score on English Placement Test

6 lectures per week: 6 hrs non-degree, non-transfer credit (may be repeated two times)

This course provides a review of the basic writing skills that students need to succeed in college-level courses. Students write several different kinds of essays. Coherence and correctness are emphasized.

## ENG 101 (IAI: CI 900)

## **COMPOSITION I**

Prerequisite: ENG 099 with a  ${\sf C}$  or better or qualifying score on English Placement Test

3 lectures per week: 3 hrs credit

This is the first course in the composition sequence. It develops the ability to write clear, correct, effective personal, expository and argumentative prose. It emphasizes critical reading skills, collaborative peer work and use of library resources. Students write a minimum of five essays with extensive revisions. Review of grammar and mechanics is included. Note: All students must complete the English101 Exit Test with a passing grade in order to pass English 101.

# ENG 102 (IAI: CI 901R)

## **COMPOSITION II**

Prerequisite: ENG 101 with a C or better

3 lectures per week: 3 hrs credit

This is the second course in the composition sequence. Emphasis is on the writing process with special attention to the research paper. Writing activities include both short and longer forms of traditional academic writing including a documented investigative paper and critical reader-response writing. Students will become familiar with a variety of discourse communities.

#### **ENG 104**

#### **TECHNICAL REPORT WRITING**

Prerequisite: ENG 101 with a C or better

3 lectures per week: 3 hrs credit

Designed to provide students with skills needed in their technical programs and jobs. Students will learn a variety of approaches in writing, short and long technical reports, manuals and other technical documents. Students will also be introduced to document design, formatting and using visual aids. Technical writing style will be emphasized throughout the course.

#### **ENG 109**

#### **ADVANCED WRITING**

Prerequisite: ENG 101 with a C or better 3 lectures per week: 3 hrs credit

In a workshop environment, students will work on polishing their style. The focus is on variety in sentence structure and verb choice, clarity, concision, coherence and elegance in writing. In addition to short personal essays, students will work on an autobiography or biography of family members.

## **ENG I 10** (IAI: EGL 922)

#### **CREATIVE WRITING: POETRY**

Prerequisite: ENG 101 with a C or better or consent of instructor 3 lectures per week: 3 hrs credit

Students write poetry in a variety of genres, learn the structure and elements of poetry and the writing process, and demonstrate an understanding of the critical terminology of the creative writer.

# **ENG III** (IAI: EGL 924)

## **CREATIVE WRITING: NONFICTION PROSE**

Prerequisite: ENG 101 Composition I (3) with C or better

3 lectures per week: 3 hrs credit

Students study the elements of nonfiction and the critical terminology of the creative writer and produce fully developed works of nonfiction. Students explore themselves, their identity and their world through writing autobiography, family history, and observations on culture, places and time periods.

# ENG 211 (IAI: H3 914; EGL 911)

## **AMERICAN LITERATURE I**

Prerequisite: ENG 101 with a C or better 3 lectures per week: 3 hrs credit

This course studies American literature from the pre-colonial period to the Civil War and includes the style, techniques and themes of the major writers responsible for shaping the traditions of American literature. Emphasis is on understanding major literary movements in their intellectual, social and political contexts.

# ENG 212 (IAI: H3 915; EGL 912)

## **AMERICAN LITERATURE II**

Prerequisite: ENG 101 with a C or better 3 lectures per week: 3 hrs credit

This course is a study of American literature from the Civil War to the present. Emphasis is placed on the peculiarly American as well as universal themes which recur throughout poetry, drama, short stories and novels of major American writers. Major literary movements will be studied in relation to intellectual, social and political contexts.

# ENG 215 (IAI: H3 910D)

## **AFRICAN-AMERICAN LITERATURE**

Prerequisite: ENG 101 with a C or better 3 lectures per week: 3 hrs credit

Survey course emphasizing the interpretation and expression of the Black experience in America as it is found in poetry, the novel, the short story and drama. Particular emphasis is placed on trends and themes as revealed in changes in style and content when viewed from the perspective of literary history.

#### **ENG 220**

## **CHILDREN'S LITERATURE**

Prerequisite: ENG 101 with a C or better 3 lectures per week: 3 hours credit

This course will focus on the importance of children's literature for children from preschool to adolescence and its enjoyment at home and in the classroom. Through reading a varied selection of books, students will learn to evaluate, select, discuss and use literature for children. It is recommended for teachers, aides, librarians and parents. (same as ED 220)

## **ENG 221** (IAI: H3 903)

#### INTRODUCTION TO POETRY

Prerequisite: ENG 101 with a C or better

3 lectures per week: 3 hrs credit

Students read and enjoy poetry of various types and periods. Through close reading of selected poems, students learn to appreciate the beauty and art of poetry and its relevance to their own lives and emotions.

# ENG 231 (IAI: H3 912; EGL 913)

# BRITISH LITERATURE I

Prerequisite: ENG 101 with a C or better 3 lectures per week: 3 hrs credit

This course surveys British literature from its Anglo-Saxon beginnings through 18th-century Neoclassicism. Writers and their works are studied in relation to their intellectual, social and political contexts.

## ENG 232 (IAI: H3 913; EGL 914)

# BRITISH LITERATURE II

Prerequisite: ENG 101 with a C or better 3 lectures per week: 3 hrs credit

This course surveys British literature from 1800 to the present with an emphasis on major literary movements understood in relation to their intellectual, social and political contexts.

# ENG 240 (IAI: H3 901; EGL 917)

# INTRODUCTION TO FICTION

Prerequisite: ENG 101 with a C or better

3 lectures per week: 3 hrs credit

This course is an introduction to fiction with special emphasis on understanding and appreciation of the short story. The primary focus is on developing the student's ability to read critically, to learn about the principal literary elements of fiction, and to improve writing skills through the use of literature as subject matter.

#### **ENG 241**

## **CONTEMPORARY WORLD LITERATURE**

Prerequisite: ENG 101 with a  ${\sf C}$  or better

3 lectures per week: 3 hrs credit

Students will study major writers and works of 20th-century world fiction.

#### **ENG 242**

## **MODERN PROSE FICTION**

Prerequisite: ENG 101 with a C or better (or credit in ENG 101-102) 3 lectures per week: 3 hrs credit

This course teaches an understanding and appreciation of recent American prose fiction through examining short stories and contemporary novels which illustrate crucial developments in modern fiction.

#### **ENG 243**

## NON-WESTERN LITERATURE IN TRANSLATION

Prerequisite: ENG 101 with a C or better 3 lectures per week: 3 hours credit

This course examines non-Western literature written during the twentieth century. Emphasis is placed on understanding the works both as part of local and global aesthetic traditions and within their intellectual, political, social and historical contexts.

## **ENG 252**

# INTRODUCTION TO DRAMA

Prerequisite: ENG 101 with a C or better 3 lectures per week: 3 hours credit

This course emphasizes drama as literature and studies plays of various genres from a variety of literary periods. Eight to ten plays will be covered in terms of meaning, form and value.

## ENG 261 (IAI: H3 906)

# WESTERN/WORLD LITERATURE I

Prerequisite: ENG 101 with a C or better 3 lectures per week: 3 hrs credit

This course surveys masterpieces of Western/World literature from the beginnings in the ancient world through the 16th century. Themes of major writers will be explored through consideration of their lives and work in the context of their times.

# ENG 262 (IAI: H3 907)

# WESTERN/WORLD LÍTERATURE II

Prerequisite: ENG 101 with a C or better 3 lectures per week: 3 hrs credit

This course surveys masterpieces of Western/World literature from the 17th, 18th, 19th, 20th and early 21st centuries. Writers and their works will be discussed within the context of their times.

# ENG 271 (IAI: H3 905)

# INTRODUCTION TO SHAKESPEARE

Prerequisite: ENG 101 with a C or better 3 lectures per week: 3 hrs credit

This course includes selected sonnets of Shakespeare and 6-8 of his plays: representative selections from the comedies, tragedies, historical dramas and romances. Emphasis is on the dramatic and literary qualities of the works, but attention will also be given to film versions of his plays.

# FIRE SCIENCE TECHNOLOGY

#### **FST 101**

## INTRODUCTION TO FIRE SCIENCE TECHNOLOGY

Prerequisite: None

3 lectures per week: 3 hrs credit

This course is an introduction to fire science technology programs. Topics covered include the history of fire service; objectives, roles and responsibilities of the fire service and its personnel; accountability and liability. An overview of the educational requirements of EMS certification and recertification systems and the role of the Office of the State Fire Marshal and National Fire Protection Association are discussed.

#### **FST 102**

## FIRE PREVENTION PRINCIPLES I

Prerequisite: FST 101

3 lectures per week: 3 hrs credit

The emphasis of this course is on objectives and techniques of fire prevention programs. Included among the topics are building and electrical codes, zoning controls and other prevention standards, evaluation of fire hazards and techniques for inspecting various types of buildings. Basic blueprint reading and sketching are also covered.

#### **FST 104**

# FIRE TACTICS AND STRATEGY I

Prerequisite: FST 101

3 lectures per week: 3 hrs credit

This course is an introduction to the basic principles and methods associated with fireground tactics and strategy as required by the company officer. It emphasizes size-up, fireground operations, prefire planning and basic engine and truck operations. Included are a survey of fire apparatus and equipment, its operation, the distribution of equipment and personnel and preplanning of fireground operations.

# **FST 105**

## **CONSTRUCTION AND FIRE SYSTEMS**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course is an analysis of various methods of building design, construction and materials. Fire-resistant features of materials, life safety methods of construction and an introduction to building codes are included. An in-depth study of automatic extinguishing and detection systems with emphasis on automatic sprinkler equipment is covered. Also included are water spray, foam, carbon dioxide and dry chemicals, stand pipe systems and protection systems for special hazards.

# **FST 106**

## **HAZARDOUS MATERIALS OPERATIONS**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course identifies the competencies required of the first responder at the operational level responding to hazardous materials incidents. Included are the skills and techniques required to reduce and prevent the possibility of accidents, injuries, disabilities and fatalities during response to hazardous materials.

#### **FST 119**

#### **FIREFIGHTER II**

Prerequisite: 18 years of age and COMPASS reading score of 78 or better or placement into ENG 101; FST 101 or documented affiliation with a fire department

6 lectures, 2 lab hrs per week: 7 hrs credit

This course will equip students with basic knowledge and skills in areas such as fire behavior, equipment use, firefighter safety, rescue and prevention. After successful completion of this course, students will be eligible to write the State Fire Marshal Certification Exam. This program meets National Fire Protection Association (NFPA) standards.

#### **FST 120**

#### FIREFIGHTER III

Prerequisite: Current Illinois Firefighter II certification 5 lecture, 2 lab hrs per week: 6 hrs credit

This course builds on the foundation material learned in FST I 19 Firefighter II and provides students with more in-depth understanding of topics such as fire department organization, fire behavior, safety issues, rescue techniques, public education and inspections. This course prepares students to sit for the State Fire Marshal's exam for Firefighter III and Rescue Awareness certifications.

#### **FST 201**

## **ARSON INVESTIGATION**

Prerequisite: FST 101

3 lectures per week: 3 hrs credit

This course will acquaint the student with basic investigative techniques used in examining an arson case from its origin to a successful conclusion in the court system. It will cover such topics as motives for arson, determining origin, scientific aids in investigation, interviews, statements, reports, interrogation and presentation of the case in court. The course is of particular significance for firefighters, police and insurance investigators.

# **FST 202**

## **VEHICLE AND MACHINERY OPERATIONS**

Prerequisite: None

2 lectures, 2 lab hrs per week: 3 hrs credit

This course provides information on extrication and rescue of victims from vehicles involved in accidents. Emphasis is placed on equipment and techniques used in hazardous rescue operations.

# **FST 204**

# FIRE TACTICS AND STRATEGY II

Prerequisite: FST 104

3 lectures per week: 3 hrs credit

This course covers advanced principles and methods associated with the fire ground strategies and tactics required of the multicompany officer or chief officer. It emphasizes multi-company alarm assignments, handling disasters and major fire incidents by occupancy classification.

#### **FST 205**

# HAZARDOUS MATERIALS TECHNICIAN A

Prerequisite: FST 106

3 lectures per week: 3 hrs credit

Methods of developing preplans for use by local departments are covered. Identification of hazards in communities and the designing of functional highway, rail and industrial preplans to fit community needs are discussed.

#### **FST 207**

#### FIRE DEPARTMENT MANAGEMENT I

Prerequisite: FST 101

3 lectures per week: 3 hrs credit

This course covers responsibilities of fire service of various ranks. Included are qualifications and sources of authority, role of the company officer and basic management theories, practices and functions. This is one of two management courses required of eligible candidates pursuing Illinois Fire Marshal certification as a Fire Officer I.

#### **FST 208**

## FIRE DEPARTMENT MANAGEMENT II

Prerequisite: FST 207

3 lectures per week: 3 hrs credit

This course is an introduction to the elements of management as they apply to fire department administration. Included are principles of management, communication and group dynamics as they relate to the company officer. This is the second of two management courses required of eligible candidates pursuing Illinois State Fire Marshal certification as a Fire Officer I.

#### **FST 209**

#### **FIRE PREVENTION PRINCIPLES II**

Prerequisite: FST 102

3 lectures per week: 3 hrs credit

The emphasis of this course is on public relations and inspection techniques and procedures. The course covers evaluation of fire hazards, inspection techniques, procedures for conducting inspection, record-keeping procedures, arson investigation and on-site field inspections.

#### **FST 210**

#### **FIRE APPARATUS ENGINEER**

Prerequisite: FST 101

3 lectures per week: 3 hrs credit

This course is designed to train Illinois fire service personnel to the Certified Fire Apparatus Engineer level. Based on State Fire Marshal standards, this course emphasizes terminology, preventive maintenance, pumps, pump controls, water supply, calculations, operations, supply and support of sprinklers and standpipe systems, foam and specialized equipment, pumping apparatus tests and troubleshooting problems that occur during pump operations.

#### **FST 211**

# **INDUSTRIAL FIRE CONTROL**

Prerequisite: None

3 lectures per week: 3 hrs credit

The focus of this course is on factors affecting industrial fire control protection and techniques used in minimizing commercial and industrial fire threats.

#### **FST 212**

# FIRE SERVICE - INSTRUCTOR I

Prerequisite: Firefighter II certification and three years documented cumulative fire service experience in a fire department and/or FST 101 3 lectures per week: 3 hrs credit

This course is designed to meet the needs of firefighters wishing to expand their fire science knowledge in the area of instruction. It provides basic information about human relations in the teaching-learning environment, instructional methodologies and techniques used in developing lesson plans.

#### **FST 213**

#### **FIRE SERVICE - INSTRUCTOR II**

Prerequisite: FST 212

3 lectures per week: 3 hrs credit

This course is a continuation of Fire Service - Instructor I. It provides basic information on program management, program development, lesson plan development, instructional development and techniques used to create evaluation instruments.

#### **FST 218**

## FIRE DEPARTMENT MANAGEMENT III

Prerequisite: FST 208

3 lectures per week: 3 hrs credit

This course covers principles and techniques used by mid-level managers and chief officers in fire service. Principles of time management, decision-making, motivation and delegation are emphasized. This is one of two management courses required of eligible candidates pursuing Illinois certification as a Fire Officer II.

## **FST 219**

# FIRE DEPARTMENT MANAGEMENT IV

Prerequisite: FST 218

3 lectures per week: 3 hrs credit

This course covers the techniques used by mid-level managers and chief officers in fire service. Principles of time management, decision-making, motivation and delegation are emphasized. This is the second of two management courses required of eligible candidates pursuing Illinois certification as a Fire Officer II.

# **FIRST RESPONDER**

(See Emergency Medical Services)

## **FRENCH**

(See Languages)

## **GEOGRAPHY**

## **GEOG 101 (IAI: S4 900N)**

#### **CULTURAL GEOGRAPHY**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

A basic study of the cultural systems and practices of man as these developed in particular regions of the earth and the interrelationships which developed through time. A study of the broad elements of human interaction, the systems of developmental growth, the systems of cultural transfer between groups, and the increasing levels of conceptual growth by which particular cultural groups may perceive their environments during different time periods. A study of institutionalized human systems and their distribution over the surface of the earth.

## **GEOG 102 (IAI: S4 901)**

# GEOGRAPHY OF THE DEVELOPED WORLD

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course examines the geographical problems and prospects associated with urban and industrial development in Europe and North America.

# **GEOG 105** (IAI: PI 909)

#### INTRODUCTION TO PHYSICAL GEOGRAPHY

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

A basic study of earth-sun relationship leading to an analysis of the nature, distribution and interrelationships of atmospheric phenomena (weather), climate, vegetation and soils. The development and use of maps and globes followed by an analysis of the development, nature and distribution of land forms, resources and water of the continents. Interpretation of relationships between the various physical phenomena and humans.

# **GEOLOGY**

# **GEOLO 101** (IAI: PI 907L)

(was GEOLO 210)

#### **PHYSICAL GEOLOGY**

Prerequisite: Placement into ENG 099 or higher

3 lectures, 2 lab hrs per week: 4 hrs credit

Concerned with bringing to both science and non-science majors the extraordinary cultural values to be found in a basic knowledge of the facts and principles of the earth sciences. A study of rocks and minerals, the basic geologic processes responsible for surface and near-surface structures and land forms, and the theories of geology that attempt a synthesis of observed facts. Construction and use of geologic and topographic maps is an integral part of the laboratory work. Two field trips. Students may not receive credit for both GEOLO 101 and 102.

# **GEOLO 102** (IAI: PI 907L)

(was GEOLO 220)

# **HISTORICAL GEOLOGY**

Prerequisite: Placement into ENG 099 or higher 3 lectures, 2 lab hrs per week: 4 hrs credit

This course is a study of earth's history and its relationship to the progression of change in forms of life. An intensive study is made of ancient seas, sedimentation, mountain building processes and age determination of strata through the use of guide fossils. Laboratory work includes learning to recognize representative guide fossils, construction of geologic columns and stratigraphic sections from well-logs and interpreting ancient climates and environments using fossils and stratigraphy. There will be two field trips. Students may not receive credit for both GEOLO 101 and 102.

#### **GEOLO 200**

# **GLACIAL GEOLOGY OF ILLINOIS**

Prerequisite: PHYSC 111

3 lectures, 2 lab hrs per week: 4 hrs credit

The origin and location of the surface features to be observed in northern Illinois are studied. Emphasis is on the glacial and postglacial events, including the moraines, till plains, sand and gravel deposits, and development and recession of Lake Chicago; and on the history and development of the Great Lakes. In addition to the study of surface geology, field trips include visits to several quarries in the region for fossil hunting in the Silurian-age dolomitic limestone, and to strip mines for fossils of the plant life on the Pennsylvanian age shales. Five all-day Saturday field trips.

# **GERMAN**

(See Languages)

# **GRAPHIC COMMUNICATIONS**

(See also Art and Photographic Studies)

# GC 115

## INTRODUCTION TO COMPUTER ART

Prerequisite: None

6 lab hrs per week: 3 hrs credit

This software-based approach to art and design concepts introduces students to the history and use of computer applications in the visual arts. The integration of representative hardware, software and peripherals is emphasized. Students learn to generate, combine and manipulate traditional and contemporary visual ideas using both raster paint/photo retouching programs and professional quality vector drawing programs. Written work includes critiques, proposals and artistic statements. (same as ART 115)

#### GC 150

## **BASIC COMPUTER GRAPHICS**

Prerequisite: None

I lecture, 2 lab hrs per week: 2 hrs credit

This course is an introduction to the Macintosh computer as a tool in graphic communications. Orientation and understanding of system and basic application software are covered through projects in design.

## GC 151 (IAI: ART 918)

# PRINCIPLES OF GRAPHIC DESIGN

Prerequisite: GC 115 or ART 115 or concurrent registration 6 lab hrs per week: 3 hrs credit

Students are introduced to theoretical and practical aspects of visual communication, including the basic composition and conceptual skills of graphic design. Techniques, processes and terminology of graphic design will be covered. Written work includes critiques, proposals and artistic statements. Classes will be conducted in the Computer Graphics and Illustration Lab.

# **GC 154**

## **TYPOGRAPHY**

Prerequisite: GC 151

I lecture, 2 lab hrs per week: 2 hrs credit

This course investigates the effective use of type in visual design. The creation of original fonts using digital applications with some traditional methods will be explored.

#### GC 156

# **DESIGN SOFTWARE WORKSHOP: SPECIAL TOPICS**

Prerequisite: GC 150

I lecture, 2 lab hrs per week: 2 hrs credit (may be repeated 3 times) This course provides orientation, concentration and practical application of a specific computer imaging software program. Each workshop features one of six leading software packages identified by graphic design professionals.

#### GC 160

# **DESIGN FOR PUBLISHING**

Prerequisite: GC 115 or ART 115

I lecture, 4 lab hrs per week: 3 hrs credit

This course focuses on design opportunities in publishing and teaches students how to develop newsletters, ads, catalogs and presentations.

#### GC 161

## **AIRBRUSH TECHNIQUES**

Prerequisite: GC 151(recommended)

I lecture, 4 lab hrs per week: 3 hrs credit

This course introduces airbrush techniques and methods for applications in illustration and image retouching. Air source will be furnished for use with student's airbrush.

#### GC 162

## INTRODUCTION TO WEB SITE DEVELOPMENT

Prerequisite: None

I lecture, 4 lab hrs per week: 3 hrs credit

This course introduces professional Web site creation and management using basic features of Web design software. Students apply basic principles of mass communication; translate copy, sound, and still and moving images into the Web environment; use design principles to develop storyboards, site maps and navigation structures; and upload and maintain a Web site. Webrelated legal and ethical issues are covered. Successful completion prepares students to pass exams leading to various Certified Internet Webmaster (CIW) credentials. (same as ITWEB 103)

#### GC 171

## **ILLUSTRATION I**

Prerequisite: GC 151 (recommended)

I lecture, 4 lab hrs per week: 3 hrs credit

Offered fall term only

In this studio environment the student will learn to draw controlled illustrations with confidence. Emphasis will be placed on perception and rendering ability, with a variety of techniques and media. Digital and traditional media will be used.

