

COURSE INFORMATION

This section lists the courses offered at MCC in the 2017–2018 academic year. They are grouped by department and each includes a course description, prerequisites, credit hours and other information.

Following is an explanation of some of the codes and information presented.

Explanation of Course Listings

Course Prefix	Course Number	Course Title	General Education Group	Probable Semester Offered	Lecture, Lab Hours per Week	Semester Credit Hours	Probable Delivery Method
ART	151	Art Appreciation	[F]	(F,S)	(3.0,0.0)	3.0	O, B, SP, H, V

Course Prefix

These three letters indicate the department in which the class is offered.

Course Number

A unique number is assigned to each course offered. Courses numbered 000-099 indicate general studies, basic or vocational skill and community services courses. Any credits received from such courses may not be applied to a certificate or degree. Courses numbered 100-299 are college-level courses and are a part of a specific certificate or degree program.

General Education Group

The letter in brackets underneath the course prefix/number indicates that the course has been approved to fulfill requirements in one or more of the following areas of an MCC transfer degree (AA, AS, AES, AFA):

- C = Communications
- E = Elective
- F = Fine Arts
- H = Humanities
- IS = Diversity and Multicultural Studies
- L = Life Science
- M = Mathematics
- P = Physical Science
- S = Social and Behavioral Science

For more information on program requirements, refer to the Transfer Programs section in Chapter 8, or the Career and Technical Education (CTE) Programs section in Chapter 9.

Probable Semester Offered

The semester(s) in which a course is generally offered are designated as F–Fall, S–Spring and Su–Summer. In cases where classes do not meet minimum enrollment standards, or due to other unforeseen circumstances, the College reserves the right to cancel or not offer classes in a specified semester. Some advanced courses are offered on a limited basis; this is typically noted underneath the description.

Probable Delivery Method

Delivery Method:

The codes O, B, SP, H, and V describe the course delivery method, or the ways a course may be offered. Not all listed delivery methods may be used in any given semester.

- O = Online
- B = Blended
- SP = Self-paced
- H = Honors
- V = Variable Credit

Course Level

The number that appears in parentheses at the end of each course description indicates the academic level for which the course has been approved. If the course has been accepted for transfer purposes by a minimum of three Illinois public universities, "Articulated" follows the number. Students should consult an MCC academic advisor for more information.

- 1.1 – Baccalaureate Transfer course
- 1.2 – Career and Technical Education (CTE) course not intended for transfer; however, some courses may transfer
- 1.4, 1.6, 1.7, 1.8 – Developmental or General Studies course not intended for transfer and not applicable to CTE certificates or degrees.

Prerequisites

Unless otherwise indicated, every credit course (and program) offered through MCC assumes a level of proficiency in basic skills equivalent to those of a high school graduate (e.g., English, mathematics and reading).

Many courses, particularly at the advanced level, also list specific prerequisites to ensure that students are academically qualified for the coursework. Students are expected to document or provide other satisfactory evidence of having met the prerequisites in order to register.

Course prerequisites, if applicable, are listed underneath the course descriptions in this section. (Program prerequisites are listed in the certificate and degree planning sheets in the previous section.) Prerequisites are generally expressed as an MCC course prefix and number.

For students who have taken equivalent courses elsewhere, a transcript must be on file prior to registration. If students have prior knowledge through self-directed study, job training or other means not documented as formal coursework, written permission of the instructor will be accepted in place of a transcript.

Academic Skill Levels

For courses that do not require placement testing and do not have prerequisites, MCC provides information on academic skill levels for reading, writing and math. The information listed below is designed to inform the students of the level of basic knowledge required. The intent of providing this information is to give students the information they need to make informed choices about their classes. Skill level information may not be available for all classes.

Although this information is provided as an aid to students, this does not reflect all of the material content that will be discussed in these courses. MCC encourages students to meet with an academic advisor to answer any questions about how to choose the most appropriate classes, as well as any questions about interpretation of the Academic Skill Levels. Students who are not in good academic standing (cumulative GPA less than 2.0) are required to meet with a counselor prior to registering.