# GC 172

# **ILLUSTRATION II**

Prerequisite: GC 171 or ART 104

I lecture, 2 lab hrs per week: 2 hrs credit

Offered spring term only

This course is an advanced study of color and black and white rendering techniques. Subject matter, media choice and selling considerations will be fully explored through a variety of illustration problems.

#### **GC 175**

# **ANIMATION TECHNIQUES**

Prerequisite: GC 115 or ART 115

I lecture, 4 lab hrs per week: 3 hrs credit

This course introduces the concepts, processes and history of animation covering both traditional and two-dimensional computer-based animation techniques. It incorporates the use of drawn, vector and bit-mapped formats as a means of generating animated sequences.

#### GC 182

# DIGITAL VIDEO

Prerequisite: GC 115 or ART 115

I lecture, 2 lab hrs per week: 2 hrs credit

This course covers the theory and practical techniques required to create and produce digital video. Computer software and production tools are used.

#### **GC 185**

#### **DIGITAL SOUND**

Prerequisite: GC 115 or ART 115

I lecture, 4 lab hrs per week: 3 hrs credit

Students use digitized sounds, traditional foley effects, general midi music and dubbed effects to develop sound tracks for film, video and multimedia. The primary focus is creation of video and multimedia soundtrack. The use of professional sound and editing techniques is emphasized. This is a studio course in which the primary emphasis is development of a student's portfolio. Writing appropriate to the profession is required.

#### GC 262

## FLASH/INTERFACE DESIGN

Prerequisite: GC 151 and ITWEB 103 or GC 162 recommended 1 lecture, 4 lab hrs per week: 3 hrs credit

This studio course develops students' understanding of interactive Web and interface design with an understanding of graphic design and interface design principles. Students will develop an integrated and consistent interface for a Web site using graphic programs including, but not limited to, Dreamweaver, Flash and Photoshop. Students practice extensive use of scripting and programming with an emphasis on using professional design techniques and standards. Sound, video, animation and interactivity are combined in interactive work. The primary emphasis of this course is development of the student's portfolio. Writing appropriate to the profession is required. (same as ITWEB 203)

#### **GC 265**

# **INTERACTIVE DESIGN PROJECT**

Prerequisite: GC 162

I lecture, 4 lab hrs per week: 3 hrs credit

This course develops students' ability to work as part of a creative team. Students develop a group multimedia project using professional management techniques and standards. Sound, video, animation and interactivity are combined to create an interactive work. This is a studio course in which the primary emphasis is development of a student's portfolio. Writing appropriate to the profession is required.

## **GC 272**

#### **DIGITAL ILLUSTRATION**

Prerequisite: GC 115 or ART 115

I lecture, 2 lab hrs per week: 2 hrs credit

This is a comprehensive course in drawing and painting original designs using the Macintosh imaging system. Close attention is paid to commercial uses of the personal computer in the illustration field.

# **GC 287**

## **PROFESSIONAL DESIGN**

Prerequisite: GC 160

I lecture, 4 lab hrs per week: 3 hrs credit

This course concentrates on advanced projects in computer image manipulation and design with emphasis on quality print output, film recording and other methods of production. Use of flatbed and film scanner techniques are also covered.

#### GC 291

## 3-D PACKAGING AND DISPLAY DESIGN

Prerequisite: GC 151

I lecture, 2 lab hrs per week: 2 hrs credit

This course expands the development of graphic design skills to include three-dimensional forms. Advanced design and layout projects in package design and point-of-purchase displays are explored.

## GC 298

## INDEPENDENT VISUAL STUDY

Prerequisite: GC 151

I lecture, 4 lab hrs per week: 3 hrs credit

This course is an investigation of independent visual problems as they relate to student-generated projects which require advanced research and development.

# GC 299

#### INTERNSHIP/SEMINAR

Prerequisite: Minimum 12 credit hrs in ART, GC

I lecture, 15 lab hrs per week: 4 hrs credit (variable credit) This internship and seminar provides an opportunity for students to earn credit while working in a graphic design related area. Formalized student-employer agreements identify objectives, work plan and guidelines for evaluation.

## **HEALTH**

# **HLTH 100**

#### **ORIENTATION TO HEALTH CAREERS**

Prerequisite: None

3 lectures per week: 3 hrs credit

Students will learn about health care systems and the various health care careers available as well as qualities needed to be a health care worker. Medical terminology, anatomy and physiology, health promotion and disease prevention will be stressed.

## HLTH 101

## **HEALTH AND WELLNESS**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course offers a study of the physical and mental workings of the body in sickness and in health. It provides information on topics related to mental and physical health such as holistic health, stress management, fitness, nutrition, lifestyle choices, diseases and related issues.

#### **HLTH 102**

# **WORKPLACE ISSUES FOR ALLIED HEALTH**

Prerequisite: None

I lecture per week: I hr credit

Workplace issues in Allied Health are examined. Emphasis is on communication, stress management, negotiating within organizational structures, power and dealing with life/death situations.

# HEATING, VENTILATION, AIR-CONDITIONING AND REFRIGERATION

(previously Air Conditioning and Heating - Apprentice)

#### **HVACR 101**

#### **FUNDAMENTALS OF REFRIGERATION**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course covers the basic principles and theory of refrigeration. Topics include refrigeration cycle, compressors, condensers, evaporators and metering devices. Safe and efficient use of tools and brazing techniques in the installation of copper tubing and piping are also introduced.

## **HVACR 102**

# ADVANCED REFRIGERATION

Prerequisite: HVACR 101

2 lectures per week: 2 hrs credit

This course focuses on the basic refrigeration cycle, system components and applications. Special emphasis is given to temperature controls, installation techniques, testing, servicing, charging and location of refrigeration troubles.

#### **HVACR 103**

## **AIR CONDITIONING**

Prerequisite: HVACR 102, 107, 108

2 lectures per week: 2 hrs credit

Topics covered in this course include basic air conditioning theory and principle, air conditioning systems, psychrometric properties of air, process and human comfort load analysis, load calculation and equipment selection.

#### **HVACR 104**

#### ADVANCED AIR CONDITIONING

Prerequisite: HVACR 103, 108

2 lectures per week: 2 hrs credit

This course provides an in-depth understanding of the air conditioning system, components and their applications. Special emphasis is given to maximizing system operations which includes mechanical and electrical installation, service repair and troubleshooting.

# **HVACR 105**

# **HEATING SYSTEM APPLICATIONS**

Prerequisite: HVACR 104, 108

2 lectures per week: 2 hrs credit

This course is an introduction to gas heating equipment which includes theory of gas combustion, venting, operation and efficiency of heating units; servicing and repairing mechanical and electrical components; and proper installation of units.

#### **HVACR 107**

# **ELECTRICAL CONTROL APPLICATIONS**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course covers the practical study of electricity as it applies to the servicing and installation of refrigeration, air conditioning and heating equipment, with emphasis on electrical safety, meters and circuits.

#### **HVACR 108**

## **ADVANCED CONTROLS**

Prerequisite: HVACR 107

2 lectures per week: 2 hrs credit

This course covers the installation, diagnosis and servicing of the electrical systems used in split residential and small commercial air conditioning, heating and refrigeration systems. Emphasis will be placed on the advanced control system needed to achieve total comfort and safety.

#### **HVACR 109**

## **INSTALLATION AND SERVICE OF HVACR SYSTEMS**

Prerequisite: HVACR 104, 105, 108

2 lectures per week: 2 hrs credit

This course covers the proper procedures used during the installation and servicing of residential and commercial air conditioning, heating and refrigeration equipment. Emphasis is placed on weekly examinations on how to diagnose both electrical and mechanical service problems.

#### **HVACR II0**

#### TROUBLESHOOTING HVACR SYSTEMS

Prerequisite: HVACR 104, 105, 108

2 lectures per week: 2 hrs credit

This course covers the systematic evaluation of air conditioning, heating and refrigeration systems. Troubleshooting topics include system pressures, temperature, compressor efficiency, mechanical and electrical components.

## **HVACR 112**

# SHEET METAL LAYOUT AND FABRICATION

Prerequisite: None

2 lectures per week: 2 hrs credit

This course covers the introduction to heating, ventilation and air conditioning sheet metal duct systems. Basic fitting layout will be covered. Emphasis is placed on various types of seams, edges, elbows and ducts. Drawing and actual fabrication are done.

## **HVACR 114**

# **SPECIAL TOPICS IN HVACR**

Prerequisite: Instructor consent

2 lectures per week: 2 hrs credit (may be repeated for credit 3 times with different topics)

Topics pertaining to current and emerging technology in the heating, ventilation, air conditioning and refrigeration industry will be covered. Content and format of this course is variable and may be initiated by updates in technology in the HVACR field.

# **HISTORY**

# HIST III (IAI: S2 912N; HST 915)

# **WORLD HISTORY: ORIGINS TO 1714**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course covers the political, social and economic history of the world to 1714, including the origins and developments of its peoples and societies. Equal emphasis is placed on the development of Western and non-Western civilizations.

HIST 112 (IAI: S2 913 N; HST 916) **WORLD HISTORY: 1714 TO PRESENT** Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course covers the political, social, economic and cultural history of the world including the origins and development of its peoples and societies from 1714 to the present. Equal emphasis is placed on the development of Western and non-Western civilizations.

## HIST 115 (IAI: S2 906N) AFRICAN CIVILIZATIONS I

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

An introduction to major African societies of the past and their reactions to European imperialism.

## HIST 116 (IAI: S2 907N) **AFRICAN CIVILIZATIONS II**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

A continuation of HIST 115 with major emphasis on the development of modern African societies as they react to the twin forces of imperialism and nationalism.

# HIST 140 (IAI: S2 910N)

# **HISTORY OF LATIN AMERICA**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

Students will study the growth and development of Hispanic America from the Age of Discovery to the present day. Special emphasis will be placed on the success and failure of democratic procedures and the relationship between Latin America and the United States. The influences of the Roman Catholic Church, the military and the business community on the development of society and government will also be described.

#### HIST 151 (IAI: S2 902: HST 913)

## HISTORY OF WESTERN CIVILIZATION I

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course examines the political, social and economic history of the Western world, including the origins and development of cultures from human origins to the Age of Exploration.

# HIST 152 (IAI: S2 903; HST 914)

# HISTORY OF WESTERN CIVILIZATION II

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course explores the political, social, cultural and economic history of the Western world from the Age of Exploration to modern times.

# HIST 201 (IAI: S2 900; HST 911) U.S. HISTORY: 1492 TO 1877

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

Study of the political, economic and social factors in the growth of the United States from the Age of Discovery through the Civil War and Reconstruction.

# HIST 202 (IAI: S2 901; HST 912) **U.S. HISTORY: 1877 TO PRESENT**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course looks at the political, social and economic history of the United States from 1877 to the present, including the development and origins of its peoples and society.

#### **HIST 230**

## **AFRICAN AMERICAN HISTORY**

Prerequisite: None

3 lectures per week: 3 hrs credit

Designed to acquaint the student with the African roots of the African American with emphasis on the transition of Blacks from African warrior to American slave.

# **HUMANITIES**

(See also Philosophy)

# **HUMAN 101** (IAI:H5 904N) **COMPARATIVE RELIGIONS**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

The goal of the course is to enhance the understanding of what religion is through a study of some of the forms it takes. Religion is not reduced to other things or explained "away," but is regarded as a medium of human expression (other media of expression being found in the arts and sciences). The way religious expressions embody human psychological and social organization is taken into account. The expression of religion in literature is discussed.

# **HUMAN 102**

# **FOUNDATIONAL RELIGIOUS TEXTS**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This is a humanistic study of one or more of the foundational documents of the world's religions such as the Hebrew Bible, the New Testament, the Qur'an or the Vedas.

## **HUMAN 201** (IAI: H9 900)

# **HUMANITIES THEMES: MYTH, REASON AND GOD**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course will deepen students' understanding of their own moral, political and religious beliefs through examining the major humanities themes in Greek and Hebrew texts basic to Western culture. Literary, historical and philosophical perspectives are explored in readings which include Homer, Plato and the Bible.

## **HUMAN 202 (IAI: HF 900)**

# FORM AND STRUCTURE IN THE ARTS

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This is a course separable from HUMAN 201, which is not a prerequisite. The coursework is divided among literature, painting and music. Emphasis is on formal structure of these works and on analysis rather than appreciation.

# **HYDRAULICS - APPRENTICE**

#### APPH 101

## **FUNDAMENTALS OF HYDRAULICS**

Prerequisite: None

2 lectures per week: 2 hrs credit

A general course covering the basic components of hydraulic systems, and the basic laws and formulas involved in simple fluid power calculations. Topics include pumps, control valves, actuators, the use of ASAIS symbols and maintenance procedures.

## **APPH 102**

## **HYDRAULIC PUMPS**

Prerequisite: APPH 101

2 lectures per week: 2 hrs credit

A study of various fluid power pumps and their principles of operation, construction and maintenance. Fixed gear, vane, axial, and radial piston, and variable delivery pumps are covered in addition to combination pumps and self-contained power units.

#### **APPH 103**

## **HYDRAULIC CONTROLS**

Prerequisite: APPH 101

2 lectures per week: 2 hrs credit

A study of the various controls used in fluid power. Topics covered: pressure and volume theory, operation and construction of valves, and circuit applications. Also covered are valves and their assemblies, the relief, pressure reducing sequence, counterbalance, brake, volume and control and directional, in addition to various types of valve controls.

# **APPH 104**

# **BASIC HYDRAULIC CIRCUITS**

Prerequisite: APPH 103

2 lectures per week: 2 hrs credit

Fluid power circuit fundamentals, calculations and design.
Circuits studied: pump-unloading, speed, pressure, volume,
deceleration, sequence, servo, oil conditioning and transfer line.

#### **APPH 106**

# **PNEUMATICS**

Prerequisite: AMATH 101

2 lectures per week: 2 hrs credit

A study of fundamental pneumatic principles, gas laws, calculations, ASAIS symbols and terminology. Also considered are the way air is compressed, the compressed air system, controlling pneumatic power and the introduction of fluidics.

#### **APPH 107**

# **HYDRAULIC-PNEUMATIC LABORATORY**

Prerequisite: APPH 106

2 lectures per week: 2 hrs credit

The laboratory situation enables each student to dissemble and assemble pumps, valves and actuators; run tests on the components upon which he or she works; and construct various circuits with the equipment available. A report on each laboratory test is required in addition to a special semester project.

# INDUSTRIAL ELECTRICIAN - APPRENTICE

#### APPIE 100

## **ELECTRIC WIRING I**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course is a beginning course in residential wiring and assumes no previous electrical background. The course is designed to help develop an understanding of the electrical principles involved as well as the physical wiring practices.

#### APPIE 101

#### **FUNDAMENTALS OF ELECTRICITY I**

Prerequisite: None

2 lectures per week: 2 hrs credit

This is an introductory course in direct current electricity. The student will analyze series, parallel and combination circuits using Kirchoff's current and voltage laws, electrical measuring instruments and measurement techniques. The student will verify basic principles of electricity in the laboratory.

#### APPIE 102

## **FUNDAMENTALS OF ELECTRICITY II**

Prerequisite: APPIE 101

2 lectures per week: 2 hrs credit

This course is a more in-depth look at the fundamentals of electricity. Fundamental electric laws and relationships are studied. Electrical calculations and measurements are emphasized. Series, parallel and combination circuits are analyzed.

## APPIE 103

# **ALTERNATING CURRENT I**

Prerequisite: None

2 lectures per week: 2 hrs credit

This is a fundamental course in alternating current theory and analysis. The student will analyze circuits that include series and parallel configuration of resistance, inductance and capacitance. The analysis will include vector operations, complex impedance, phase angles, single- and three-phase representations, Delta circuits and Wye circuits.

# **APPIE 104**

#### **ALTERNATING CURRENT II**

Prerequisite: APPIE 103

2 lectures per week: 2 hrs credit

This course studies alternating current theory in terms of network analysis theorems and loop equations. It is a continuation of APPIE 103.

# **APPIE 105**

# POWER, TRANSFORMERS, POLYPHASE CIRCUITS

Prerequisite: APPIE 101 or equivalent

2 lectures per week: 2 hrs credit

This course includes the study of the principles of transformer operation including on load conditions, efficiency and testing. Polyphase principles will be studied including calculation techniques, measurement and power relationships.

#### CLLS, CLICITI ICAI LS, COOKSLS

**COURSE DESCRIPTIONS** 

## APPIE 106

#### **DC MOTORS AND GENERATORS**

Prerequisite: APPIE 101

2 lectures per week: 2 hrs credit

This course is a study of DC generators and motors. The topics covering DC generators are construction, basic principles, speed-voltage characteristics and regulation. The motor topics are basic principles, speed-torque characteristics, types of field excitation and starting procedures.

#### APPIE 107

## **AC MOTORS AND GENERATORS**

Prerequisite: APPIE 103 or APPIE 104

2 lectures per week: 2 hrs credit

This course is a study of AC generators and motors. The topics covering AC generators are construction, basic principles, speed-voltage characteristics and regulation. The motor topics are basic principles, speed-torque characteristics, types of field excitation and starting procedures. Single- and poly-phase generators, motors and switching equipment are covered.

#### APPIE 108

## **ELECTRICAL CONTROL FOR MACHINES I**

Prerequisite: APPIE 101 or equivalent

2 lectures per week: 2 hrs credit

This is a course in industrial controls which are frequently used in industry to control motors. Single- and three-phase systems are covered. Industry standards and codes are presented throughout for promoting an understanding of safety and preventive maintenance. Practical experiences include wiring motor starters, reversing and motor sequencing and controlling these with different control devices and sensors.

## APPIE 109

# **ELECTRICAL CONTROL FOR MACHINES II**

Prerequisite: APPIE 101 or equivalent

2 lectures per week: 2 hrs credit

This course is a continuation of APPIE 108. Industry controls which are frequently used in industry to control motors are analyzed. Single- and three-phase systems are covered. Industry standards and codes are presented throughout for promoting an understanding of safety and preventive maintenance. Practical experiences include wiring motor starters, reversing and motor sequencing and controlling these with various control devices and sensors.

# APPIE I I 0

# DC CRANE CONTROL

Prerequisite: APPIE 101 or equivalent

2 lectures per week: 2 hrs credit

This course is designed to train and aid in the maintenance of overhead cranes powered by direct current motors. Servicing and troubleshooting techniques will be taught by referring to the electrical diagrams provided by crane control manufacturers.

# APPIE III

# **ELECTRONIC PRINCIPLES I**

Prerequisite: None

2 lectures per week: 2 hrs credit

This is a course in electronic devices covering the principles of how electronic devices work and how they are connected into basic electronic circuits. The content includes introductory analysis of device parameters and circuit application. The diode and transistor family of devices will be covered.

## **APPIE 112**

## **ELECTRONIC PRINCIPLES II**

Prerequisite: APPIE | | | |

2 lectures per week: 2 hrs credit

This is a course in electronic devices covering the bipolar and field effect basic theory, transistor biasing and amplification. The SCR will also be studied. The course includes introductory analysis of device parameters and circuit applications. Load lines, models and parameter calculations and measurements will be emphasized.

# **APPIE 113**

## **BLUEPRINT READING FOR ELECTRICIANS**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course provides the student with a background in reading and interpreting blueprints and wiring diagrams pertaining to single-family dwellings, commercial locations, industrial locations, special and hazardous locations. Students will be exposed to the National Electrical code and the use of electrical tables.

#### **APPIE 114**

## **NATIONAL ELECTRICAL CODE**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course is a review of the National Electrical Code and the areas most frequently applied are covered in detail. Such topics are: maximum current for each wire size, overcurrent protection, wiring methods and materials, motor controllers, transformers, switchboards and emergency systems.

## APPIE 120

# **ELECTRICAL SAFETY**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course covers some of the basic electrical dangers and safety precautions that should be observed when working with electricity or electrical circuits. Safety procedures are emphasized along with the purpose of fuses, circuit breakers, disconnect boxes, insulation and grounding.

#### APPIE 141

# **CONDUIT BENDING - THINWALL**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course teaches how to calculate and bend one-inch and 3/4-inch EMT conduit for electrical use.

## APPIE 142

# **CONDUIT BENDING AND THREADING**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course teaches how to calculate and bend rigid conduit and how to thread thickwall conduit for electrical use.

#### APPIE 150

# PREVENTIVE MAINTENANCE- ELECTRICAL

Prerequisite: None

2 lectures per week: 2 hrs credit

This course in methods of preventive maintenance of electrical equipment includes insulation testing and evaluation, electronic testing, AC generator and motor checking, overcurrent protection, and system distribution problems.

#### APPIE 160

#### **ELECTRICAL WIRING II**

Prerequisite: APPIE 100

2 lectures per week: 2 hrs credit

This course is a continuation of Electric Wiring I. It focuses on the technical skills required to perform electrical installations, including calculating conductor sizes and voltage drops, determining circuit requirements, sizing service and grounding procedures.

#### APPIE 170

## **ELECTRICITY NON-ELECTRICAL TRADES**

Prerequisite: None

2 lectures per week: 2 hrs credit

Electrical circuits, equipment, devices, practices, fundamentals and safety are the topics of this course. Students will explore electrical circuits, measuring equipment and more as a wide range of electrical topics are studied for both single- and three-phase circuitry. Electrical safety will be addressed, especially lock-out/tag-out.

#### APPIE 200

## **ELECTRICAL TRANSFORMATION AND RECTIFICATION**

Prerequisite: APPIE 103 or equivalent

2 lectures per week: 2 hrs credit

This course is a study of changing AC to DC in single- and poly-phase circuits as typically found in industry. Rectification circuits that are primarily for higher current operation will be studied.

## APPIE 201

## **DIGITAL FUNDAMENTALS I**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course in digital systems is an introduction to number systems and codes, logic gate representation and combinatorial logic circuits.

# APPIE 202

# **DIGITAL FUNDAMENTALS II**

Prerequisite: 201 or equivalent

2 lectures per week: 2 hrs credit

This course in digital systems is a continuation of APPIE 201 advancing into the study of counters, registers, integrated circuit logic, logic families, interfacing and memory devices.

#### **APPIE 203**

# INDUSTRIAL ELECTRONICS I

Prerequisite: APPIE 101

2 lectures per week: 2 hrs credit

This course is a study of the underlying concepts and operation of electronic devices, circuits and systems used in industrial control. Concepts instead of design topics are emphasized.

## APPIE 204

#### **INDUSTRIAL ELECTRONICS II**

Prerequisite: APPIE 101

2 lectures per week: 2 hrs credit

This course is a continuation of the study of underlying concepts and operation of electronic devices, circuits and systems used in industrial control. Concepts instead of design topics are emphasized.

#### **APPIE 206**

#### INSTRUMENTATION FUNDAMENTALS I

Prerequisite: APPIE 101

2 lectures per week: 2 hrs credit

This course is a study of electronic instrumentation with applications to the control of the industrial processes. Topics covered will be an introduction to process control, transducers, controller principles and control elements.

## **APPIE 207**

## **INSTRUMENTATION FUNDAMENTALS II**

Prerequisite: APPIE 206

2 lectures per week: 2 hrs credit

This course is a continuation of APPIE 206 and covers instrumentation applications to the process control.

#### **APPIE 208**

## PROGRAMMABLE LOGIC CONTROLLERS I

Prerequisite: None

2 lectures per week: 2 hrs credit

This is a course that studies programmable controller operations as used in industry. This course is based on the principle that the technician must understand programmable controller terminology as well as relationships of the input/output, processor section, programmable devices, memory and interfacing sections of the programmable controller. The use of ladder diagrams and programming techniques are explained along with the programmable controller versatility to control integrated processes.

## APPIE 209

# PROGRAMMABLE LOGIC CONTROLLERS II

Prerequisite: APPIE 208 or equivalent

2 lectures per week: 2 hrs credit

This course is a continuation of Programmable Logic Controllers I. The student will continue to learn more programming techniques as well as manipulation of data, such as data comparison, connection of peripheral devices and controller logic and hardware troubleshooting. Certain brand-name programmable controllers will be identified and used. Practical wiring, troubleshooting and programming of a particular model programmable controller will be emphasized.

# APPIE 210

## **COMPUTER USE AND APPLICATION**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course is designed to study computer interfacing, application and usage with little computer background necessary. The students will use PCs to do a variety of tasks using both interfacing hardware and software for collecting and analyzing scientific data. The student will also work within the PC in order to be able to change mother boards, driver cards, memories, drive units and connect peripheral devices.

## **APPIE 220**

## PROGRAMMABLE LOGIC CONTROLLERS

Prerequisite: None

4 lectures per week: 4 hrs credit

This course studies programmable controller operations as used in industry. The use of ladder diagrams and programmable techniques are explained along with programmable versatility to control integrated processes. Students will develop expertise in connection of peripheral devices, controller logic and hardware, troubleshooting and practical wiring procedures. (equivalent to APPIE 208 and 209 combined)

## **APPIE 290**

#### SPECIAL TOPICS IN ELECTRICITY

Prerequisite: Consent of coordinator

3 lectures per week: 3 hrs credit (variable credit offered; may be repeated for credit 3 times with different topics)

Topics pertaining to current and emerging technology in electricity will be covered. Content and format of this course is variable and may be initiated by company training needs, updates in technology in the electrical field and the need to adhere to rules such as the revisions that occur in the National Electrical Code. Subject matter will be indicated in the class schedule.

#### **APPIE 298**

## **ELECTRICAL SEMINAR**

Prerequisite: Completion of 24 credits of APPIE courses and the consent of coordinator

I lecture per week: I hr credit

This seminar is taken in conjunction with APPIE 299-Internship. The content of the seminar relates to the internship work which is correlated with the student's field of study.

#### **APPIE 299**

#### **ELECTRICAL INTERNSHIP**

Prerequisite: Completion of 24 credits of APPIE courses and the consent of coordinator

10 lab hrs per week: 2 hrs credit

Student interns will be assigned to an approved training site. This will be scheduled by joint agreement of the student, the site supervisor and the program coordinator. Students must also register for APPIE 298 - Electrical Seminar.

# **INFORMATION TECHNOLOGY**

Course prefixes indicate the content emphasis of each course. Courses applied for completion of current degrees or certificates must have been completed within the past five years.

# **APPLICATIONS - ITAPP**

**ITAPP 101** (IAI: BUS 902; CS 910)

## **INTRODUCTION TO COMPUTERS**

Prerequisite: Keyboarding (recommended)

3 lectures per week: 3 hrs credit

A general introduction to the concepts of computers and data processing as it relates to the business organization. This course is a survey of many aspects of computers today and includes units on history of computers; hands-on experience with business software such as spreadsheets, database and word processing packages; telecommunications and current topics. No mathematics or data processing background is required.

#### **ITAPP 109**

# INTRODUCTION TO THE INTERNET

Prerequisite: None

2 lab hrs per week: I hr credit

This is a comprehensive study of the Internet through online experience. All the basic Internet applications are covered, including e-mail, www, gopher, search strategies, USENET news groups, FTP, Telnet, Web page construction, encryption on the Internet, Internet service providers and social issues.

## ITAPP 121

## INTRODUCTION TO WORD PROCESSING

Prerequisite: ITOFS 100

2 lectures, 2 lab hrs per week: 3 hrs credit (may be repeated three times)

This course presents the concepts of storage, retrieval, playback and editing as done in word processing. Students completing the course are expected to demonstrate their knowledge of word processing concepts on a microprocessor by producing and revising actual documents including letters, memos, multiple-page documents, form letters, envelopes, memoranda and multi-page reports.

#### **ITAPP 122**

## INTERMEDIATE WORD PROCESSING APPLICATIONS

Prerequisite: ITAPP 121

2 lectures, 2 labs per week: 3 hrs credit

(may be repeated three times)

This course is a continuation of skill development on word processing equipment. Topics covered include merging, creating and revising footnoted documents, preparing tables, justifying margins, creating headers and footers and reformatting documents.

#### ITAPP 125

## **INTRODUCTION TO SPREADSHEETS**

Prerequisite: Keyboarding (recommended)

I lecture, 2 lab hrs per week: 2 hrs credit

Hands-on experience with the most current and widely used spreadsheet software. Topics covered include creating and editing worksheets, range commands, copy and move commands, calculations, screen and printer graphics, sorting, query, windows, table hookups and macros.

# **ITAPP 126**

# INTERMEDIATE SPREADSHEET APPLICATIONS

Prerequisite: ITAPP 125

I lecture, 2 lab hrs per week: 2 hrs credit

This course provides further hands-on study into the capabilities of the current commercial spreadsheet software. Topics covered include macros, advanced functions, file operations and sophisticated applications.

# **ITAPP 128**

## **INTRODUCTION TO DATABASE**

Prerequisite: Keyboarding (recommended)

I lecture, 2 lab hrs per week: 2 hrs credit

Hands-on experience with the most current and widely used database software. Topics covered include creating and editing a database file, queries, forms, grouping data for reports, indexing, labels, SQL commands, menu structures and macros.

# **ITAPP 129**

## **INTERMEDIATE DATABASE APPLICATIONS**

Prerequisite: ITAPP 128 or equivalent

I lecture, 2 lab hrs per week: 2 hrs credit

Further hands-on study into the capabilities of the current commercial database software. Topics covered include operations, multiple files, relational database operations, SQL, command file creation and program flow, and applications.

#### **ITAPP 130**

#### SOFTWARE INTEGRATION AND APPLICATION

Prerequisite: ITAPP 121, 125, 128

I lecture, 2 lab hrs per week: 2 hrs credit

This course explores the powerful merging capabilities of word processing, database and spreadsheet software packages. Students will import data and graphics, explore mail merge, write macros and create integrated software systems for business applications.

#### **ITAPP 132**

## **DESKTOP PUBLISHING**

Prerequisite: ITOFS 100

2 lectures, 2 lab hrs per week: 3 hrs credit

This desktop publishing course utilizes a personal computer to create high-quality publications by using an advanced page layout software package to combine text and graphics to produce master copy. Text and graphics can be combined to produce brochures, newsletters, magazines, technical documents and books. Students completing this course are expected to demonstrate their knowledge of desktop publishing by producing assigned and personal projects.

#### **ITAPP 133**

#### **BUSINESS PRESENTATIONS**

Prerequisite: None

I lecture, 2 lab hrs per week: 2 hrs credit

This course teaches students to use current desktop presentation software to plan, construct and produce effective desktop presentations. The student will complete assigned projects using special predefined layout features in the software to produce slide presentations.

# **ITAPP 150**

# SOFTWARE SUITE APPLICATIONS-WORD PROCESSING

Prerequisite: None

I lecture per week: I hr credit

This course teaches the basics of the word-processing module of the software suite. Learn to efficiently create professional-looking documents such as announcements, letters, resumes and reports and to revise them easily.

# ITAPP 151

## **SOFTWARE SUITE APPLICATIONS-SPREADSHEETS**

Prerequisite: None

I lecture per week: I hr credit

This course teaches the basics of the spreadsheet module of the software sheet. Students will create spreadsheets, develop formulas, format and visually present data in chart format, build worksheets, and link together for visual presentation.

# **ITAPP 152**

## **SOFTWARE SUITE APPLICATIONS-DATABASE**

Prerequisite: None

I lecture per week: I hr credit

This course teaches the basics of the database module of the software suite. Students will create a database table, edit, copy and restructure tables, query tables to extract information and print reports from tables.

## **ITAPP 153**

#### SOFTWARE SUITE APPLICATIONS-PRESENTATIONS

Prerequisite: None

I lecture per week: I hr credit

This course teaches the basics of the presentation module of the software suite. Students will develop various types of presentations using a projection device and slides.

#### ITAPP 155

## **INTEGRATED SOFTWARE SUITE APPLICATIONS**

Prerequisite: ITAPP 150, 151, 152 and 153

I lecture per week: I hr credit

The software suite integrates applications so that they work together easily. The applications look alike and work alike, thus increasing productivity. This course teaches the user how to share data, documents and graphics across applications.

#### **ITAPP 160**

#### **TECHNOLOGY FOR TEACHERS**

Prerequisite: Basic skills in keyboarding and word processing, spreadsheet and database software or consent of instructor recommended. 3 lectures per week: 3 hours credit

This course introduces educators to the use of the computer as an educational tool. The course focuses on a solid understanding of educational technology, including how to use computers, how to access information on World Wide Web, and how to integrate computers into the classroom curriculum. Hands-on technology activities will be an important part of the course. Students should have basic keyboarding skills and basic knowledge of word processing, spreadsheet and database software. (same as ED 160)

# **ITAPP 232**

## ADVANCED DESKTOP PUBLISHING

Prerequisite: ITAPP 132

2 lectures, 2 lab hrs per week: 3 hrs credit

The student will use current hardware and software to apply knowledge gained in previous Desktop Publishing courses to complete assigned projects. Emphasis is placed on job specifications and reproduction requirement.

#### **ITAPP 240**

# **APPLICATION DEVELOPMENT IN DATABASE**

Prerequisite: ITAPP 129

I lecture, 2 lab hrs per week: 2 hrs credit

Students will develop and prepare tables, queries, forms and reports. Objects, properties and event-driven programming will be used to develop database applications. Visual Basic modules, functions and subroutines will be incorporated.

## **NETWORKING - ITNET**

#### **ITNET 160**

## **COMPUTER REPAIR**

Prerequisite: ITPRG 140

2 lectures, 4 lab hrs per week: 4 hrs credit

This course is an introduction to personal computer upgrades, maintenance and repair. Topics include computer hardware, software, operating systems, troubleshooting and how to fix, upgrade and build a computer. This course covers the latest technologies and objectives of the CompTIA A+ certification exams.

## **ITNET 165**

## INTRODUCTION TO NETWORKING

Prerequisite: ITNET 160 (recommended)

2 lectures, 2 lab hrs per week: 3 hrs credit

This course covers the skills and concepts needed to configure and operate a variety of networking products, including a wide range of vendor and product neutral networking technologies. Topics include networking theory, protocols, connectivity devices, Internet addressing, internetworking servers, security and troubleshooting. Successful completion prepares students to pass CompTIA's entry-level networking certification exam.

## **ITNET 210**

# MICROSOFT WINDOWS ADMINISTRATION

Prerequisite: ITNET 165

2 lectures, 2 lab hrs per week: 3 hrs credit

This course enables students to develop proficiency with the current Microsoft Windows workstation level operating system, including installation, configuration and administration. Upon successful completion of this course, students are prepared to take various Microsoft systems administration and engineer certification exams.

# **ITNET 215**

# MICROSOFT SERVER ADMINISTRATION

Prerequisite: ITNET 165

2 lectures, 2 lab hrs per week: 3 hrs credit

This course provides students with a working knowledge of the current Microsoft server operating system including installation, configuration, administration and troubleshooting techniques. Upon successful completion of this course, students are prepared to take various Microsoft systems administration and engineer certification exams.

## **ITNET 218**

# MICROSOFT WINDOWS NETWORKING ENVIRONMENT

Prerequisite: ITNET 215

2 lectures, 2 lab hrs per week: 3 hrs credit

This course teaches students to support, administer and troubleshoot computer systems on networks that incorporate current Microsoft Windows operating systems. Upon successful completion of this course, students are prepared to take various Microsoft systems administration and engineer certification exams.

## **ITNET 250**

## INTRODUCTION TO LAN ADMINISTRATION

Prerequisite: ITPRG 140

2 lectures, 2 lab hrs per week: 3 hrs credit

Topics include local area network (LAN) terminology, hardware and software components required in a networked environment, and administration of common network operating systems. Hands-on activities include creating and managing user accounts, file sharing, printing, and other tasks related to network administration.

#### **ITNET 260**

#### **NETWORK SECURITY FUNDAMENTALS**

Prerequisite: ITNET 165 or Network+ certification

2 lectures, 2 lab hrs per week: 3 hrs credit

This course covers the fundamentals of network security including communication security, infrastructure security, cryptography, access control, authentication, external attack, and operational and organization security. Successful completion prepares students for the CompTIA Security+ certification.

#### **ITNET 299**

#### **INTERNSHIP**

Prerequisite: 12 credit hours in IT and consent of instructor 10 lab hrs per week: 2 hrs credit

Student interns will be employed at an approved training site. This will be scheduled by joint agreement of the student, the site coordinator and the program coordinator.

# **OFFICE SKILLS - ITOFS**

# **ITOFS 100**

## **KEYBOARDING**

Prerequisite: None

2 lab hrs per week: I hr credit

Keyboarding is inputting information through the use of the computer keyboard. The purpose of this course is to teach students to develop basic touch keyboarding skills on a computer.

#### ITOFS III

# **BEGINNING KEYBOARDING APPLICATIONS**

Prerequisite: ITOFS 100

I lecture, 2 lab hrs per week: 2 hrs credit

This course is a continuation of skill development in touch key-boarding. The purpose of this course is to enable the student to develop keyboarding skill at a minimum of 35 wpm within four errors. Students will create business applications such as letters, memorandums, tables and manuscripts.

## ITOFS 112

## INTERMEDIATE KEYBOARDING APPLICATIONS

Prerequisite: ITOFS 111, ITAPP 121

I lecture, 2 lab hrs per week: 2 hrs credit

This course is a continuation of skill development in touch key-boarding. The purpose of this course is to enable a person to develop a keyboarding skill at minimum of 50 wpm within three errors. The student will produce a variety of letter forms, memorandums, tables, manuscripts and business forms.

#### ITOFS 115

#### **OFFICE SUPPORT SKILLS**

Prerequisite: Demonstrated touch keyboarding skills at a minimum of 30 wpm

10 lectures per week, 10 hrs credit

This course teaches the basic skills necessary for an entry-level office support position. Topics covered include basic word processing functions, keyboarding application formatting, filing rules, telephone etiquette and proofreading skills. In addition, resume writing, interview techniques and professional attitude and dress will be covered.

#### ITOFS 117

## KEYBOARDING SKILL DEVELOPMENT

Prerequisite: ITOFS 100

2 lab hrs per week: I hr credit

This course is designed to improve keyboarding speed and accuracy skills. The student will analyze his/her own error patterns and then practice specific drills to correct those particular weaknesses. Anyone who can use the touch method of keyboarding and is interested in improving that skill will benefit from the course.

#### **ITOFS 118**

#### **OFFICE LANGUAGE SKILLS**

Prerequisite: ITOFS 100

2 lectures per week: 2 hrs credit

Instruction and application of basic fundamentals of transcription are provided. The course will provide materials tailored to self-improvement programs for office trainees whose on-the-job responsibility will be the production of usable business communications.

# ITOFS 119

# **OFFICE PROCEDURES**

Prerequisite: ITOFS 111 recommended

3 lectures per week: 3 hrs credit

The many techniques, skills, routines and procedures which are relevant to and identified with general office work are included in this course. Topics include the high-tech workplace, success behaviors, office communication and mail records and management.

#### **ITOFS 122**

# TRANSCRIPTION SKILLS

Prerequisite: ITOFS 111, ITAPP 121

I lecture, 2 lab hrs per week: 2 hrs credit

The skills and techniques for transcription from voice processing machines are covered. Emphasis is on correct spelling, punctuation, formatting and English mechanics as well as equipment operation.

## **ITOFS 219**

#### OFFICE MANAGEMENT

Prerequisite: ITOFS 112, 119 or equivalent

3 lectures per week: 3 hrs credit

Offered spring term only

The social and professional competence required of people working and relating together in the office is explored with special emphasis on the secretarial role in the office. Skills, techniques and procedures basic to the modern office are developed. The development of acceptable office behavior and attitudes with secretarial decision-making is stressed.

#### ITOFS 221

## ADVANCED KEYBOARDING APPLICATIONS

Prerequisite: ITAPP 121, 122

I lecture, 2 lab hrs per week: 2 hrs credit

This course is a continuation of skill development using word processing software. The technique and topics learned in Word Processing Applications I and II will be applied using realistic projects. Cooperative learning, critical thinking and problem solving will be stressed.

#### **ITOFS 298**

#### **INTERNSHIP SEMINAR**

Prerequisite: Must be taken concurrently with ITOFS 299.

I lecture hr per week: I hr credit

Students will meet with the program coordinator in a class or individually I hr per week. ITOFS 298 should be taken concurrently with ITOFS 299. Students will develop their internship portfolio which contains attendance sheets, journal, evidence of learning activities and evaluations.

#### **ITOFS 299**

## INTERNSHIP

Prerequisite: Must be taken concurrently with ITOFS 298.

10 lab hrs per week: 2 hrs credit

Student interns will be employed at an approved training site. This will be scheduled by joint agreement of the student, the site supervisor, and the program coordinator.

# **PROGRAMMING - ITPRG**

#### **ITPRG 103**

# INTRODUCTION TO PROGRAMMING

Prerequisite: None

3 lectures, 2 lab hrs per week: 4 hrs credit

This course introduces structured programming logic and includes reports, control breaks, extracts, tables, input validation, updates and file handling concepts. Standard logic charts will include flowcharting, pseudo-code, and other charting methods. Solutions to programming projects will be in QuickBasic and Visual Basic.

#### **ITPRG 106**

# **MATHEMATICS FOR COMPUTERS**

Prerequisite: MATH 090 or qualifying score on Math Placement Test 3 lectures per week: 3 hrs credit

This course is designed to provide an understanding of the numerical concepts required for data processing. Included in the course will be the following topics: binary, octal and hexadecimal number systems, set theory, logic, floating and fixed point numbers, problem solving, and algebra as it relates to data processing.

#### **ITPRG 140**

# INTRODUCTION TO OPERATING SYSTEMS

Prerequisite: Keyboarding (recommended)

2 lecture, 2 lab hrs per week: 3 hrs credit

The student will gain hands-on experience in configurations, customizing windows, icons, and running applications with Windows 98 operating system. Other operating systems will be reviewed and discussed.

## ITPRG 141

#### INTRODUCTION TO RPG PROGRAMMING

Prerequisite: Keyboarding (recommended)

2 lectures, 2 lab hrs per week: 3 hrs credit

This beginning course will introduce programming concepts for a mainframe computer. The student will become familiar with the code to generate formatted reports and will complete several laboratory assignments using the Report Program Generator Language (RPG).

#### **ITPRG 142**

## INTRODUCTION TO VISUAL BASIC PROGRAMMING

Prerequisite: Keyboarding and ITPRG 103 (recommended)
2 lectures, 2 lab hrs per week: 3 hrs credit (variable credit offered)

In this introduction to the Visual Basic programming language, object-oriented and event-driven programming essentials, techniques, and applications are stressed. Topics include control objects, decisions and conditions, menus, procedures, looping structures, and array manipulations.

#### **ITPRG 144**

# **INTRODUCTION TO C++ PROGRAMMING**

Prerequisite: ITPRG 103, 140 or equivalent (recommended)

2 lectures, 2 lab hrs per week: 3 hrs credit

This course provides an introduction to the capabilities of the C++ programming language. Topics covered include program structure, input and output, objects, classes, functions, and logical expressions.

## **ITPRG 147**

## **INTRODUCTION TO JAVA PROGRAMMING**

Prerequisite: ITPRG 103, 140 or equivalent (recommended)

2 lecture, 2 lab hrs per week: 3 hrs credit

This course will focus on JAVA programming basics, Object-oriented programming fundamentals will be covered as they apply to building event-driven JAVA applets and stand-alone JAVA programs.

#### **ITPRG 154**

## **C#.NET PROGRAMMING**

Prerequisite: ITPRG 140

2 lectures, 2 lab hrs per week: 3 hrs credit

This course covers C# programming, a language introduced as a part of the .NET platform designed to accommodate Internet and Windows applications. Topics covered include writing C# programs using OOD, declaring variables, manipulating data types, creating methods, performing procedures, creating graphical user interfaces, using XML Web Services, developing standalone class libraries and programming event-driven applications.