READING SKILL LEVELS				
N/A	Basic (Limited reading)	Intermediate (Regular reading)	Advanced (Frequent, complex reading)	
Reading Not Required	<p>Typical Length: a few paragraphs at a time.</p> <p>Vocabulary: may require learning a few new words.</p> <p>Expectations: Follow instructions or understand basic facts.</p>	<p>Typical Length: Essays or textbook chapters.</p> <p>Vocabulary: Learn subject-specific vocabulary to understand the readings.</p> <p>Expectations: Find the main idea, simple details, and the different parts of the reading materials.</p>	<p>Typical Length: entire books or research articles.</p> <p>Vocabulary: Use advanced subject-specific vocabulary to use or apply knowledge.</p> <p>Expectations: Identify how various parts of the reading material relate to one an- other, use reasoning skills to find meaning of reading materials.</p>	
WRITING SKILL LEVELS				
N/A	Basic (Limited writing)	Intermediate (Regular writing)	Advanced (Frequent, writing)	
Writing Not Required	<p>Type of writing: Write about student's own experi- ence, opinion, feelings, or observations.</p> <p>Length of writing: Paragraphs and short essays (1-2 pages)</p>	<p>Type of writing: Read 1 or 2 sources of information, write a response, compare/contrast writings; argue a point of view.</p> <p>Length of writing: Mid-length essays (3-5 pages)</p> <p>Evaluate source credibility</p>	<p>Type of writing: Read 3 or more sources of information, analyze and summarize materials read.</p> <p>Length of writing: Longer essays (6+ pages) or research papers.</p> <p>May do research oneself to compare own findings to findings of what was read.</p>	
MATH SKILL LEVELS				
N/A	Basic	Intermediate	Advanced	Expert
Math Not Required	<p>Add, subtract, divide, and multiply. Use fractions, percentages, and negative numbers to solve practical problems.</p>	<p>All Basic Skills plus interpret basic graphs.</p> <p>Graph answers to problems such as $x + y = 21$.</p>	<p>All Intermediate skills plus factor problems such as $x^2 + 10x + 24$; and graph quadratic functions such as $y = x^2$</p>	<p>All the Advanced skills plus solve and/or graph problems like: $\frac{x}{3} + \frac{2x}{4} = 5$, and $x + 2 = 6$, and $10^{1-x} = 10^4$, and $f(x) = \log_2 x$.</p>

COURSE DESCRIPTIONS

ACCOUNTING

ACC 110 BASIC ACCOUNTING PROCEDURES

[E] (F,S) (3.0, 0.0) 3.0 O,B

Basic Accounting Procedures explores essential accounting and bookkeeping principles and procedures. Students get an in-depth look at the double-entry framework, journalizing and posting transactions, adjusting entries and worksheets, preparation of financial statements, and the closing process—all as they pertain to service and merchandising businesses. Manual applications are covered. Students also learn specialized accounting procedures for service businesses and proprietorships. (1.2-Articulated)

NOTE: This course requires intermediate reading, basic writing, and basic math.

ACC 151 FINANCIAL ACCOUNTING

[E] (F,S,Su) (3.0, 0.0) 3.0 O,B

Financial Accounting is a foundation course for accounting and other business disciplines. Accounting is an information system that produces summary financial data primarily for external stakeholders. Students study the common transactions entered into by service and merchandising businesses. The emphasis is on understanding and applying basic accounting principles including inventory systems, depreciation methods, analysis of receivables and payables, analysis of the cash account and other concepts that guide the reporting of the effect of transactions on the financial position and operating results of a business. How to prepare, analyze and interpret historical financial statements and period-end adjustments, as well, and the limitations of using these in making forward-looking business decisions is included. The primary content emphasis will be accounting for, the balance sheet, current assets and liabilities, long-term assets and liabilities and the stockholder's equity section. (1.1-Articulated) [IAI Major Course Equivalent: BUS903]

NOTE: This course requires advanced reading, basic writing, and basic math.