# ITPRG 157

## JAVASCRIPT PROGRAMMING

Prerequisite: ITPRG 140

2 lectures, 2 lab hrs per week: 3 hrs credit

This introductory course in JavaScript programming covers basic programming concepts, development of scripts and integration of scripts into web pages. The focus will be on Client-Side JavaScript and will include embedding JavaScript in HTML, event-handling, and writing and calling JavaScript functions. We will look at JavaScript's brief but colorful history and the challenges of writing scripts that will not break in older browsers.

## ITPRG 201

#### SYSTEMS DESIGN AND DEVELOPMENT

Prerequisite: ITAPP 101, ITPRG 103 and 142 or equivalent recommended

2 lectures, 2 lab hrs per week: 3 hrs credit

An analysis of the information flow within the business organization. The systems development life cycle will be studied with both physical and logical design considerations. Case studies will be used to illustrate the steps of a system study.

#### **ITPRG 202**

## **SOFTWARE DIAGNOSTIC TOOLS**

Prerequisite: ITPRG 140

I lecture, 2 lab hrs per week: 2 hrs credit

This course introduces students to a variety of utility software packages that aid in the diagnosis of microcomputer problems. Students will explore troubleshooting techniques using Norton Utilities, Mace Utilities, antivirus software, SpinRite, advanced DOS functions, Windows and other utility programs.

## **ITPRG 204**

#### **CICS AND APPLICATIONS**

Prerequisite: ITPRG 110 and 149 and 248 I lecture, 2 lab hrs per week: 2 hrs credit

This course will introduce the student to the fundamentals of CICS Command level programming. The emphasis will be on lab examples and applications. The programming language of COBOL will be used for the lab exercises.

## **ITPRG 240**

# LINUX OPERATING SYSTEM

Prerequisite: ITPRG 140

2 lectures, 2 lab hrs per week: 3 hrs credit

This course will provide an in-depth study of and hands-on experience with the primary functions of the Linux operating system. The major essential command-line commands, as well as use of the graphical user interface will be covered. This course will provide theoretical and practical concepts including file systems, elementary shell scripting, and other end-use knowledge necessary to move to the next level of basic system administration. Basic administrative tasks that are necessary for maintaining a working system will be explored.

#### **ITPRG 242**

# ADVANCED VISUAL BASIC PROGRAMMING

Prerequisite: ITPRG 142 or equivalent

2 lectures, 2 lab hrs per week: 3 hrs credit

This is a continuation of ITPRG 142. Advanced topics in Visual Basic are explored including arrays, multiple forms, data files and databases, grids, SQL, graphics, OLE, DLL's, and custom objects. Emphasis is on finding creative solutions to application problems. During the last several weeks of the semester, the class will work on a group project for an outside company.

## **ITPRG 244**

#### ADVANCED C++ PROGRAMMING

Prerequisite: ITPRG 144 recommended

2 lectures, 2 lab hrs per week: 3 hrs credit

This course is a continuation of ITPRG 144. After a review of the introductory topics, study focuses on pointers, arrays, vectors, dynamic memory management, inheritance, polymorphism and operator overloading.

#### **ITPRG 247**

#### **ADVANCED JAVA PROGRAMMING**

Prerequisite: ITPRG 147 or equivalent

2 lectures, 2 lab hrs per week: 3 hrs credit

This course focuses on JAVA programming advanced concepts. It is a continuation of ITPRG 147. After a review of introductory topics, study focuses on more advanced object-oriented techniques, JAVA applets, graphics, exception handling and streaming.

#### **ITPRG 248**

## INTRODUCTION TO COBOL PROGRAMMING

Prerequisite: ITPRG 103

2 lectures, 2 lab hrs per week: 3 hrs credit

Offered fall term only

The most widely used language today is COBOL, and this course introduces the student to COBOL's programming essentials and techniques. Structured design will be stressed, and lab assignments will give the student experience in the applications of creating and editing business reports, calculations and comparisons, logic techniques, input/output techniques, data validation and testing, and table handling.

#### **ITPRG 249**

#### ADVANCED COBOL PROGRAMMING

Prerequisite: ITPRG 248

2 lectures, 2 lab hrs per week: 3 hrs credit

Offered spring term only

This course is a continuation of ITPRG 248. Emphasis is placed on learning and applying more advanced COBOL programming techniques and language conventions. Topics covered include subscripted and indexed tables, matching records logic, VSAM file creation and update, the COBOL sort, subprograms, and COPY and CALL statements.

# **ITPRG 299**

# INTERNSHIP

Prerequisite: ITPRG 298 (taken concurrently), 12 credit hrs IT courses successfully completed with C or better and consent of instructor. 10 lab hrs per week: 2 hrs credit

Student interns will be employed at an approved training site. This will be scheduled by joint agreement of the student, the site coordinator and the program coordinator. Students must enroll in ITPRG 298 in the same semester as their internship. Student interns will meet with the program coordinator in a class or individually for an hour per week.

#### **WEB DEVELOPMENT - ITWEB**

#### ITWEB 101

# WEB PAGE AUTHORING

Prerequisite: None

2 lectures, 2 lab hrs per week: 3 hrs credit

This course is for students interested in developing specific Internet skills as a Web designer, developer or administrator. Topics include Internet fundamentals, Web page authoring with XHTML and CSS, and networking concepts. Successful completion prepares students to pass exams leading to various Certified Internet Webmaster (CIW) credentials.

## **ITWEB 102**

## MICROSOFT WEB DEVELOPMENT

Prerequisite: ITWEB 101

2 lectures, 2 lab hrs per wk: 3 hrs credit

This course uses Microsoft's Web Development Software to create dynamic Web sites. Topics include ASP, ADO, SQL, XML with schemas and stylesheets (XSL), integrating ASP with XML, and XHTML.

## ITWEB 103

## INTRODUCTION TO WEB SITE DEVELOPMENT

Prerequisite: None

I lecture, 4 lab hrs per week: 3 hrs credit

This course introduces professional Web site creation and management using basic features of Web design software. Students apply basic principles of mass communication; translate copy, sound, and still and moving images into the Web environment; use design principles to develop storyboards, site maps and navigation structures; and upload and maintain a Web site. Web-related legal and ethical issues are covered. Successful completion prepares students to pass exams leading to various Certified Internet Webmaster (CIW) credentials. (same as GC 162)

#### ITWEB 201

#### **TECHNOLOGY OF E-COMMERCE**

Prerequisite: ITWEB 101 and ITWEB 102 or 103 2 lecture, 2 lab hrs per week: 3 hrs credit

This course teaches students how to conduct business online and how to manage the technological issues associated with constructing an E-commerce Web site. Students will implement a genuine transaction-enabled business-to-consumer Web site, examine strategies and products available for building E-commerce sites, examine how such sites are managed, and explore how they can complement an existing business infrastructure. Successful completion prepares students to pass exams leading to various Certified Internet Webmaster (CIW) credentials.

# **ITWEB 203**

# FLASH/INTERFACE DESIGN

Prerequisite: GC 151 and ITWEB 103 or GC 162 recommended 6 lab hrs per week: 3 hrs credit

This studio course develops students' understanding of interactive Web and interface design with an understanding of graphic design and interface design principles. Students will develop an integrated and consistent interface for a Web site using graphic programs including, but not limited to, Dreamweaver, Flash and Photoshop. Students practice extensive use of scripting and programming with an emphasis on using professional design techniques and standards. Sound, video, animation and interactivity are combined in interactive work. The primary emphasis of this course is development of the student's portfolio. Writing appropriate to the profession is required. (same as GC 262)

# ITWEB 205

## **WEB LANGUAGES**

Prerequisite: ITWEB 101

2 lectures, 2 lab hrs per week: 3 hrs credit

This course teaches students to use advanced Web programming languages to create interactive Web sites. Topics include form processing, file access and manipulation, and database connectivity. Both client and server side programming techniques are emphasized. Upon successful completion, students are prepared to take various Certified Internet Webmaster (CIW) exams.

#### **ITWEB 220**

#### **INTERNET SYSTEMS MANAGEMENT**

Prerequisite: ITWEB 101

2 lecture, 2 lab hrs per week: 3 hrs credit

This course teaches students how to manage Internet systems, including Web server management and configuration, E-commerce database implementation, and Internet security. Upon successful completion, students are prepared to take various Certified Internet Webmaster (CIW) exams.

#### **ITWEB 225**

#### WEB WORKSHOP: ADVANCED TOPICS

Prerequisite: None

I lecture, 2 lab hrs per week: 2 hrs credit

This course provides orientation, application and hands-on experience with a particular Web development language or software application. Emphasis is placed on techniques used by Web development professionals and practical application of Web programming concepts to real-world scenarios.

#### **ITWEB 299**

#### INTERNSHIP

Prerequisite: 12 credit hours in IT and consent of instructor 10 lab hrs per week: 2 hrs credit

Student interns will be employed at an approved training site. This will be scheduled by joint agreement of the student, the site coordinator and the program coordinator.

# **JOURNALISM**

# JRNLM 101 (IAI: MC 919)

# INTRODUCTION TO JOURNALISM

Prerequisite: ENG 101 with C or better 3 lectures per week: 3 hrs credit

This course introduces news gathering and news writing including techniques of news gathering, reporting and interviewing. Students learn to use the library and do online database research. Students write basic stories under real-time constraints.

#### IRNLM 102

#### **ADVANCED NEWS WRITING**

Prerequisite: JRNLM 101

3 lectures per week: 3 hrs credit

This course includes advanced news writing, featuring interpretive reporting with emphasis on covering and writing story types.

#### **IRNLM 201**

#### NEWSPAPER SKILLS

Prerequisite: ENG 101 with C or better 3 lectures per week: 3 hrs credit

This course introduces newsroom techniques with emphasis on copyreading, headline writing and typography.

# **LANGUAGES: FRENCH**

A placement examination is optional each semester for those who wish to qualify for placement beyond any prescribed semester of elementary or intermediate language. Each student is urged to consult with the department regarding appropriate placement in language sections.

#### FRENC 101

#### FRENCH I

Prerequisite: Placement into ENG 099 or higher

4 lectures per week: 4 hrs credit

This course includes the fundamentals of grammar, composition, conversation, comprehension and readings about French culture in the U.S. and France.

#### FRENC 102

#### FRENCH II

Prerequisite: FRENC 101

4 lectures per week: 4 hrs credit

This course continues the study of grammar, composition, conversation, comprehension and readings about French culture in the U.S. and France.

#### FRENC 201

#### **FRENCH III**

Prerequisite: FRENC 101 and 102 or two years of high school French or a placement examination

4 lectures per week: 4 hrs credit

This course provides a review of grammar, work in composition, conversation, comprehension and reading about universal themes in France.

# FRENC 202 (IAI: HI 900)

# **FRENCH IV**

Prerequisite: FRENC 201

4 lectures per week: 4 hrs credit

This course is designed to increase knowledge of the French language and French culture. It continues the review of grammar, composition, conversation, reading and comprehension.

#### FRENC 205

# **CONVERSATIONAL FRENCH**

Prerequisite: I year of college French, 2 years of high school French, or instructor's consent

3 lectures per week: 3 hrs credit

The course will enable the student to converse in many situations, intellectual as well as commonplace. Students must be willing to participate orally, to challenge, to entertain, and, in so doing, to acquire a fluent knowledge of French and of the French culture.

#### **LANGUAGES: GERMAN**

#### GERM 101

#### **GERMAN I**

Prerequisite: Placement into ENG 099 or higher

4 lectures per week: 4 hrs credit

This course includes the fundamentals of grammar, composition, conversation, comprehension and readings about German culture in the U.S. and Germany.

#### **GERM 102**

#### **GERMAN II**

Prerequisite: GERM 101

4 lectures per week: 4 hrs credit

This course continues the study of grammar, composition, conversation, comprehension and readings about German culture in the U.S. and Germany.

#### **GERM 201**

#### **GERMAN III**

Prerequisite: GERM 102

4 lectures per week: 4 hrs credit

This course provides a review of grammar, work in composition, conversation, comprehension and reading about universal themes in Germany.

#### **GERM 202** (IAI: HI 900)

#### **GERMAN IV**

Prerequisite: GERM 201

4 lectures per week: 4 hrs credit

This course is designed to increase knowledge of the German language and German culture. It continues the review of grammar, composition, conversation, reading and comprehension.

# **LANGUAGES: ITALIAN**

# ITAL 101

# ITALIAN I

Prerequisite: Placement into ENG 099 or higher

4 lectures per week: 4 hrs credit

This course presents the fundamentals of grammar, composition, conversation, comprehension and readings about Italian culture in the U.S. and Italy.

#### **ITAL 102**

# ITALIAN II

Prerequisite: ITAL 101

4 lectures per week: 4 hrs credit

This course continues the study of grammar, composition, conversation, comprehension and readings about Italian culture in the U.S. and Italy.

# **ITAL 205**

#### **CONVERSATIONAL ITALIAN**

Prerequisite: ITAL 101 and 102 3 lectures per week: 3 hrs credit

This course will emphasize speaking the Italian language in a way that would be useful for travel and communication with native speakers of the language.

# **LANGUAGES: SPANISH**

#### **SPAN 101**

#### **SPANISH I**

Prerequisite: Placement into ENG 099 or higher

4 lectures per week: 4 hrs credit

This course includes the fundamentals of grammar, composition, conversation, comprehension and readings about Hispanic culture in the U.S. and Spanish-speaking countries.

#### **SPAN 102**

#### **SPANISH II**

Prerequisite: SPAN 101

4 lectures per week: 4 hrs credit

This course continues the study of grammar, composition, conversation, comprehension and readings about Hispanic culture in the U.S. and Spanish-speaking countries.

#### **SPAN 201**

#### **SPANISH III**

Prerequisite: SPAN 101 and 102 or two years of high school Spanish or placement test

4 lectures per week: 4 hrs credit

This course provides a review of grammar, work in composition, conversation and the readings about Hispanic culture in the U.S. and Spanish-speaking countries.

# **SPAN 202** (IAI: HI 900)

# **SPANISH IV**

Prerequisite: SPAN 201

4 lectures per week: 4 hrs credit

This course is designed to increase knowledge of the Spanish language and Hispanic culture. It continues the review of grammar, composition, conversation, reading and comprehension.

#### **SPAN 205**

# **CONVERSATIONAL SPANISH**

Prerequisite: One year of college-level Spanish or consent of instructor 3 lectures per week: 3 hrs credit

Emphasis is on the speaking skills necessary for basic communication. This course is useful for travelers, tourists and anyone who would like to use Spanish as a necessary means of communication. Grammar, writing and reading also will be incorporated as skills supplementary to the primary goal of speaking.

# **SPAN 206**

# CONVERSATIONAL SPANISH FOR MEDICAL PERSONNEL

Prerequisite: None

3 lectures per week: 3 hrs credit

This course is intended to provide basic communication between medical personnel and their patients. It will emphasize the necessary pronunciation, vocabulary and sentence structure unique to the medical setting.

#### LITERATURE

(See English)

# **MACHINIST - APPRENTICE**

(See Manufacturing Technology)

# MAINTENANCE TECHNICIAN - APPRENTICE

#### **APPMT 120**

#### **INDUSTRIAL SAFETY**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course provides safety training for those in industrial plant situations. Topics include tool and machine safety, lock out/tag out procedures, fire protection, eye safety, basic electrical safety, ladder safety, and government safety regulations as well as general safety practices.

### MANUFACTURING TECHNOLOGY

#### MT 101

#### **METAL WORKING PROCESSES I**

Prerequisite: None

2 lectures, 3 lab hrs per week: 3 hrs credit

This course introduces the student to machine tool processes and operation by giving consideration to the efficient use of tooling, speeds, feeds and fixtures in production processes; to metal processing; to precision measurement; and to the use and operation of lathes, drill presses, mills, saws and grinders.

#### MT 102

# **METAL WORKING PROCESSES II**

Prerequisite: MT 101

2 lectures, 3 lab hrs per week: 3 hrs credit

This course continues development of the skills and knowledge attained in MT 101 by additional training in thread calculation and chasing, tool bit geometry and sharpening, basic CNC machine tool operation, foundry processes and machining of castings.

#### MT 105

# METAL WORKING PROCESSES III

Prerequisite: MT 102

I lectures, 4 lab hrs per week: 3 hrs credit

This course will provide the student with information on horizontal milling, boring, drilling machines and their operations. Coursework will consist of lectures and demonstrations on the construction of the different types of horizontal machines, the type of work done, the workpiece setup, the tools used and safety practices.

#### **MT 206**

#### **METALLURGY**

Prerequisite: MT 102 and TECH 221

2 lectures, 2 lab hrs per week: 3 hrs credit

A review of types of metals and their applications studied in the prerequisite course MT 102. Iron, steel and their alloys, standard classification systems, properties and methods of testing are considered. Study of heat treatment processes includes laboratory demonstrations and experiments related to critical temperatures, crystalline structure changes and standard physical tests. Nonferrous alloys, their classification and properties also are considered. Also covered are aluminum, magnesium and copper bearing metals, die casting, powder metallurgy, surface treatment, new metals and application, and welding metallurgy.

#### MT 210

#### **CNC PROGRAMMING I**

Prerequisite: MT 102

2 lectures, 3 lab hrs per week: 3 hrs credit

This is an introductory course in computer numerical control programming. It will cover CNC system operations; machine tool setup and tooling; G-code and M-code utilization; and 2 and 3-axis lineal and circular interpolation programming. Emphasis is placed on part programming and machine tool operation for CNC vertical milling and lathe work.

#### MT 211

#### **CNC PROGRAMMING II**

Prerequisite: MT 210

I lecture, 4 lab hrs per week: 3 hrs credit

This course is a continuation of MT 210. It will cover such topics as cutter compensation, fixed and variable canned cycles, subroutine programming and the calculation of machining process. Part programs will be written for the lathe, the vertical mill and the horizontal mill.

#### MT 212

#### **INTRODUCTION TO ROBOTICS**

Prerequisite: None

2 lectures, 2 lab hrs per week: 3 hrs credit

This course will introduce the student to the use of robotic devices in various manufacturing environments. It will cover topics ranging from the development of robotics, to robotic systems and the operation and programming of robotic devices. Students will receive hands-on instruction in the use of the teach-pendant and computer-based robotic language programming.

#### **MT 214**

#### **CAD/CAM SYSTEMS**

Prerequisite: MT 210; CADMD 243 recommended 2 lectures, 2 lab hrs per week: 3 hrs credit

This course introduces the student to the relationship, use and operations of CAD and CAM systems to generate CNC programs. The student will learn to create CAD files for use with a CAM system; to use a CAM system to create geometry, tooling and post-processor files; and to transmit CAM-generated programs to CNC equipment.

#### **MT 215**

# **MANUFACTURING SYSTEMS**

Prerequisite: MT 210 and 212

3 lectures, 2 lab hrs per week: 4 hrs credit

This course covers the identification, operation and application of both basic industrial processes and various systems that can be integrated into a computer integrated manufacturing system (CIM). These include CNC, CAD, CAM and robotics. Students will design, program and implement workcells that include material handling, manufacturing and assembly operations. Emphasis will be placed on fully automated production system design and operation.

# APPRENTICE MATHEMATICS

#### **AMATH 100**

#### **BASIC MATHEMATICS FOR THE SKILLED TRADES**

Prerequisite: Recommended for students in apprenticeship programs 2 lectures per week: 2 hrs credit

This course is for those apprentice students who have little or no skill in the operations of numbers. It includes topics on whole numbers, fractions, decimals, percents, powers and square roots, measurement systems and commonly used formulas.

#### AMATH 101

#### ALGEBRA FOR THE SKILLED TRADES

Prerequisite: AMATH 100 or equivalent

2 lectures per week: 2 hrs credit

This course is for those students who have a knowledge of the arithmetic operations but have little or no background in algebra. It includes basic algebraic operations, factoring, solving equations, ratio and proportion, exponents and radicals.

#### AMATH 103

#### **GEOMETRY FOR THE SKILLED TRADES**

Prerequisite: AMATH 101

2 lectures per week: 2 hrs credit

An introduction to geometry which includes definitions and descriptions of geometric terms, axioms and theorems; explanations regarding dispositions dealing with straight lines, triangles and circles; and application to practical shop problems.

#### AMATH 106

#### APPLIED TRIGONOMETRY FOR THE SKILLED TRADES

Prerequisite: AMATH 103

2 lectures per week: 2 hrs credit

Topics in this course will include definitions of trigonometric functions, fundamental trigonometric identities, solution of triangle problems and applications of trigonometry to practical shop problems.

# AMATH 107

### TRIGONOMETRY AND SHOP APPLICATIONS I

Prerequisite: AMATH 106

2 lectures per week: 2 hrs credit

This course covers the solution of oblique triangles by use of altitude construction method, law of sines and cosines. Emphasis is placed upon standardized types of shop and drafting problems using above methods.

# **AMATH 108**

#### **COMPOUND ANGLES FOR THE SKILLED TRADES**

Prerequisite: AMATH 107

2 lectures per week: 2 hrs credit

The principles of trigonometry are used to determine plane and base angles in solid figures which enable classification of solid geometric figures into basic types for analysis and recognition. Practice in solving shop problems is emphasized and includes determining angles of tilt and rotation for mounding paste on adjustable plates and methods of checking angular tapered dovetails.

#### AMATH 110

#### **GEARING AND CAMS FOR THE SKILLED TRADES**

Prerequisite: AMATH 106

2 lectures per week: 2 hrs credit

Mathematics of standard screw threads such as American National, United States V, Acme and Worm. Standard notations and formulas for spur gears, bevel gears, worm, and worm wheels and helical gears. Replacement of spur gears with helical gears and use of an idler gear. Calculations for plain and differential indexing. Charts, gear models and gears are used as aids in visualizing the problems.

# **DEVELOPMENTAL MATHEMATICS**

### **MATH 080**

#### COMPUTATIONAL SKILLS I

Prerequisite: Qualifying score on Math Placement Test

4 lectures per week: 4 hrs non-degree, non-transfer credit (may be repeated three times)

This course provides a background in mathematics for the student who does not feel confident in the mastery of arithmetic skills. Topics covered include operations on whole numbers, fractions and decimals; percents; and ratio and proportions.