ACC 152 MANAGEMENT ACCOUNTING

[E] (F,S,Su) (3.0, 0.0) 3.0 O,B

Management Accounting serves as an introduction to the Cost Accounting course. Areas of study include analyzing, interpreting, constructing and completing the following: cash flow statements, cost-volume-profit relationships, product cost flows for job order and process costing, absorption and variable costing, just-in-time procedures, lean accounting environment, present value in capital investment decisions. Formulate, interpret, analyze and complete a master operating budget with pro-forma financial statements, traditional cost management, differential costs and product decisions, standard costs and measure variances for evaluating personnel and divisions through variance analysis, and continuous improvement in management accounting. Analyze and interpret product cost decisions for international operations and the financial statements using various ratios and analysis. (1.1-Articulated) [IAI Major Course Equivalent: BUS904]

PREREQUISITE: ACC 151 with a grade of C or higher.

ACC 220 COMPUTER APPLICATIONS FOR ACCOUNTING

[E] (F,S) (3.0, 0.0) 3.0 O,B

Computerized Applications for Accounting is a practical introduction to the utilization of an integrated accounting package for microcomputers, including considerations necessary in choosing and implementing a computerized accounting system. Students learn the differences between manual and computerized accounting systems and will set up and use integrated computerized general ledger, accounts receivable, accounts payable, inventory, depreciation and payroll applications, to maintain accounting records of a business and produce financial reports including cash flow, horizontal and vertical analysis. (1.2-Articulated)

NOTE: CDM 110 or CDM 111 is highly recommended.

PREREQUISITE: ACC 110 or ACC 151 with a grade of C or higher.

ACC 236 COST ACCOUNTING

[E] (S) (3.0, 0.0) 3.0 O,B

Cost Accounting covers the concepts and procedures of a manufacturing cost accounting system and how cost accounting can be used by management. Students learn the basic elements and costs of production as they relate to job order and process cost systems, standard costs and variance analysis, and other areas. (1.1-Articulated)

NOTE: Offered even-numbered years.

PREREQUISITE: ACC 152 with a grade of C or higher.

ACC 237 INCOME TAX ACCOUNTING

[E] (F) (3.0, 0.0) 3.0 O,B

Income Tax Accounting focuses on federal income taxation of individuals. It covers the conceptual framework of the Internal Revenue Code, the federal law relating to the preparation of individual tax returns. Among topics covered: itemized deductions, business expenses, capital gains and losses, credits and special taxes, and tax form preparation. Students learn to use the Internet to research tax matters. (1.2-Articulated)

NOTE: ACC 151 recommended.

ACC 238 INCOME TAX – ADVANCED

[E] (S) (3.0, 0.0) 3.0 O,B

Income Tax - Advanced presents an introduction to corporate, partnership, trust, estate and exempt entity taxations. Students become familiar with such taxes as the alternative minimum tax, accumulated earnings tax, passive losses, constructive dividends, gift and estate taxes and related effects to individual taxpayers. (1.2-Articulated)

PREREQUISITE: ACC 237 with a grade of C or higher or instructor consent.

ACC 239 IRS PRACTICE & PROCEDURE

[E] (Su) (3.0, 0.0) 3.0 O,B

IRS Practice & Procedure covers taxpayers' rights as they relate to filing, collection, levies, liens and appeals. IRS employees at all levels must follow a complex set of rules—all spelled out in the Internal Revenue Manual (IRM). The best taxpayer advocates have a working knowledge of the IRM and are ready to protect their clients' assets. (1.2-Articulated)

PREREQUISITE: ACC 238 with a grade of C or higher or instructor consent.

ACC 240 ENROLLED AGENT (EA) REVIEW**[E] (F,S,Su) (1.0, 0.0) 1.0 O,B**

Enrolled Agent (EA) Review course is devoted to intensive preparation for the Special Enrollment Examination (SEE). Individuals must pass all three parts of the SEE to become licensed as an EA. The content of this course varies to cover each of the three parts of the SEE. Students will review prior exam questions and current IRS publications, prepare note cards, engage in tax research, and enhance their test-taking skills. Students may repeat this course two times for a maximum of 3 credit hours. (1.2-Articulated)

PREREQUISITE: Instructor consent.**ACC 241 TAX INTERNSHIP****[E] (S) (0.0, 6.0) 1.0**