#### **MATH 085**

#### **COMPUTATIONAL SKILLS II**

Prerequisite: MATH 080 with a C or better or qualifying score on Math Placement Test

4 lectures per week: 4 hrs non-degree, non-transfer credit (variable credit; may be repeated three times)

This course provides a background in mathematics for students who do not feel confident in the mastery of skills at the prealgebra level. Topics covered include operations on integers, fractions, and decimals; percents; ratio and proportion; graphs; and measurement. Emphasis is placed on the development of algebraic skills.

# **MATH 090**

#### **ELEMENTARY ALGEBRA**

Prerequisite: MATH 085 with a C or better or qualifying score on the Math Placement Test

5 lectures per week: 4 hrs non-degree, non-transfer credit This is a course in elementary algebra. Topics covered include linear equations and inequalities, graphs of linear equations, polynomials, factoring, rational expressions, and rational equations. Problem solving is emphasized throughout the course.

#### **MATH 095**

# INTERMEDIATE ALGEBRA

Prerequisite: MATH 090 with a C or better or qualifying score on the Math Placement Test

4 lectures per week: 4 hrs non-degree, non-transfer credit This is a course in intermediate algebra. It is a prerequisite for transferable college mathematics courses. Topics covered include functions and graphs, systems of linear equations, one-and two-variable inequalities, roots and radicals, complex numbers, and quadratic equations. Emphasis is placed on the development of algebraic skills.

#### **MATH 096**

#### **GEOMETRY**

Prerequisite: MATH 085 with C or better or qualifying score on placement test

3 lectures per week: 3 hrs non-degree, non-transfer credit This is a course covering the fundamental concepts of geometry. It is intended for students who lack credit in one year of high school geometry or need review in the subject matter. Emphasis is placed on learning geometric facts as well as the development of deductive reasoning. Topics covered include plane and solid geometry, properties of congruence, similarity, area, perimeter and volume.

### **COLLEGE-LEVEL MATHEMATICS**

# Prerequisites for MATH 112, 115, 151 and 200 may be met by one of the following options:

Option #1 - MATH 095 and MATH 096, both with at least a C

Option #2 – MATH 095 and one year of high school geometry, both with at least a C

Option #3 - A qualifying score on the math placement test

#### MATH III

#### **MATHEMATICS FOR PARAPROFESSIONALS**

Prerequisite: MATH 085 or placement into MATH 090

3 lectures per week: 3 hrs credit

This course is designed for the elementary school paraprofessional. This course will strongly emphasize hands-on learning; thus, manipulatives will be used extensively. Topics covered will include problem solving, sets, number theory, statistics, probability, geometry and measurement. Students seeking general education mathematics credit for transfer are advised to register for the MATH 200/206 sequence. (same as EDU 111)

#### **MATH 112** (IAI: MI 904)

# **GENERAL EDUCATION MATHEMATICS**

Prerequisite: Option #1, #2 or #3 above 3 lectures per week: 3 hrs credit

This course is designed for the liberal arts student who is a non-mathematics, non-science and non-business major. The course focuses on mathematical reasoning and the solving of real-life problems. The following topics will be covered in depth: the mathematics of finance, statistics and probability, and logic and problem solving. Use of calculators and/or computers will be a component of this course.

# **MATH 115** (IAI: MI 902)

#### **GENERAL EDUCATION STATISTICS**

Prerequisite: Option #1, #2 or #3 above 3 lectures per week: 3 hrs credit

The general education statistics course provides students with an opportunity to acquire a reasonable level of statistical literacy and thus expand their base for understanding a variety of work-related, societal and personal problems and statistical approaches to the solution of these problems. The main objective of the course is statistical reasoning. Detailed techniques of statistical analysis and the mathematical development of statistical analysis of statistical procedures are not emphasized. The course is intended to meet the general education requirement. It is not intended to be a prerequisite to nor a replacement for courses in statistical methods for business, social science or mathematical statistics. Students who complete this course cannot also receive credit for BUS 240 or MATH 153.

#### **MATH 151**

#### **COLLEGE ALGEBRA**

Prerequisite: Option #1, #2 or #3 above

4 lectures per week: 4 hrs credit

This course extends on the concepts previously studied in Intermediate Algebra. Course material is approached both algebraically and graphically. The graphing calculator is used extensively. Topics covered include linear, quadratic, polynomial, rational, exponential, and logarithmic functions and their applications. Matrices, matrix operation and matrix equations are also introduced.

### **MATH 153** (IAI: MI 902)

#### PROBABILITY AND STATISTICS

Prerequisite: MATH 151 or qualifying score on the Math Placement Test 4 lectures per week: 4 hrs credit

This course is an introductory course in probability and statistics. Topics covered include frequency distribution, percentiles, measures of central tendency, measures of dispersion, standard deviation, correlation, elements of probability, line of regression, statistical inference, the binomial distribution, the normal distribution, the student t-distribution and the chi-square distribution. Computer software such as MINITAB is used. A comprehensive project is assigned. Students who complete this course cannot also receive credit for BUS 240 or MATH 115. (same as BUS 240)

#### **MATH 155** (IAI: MI 906)

#### **FINITE MATHEMATICS**

Prerequisite: MATH 151 with a C or better or qualifying score on Math Placement Test

4 lectures per week: 4 hrs credit

This course is an introduction to finite mathematics to meet the needs of business, social science and liberal arts students. Topics covered include compound interest, annuities, systems of equations and inequalities, matrices, linear programming and its applications, probability, game theory, and logic. Throughout the course, emphasis is placed on concepts and applications.

# **MATH 157** (IAI: MI 900-B)

#### **CALCULUS FOR BUSINESS AND SOCIAL SCIENCE**

Prerequisite: MATH 151 with a C or better or qualifying score on Math Placement Test

4 lectures per week: 4 hrs credit

This is a one-semester calculus course for business and social science majors. Topics covered include equations of lines, limits, differentiation and integration of algebraic functions, exponential and logarithmic functions, and applications of differentiation and integration. Throughout the course, emphasis is placed on the applications of the basic concepts of calculus. This course does not count for credit toward a mathematics major or minor.

# MATH 161 (IAI: MTM 901)

# **PLANE TRIGONOMETRY**

Prerequisite: MATH 151 or concurrent enrollment in MATH 151, or qualifying score on Math Placement Test

3 lectures per week: 3 hrs credit

This course begins with a definition of the six trigonometric functions. The course work that follows allows an investigation of these functions, their graphs, their relationships to one another, and ways in which they can be used in a variety of applications. The course is designed to equip students with an understanding of trigonometry necessary for the study of calculus.

#### **MATH 165**

#### **PRE-CALCULUS**

Prerequisite: MATH 151 with a C or better

5 lectures per week: 5 hrs credit

This pre-calculus course covers trigonometry, polar and parametric equations, conic sections, sequences, and series. It is a preparatory course designed to provide students with the essential skills needed for success in the sequence of courses covering calculus for scientists and engineers.

# MATH 171 (IAI: MI 900-1; EGR 901; MTH 901)

#### CALCULUS WITH ANALYTIC GEOMETRY I

Prerequisite: MATH 165 with a C or better, or qualifying score on the Math Placement Test

5 lectures per week: 5 hrs credit

This is the first course in a three semester sequence of courses covering calculus for scientists and engineers. Topics covered include lines, derivatives, applications of derivatives, antiderivatives and definite integrals, and applications of integrals.

# MATH 172 (IAI: MI 900-2; EGR 902; MTH 902)

#### **CALCULUS WITH ANALYTIC GEOMETRY II**

Prerequisite: MATH 171

5 lectures per week: 5 hrs credit

This is the second course in the three-semester sequence of courses covering calculus for scientists and engineers. Topics covered include applications of integrals, transcendental functions, integration techniques, L'Hopital's rules, improper integrals, infinite sequences and series, and polar coordinates.

# MATH 173 (IAI: MI 900-3; EGR 903; MTH 903) CALCULUS WITH ANALYTIC GEOMETRY III

Prerequisite: MATH 172

5 lectures per week: 5 hrs credit

This is the final course in the three-semester sequence of courses covering calculus for scientists and engineers. Topics covered include basic operations on vectors, vector-valued functions, functions of several variables, partial derivatives, multiple integrals and vector calculus.

#### **MATH 200**

#### MATHEMATICS FOR ELEMENTARY TEACHING I

Prerequisite: Option #1, #2 or #3 as noted at beginning of section 4 lectures per week: 4 hrs credit

This course covers the fundamental ideas and theories of mathematics beginning with arithmetic. It is the first in a two-course sequence designed for prospective and present elementary school teachers. The course is recommended for teacher certification in elementary education in Illinois. This is not a methods course in teaching mathematics.

# **MATH 201** (IAI: MTH 922)

#### **ENGINEERING COMPUTER PROGRAMMING**

Prerequisite: MATH 171

3 lectures per week: 3 hrs credit

This course is designed to use the computer in the study of problems in engineering, mathematics or physical sciences. The emphasis is on problem analysis and problem solving.

#### MATH 206 (IAI: MI 903)

#### MATHEMATICS FOR ELEMENTARY TEACHING II

Prerequisite: MATH 200 with a C or better

4 lectures per week: 4 hrs credit

This course is a continuation of Mathematics for Elementary Teaching I. The topics studied include geometry, probability, statistics and measurement. Mathematical reasoning and problem solving will be emphasized. This course is the second in a two-course sequence recommended to meet the requirements for teaching certification in elementary education in Illinois. It is not a methods course in teaching mathematics. This course provides general education credit for elementary education majors only.

# MATH 210 (IAI: MI 905; CS 915)

#### **DISCRETE MATHEMATICS**

Prerequisite: MATH 151 with a C or better or qualifying score on the Math Placement Test

3 lectures per week: 3 hrs credit

This beginning course in the mathematics of computer science introduces mathematical analysis of finite collections of sequence machines, computer system design, data structures and algorithms. Topics include sets, counting, recursion, graph theory, trees, networks, Boolean algebra and formal grammars.

# MATH 216 (IAI: EGR 904; MTH 912)

# DIFFERENTIAL EQUATIONS

Prerequisite: MATH 172

3 lectures per week: 3 hrs credit

Offered spring semester only

This is a first course in ordinary differential equations with applications to the physical sciences. Topics covered include recognition, classification and solution of differential equations, as well as the expression of applied problems as differential equations. This course is designed to prepare students for more advanced study in mathematics, science and engineering.

#### **MATH 220**

#### LINEAR ALGEBRA

Prerequisite: MATH 172

3 lectures per week: 3 hrs credit

This course is intended as a transition between the calculus sequence and upper level courses in mathematics. Topics covered include vectors, vector spaces, matrices, determinants, matrix algebra, linear independence, linear transformations, eigenvalues, and eigenvectors. A significant portion of the course will be devoted to theory and proof construction.

### **MECHANICAL DESIGN TECHNOLOGY**

(See CAD/Mechanical Design Technology)

# **METEOROLOGY**

#### **METEO 150** (IAI: PI 905)

# INTRODUCTION TO MÉTEOROLOGY

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This introductory survey of meteorology emphasizes the physical phenomena associated with air masses and fronts, global circulation, severe weather, weather analysis, instrumentation, and climate.

### **MILLWRIGHT - APPRENTICE**

#### APPMW 101

#### **INDUSTRIAL MAINTENANCE TECHNIQUES I**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course teaches reading and use of micrometers, vernier calipers, dial indicators and other measuring tools. Other topics include hand and power tools used by the millwright, fastener identification, layout and drilling operations, as well as reaming and taping drilled holes.

#### APPMW 102

#### **INDUSTRIAL MAINTENANCE TECHNIQUES II**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course covers the installation of machinery coupled with the principles of steel construction. Also covered are friction bearings, non-friction bearings, couplings, gearing and reduction build-up.

#### APPMW 103

#### **LUBRICATION**

Prerequisite: None

2 lectures per week: 2 hrs credit

This unit of study introduces the student to the theories of lubrication, lubrication oils, greases and solid lubricants, as well as the principles of lubrication, lubricating machine parts, lubrication storage and safety. Other topics include lubricant application and its history, as well as centralized lubricating systems, system components, conductors and connectors.

# APPMW 104

#### **CRANE MAINTENANCE**

Prerequisite: APPMW 102 and APPH 101

2 lectures per week: 2 hrs credit

This course introduces proper maintenance techniques and procedures required to maintain and repair the technical and hydraulic brake systems found on the overhead traveling crane.

#### APPMW 105

# RIGGING

Prerequisite: None

2 lectures per week: 2 hrs credit

This course familiarizes students with the safe and accepted industry practices as applied to rigging, rigging equipment and its proper maintenance.

# **APPMW 106**

#### **POWER TRAIN ELEMENTS**

Prerequisite: APPMW 101 and 102 2 lectures per week: 2 hrs credit

This course introduces the installation and alignment of component parts found in industrial equipment and machinery. Topics include the mounting of bearings, gearings, couplings, pulley clutches and belts. Conveyors and chain drives will also be covered. Equipment and coaxial alignment are stressed.

### APPMW 107

# MACHINE VIBRATION ANALYSIS I

Prerequisite: None

2 lectures per week: 2 hrs credit

This course provides industrial maintenance technicians with an understanding of vibration analysis, rotating machine monitoring techniques, data collections and analysis techniques.

#### **APPMW 108**

#### **MACHINE VIBRATION ANALYSIS II**

Prerequisite: APPMW 107

2 lectures per week: 2 hrs credit

This course provides industrial maintenance technicians with enhanced vibration diagnostics for rotating machines. Topics covered will include selecting instrumentation, natural frequency, phase analysis, journal bearing problems and anti-friction bearing problems using vibration signature analysis.

### **MUSIC**

#### MUSIC 100

### **FUNDAMENTALS OF MUSIC THEORY**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course introduces the basic principles of interpreting and understanding the language of music. It includes the study of notation, rhythm, scales, intervals, basic forms, musical terms and introduction to the keyboard. This course is designed for preteaching and non-music majors or for music majors with insufficient background in theory.

#### MUSIC 101

#### **MUSICIANSHIP I**

Prerequisite: MUSIC 100 (or equivalent) 4 lecture hrs per week: 4 hrs credit

This course is the first in a sequence of four that provides extensive training in the fundamentals of music theory and ear training. It deals with the notational and aural aspects of Western music including clefs, scales, key signatures, intervals, meter, rhythm, melody and chords, and uses 4-part chorale writing for a basis for study of chord progressions. It provides training in sight-singing and melodic and rhythm dictation. It is required for all music majors and minors.

#### MUSIC 102 (IAI: MUS 902)

# **MUSICIANSHIP II**

Prerequisite: MUSIC 101

4 lecture hrs per week: 4 hrs credit

This course is the second in a sequence of four that provides extensive training in the fundamentals of music theory and ear training. It deals with the notational and aural aspects of Western music including scales, intervals, meter, rhythm, melody and chords, using 4-part chorale writing for a basis for the study of chord progressions. It provides training in sight-singing, melodic and rhythmic dictation, and chord recognition. It is required for all music majors and minors.

#### **MUSIC 110** (IAI: MUS 908)

# COMMUNITY CHORUS

Prerequisite: None

2 lab hours per week: I hr credit

(May be repeated three times)

Open to all students interested in choral activities. This ensemble provides an opportunity for singers to participate in a large chorus.

#### MUSIC 115

#### **ORCHESTRAL STRING ENSEMBLE**

Prerequisite: None

2 lab hrs per week: I hr credit

This ensemble provides an opportunity for musicians who play traditional orchestral string instruments (violin, viola, cello, double bass) to study and perform significant string ensemble literature. Students must know how to read music and have at least an intermediate playing ability to participate.

#### MUSIC 120 (IAI: MUS 908)

#### WIND ENSEMBLE

Prerequisite: Consent of instructor

2 lab hrs per week: I hr credit (May be repeated three times) This course provides the opportunity for students to study and perform significant concert band literature with an ensemble.

#### MUSIC 130 (IAI: FI 900)

#### INTRODUCTION TO MUSIC APPRECIATION

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course introduces representative masterpieces and focuses on helping students develop listening skills and the ability to analyze and appreciate different kinds of music. Emphasis will be placed on the elements of music, various musical forms and periods, and great composers and performers.

#### MUSIC 131

# **MUSIC APPRECIATION**

Prerequisite: MUSIC 130 or consent of instructor

3 lectures per week: 3 hrs credit

Topics include elements, structure and listening in all forms—opera, symphony, choral and chamber music.

# MUSIC 132 (IAI: FI 904)

#### **AMERICAN MUSIC**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This is an historical survey of the development and major cultural contributions of American music and composers including symphonic, jazz and popular forms within the context of American culture.

#### MUSIC 141

#### **CLASS PIANO I**

Prerequisite: None

I lecture, 2 lab hrs per week: 2 hrs credit

Group instruction for music students who do not major in piano and who do not meet minimum requirements in piano upon entrance; also for others who have had little or no previous work in piano. Recommended for elementary classroom teachers. Class size is limited.

#### **MUSIC 142**

#### **CLASS PIANO II**

Prerequisite: MUSIC 141

I lecture, 2 lab hrs per week: 2 hrs credit

A continuation of MUSIC 141, this course provides group instruction in piano techniques and performance.

Keyboard harmony is emphasized.

#### **MUSIC 143**

#### **CLASS VOICE I**

Prerequisite: None

I lecture, 2 lab hrs per week: 2 hrs credit

Group instruction in fundamentals of singing, voice production, breathing, diction, vocalizing and technical exercises; elementary song literature is introduced as progress is made.

#### **MUSIC 144**

#### **CLASS VOICE II**

Prerequisite: MUSIC 143

I lecture, 2 lab hrs per week: 2 hrs credit

A continuation of MUSIC 143, this course provides group instruction at a more advanced level. In addition to correct vocal production, breathing, diction and technical exercises, learning of songs is emphasized.

#### **MUSIC 145**

#### **INSTRUMENTAL CLASS I**

Prerequisite: None

I lecture, 2 lab hrs per week: 2 hrs credit

This course is for beginning students. The student, with the agreement of the instructor, will select one instrument—brass, woodwind, string or percussion—to study for the semester. Technical studies, scales and music reading for the selected instrument will form the course activities and content.

#### **MUSIC 146**

# **INSTRUMENTAL CLASS II**

Prerequisite: MUSIC 145

I lecture, 2 lab hrs per week: 2 hrs credit

The student may choose to continue studying the instrument selected in MUSIC 145 (Option A) or the student, with agreement of the instructor, will select another instrument—brass, woodwind, string or percussion—to study for the semester (Option B). Technical studies, scales and music reading for the selected instrument will form the course activities and content.

#### MUSIC 147

#### **INSTRUMENTAL CLASS III**

Prerequisite: MUSIC 146

I lecture, 2 lab hrs per week: 2 hrs credit

The student may choose to continue studying an instrument selected in MUSIC 145/146 (Option A) or the student, with agreement of the instructor, will select another instrument—bass, woodwind, string or percussion—to study for the semester (Option B). Technical studies, scales and music reading for the selected instrument will form the course activities and content.

# **MUSIC 148**

# **INSTRUMENTAL CLASS IV**

Prerequisite: MUSIC 147

I lecture, 2 lab hrs per week: 2 hrs credit

The student may choose to continue studying an instrument selected in MUSIC 145/146/147 (Option A) or the student, with agreement of the instructor, will select another instrument—bass, woodwind, string or percussion—to study for the semester (Option B). Technical studies, scales and music reading for the selected instrument will form the course activities and content.

# MUSIC 152 (IAI: MUS 908)

#### JAZZ ENSEMBLE I

Prerequisite: Consent of instructor

I lecture, 2 lab hrs per week: I hr credit

Small ensemble performance. Open to qualified students of piano and band or orchestral instruments.

# MUSIC 153 (IAI: MUS 908)

# JAZZ ENSEMBLE II

Prerequisite: MUSIC 152

I lecture, 2 lab hrs per week: I hr credit

This course is a continuation of MUSIC 152. It provides small ensemble experience with an emphasis on improvisation.

# MUSIC 162 (IAI: MUS 908)

#### **VOCAL ENSEMBLE I**

Prerequisite: Consent of instructor

I lecture, 2 lab hrs per week: I hr credit

This course provides rehearsal and performance experience in a vocal jazz ensemble.

#### MUSIC 163 (IAI: MUS 908)

#### **VOCAL ENSEMBLE II**

Prerequisite: MUSIC 162

I lecture, 2 lab hrs per week: I hr credit

This course provides continuing rehearsal and performance experience in a vocal ensemble.

#### **MUSIC 172**

#### **MUSIC IN FILM AND TELEVISION**

Prerequisite: MUSIC 130 or 132 3 lectures per week: 3 hrs credit

This course examines the uses of music in film and television and provides an overview of the industry. The breadth of music is explored through critical analysis of significant works and consideration of aesthetic, technical, historical, psychological and social tools and trends.

#### **MUSIC 174**

#### COMPUTER-ASSISTED MUSIC PRODUCTION

Prerequisite: None

2 lectures, 2 lab hrs per week: 3 hrs credit

Students will learn the basics of Musical Instrument Digital Interface (MIDI), computer sequencing and multitrack recording using software applications and tools. Through a series of projects, each student will produce an audio CD using Sonar 3 and Finale applications.

# MUSIC 181

#### **PRIVATE LESSONS I**

Prerequisite: Consent of instructor

I lecture per week: I hr credit (may be repeated 3 times) Private instruction in voice or an instrument is provided for students who are not music majors. Students meet weekly with the instructor for a half-hour lesson emphasizing technique, reading skills and repertoires. Instruction is offered in voice, piano, brass, woodwinds, strings, percussion, organ, bass or guitar.

#### **MUSIC 182**

#### **PRIVATE LESSONS II**

Prerequisite: MUSIC 181

I lecture per week: I hr credit (may be repeated 3 times) Continued private instruction in voice or an instrument is provided for students who are not music majors. Students meet weekly with the instructor for a half-hour lesson emphasizing technique, reading skills and repertoires. Instruction is offered in voice, piano, brass, woodwinds, strings, percussion, organ, bass or guitar.

### MUSIC 191 (IAI: MUS 909)

#### PRIVATE APPLIED MUSIC I

Prerequisite: Consent of instructor

2 lectures per week: 2 hrs credit (may be repeated 3 times) Private instruction is provided in voice or an instrument, emphasizing techniques, performance and pedagogical fundamentals. Students who plan to transfer to an upper-division program as music majors are required to enroll each semester in a selected area of performance concentration. Instruction is offered in voice, piano, brass, woodwinds, strings, percussion, organ, bass or guitar.

#### **MUSIC 192 (IAI: MUS 909)**

#### **PRIVATE APPLIED MUSIC II**

Prerequisite: MUSIC 191

2 lectures per week: 2 hrs credit (may be repeated 3 times) Continued private instruction in voice or an instrument, emphasizing techniques, performance and pedagogical fundamentals. Students who plan to transfer to an upper-division program as music majors are required to enroll each semester in a selected area of performance concentration.

# MUSIC 201 (IAI: MUS 903)

# **MUSICIANSHIP III**

Prerequisite: MUSIC 102

4 lectures hrs per week: 4 hrs credit

This course is the third in a sequence of four that provides extensive training in the fundamentals of music theory and ear training. It deals with the notational and aural aspects of Western music including scales, intervals, meter, rhythm, melody and chords, and provides an introduction to polyphony and common musical forms including binary, ABA and sonata-allegro. It continues a study of chord progressions and training in sight-singing, melodic and rhythmic dictation, and chord recognition, and introduces two-part singing and harmonic dictation.

#### **MUSIC 202 (IAI: MUS 904)**

# MUSICIANSHIP IV

Prerequisite: MUSIC 201

4 lectures hrs per week: 4 hrs credit

This course is the fourth in a sequence of four that provides extensive training in music theory and ear training. It deals with the notational and aural aspects of Western music, with an introduction to non-Western scales and tonality. It continues a study of form and focuses on 20th century theory and compositional developments. It continues a study of chord progressions and training in sight-singing; melodic, rhythmic, and harmonic dictation; and part singing.

MUSIC 252 (IAI: MUS 908)

#### **JAZZ ENSEMBLE III**

Prerequisite: Consent of instructor

I lecture, 2 lab hrs per week: I hr credit

This course is a continuation of MUSIC 153. It provides small ensemble experience with an emphasis on improvisation.

# **MUSIC 253 (IAI: MUS 908)**

#### **JAZZ ENSEMBLE IV**

Prerequisite: Consent of instructor

I lecture, 2 lab hrs per week: I hr credit

This course is a continuation of MUSIC 252. It provides small ensemble experience with an emphasis on improvisation.

# MUSIC 262 (IAI: MUS 908)

# **VOCAL ENSEMBLE III**

Prerequisite: MUSIC 163

I lecture, 2 lab hrs per week: I hr credit

This course provides continuing rehearsal and performance experience in a vocal jazz ensemble.

#### MUSIC 263 (IAI: MUS 908)

#### **VOCAL ENSEMBLE IV**

Prerequisite: MUSIC 262

I lecture, 2 lab hrs per week: I hr credit

This course provides continuing rehearsal and performance experience in a vocal ensemble.

#### **MUSIC 274**

#### **DIGITAL COMPOSITION FOR VIDEO**

Prerequisite: MUSIC 174

2 lectures, 2 lab hrs per week: 3 hrs credit

This course teaches the creative and technical aspects of composing and synchronizing music for video using computerassisted digital technology (Sonar 3, Finale) and existing visual media (Quick Time video clips).

#### **MUSIC 281**

#### **PRIVATE LESSONS III**

Prerequisite: MUSIC 182

I lecture per week: I hr credit (may be repeated 3 times) Continued private instruction in voice or an instrument is provided for students who are not music majors. Students meet weekly with the instructor for a half-hour lesson emphasizing technique, reading skills and repertoires.

#### **MUSIC 282**

#### **PRIVATE LESSONS IV**

Prerequisite: MUSIC 281

I lecture per week: I hr credit (may be repeated 3 times) Continued private instruction in voice or an instrument is provided for students who are not music majors. Students meet weekly with the instructor for a half-hour lesson emphasizing technique, reading skills and repertoires. Instruction is offered in voice, piano, brass, woodwinds, strings, percussion, organ, bass or guitar.

### MUSIC 291 (IAI: MUS 909) **PRIVATE APPLIED MUSIC III**

Prerequisite: MUSIC 192

2 lectures per week: 2 hrs credit (may be repeated 3 times) Continued private instruction in voice or an instrument, emphasizing techniques, performance and pedagogical fundamentals. Students who plan to transfer to an upper-division program as music majors are required to enroll each semester in a selected area of performance concentration. Instruction is offered in voice, piano, brass, woodwinds, strings, percussion, organ, bass or guitar.

### MUSIC 292 (IAI: MUS 909) PRIVATE APPLIED MUSIC IV

# Prerequisite: MUSIC 192

2 lectures per week: 2 hrs credit (may be repeated 3 times) Continued private instruction in voice or an instrument, emphasizing techniques, performance, pedagogical fundamentals. Students who plan to transfer to an upper-division program as music majors are required to enroll each semester in a selected area of performance concentration.

#### NURSING

(See also Registered Nursing)

Financial Aid recipients should check with the Office of Financial Aid/Veterans Affairs prior to enrolling in Nursing 100. Some financial aid programs will not pay for this course.

#### **NURS 100**

# **NURSE ASSISTANT TRAINING**

Prerequisite: None

6 lectures, 3 lab hrs per week: 7 hrs credit

This course teaches the basic nursing skills necessary to become a nursing assistant. The student is led from the integrated roles of the health care team to the specific duties of the nursing assistant and the skills necessary to give basic patient care and to deal with families.

# NURS 101 (IAI: NUR 916)

# **BASIC CARE NEEDS**

Prerequisite: Registration in the Nursing program 4 lectures, 6 lab hrs per week: 6 hrs credit

A course designed to assist the student in recognizing the basic needs of clients. The communication process introduces the basic psychosocial needs of people, incorporating specific needs of clients and the dynamics of interpersonal relationships along with group process. Emphasis is placed upon the needs of the individual client made dependent through illness, including principles related to activities of daily living, administration of medications and nursing observation. The approach to nursing care utilizes the principles of the nursing process.

# **NURS 102 (IAI: NUR 916)**

#### **ACUTE CARE NEEDS**

Prerequisite: NURS 101

5 lectures, 6 lab hrs per week: 7 hrs credit

This course is designed to introduce students to concepts related to the care and teaching of clients with acute care needs. The nursing process is instrumental in allowing students to explore and apply standards of care in meeting the needs of culturally diverse clients throughout the life span.

#### **NURS 103**

#### TRANSITION TO NURSING

Prerequisite: Current Illinois LPN license and completion of general education core curriculum within past 5 years. This course bridges the LPN into the sophomore year of nursing.

2 lectures, 2 lab hrs per week: 3 hrs credit

The LPN entering this course is introduced to the role of the RN, emphasizing the nursing process, communication, physical assessment along with medical-surgical nursing concepts pertaining to clients throughout the life span. Principles regarding fluid and electrolytes and abnormal nutrition and elimination are considered threads in this course. This course bridges the LPN into the sophomore year of nursing.

# NURS III (IAI: NUR 916)

### **NURSING AS A PROFESSION**

Prerequisite: Registration in the Nursing program

I lecture per week: I hr credit

A course designed to introduce the student to the theories and concepts of nursing and health. Students will explore how these concepts affect the study they are undertaking. Historical developments are presented as a basis for the current explosion of theories and concepts of emerging care and responsibilities. The conceptual framework of their program is discussed and the legalities involving care they will administer are identified.

#### NURS 201 (IAI: NUR 916)

#### **FAMILY CARE NEEDS**

Prerequisite: NURS 102

6 lectures, 14 lab hrs per week: 11 hrs credit

This course is designed to present theories and concepts which deal with communication problems and the expanding family, including children with compromised basic human needs. This will enable students to use the nursing process to advocate for the needs of these clients with acute variations along the life span.

#### NURS 202 (IAI: NUR 916) ADVANCED CARE NEEDS

Prerequisite: NURS 201

6 lectures, 14 lab hrs per week: 11 hrs credit

This course is designed to present theories and concepts concerning clients presenting with variations of advanced care needs. Students will continue to use the nursing process to manage the care of client groups.

# NURS 211 (IAI: NUR 916)

# PREPARATION FOR PROFESSIONAL NURSING

Prerequisite: None

2 lectures per week: 2 hrs credit

This course presents advanced concepts and theories in nursing which will assist the student in accepting the challenge of the adjustment to the role of the graduate nurse. Roles, functions and legal implications for the graduate nurse will be discussed along with recent developments and realities as they affect the everyday practice of nursing.

#### **NURS 221**

#### **INTRODUCTION TO PHARMACOLOGY**

Prerequisite: None

3 lectures per week: 3 hrs credit

The focus of this course is on basic nursing pharmacological principles. Drugs are categorized within the body systems. Relationships between drugs, applications of drugs for specific diseases, potential toxicity and drug interactions of various agents, along with nurses' responsibility to utilize the nursing process when medications are administered are stressed.

# OFFICE ADMINISTRATION AND TECHNOLOGY

(See Information Technology)

#### **PHILOSOPHY**

#### PHILO 201 (IAI: H4 900)

#### INTRODUCTION TO PHILOSOPHY

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

In this course the student will learn to think philosophically, while being introduced to some major philosophers and their ideas. Several types of philosophy are covered in each semester, both in their historical contexts and as they apply to issues of current concerns.

# PHILO 202 (IAI: H4 904)

#### **ETHICS**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

In this course the student will examine the role of reason in ethical decision-making. Traditional types of ethical reasoning are studied, compared and applied to topics of current concern.

# PHILO 203 (IAI: H4 906)

# INTRODUCTION TO LOGIC

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course introduces formal reasoning, including the nature and evaluation of deduction and inductive references, language and meaning, symbolization, formal and informal fallacies, and evidence and its nature and role in critical thinking.

#### **PHILO 204**

#### PHILOSOPHY OF RELIGION

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course covers selected religious concepts and theories such as the existence and nature of a deity, the nature of good and evil, reason and faith, ethics, and the after-life. It may also include an examination of the nature of religious language and experience.

# **PHILO 205**

#### **EASTERN PHILOSOPHY**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course presents the thoughts of great philosophers of the Eastern Tradition, including the ideas of Siddhartha Gautama, Lao-Tzu, Kahlil Gibran and others.

# **PHOTOGRAPHIC STUDIES**

(See also Art and Graphic Communications)

#### **PHOTO 170**

#### **FILM AND DIGITAL CAMERA SKILLS**

Prerequisite: None

I lecture per week: I hr credit

This course deals with basics of film and digital camera operation. Visual problems posed in class are explored during various field trips. (Digital cameras will be provided)

#### **PHOTO 171** (IAI: ART 917)

# INTRODUCTION TO BLACK AND WHITE PHOTOGRAPHY

Prerequisite: None

6 lab hrs per week: 3 hrs credit

This course investigates the principles of photography using black and white light-sensitive materials. Students will learn camera controls and apply the methods of film and print processing techniques. The course explores the medium through a series of visual problems and emphasizes photography as a means of personal expression.

#### **PHOTO 174**

#### **COMPUTER TECHNIQUES**

Prerequisite: PHOTO 171 recommended

I lecture, 2 lab hrs per week: 2 hrs credit

This course provides the introduction to and practical application of computer hardware and software used to produce, edit, transfer, record, archive and print photographs. Students will learn how to work with digital media, film and flatbed scanners, CF card readers, CD/DVD writers, portable storage drives and various photo printers.

# **PHOTO 175**

#### **BASIC LIGHTING SKILLS**

Prerequisite: PHOTO 174 or concurrent enrollment

I lecture, 2 lab hrs per week: 2 hrs credit

Students in this course are introduced to the mechanics of continuous sources of photographic lighting. Application and practice of proper metering, studio set up, lighting adjustment, storage of equipment, and use of various accessories will be featured.

#### **PHOTO 176**

# **ELECTRONIC FLASH TECHNIQUES**

Prerequisite: PHOTO 174 or concurrent enrollment and PHOTO 175 I lecture, 2 lab hrs per week: 2 hrs credit

This course covers the fundamental methods of flash photography using built-in, on-camera, and portable professional equipment. Students will also gain a working knowledge of flash meter measurement and exposure calculation using multistrobe studio systems.

#### **PHOTO 180**

#### **PHOTOSHOP I**

Prerequisite: PHOTO 174

I lecture, 2 lab hrs per week: 2 hrs credit

This is a detailed introduction to Photoshop tools and techniques used in the digital conversion and adjustment of photographic images. Students learn to correct, composite, retouch and manipulate photographs in RGB color space. Digital inkjet printing, print scanning and proper storage of images on disk are also covered.

#### **PHOTO 196**

#### **CAREERS IN PHOTOGRAPHY**

Prerequisite: PHOTO 171

I lecture per week: I hr credit

This course surveys the structure, working conditions and specific job responsibilities within the field of photography. Classroom presentations, guest lectures and AV materials provide students with an understanding of production methods as well as employment potential for each occupation and career covered.

#### **PHOTO 273**

(was PHOTO 172)

# PHOTOGRAPHIC METHODS

Prerequisite: PHOTO 171, 174 or concurrent enrollment

I lecture, 4 lab hrs per week: 3 hrs credit

This intermediate course is designed to deepen the student's understanding of the visual process and production of photographs. Participants will experience a variety of camera formats while creating images using both digital and film based methods.

#### **PHOTO 275**

#### **PHOTOGRAPHIC DESIGN**

Prerequisite: PHOTO 171, 174 or concurrent enrollment

I lecture, 4 lab hrs per week: 3 hrs credit

This course concentrates on the visual methods and skills of designing photographs. The emphasis of class projects is on the improvement of picture analysis, evaluation of composition, style and development of individual photographic vision.

#### **PHOTO 276**

#### **COMMERCIAL TECHNIQUES**

Prerequisite: PHOTO 171, 174, 176 required; PHOTO 273 recommended

2 lectures, 4 lab hrs per week: 4 hrs credit

This course concentrates on camera and lighting techniques used in the creation of product photography. Areas include medium- and large-format camera skills, use of high-res digital camera equipment, table-top setups, E6 color transparency processing, and specific studio lighting for the production of catalog, advertising and special effects photography.

#### **PHOTO 280**

#### PHOTOSHOP II

Prerequisite: PHOTO 180

I lecture, 2 lab hrs per week: 2 hrs credit

Students in this course explore advanced color correction, layering and editing methods in Photoshop through a series of visual assignments using original photographs. Extensive use of film scanning and direct digital capture is encouraged. Final portfolio images are printed on various inkjet media.

#### **PHOTO 281**

#### **DIGITAL APPLICATIONS**

Prerequisite: PHOTO 171 and 180

2 lectures, 4 lab hrs per week: 4 hrs credit

This course concentrates on advanced digital image production techniques available to photographers. Students will explore the application of several imaging software programs that will be used to solve unique visual problems.

#### **PHOTO 282**

#### **EXPERIMENTAL PHOTOGRAPHY**

Prerequisite: PHOTO 171, 174 or concurrent enrollment I lecture, 4 lab hrs per week: 3 hrs credit

This course explores various experimental camera, darkroom and digital techniques. Projects include multiple composite, infrared film, digital filtration, optical distortion, Polaroid emulsion/image transfers, cliche verre (enlargements, scans) and hand-coloring techniques.

#### **PHOTO 283**

#### **PORTRAITURE**

Prerequisite: PHOTO 171, 176 and 180 or concurrent enrollment I lecture, 4 lab hrs per week: 3 hrs credit

This course is an introduction to creating studio and available light portraits featuring tungsten and electronic strobe applications. Emphasis is placed on correct use of diffused, reflective and spot lighting techniques, proper metering, and posing of the sitter. Projects are completed using digital cameras and color inkjet production.

#### **PHOTO 285**

#### **DIGITAL COLOR PRODUCTION**

Prerequisite: PHOTO 171, 180

2 lectures, 2 lab hrs per week: 3 hrs credit

This course investigates color theory of light and the digital controls of color reproduction currently available in photography. Students will work with software designed to develop and maintain color management of photographic output. Use of optical and digital filtration will also be explored.

#### **PHOTO 286**

# **INDEPENDENT PHOTO PROJECT**

Prerequisite: PHOTO 275

6 lab hrs per week: 3 hrs credit

This course encourages individual exploration of a personal visual direction or idea with emphasis on the fine art approach to photography. A proposal outline and complete portfolio will be required of each participant.

# **PHOTO 287**

# **INDEPENDENT PHOTO STUDIO**

Prerequisite: PHOTO 276 or 283 6 lab hrs per week: 3 hrs credit

Students in this course propose advanced photographic exploration with emphasis in portrait, fashion or commercial product photography. Each participant must have previously completed course work in a chosen area of concentration.

#### **PHOTO 290**

# **COLOR SLIDE PHOTOGRAPHY**

Prerequisite: PHOTO 171, 174, 180 or concurrent enrollment 2 lectures, 4 lab hrs per week: 4 hrs credit

This course investigates visual problems using color positive materials and methods. Areas covered include proper film exposure, E6 film processing, positive color light theory, film scanning, basic color management techniques and digital print production.

#### **PHOTO 291**

#### SURVEY OF CONTEMPORARY PHOTOGRAPHY

Prerequisite: None

3 lectures per week: 3 hrs credit

This course provides a unique experience while learning about current trends in photography. Visits to major museums and galleries combined with attendance to lectures by photographers highlight the activities of the class. Students are required to write several reviews of exhibits they see and present a topic for class discussion.

#### **PHOTO 292**

#### **PHOTO WORKSHOP: SPECIAL TOPICS**

Prerequisite: PHOTO 171, 174, 180 or concurrent enrollment 2 lecture, 4 lab hrs per week: 4 hrs credit (may be repeated 3 times for credit with different topics)

This advanced course explores a single subject in photography. Topics for concentrated study may be selected from fashion photography, photojournalism, advanced black and white techniques, or other specific areas of specialization.

#### **PHOTO 293**

#### **ADVANCED PORTRAITURE**

Prerequisite: PHOTO 283, 285

2 lectures, 4 lab hrs per week: 4 hours credit

This course features the use of sophisticated studio strobe systems in making professional portraits. Students will work on multi-light sets to produce photographs of individuals, couples, families, and groups. Radio transmitter operation, color burst background techniques and location lighting methods are also covered.

#### **PHOTO 297**

#### **PROFESSIONAL PORTFOLIO**

Prerequisite: PHOTO 275, 286 or consent of instructor 2 lectures, 2 lab hrs per week: 3 hrs credit

This course helps a student understand the process of preparing a portfolio of creative commercial photographs for career readiness. Class activities include career planning, creation of slide duplicates, portfolio materials and assembly, resume organization and personal presentation. Individual peer and/or professional critiques will be conducted each week for career potential feedback.

#### **PHOTO 298**

#### **SEMINAR**

Prerequisite: Concurrent enrollment in PHOTO 299

I lecture per week: I hr credit

Students meet with program coordinator one hour per week to discuss various problems and issues encountered in the internship.

#### **PHOTO 299**

#### INTERNSHIP

Prerequisite: 12 credit hrs in PHOTO and coordinator consent 15 lab hrs per week: 3 hrs credit (variable credit)
The student internship allows students to earn college credit while working in an approved photography-related business.
This course is scheduled by joint agreement of the student, the site supervisor and the program coordinator.

### PHYSICAL EDUCATION

Only four credits of physical education may be counted for an A.A. or A.S. degree, except for students transferring as physical education majors.

#### PE 101

#### **PHYSICAL FITNESS I**

Prerequisite: None

2 lab hrs per week: I hr credit

This course is designed to assist individuals in establishing a foundation for personal fitness. Students will be administered basic fitness assessment and will engage in a structured exercise program utilizing flexibility, strength and cardiovascular efficiency. May be repeated three more times for credit.

#### PE 102

#### **PHYSICAL FITNESS II**

Prerequisite: PE 101

2 lab hrs per week: I hr credit

A continuation of PE 101, this course is designed to assist students in achieving an intermediate level of fitness. Students will be administered fitness assessments to determine progress in the areas of flexibility, strength and cardiovascular efficiency.

#### **PE 103**

### **PHYSICAL FITNESS III**

Prerequisite: PE 102

2 lab hrs per week: I hr credit

A continuation of PE 102, this course is designed to assist students in achieving a high level of fitness. Special emphasis will be placed on maintaining target heart rate levels in order to determine further personal cardiovascular efficiency. Students will be administered fitness assessments to determine personal progress.

#### **PE 104**

#### **PHYSICAL FITNESS IV**

Prerequisite: PE 103

2 lab hrs per week: I hr credit

A continuation of PE 103, this course is designed to assist students in maintaining a high level of fitness. Students will achieve a basic understanding of the impact of increased duration, frequency and intensity levels in regard to enhancing physiological performance.

#### **PE 105**

#### **AEROBICS I**

Prerequisite: None

2 lab hrs per week: I hr credit (may be repeated 3 times) This course assists individuals to improve strengthening, toning and cardiovascular system through walking, pilates and yoga.

#### **PE 106**

#### **AEROBICS II**

Prerequisite: None

2 lab hrs per week: I hr credit (may be repeated 3 times) This course assists individuals to improve cardiovascular conditioning through step aerobics, kickboxing and low-impact aerobics. Strengthening and toning exercises will also be introduced.

#### **PE 107**

#### **AEROBICS III**

Prerequisite: None

2 lab hrs per week: I hr credit (may be repeated 3 times) This course assists individuals to improve their cardiovascular conditioning through aqua aerobics. Strengthening and toning exercises will also be introduced in the swimming pool environment.

#### **PE 108**

#### **AEROBICS IV**

Prerequisite: None

2 lab hrs per week: I hr credit (may be repeated 3 times) This course assists individuals desiring a higher level of intensity with choreography. This will be accomplished through "Funk Aerobics." Strengthening and toning exercises will also be introduced.