Tax Internship provides students with the opportunity to apply their tax skills in a work environment. Students interview taxpayers, research tax issues, and prepare tax returns. This course is designed for students volunteering at the MCC Volunteer Income Tax Assistance (VITA) site or working cooperatively with the College and the employer. This course is primarily intended for students in the Accounting Program seeking the Tax Practitioner Certificate. Students may repeat this course once for a maximum of 2 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.**ACC 245 PRINCIPLES OF FINANCE****[E] (F) (3.0, 0.0) 3.0 O,B**

Principles of Finance focuses on the organization of a business, planning for solvency and profitability, short- and long-term financing, instruments, principles and practices, dividend policy and earning retention. (1.1-Articulated)

NOTE: Offered odd numbered years.**PREREQUISITE:** ACC 151 with a grade of C or higher.**ACC 250 INTERMEDIATE ACCOUNTING I****[E] (F) (3.0, 0.0) 3.0 O,B**

Intermediate Accounting I gives a detailed review of financial accounting processes followed by comprehensive study of current and non-current assets, including cash, accounts receivable, inventories, investments, present values, long-term assets and notes receivable. Current laws and regulations governing accounting procedures are also discussed. (1.1-Articulated)

NOTE: Offered even-numbered years.**PREREQUISITE:** ACC 151 with a grade of C or higher.**ACC 251 INTERMEDIATE ACCOUNTING II****[E] (S) (3.0, 0.0) 3.0 O,B**

Intermediate Accounting II offers a detailed study of long-term liabilities, corporate capital structures, partnerships, leases, pensions, analytical processes, statements of cash flow, and current laws and regulations that impact the daily work of an accountant. (1.1-Articulated)

NOTE: Offered odd-numbered years.**PREREQUISITE:** ACC 250 with a grade of C or higher.**ACC 255 ACCOUNTING INTERNSHIP****[E] (0.0,15.0) 3.0V**

Accounting Internship gives students the opportunity to apply their accounting skills in a real work environment. The course is conducted cooperatively among the student, the College and the employer. Periodic review sessions are held to assess student progress and review the appropriateness of the work. Progress is based, in part, on written evaluation and consultations with the cooperating employer. Credit depends on time spent: 80 clock hours = 1 credit hour. This course is primarily intended for students in the Accounting Program. Students may repeat this course two times for a maximum of 6 credit hours. (1.1-Articulated)

PREREQUISITE: 12 semester hours of accounting coursework with a minimum GPA of 2.0 and written consent from the Accounting department chair.**ACC 260 AUDITING AND ASSURANCE SERVICES I****[E] (F) (3.0, 0.0) 3.0 O,B**

Auditing and Assurance Services I explores the history of the auditing profession, auditing professional standards and code of conduct, auditors' legal liability issues and gathering and documenting auditing evidence. Students gain an understanding of audit testing and internal controls. (1.2-Articulated)

PREREQUISITE: ACC 250 with a grade of C or higher or consent from Accounting department chair.**ACC 265 AUDITING AND ASSURANCE SERVICES II****[E] (S) (3.0, 0.0) 3.0 O,B**

Auditing and Assurance Services II focuses on audit sampling, testing of common business transaction cycles, procedures to complete the audit process and a thorough analysis of typical audit reports that may be issued by an auditor upon completion of the audit engagement. (1.2-Articulated)

PREREQUISITE: ACC 260 with a grade of C or higher.**ACC 290 SPECIAL TOPICS IN ACCOUNTING****[E] (4.0, 0.0) 4.0V O**

Special Topics in Accounting covers selected topics, with a different one for each section. Topics relate to current trends and techniques and vary from semester to semester (check the current class schedule). Sample topics: Income Tax Update, Payroll Tax Update, Enrolled Agent Program, Certified Bookkeeper Program, Case Studies in Ethics for Accounting. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

PREREQUISITE: Varies depending on topic.