#### PE 112

#### **CULTURAL DANCE I**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course introduces folk dances of various countries applicable to use in school educational/recreational programs and fitness facility settings. Cultural dances are introduced through various forms of rhythmic movement.

#### **PE 130**

#### INTRODUCTION TO PHYSICAL EDUCATION

Prerequisite: None

2 lecture hrs per week: 2 hrs credit

This course provides introductory materials for pre-physical education majors. Emphasis is on pre-professional exposure to a variety of physical education related careers. The history of physical education, athletics and related leisure activities will be explored.

#### PE 151

#### **BASKETBALL**

Prerequisite: None

2 lab hrs per week: I hr credit

This course teaches the basic rules of basketball, playing court dimensions and equipment needed. Fundamentals of passing, dribbling, shooting, rebounding, individual offense and defense are emphasized.

#### PE 161

#### **SOCCER**

Prerequisite: None

2 lab hrs per week: I hr credit

Learn the basic rules and fundamentals of soccer. Course instruction includes kicking, passing, trapping, heading, tackling, the throw-in and goal keeping. Basic offensive and defensive strategies and tactics are also discussed.

# PE 162

#### **VOLLEYBALL**

Prerequisite: None

2 lab hrs per week: I hr credit

This course teaches students the basic skills and rules associated with the game of volleyball. Skills covering overhead passing, forearm passing, serving, spiking and blocking will be demonstrated. Practice games are conducted to emphasize each skill.

#### **PE 163**

#### **GOLF**

Prerequisite: None

2 lab hrs per week: I hr credit

Examine rules and various skills associated with the game of golf. Techniques and skills such as proper grip, stance, swing, pitch, chip, sand shots, putting and a variety of golf exercises will be demonstrated.

#### **PE 164**

#### **TENNIS**

Prerequisite: None

2 lab hrs per week: I hr credit

This course teaches students basic rules of play and scoring procedures in tennis. Students are taught appropriate grip and techniques for a variety of tennis strokes.

#### PE 165

#### **SOFTBALL**

Prerequisite: None

2 lab hrs per week: I hr credit

This course teaches students the basic rules of play and the basic skills associated with softball. Hitting, catching, throwing and running bases will be explored.

#### **PE 200**

#### **OFFICIATING SPORTS**

Prerequisite: None

3 lectures per week: 3 hrs credit

Instruction is provided in the fundamental techniques, rules, procedures and professional attitude required of officials in flag football, softball, volleyball and basketball.

#### PE 215

# **GROUP FITNESS INSTRUCTOR TRAINING**

Prerequisite: FRESP 101 or current CPR and First Aid Certificate 2 lectures, 2 lab hrs per week: 3 hrs credit

This course will provide the methods, techniques and skills that will enable students to provide safe aerobic activities as instructors.

# **PE 220**

### FITNESS ASSESSMENT/EXERCISE PROGRAM DESIGN I

Prerequisite: PE 110 or Current Red Cross CPR and First Aid Certification

2 lectures, 2 lab hrs per week: 3 hrs credit

This course introduces students to the skills, organization and methods of fitness testing. Students also learn exercise program design.

#### PE 225

#### **WEIGHT TRAINING: THEORY & APPLICATION**

Prerequisite: FRESP 101 or current CPR and First Aid Certificate 2 lectures per hr: 2 hrs credit

This course emphasizes the instructional techniques and skill development in progressive resistance strength training. Anatomical, physiological and biomechanical principles are studied and applied to design effective programs for individuals and groups.

#### **PE 230**

#### **NUTRITION FOR SPORTS AND EXERCISE**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course provides an overview of the basic principles of nutrition and weight management with particular application to exercise and sport.

#### **PE 235**

#### ATHLETIC TRAINING TECHNIQUES

Prerequisite: FRESP 101 or current CPR and First Aid Certificate 3 lectures per week: 3 hrs credit

This course is a study of the basic concepts and techniques in prevention, recognition and management of common sport and exercise injuries, including methods in conditioning for injury prevention, evaluation, taping and reconditioning.

#### PE 250

#### **INTRODUCTION TO BIOMECHANICS**

Prerequisite: None

3 lecture hrs per week: 3 hrs credit

This course introduces the concepts of identifying and analyzing the neuromuscular and skeletal systems from a mechanical perspective.

#### PE 255

### **SPECIAL POPULATIONS**

Prerequisite: BIOL 108 and consent of coordinator

3 lectures per week: 3 hrs credit

This course emphasizes safe and effective fitness programming by addressing physiological difference, and techniques and tools for motivating special populations.

#### PE 260

# FITNESS/EXERCISE FACILITY MANAGEMENT

Prerequisite: None

3 lectures per week: 3 hrs credit

This course introduces students to fitness/exercise/recreation facilities and their operational procedures. Conventional business management principles and operational guidelines are applied to the fitness industry. Management processes, facility design, personnel management, marketing, and insurance issues are emphasized.

# **PE 265**

#### **PHYSIOLOGY OF EXERCISE**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course is designed to teach the basic physiological principles of exercise.

# **PE 298**

#### **INTERNSHIP SEMINAR**

Prerequisite: Concurrent enrollment in PE 299

I lecture per week: I hr credit

This seminar is designed to provide direction on building a successful personal training business.

# **PE 299**

#### INTERNSHIP FOR PERSONAL TRAINERS

Prerequisite: Completion of all the core courses offered and concurrent enrollment in PE 298

15 lab hrs per week: 3 hrs credit

This course is designed to provide real-world experience. Students will be supervised in Fitness Center arranged by the program coordinator.

# PHYSICAL SCIENCE

#### PHYSC III (IAI: P9 900L)

#### **PHYSICAL SCIENCE**

Prerequisite: Placement into ENG 099 or higher 3 lectures, 2 lab hrs per week: 4 hrs credit

This course is a general education sequence in the physical sciences which covers the topics of astronomy and geology. Physical and chemical principles are used to show how these sciences have evolved. The course is conceptual in nature so that students can relate the principles to everyday experiences.

# PHYSC II2 (IAI: PI 905L)

#### **EARTH SCIENCE**

Prerequisite: Placement into ENG 099 or higher 3 lectures, 2 lab hrs per week: 4 hrs credit

This is a general education course offered in the Physical Science division which covers meteorology, climatology and environmental problems. Physical and chemical principles are used to explain meteorological phenomena, climates and climatic change, the causes of environmental problems and some possible solutions to these problems. The course is conceptual in nature so that students can relate the principles to everyday experiences.

# APPLIED PHYSICS

#### APHYS 100

#### **APPLIED PHYSICS**

Prerequisite: AMATH 100 or MATH 090 2 lectures per week: 2 hrs credit

This course surveys the physical principles of mechanics and is intended for students in apprentice certificate programs. Topics include metric system measurements, motion, Newton's laws, forces and equilibrium, simple machine elements, conservation laws, rotational motion, matter, and heat.

#### **PHYSICS**

#### PHYSI 101 (IAI: PI 901L)

(was PHYSI I 10)

#### **CONCEPTUAL PHYSICS**

Prerequisite: Placement into ENG 099 or higher 3 lectures, 2 lab hrs per week: 4 hrs credit

This course provides a non-mathematical introduction to the basic concepts of physics. This lab course is designed for those with little or no knowledge of physics. Topics include motion, energy, fluids, sound, heat, light, electricity and magnetism, and an overview of concepts like relativity.

### PHYSI 120 (IAI: PI 900L)

#### **COLLEGE PHYSICS I**

Prerequisite: MATH 151 or equivalent

3 lectures, 2 lab hrs per week: 4 hrs credit

This introductory course in a two-semester, algebra-based sequence is designed to meet the needs of liberal arts, life and health science, and pre-professional students. Topics include kinematics, Newton's laws of motion, conservation laws, rotational motion, wave phenomena, fluids and heat. Students may not receive credit for both PHYSI 120 and 210.

#### **PHYSI 130**

#### **COLLEGE PHYSICS II**

Prerequisite: PHYSI 120 or equivalent

3 lectures, 2 lab hrs per week: 4 hrs credit

This continuation of PHYSI 120 is designed to meet the needs of liberal arts, life and health science, and pre-professional students. Topics include light, optics, electricity, magnetism and modern physics.

# PHYSI 210 (IAI: P2 900L; BIO 903; EGR 911; MTH 921)

#### **UNIVERSITY PHYSICS I**

Prerequisite: MATH 171 and high school physics 3 lectures, 3 lab hrs per week: 4 hrs credit

This calculus-based course for physical science, pre-engineering and mathematics majors introduces the major topics of mechanics. Topics include kinematics, dynamics, momentum, energy, gravitation, harmonic motion and fluids. Microcomputers are used for data gathering and simulation. Students cannot receive credit for both PHYSI 120 and 210.

#### PHYSI 220 (IAI: BIO 904; EGR 912)

#### **UNIVERSITY PHYSICS II**

Prerequisite: MATH 171

3 lectures, 3 lab hrs per week: 4 hrs credit

This is the second course in the introductory sequence for physical science, pre-engineering and mathematics majors. Topics covered include heat, thermodynamics, electric and magnetic fields, law of electricity and magnetism, DC and AC circuits, and electromagnetism.

#### PHYSI 230 (IAI: EGR 914)

# **UNIVERSITY PHYSICS III**

Prerequisite: MATH 171

3 lectures, 3 lab hrs per week: 4 hrs credit

Third course in a three-semester sequence for physical science, pre-engineering and mathematics majors. Topics include properties and equations of waves, sound optics and modern physics.

#### PHYSI 235 (IAI: EGR 942)

# STATICS

Prerequisite: PHYSI 210 (or equivalent) or concurrent enrollment 3 lectures per week: 3 hrs credit

This is a first course for engineering students in the mechanics of rigid bodies. It deals with objects at rest and topics include vector operations, particle statics, rigid body equilibrium, distributed focus and centroids, analysis of structures, moments of inertia, virtual work and friction.

# PHYSI 240 (IAI: EGR 943)

#### **DYNAMICS**

Prerequisite: PHYSI 235

3 lectures per week: 3 hrs credit

This is a second course for engineering students in the mechanics of rigid bodies. It deals with the accelerated motion of a body. Topics include particle kinematics, work, energy and momentum as well as rigid body planar kinematics, kinetics, work, energy, momentum and vibration.

# PLUMBING, PIPEFITTER/ STEAMFITTER - APPRENTICE

#### APPPF 101

#### **FUNDAMENTALS OF PLUMBING**

Prerequisite: None

2 lectures per week: 2 hrs credit

The specifications, applications and maintenance of pipes, fittings and valves; simple pipe calculations and template development; tools used in piping; proper valve installation and maintenance; and consideration of safe working pressures of pipes and valves are covered.

#### APPPF 102

#### **DRAINS, WASTES AND VENTS**

Prerequisite: None

2 lectures per week: 2 hrs credit

To acquaint the student with the proper materials for sewer, soil, vent and waste pipes; principles of drainage flow and proper venting; traps and installation of unit sanitation equipment and joints and fittings used on drainage systems.

#### APPPF 103

#### PLUMBING AND PIPEFITTING HEATING

Prerequisite: None

2 lectures per week: 2 hrs credit

The principles of steam and hydronic heating, various types of steam systems in use, and proper sizing and tapping of steam units. Study of hydronics includes one-pipe, two-pipe, high temperature and pressure systems, heat loss calculations and the design of hydronic systems.

#### APPPF 104

# PLUMBING AND PIPEFITTING CODE

Prerequisite: None

2 lectures per week: 2 hrs credit

Plumbing rules and regulations governing installation of plumbing systems, rules and regulations pertaining to joints, traps, cleanouts, water distribution, fixtures and drainage.

# **POLITICAL SCIENCE**

#### POLSC 101 (IAI: S5 903)

# PRINCIPLES OF POLITICAL SCIENCE

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course provides an introduction to the core concepts of political science. Students explore the questions political scientists ask, the means by which they answer those questions, and the types of answers that have emerged in response to contemporary problems.

#### POLSC 140 (IAI: S5 900; PLS 911)

#### INTRODUCTION TO U.S. GOVERNMENT AND POLITICS

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course introduces students to the core concepts in political science that allow for a better understanding of the principles and organization of government and politics in the United States.

### POLSC 152 (IAI: S5 902; PLS 915)

#### U.S., STATE AND LOCAL GOVERNMENT

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course describes the politics, function and decision-making process of state and local governments in the United States. Special emphasis is placed on the historical development of Illinois government and political culture. Current issues facing state and local government agencies are also described and discussed.

### POLSC 230 (IAI: S5 905; PLS 914)

#### INTRODUCTION TO COMPARATIVE GOVERNMENT

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This introduction to comparative politics encompasses both Western and Non-Western political structures. Emphasis is on the political economy of development, the causes and effects of different systems of government, and the historical and cultural context of political formations across the globe.

#### POLSC 240 (IAI: S5 904N; PLS 912)

#### **INTRODUCTION TO INTERNATIONAL RELATIONS**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course introduces students to the core concepts and major issues shaping international relations and world politics. Topics to be explored may include: globalization, international organizations, human rights, environmental problems, development, terrorism, war and peace.

### **PSYCHOLOGY**

#### **PSYCH 101** (IAI: S6 900; SPE 912)

#### **INTRODUCTION TO PSYCHOLOGY**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course introduces psychology as a scientific approach to understanding human behavior. The history of the field, its methods and research tools are covered. Topics include physiology, sensation, perception, motivation, learning and memory, maturation and development, personality, individual differences, social behavior, and abnormal behavior and its therapies.

# **PSYCH 102** (IAI: S6 902; EED 903; PSY 904; SED 903)

# **HUMAN GROWTH AND DEVELOPMENT: LIFE SPAN**

Prerequisite: PSYCH 101

3 lectures per week: 3 hrs credit

This course surveys the normal biological cognitive, social, emotional and personality development characteristics of life phases from conception through adulthood to death.

#### PSYCH 106

#### **ETHICS OF DEATH AND DYING**

Prerequisite: None

3 lectures per week: 3 hrs credit

This course will explore various definitions of death and dying, existential philosophies of death, the rights of a dying person, the grief process, the emotional stages experienced by a person facing death and how these stages represent an evolution of human development.

PSYCH 202 (IAI: SED 902) EDUCATIONAL PSYCHOLOGY

Prerequisite: PSYCH 101

3 lectures per week: 3 hrs credit

This course focuses on the psychological principles, theories and current research related to the roles and functions of teachers and learners in educational settings. From the perspective of the student, special emphasis is placed upon theories of motivation, creativity, learning theories, individual learning differences, and cultural and gender diversity. From the teacher's perspective, special emphasis is placed upon classroom management principles, effective instructional approaches, measurement and assessment techniques, and aligning instruction with the growth of students' social, cognitive and personal development.

# PSYCH 203 (IAI: PSY 905) ABNORMAL PSYCHOLOGY

Prerequisite: PSYCH 101

3 lectures per week: 3 hrs credit

This course covers theories and techniques applied to the labeling of "abnormal" behavior as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). Topics include research methods; definition, assessment and categorization of abnormal behavior; diagnosis, treatment and prevention.

#### **PSYCH 204** (IAI: PSY 906)

#### INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY

Prerequisite: PSYCH 101

3 lectures per week: 3 hrs credit

This course studies the behavior of men and women as they adjust to the people, objects and surroundings encountered in the workplace. Emphasis is on applying data gathered to maximize the economic and psychological well-being of all employees and constituencies. Topics include research methods; personnel selection, placement and training; job analysis and performance appraisal; job satisfaction and motivation; leadership; organizational decision making; and organizational development.

# PSYCH 212 (IAI: PSY 907) THEORIES OF PERSONALITY

Prerequisite: PSYCH 101

3 lectures per week: 3 hrs credit

This course studies the development and structure of human personality. Students will consider a variety of theoretical approaches to understanding human personality: psychoanalytical, humanistic, behavioral/social, cognitive and traits. Readings include works by Freud, Adler, Horney, Sullivan, Fromm, Rogers, Jung, Maslow, Jourad and others. Emphasis is on the application of personality theories to the understanding of self.

### **PSYCH 215** (IAI: S8 900; PSY 908)

# **SOCIAL PSYCHOLOGY**

Prerequisite: PSYCH 101

3 lectures per week: 3 hrs credit

As an introduction to social psychology, this course is organized around five broader perspectives of social behavior: cultural differences, the life span, the individual, the situation, and the social group. Topics include attitudes, social perceptions, the establishment of norms, conformity, leadership, group dynamics and research methods, with emphasis on their effects on the individual.

#### **PSYCH 217**

#### **HUMAN SEXUALITY**

Prerequisite: None

3 lectures per week: 3 hrs credit

Principles, theories and points of view concerning human sexuality with emphasis on the psychological and social aspects of human sexuality. The primary aim of this course is to provide a framework for and encourage responsible decision making with respect to the sexual aspect of our total being.

#### **READING**

#### **RDG 097**

#### **FUNDAMENTAL READING I**

Prerequisite: Qualifying score on Reading Placement Test

4 lectures per week: 4 hrs non-degree, non-transfer credit (may be repeated two times)

This is a fundamental reading course designed for students who need extensive practice in word analysis, vocabulary and comprehension skills essential for effective reading. The course is based on individualized learning.

#### **RDG 098**

#### **FUNDAMENTAL READING II**

Prerequisite: RDG 097 or qualifying score on Reading Placement Test 4 lectures per week: 4 hrs non-degree, non-transfer credit (may be repeated two times)

This course is designed for students who have mastered basic reading techniques. Its purpose is to increase students' abilities in vocabulary and comprehension skills for effective reading and clear thinking.

# **RDG 099**

#### **FUNDAMENTAL READING III**

Prerequisite: RDG 098 or qualifying score on Reading Placement Test 4 lectures per week: 4 hrs non-degree, non-transfer credit (may be repeated two times)

This course is designed to equip students with reading skills needed to cope with the demands of college academic work. The course focuses on improving reading, comprehension, building vocabulary and textbook skills through speaking, reading and writing.

#### **RDG 100**

#### **COLLEGE READING**

Prerequisite: Qualifying score on Reading Placement Test or RDG 099 3 lectures per week: 3 hrs credit

This course is designed to improve critical reading and thinking as a framework for increasing college-level reading ability. The course emphasis is on the interrelated thinking abilities that constitute the reading process.

### REGISTERED NURSING

(See also Nursing)

#### **RN 100**

#### **R.N. FIRST ASSISTANT**

Prerequisite: Professional registered nurse, current license, current CNOR 3 lectures per week: 3 hrs credit

This course provides theoretical knowledge of asepsis/infection control, hemostasis, retracting/wound exposure, tissue handling, proper instrument usage, clamping, ligation and suturing. It also provides a theoretical foundation based on extensive scientific knowledge and includes nursing concepts and clinical judgment for advanced nursing practice.

#### **RN 101**

#### **R.N. FIRST ASSISTANT INTERNSHIP**

Prerequisite: RN 100

6 lab hrs per week: 3 hrs credit

This course covers the application of theoretical concepts learned in RN 100 through extensive practice under the supervision of a board-certified general surgeon.

#### **RN 120**

#### PERIOPERATIVE NURSING

Prerequisite: Current RN, PPD, CPR and immunizations, and health insurance coverage.

3 lecture, 4 lab hours per week: 5 hours credit

This course will provide instruction to a licensed registered nurse seeking didactic and clinical experience in perioperative nursing. This course will instruct on operating room asepsis and sterile technique, scrubbing, gowning, gloving, instrumentation, positioning, prepping and documentation, and legal aspects. Surgical specialties to be covered: general and gynecologic.

# **SOCIAL SCIENCE**

# **SOCSC 101** (IAI: S9 900)

#### INTRODUCTION TO SOCIAL SCIENCE

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course introduces the various branches of the social sciences and social science ideas and principles needed for a critical examination of contemporary American society. Included are a study of basic personality theories, the concept of culture, economic and political theories and international affairs. Also included are race, ethnicity, gender and sexual harassment.

# **SOCIAL WORK**

#### **SWK 201**

# INTRODUCTION TO SOCIAL WORK

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course introduces the student to the historical background and nature of social work theory, agencies and policy. It provides insight into social service organizations and agencies. Students examine the human concerns of various at-risk populations. This course also presents the knowledge bases and skills of social work practice, and enables students to evaluate their interests and capacities for entering the profession of social work. (same as SOCIO 201)

### **SOCIOLOGY**

# **SOCIO 101** (IAI: S7 900)

### INTRODUCTION TO SOCIOLOGY

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course explores the major concepts, theories and research methods within the field of sociology. Students examine how their behavior is shaped by the groups they belong to and the society in which they live. Topics for discussion include culture, socialization, social institutions, deviant behaviors, social stratification, and social inequalities, particularly classism, racism and sexism.

#### **SOCIO III** (IAI: S7 901; SOC 911)

#### **CONTEMPORARY SOCIAL ISSUES**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course provides an analysis of the major social problems facing the world today. Students examine issues of contemporary interest from a sociological perspective. Topics for discussion may include crime and violence, technology, the role of the media, problems of the family, educational and workplace issues, and the environment. Also included are issues of social class, race and ethnicity, gender, age and sexual orientation.

#### SOCIO 201

### INTRODUCTION TO SOCIAL WORK

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course introduces the student to the historical background and nature of social work theory, agencies and policy. It provides insight into social service organizations and agencies. Students examine the human concerns of various at-risk populations. This course also presents the knowledge bases and skills of social work practice, and enables students to evaluate their interests and capacities for entering the profession of social work. (same as SWK 201)

# **SOCIO 210** (IAI: S7 902; SOC 912)

#### **MARRIAGE AND THE FAMILY**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course provides an understanding of sociological concepts, theories and research methods in relation to marriage and family issues. It focuses on the ever-changing dynamics of relationships and the influence of contemporary society on family life. Special emphasis is placed on communication in relationships, dating and mate selection, love, parenting, balancing work and family, violence in relationships, and divorce.

#### **SOCIO 212**

# **URBAN SOCIOLOGY**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

Offered Spring semester only (days in even-numbered years; evenings in odd-numbered years)

This course is a study of the urban community as both a historical event and a contemporary experience. Economic and social factors involved in the growth or decline of metropolitan areas are examined. Included is an inquiry into community and suburban dynamics and contemporary urban concerns.

# **SOCIO 215** (IAI: S7 904D)

#### **SEX, GENDER AND POWER**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course explores the origins of gender inequities. It examines the development of gender roles, the consequences of dividing society along gender lines, and the effects of changing cultural definitions of masculinity and femininity.

#### SOCIO 220 (IAI: S7 903D; SOC 913)

#### **RACE RELATIONS: A MULTICULTURAL PERSPECTIVE**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course focuses on the analysis of racial, religious, ethnic and other groups. It examines the persistence of group identity, inter-group relations, social movements, government policy and related social problems. Groups studied include African-Americans, Latinos, European-Americans, Asian-Americans and Native-Americans.

#### **SPANISH**

(See Languages)

#### **SPEECH**

(See Communication)

### **SURGICAL TECHNOLOGY**

#### **SRT 100**

# **MEDICAL TERMINOLOGY**

Prerequisite: None

2 lectures per week: 2 hours credit

This course provides instruction in medical terminology needed by health care workers including surgical technologists, emergency medical technicians, nursing assistants, students, nurses, and medical transcriptionists.

#### **SRT 102**

#### **PATIENT CARE I**

Prerequisite: Acceptance into Surgical Technology program

2 lecture hrs per week: 2 hrs credit

Students learn to assess patient needs and response to illness and hospitalization. Emphasis is on routine care and procedures for surgical patients. Students also learn patient rights and care of specimens. Basics of medical terminology are incorporated.

# **SRT 103**

# PATIENT CARE II

Prerequisite: SRT 102

I lecture per week: I hr credit

Concepts of documentation, emergency procedures and thermoregulatory devices are covered. The basics of pharmacology and anesthesia are incorporated.

#### SRT II0

#### INTRODUCTION TO SURGICAL TECHNOLOGY

Prerequisite: Acceptance into Surgical Technology program.

5 lecture, 4 lab hrs per week: 7 hrs credit

The basic concepts and principles for developing skill competencies required to assist in surgery are covered beginning with the health care system and continuing with specifics of the surgical area. Microbiology and asepsis are stressed.

#### **SRT 120**

#### **SURGICAL PROCEDURES I**

Prerequisite: SRT 110

3 lecture hrs per week: 3 hrs credit

Basic surgical procedures including the pre-operative, intraoperative, and post-operative phases commonly performed in the operating room setting are covered. Emphasis is on general/rectal surgery, obstetrical/gynecological surgery, and genito-urinary surgery.

#### **SRT 122**

#### **APPLIED SURGICAL PROCEDURES I**

Prerequisite: Concurrent registration in SRT 120

10 lab hrs per week: 2 hrs credit

Students learn to apply concepts and skills learned in SRT 120 in clinical settings arranged by program coordinator.

#### **SRT 130**

### **SURGICAL PROCEDURES II**

Prerequisite: SRT 120

3 lectures per week: 3 hrs credit

This course continues the study of basic surgical procedures, emphasizing the following surgical specialities: ophthalmic surgery; ear, nose and throat surgery; head and neck surgery; oral and maxillofacial surgery; plastic surgery; orthopedic surgery; hand surgery; and endoscopic surgery.

#### **SRT 132**

#### **APPLIED SURGICAL PROCEDURES II**

Prerequisite: Concurrent registration in SRT 130

15 lab hrs per week: 3 hrs credit

Students learn to apply concepts and skills learned in SRT 130 in clinical settings arranged by program coordinator.

# **SRT 140**

#### SURGICAL PROCEDURES III

Prerequisite: SRT 130

3 lectures per week: 3 hrs credit

This course continues the study of basic surgical procedures, emphasizing these surgical specialties: neurosurgery, thoracic surgery, cardiac surgery, vascular surgery and general pediatric surgery.

#### **SRT 142**

#### **APPLIED SURGICAL PROCEDURES III**

Prerequisite: Concurrent registration in SRT 140

15 lab hrs per week: 3 hrs credit

Students learn to apply concepts and skills learned in SRT 140 in clinical settings arranged by program coordinator.

#### **SRT 298**

#### SURGICAL TECHNOLOGY SEMINAR

Prerequisite: Concurrent registration in SRT 299

I lecture per week: I hr credit

This seminar is designed to provide direction and feedback on workplace issues for students enrolled in the Surgical Technology Internship. Additionally, accreditation, certification,

resume preparation, interviewing and employee attributes are discussed.

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#### **SRT 299**

#### **APPLIED SURGICAL PROCEDURES IV**

Prerequisite: SRT 142 and concurrent registration in SRT 298

15 lab hrs per week: 3 hrs credit

This course is designed to provide real-world experience for students in Surgical Technology programs. Students are supervised in clinical settings arranged by the program coordinator.

# TECHNOLOGY OF MATHEMATICS AND SCIENCE

#### **TECH 109**

#### **TECHNICAL MATHEMATICS I**

Prerequisite: High school algebra with a C or better

4 lectures per week: 4 hrs credit

This course is a study of beginning to intermediate algebra with right angle trigonometry. Topics for study are based upon application to technical subjects. Some the topics are algebraic operations, functions, systems of equations, quadratics and vectors.

#### TECH II0

#### **TECHNICAL MATHEMATICS II**

Prerequisite: TECH 109

4 lectures per week: 4 hrs credit

This course is a continuation of TECH 109 in algebra and trigonometry. The topics include complex numbers, logarithmic functions, equations of higher degree and inequalities. Additional topics in trigonometry are included.

# **TECH 221**

#### **TECHNICAL PHYSICS I**

Prerequisite: TECH 109

3 lectures, 2 lab hrs per week: 4 hrs credit

This course is an introduction to mechanics. Topics include review of vectors, motion, equilibrium, Newton's Laws, work simple machines, momentum, rotational motion and properties of materials. Each topic includes application problems for the various technology career programs.

#### **TECH 222**

# **TECHNICAL PHYSICS II**

Prerequisite: TECH 109

3 lectures, 2 lab hrs per week: 4 hrs credit

This course covers the study of heat, light, sound and electricity. Topics include harmonic motion, temperature effects in matter, heat energy, first and second laws of thermodynamics, heat transfer, sound waves, light waves, reflection, refraction, lenses, electrostatics, circuits, magnetism and alternating current. Each topic includes application problems for the various technology career programs.

#### **THEATRE**

#### **THTRE 101** (IAI: FI 907)

#### UNDERSTANDING THEATRE

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

Understanding an appreciation of theatre is developed, including the study of aesthetic and dramatic principles in selected plays, analysis of representative theatrical forms for cultural and social significance, and the attendance and critiques of theatre performances.

#### **THTRE 103**

#### INTRODUCTION TO THE THEATRE

Prerequisite: None

3 lectures per week: 3 hrs credit

A survey of theatre arts including a study of playwrights, directing, acting, design, crafts and lighting. A practical play project is attempted at the end of the semester.

#### **THTRE 104** (IAI: FI 908)

#### **HISTORY OF THEATRE**

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This course follows the historical development of theatre and drama from its origins in ritual to contemporary drama. Emphasis is on representative periods and styles, genres, key playwrights, aspects of production, the social role of theatre, and critical interpretation of major works.

#### THTRE III (IAI:TA 914)

# **FUNDAMENTALS OF ACTING**

Prerequisite: None

3 lectures per week: 3 hrs credit

A beginning course in acting. A proper balance of theory and actual practice is maintained to develop both inner and outer acting techniques. An attempt is made to relate acting to good plays and to play production.

#### **THTRE 112** (IAI:TA 918)

# THEATRE PRACTICUM/ACTING

Prerequisite: None

6 lab hrs per week: 3 hrs credit

The student is provided with practical experience acting in actual productions.

# **THTRE 121** (IAI:TA 911)

# STAGECRAFT

Prerequisite: None

2 lectures, 2 lab hrs per week: 3 hrs credit

A beginning course in technical theatre. An understanding of technical theatre is implemented by both theory and practice. The designing, building and lighting of scenery are stressed. Classroom study and activities are related to actual production.

#### **THTRE 131**

# **VOICE AND ARTICULATION**

Prerequisite: None

3 lectures per week: 3 hrs credit

Principles and practice in personal, vocal and articulatory development and control. Some work on stage dialect is included. Not a remedial course but designed for performance in speech and theatre.

# **TOOL AND DIE MAKING - APPRENTICE**

#### APPTD 101

# **TOOL AND DIE PROCESSES**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course introduces students to tool, die and stamping fundamentals. Topics specifically covered include bending, forming, stretching, drawing and coining operations of sheet metal. Additionally, sheet metal stamping processes and their components will be discussed.

#### APPTD 102

#### **TOOL AND DIE MAINTENANCE**

Prerequisite: None

2 lectures per week: 2 hrs credit

This course introduces the student to tool, die and stamping maintenance fundamentals. Topics specifically covered include troubleshooting techniques, analytical methods, and process optimization for stamping machinery and the associated dies.

#### APPTD 105

#### **MACHINE THEORY AND PRACTICE**

Prerequisite: None

2 lectures per week: 2 hrs credit

The use and operation of common machine shop tools including lathe, milling machines, bench grinder and grinding machines, drill press, power hack saw and light shearing. Safety will be emphasized in the care and operation of tools and machines.

#### APPTD 108

# **NUMERICAL CONTROL CONCEPTS**

Prerequisite: APPTD 105

I lecture per week: I hr credit

Basic concepts of numerically controlled machine tools with experience in point-to-point programming using basic formats in use today. Students prepare tapes from finished programs for use in the laboratory.

#### APPTD 110

# **SAFETY AND FIRST AID**

Prerequisite: None

I lecture per week: I hr credit

A survey of industrial safety covering accidents and injury, cause of accidents, the unsafe act, unsafe conditions, accident cost and safety attitudes.

#### APPTD III

#### **HYDRAULICS AND PNEUMATICS**

Prerequisite: AMATH 101 or equivalent

I lecture per week: I hr credit

A study of the basic component of hydraulic and pneumatic systems and how they are combined to build up various circuits. Emphasis is on the use of hydraulics and pneumatics for power transmission and the control purposes.

# APPTD 113

### **DETAILING AND CAM LAYOUT**

Prerequisite: CADMD 142

2 lecture hrs per week: 2 hrs credit

This course presents elements of tool and machine detailing, including the theory of cam motion and the layout, gearing and detailing of tools.

# TRANSPORTATION, WAREHOUSING AND LOGISTICS

#### **TWL 100**

#### TRANSPORTATION AND PHYSICAL DISTRIBUTION

Prerequisite: None

3 lectures per week: 3 hrs credit

This course studies the fundamental roles and importance of transportation in companies and society. The course evaluates the complex environment in which transportation services are provided and discusses how to adapt to a fast-paced and rapidly changing industry. Topics covered include an overview of transportation, the supply chain, the economy, traditional modes of transportation, special carriers, global transportation, the economics and operating characteristics of each mode, costing, pricing, carrier strategy, and information management.

#### **TWL 110**

# INTRODUCTION TO SUPPLY CHAIN MANAGEMENT

Prerequisite: None

3 lectures per week: 3 hrs credit

This course covers the basics of supply chain management which includes all activities in the flow of materials from the supplier to the consumer. Such activities include the supply chain concept, inventory and warehouse management, physical distribution, order management, materials handling, capacity management, just-in-time manufacturing, and total quality management.

#### **TWL 120**

# INTRODUCTION TO IMPORT/EXPORT

Prerequisite: None

3 lectures per week: 3 hrs credit

This course provides an understanding of the major factors affecting the global marketplace as well as the concepts and terminology of international trade. It is designed to build exporting and importing skills and to provide an understanding of the methods and procedures of importing and exporting products.

#### **TWL 130**

### PRINCIPLES OF OPERATIONS MANAGEMENT

Prerequisite: None

3 lectures per week: 3 hrs credit

This course provides a detailed study of operations management and emphasizes attainment of high levels of customer service and quality. Topics covered include integrated product development, integrated supply chain management, process and capacity planning and control, inventory planning, forecasting, just-in-time philosophy, push v pull program, total quality management, and enterprise resource planning.

#### **TWL 140**

#### TRANSPORTATION AND CARGO SECURITY

Prerequisite: None

2 lectures per week: 2 hrs credit

This course examines relevant facets of maritime, land, pipeline and air transportation security-related systems and associated issues. It covers applicable legislation and the agencies tasked to oversee each mode of transportation. It also describes how to implement an appropriate program to enhance the security of a particular mode of transportation.

# **WELDER - APPRENTICE**

#### APPW 101

#### PRINCIPLES OF FLAT WELDING

Prerequisite: None

2 lectures per week: 2 hrs credit

Basic welding fundamentals related to arc and oxy-acetylene welding theory and practice, AC and DC welding equipment, and applications that position welding techniques, arc welding electrodes and ferrous metal identification.

#### **APPW 102**

#### HORIZONTAL AND VERTICAL WELDING

Prerequisite: APPW 101

2 lectures per week: 2 hrs credit

Expands arc and oxy-acetylene skills. Topics include oxy-acetylene cutting equipment and applications, arc and carbon arc cutting, soldering, brazing, inspection and testing of welding, metal identification and welding in flat and horizontal positions.

#### **APPW 103**

#### **INERT AND SPECIALTY WELDING**

Prerequisite: APPW 102

2 lectures per week: 2 hrs credit

To develop an understanding of and manipulative skills needed with inert arc welding equipment. Topics include inert arc welding equipment, MIG, special welding processes, mechanical testing of welds and welding in flat, horizontal and vertical positions.

### **APPW** 104

# RESISTANCE AND SPECIALTY WELDING

Prerequisite: APPW 103

2 lectures per week: 2 hrs credit

To further increase the student's welding background by acquainting him or her with tungsten-inert gas welding, automatic welding and cutting equipment, special cutting processes, the use and application of AWS welding symbols, welder qualifications and all-position welding (flat, vertical, horizontal and overhead).

#### **APPW 105**

# **AWS STRUCTURAL CERTIFICATION**

Prerequisite: APPW 104

2 lectures per week: 2 hrs credit

A course for persons experienced in all-position welding who wish to become certified to weld stress structures. All welding test procedures conform to American Welding Society standards. Though test specimens are prepared in class, passing of the course is not contingent upon whether or not the specimens are sent to a materials testing laboratory for analysis or the results of the analysis. However, if the student requests certification and pays the required fee, his or her test specimens will be sent to a local materials testing laboratory where the mechanical tests will be performed and from where the welder certification papers will be issued.

#### **APPW 106**

#### PIPE AND PRESSURE VESSEL CERTIFICATION

Prerequisite: APPW 105

2 lectures per week: 2 hrs credit

To certify a student in the most advanced stage of welding. Emphasis is placed on welding a vessel or pipe which will be used for a high pressure application.

#### APPW 201

#### ADVANCED GAS METAL ARC WELDING

Prerequisite: APPW 103

2 lectures per week: 2 hrs credit

Advanced gas metal arc welding techniques are taught. Topics include metal transfer, types of equipment and supplies, equipment set-up, and troubleshooting.

#### **APPW 202**

#### ADVANCED GAS TUNGSTEN ARC WELDING

Prerequisite: APPW 106

2 lectures per week: 2 hrs credit (may be repeated 3 times) Advanced gas tungsten arc welding techniques are taught. Topics include types of equipment and supplies, equipment set-2up, and open-root welding on plate and pipe.

CERTIFICATES
COURSES

# **GRADUATION & TRANSFERRING**



Perhaps your time at Prairie State College has numbered a few months while you earn a certificate to boost your earnings potential. Or you might be among the many who have worked for years toward an associate's degree while juggling other responsibilities.

Whatever you have accomplished, we're pleased and proud to have been part of your educational journey. We wish you well with your next step, whether it is on your career path or on the path toward a bachelor's degree and even graduate school.

### GRADUATION

As outlined in the opening OVERVIEW section, PSC grants certificates and the following six associate's degrees:

- Associate in Arts (A.A.)
- Associate in Science (A.S.)
- Associate in Fine Arts (A.F.A.)
- Associate of Arts in Teaching (A.A.T.)
- Associate in Applied Science (A.A.S.; career and technical degree)
- Associate in General Studies (A.G.S.; not intended for career program or a bachelor's degree)

Specific curriculum requirements for a particular degree or certificate program are found in DEGREES, CERTIFICATES, COURSES. Consult that section of the catalog and the index for detailed information. The next section gives an overview of graduation requirements.

#### **GRADUATION REQUIREMENTS**

To earn a degree or certificate, you must complete the academic requirements shown in the catalog for the year in which you entered Prairie State College. If the degree or certificate requirements are changed during your attendance, you may elect to satisfy either the new requirement or the ones in force when you enrolled. If you withdraw from Prairie State College for either a Fall or Spring semester, you must satisfy requirements in force at the time you re-enroll.

When submitting a graduation petition, you will be asked to identify the year of the catalog from which you are graduating. Any petition for alteration of graduation requirements must be submitted in writing on a Student Appeal Form—available in the Counseling & Academic Advising Center—at least one semester prior to graduation. Graduation petitions must be submitted to the Admissions Office no later than the following dates:

Fall graduation: October I Spring graduation: March I

Summer graduation: July 1

December, May and August candidates may choose to participate in the annual May Commencement ceremony (see following section, "Commencement Ceremony").

Students planning to receive a degree and/or certificate at PSC must request an official evaluation of their credits in the Office of Admissions, Records & Registration by completing the "Transcript Evaluation Request Form" at least one or two semesters *prior* to degree and/or certificate completion in order to ensure correct course selections. The form is also available on the College Web site and may be printed and mailed to the Office of Admissions, Records & Registration at the Main Campus address.

# TRANSFERRING

#### **COMMENCEMENT CEREMONY**

A Commencement (graduation) ceremony is held once a year, at the end of the Spring semester in May. Graduates from the previous Fall, current Spring and forthcoming Summer terms are invited to participate.

Note: This is the only ceremony held all year, though you may be certified as a graduate at the end of any semester of the academic year. The deadline to apply for the ceremony is March I, no matter which semester you actually fulfill the requirements for graduation.

For each degree application, a fee of \$20 will be charged upon petitioning for graduation (this includes the cost of a degree diploma); there is no additional fee to participate in the ceremony. Students who earn a certificate will have that information posted to their college transcript free of charge; however, if a certificate recipient wishes to participate in the graduation ceremonies and therefore receive a diploma, a fee of \$20 will be charged for each diploma.

For more information on academic honors, see "Grading & Other Academic Policies" within the section POLICIES & GUIDELINES. For information on the ceremony, please call the Office of the Vice President of Student Affairs at (708) 709-3507.

### TRANSFERRING TO OTHER COLLEGES

If you wish to transfer from Prairie State College to another college, you must follow the admissions procedure for the institution you wish to attend. No matter what transfer hopes and plans you might have, recognize that each college or university has its own unique policies, selection process and admissions requirements.

It is the responsibility of students to be familiar with transfer policies at other institutions. Visit the Web site or obtain a catalog and application packet from the schools you are interested in attending. The PSC Counseling & Academic Advising Center can assist you in the transfer process. Contact the Transfer Coordinator at (708) 709-3508, or talk with any of PSC's advisors and counselors for more information.

A transfer student agreement (commonly called the Compact Agreement) is established with a number of public universities in Illinois. This compact states that a transfer student who has completed an associate's degree based on a baccalaureate-oriented sequence is considered to have attained junior standing and to have met lower-division general educational requirements.

# **ILLINOIS ARTICULATION INITIATIVE (IAI)**

PSC is part of the Illinois Articulation Initiative, a statewide agreement allowing transfer of the completed Illinois General Education Core Curriculum (IAI GECC) between participating institutions. Completion of the transferable IAI GECC at any participating college or university in Illinois ensures transferring students that lower-division general education requirements for an associate's or bachelor's degree have been satisfied.

Here is good advice on transferring—one of many resources and tips found on the IAI Web site (www.itransfer.org):

 Even though the Illinois Articulation Initiative (IAI) agreements and Web site are meant to make transfer smoother, you still need to see an academic advisor or admissions counselor.

- 2. To transfer as a junior, you need a minimum of 60 (and usually not more than 64) semester credits. Plan to earn an associate's degree before transferring: at PSC, we offer Associate in Arts, Associate in Science, Associate in Fine Arts and Associate of Arts in Teaching.
- If you already know where you will transfer, see that school's catalog and a counselor for specific advice.
- 4. Every participating school does not offer all majors or all specialties in a major.
- 5. No two majors are alike; courses in one major are unlikely to meet requirements for a different major. Changing your major will likely increase the time needed to complete your degree.
- 6. Be sure to check to see if any specific Illinois Transferable General Education Core Curriculum (IAI GECC) courses are recommended by your major. A few majors, like music and engineering, suggest you not finish the IAI GECC before transferring.
- 7. Most majors require at least a "C" for a course to count towards major requirements, and most schools won't accept pass/fail.
- Since admission is often competitive, completing the IAI Majors' recommended courses will not by itself guarantee admission.
- 9. Some majors require assessment for admission: a basic skills test (reading, grammar, writing and math) is required for certification in all teacher education majors. Most music schools require an audition and most art schools require a portfolio.
- 10. When selecting courses for your major, always seek advice from an academic advisor at your current school and a counselor at the transfer school.

More information on IAI and transferring is found in DEGREES, CERTIFICATES, COURSES. Consult that section and the Index.

#### **TRANSCRIPTS**

The Office of Admissions, Enrollment & Career Development Services issues official transcripts; a nominal fee is charged for each transcript. Students and former students must make a request in writing to that office. The "Transcript Request Form" is also available on the College Web site and may be printed and mailed to the Office of Admissions, Enrollment & Career Development Services at the Main Campus address.

A transcript will not be issued to a student or former student if a record encumbrance has been placed on his or her academic record (indicating a past-due monetary obligation to the College such as unpaid tuition, fees, fines or financial aid repayment).

For more information on transcripts, please call (708) 709-3514.