ADMINISTRATIVE OFFICE MANAGEMENT

AOM 101 KEYBOARDING I – INTRODUCTION

[E] (F,S,Su) (3.0, 0.0) 3.0 O,B

Keyboarding I - Introduction teaches the fundamentals of keyboarding by touch. The course emphasizes mastery of the keyboard, proper keyboarding techniques, and speed and accuracy. Students work on formatting documents such as basic business memos, letters, envelopes, reports and tables. Designed for students with no previous keyboarding training and those who need a refresher course. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

AOM 102 DOCUMENT FORMATTING

[E] (F,S) (3.0, 0.0) 3.0 O,B

Document Formatting helps students continue to develop their keyboarding speed and accuracy. Emphasis is on production skills and formatting of business-related documents such as letters, memos, reports, tables, form documents, meeting minutes, news releases, itineraries, applications, letters and resumes. The course includes a simulation exercise in which students produce documents for a fictitious company. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

PREREQUISITE: AOM 101 and AOM 120.

AOM 105 KEYBOARDING - SPEED AND ACCURACY

[E] (F,S,Su) (1.0, 0.0) 1.0 O,B

Keyboarding - Speed and Accuracy is designed for students who wish to improve their speed and accuracy at a computer keyboard. Practice material is selected for each student after an evaluation to determine areas of weakness. Rhythm development is also stressed. This course is ideal for students needing to develop proper and efficient keyboarding techniques. Students may repeat this course two times for a maximum of 3 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

PREREQUISITE: AOM 101 or ability to type 20 words per minute using correct keyboarding technique.

AOM 120 WORD PROCESSING I

[E] (F,S) (3.0, 0.0) 3.0 O,B

Word Processing I is an introductory course that teaches the beginning and intermediate features of Word. Topics include creating, editing and printing Word documents; formatting characters, paragraphs and documents; using Help; enhancing visual display and clarity; mail merge; working with multiple documents, headers and footers, columns and tables; graphics; drawing; and envelopes and labels. Students may repeat this course once with a different software package for a maximum of 6 credit hours. (1.2-Articulated)

NOTE: Students must have basic keyboarding skills. This course, along with AOM 122, will prepare students for the Microsoft Office Specialist (MOS) Exam. This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

PREREQUISITE: Credit or concurrent enrollment in CDM 110 or CDM 111.

AOM 122 WORD PROCESSING II

[E] (F,S) (3.0, 0.0) 3.0 O,B

Word Processing II builds upon skills learned in Word Processing I. Students learn about working with shared documents, tables of contents and indices, footnotes and endnotes, themes, styles, charts, customized headers and footers, macros, and building blocks. Students may repeat this course once with a different software package for a maximum of 6 credit hours. (1.2-Articulated)

NOTE: This course focuses on the skills needed for the Word Microsoft Office Specialist (MOS) Exam. Students will have the opportunity to complete this exam during this course. Students must have basic keyboarding skills. This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

PREREQUISITE: AOM 120 with a grade of C or higher.

AOM 130 PRESENTATION SOFTWARE

[E] (F,S) (2.0, 0.0) 2.0 O

Presentation Software is an introductory course that teaches the beginning and intermediate features of PowerPoint. A variety of presentations will be discussed and support materials for business presentations will be generated including slides, templates, styles, themes, charts, pictures, coloring, photo albums, outlines, notes, handouts, custom slide shows, and protecting a presentation. This course focuses on the skills needed for the PowerPoint Microsoft Office Specialist (MOS) Exam. Students will have the opportunity to complete this exam during this course. Students may repeat this course once for a maximum of 4 credit hours when software changes. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

PREREQUISITE: CDM 110 or CDM 111.

AOM 131 SPREADSHEET APPLICATIONS I

[E] (F,S) (3.0, 0.0) 3.0 O,B

Spreadsheet Applications I is an introductory course that teaches the beginning and intermediate features of Excel as an effective business tool. Students will learn how to create, edit, format and manipulate a workbook, create and analyze data through the use of charts, calculate data with beginning and advanced formulas and functions, create a table to filter and sort data, link workbooks and group worksheets, analyze data and create reports. Students may repeat this course once with a different software package for a maximum of 6 credit hours. (1.2-Articulated)

NOTE: This course, along with AOM 231, will prepare students for the Microsoft Office Specialist (MOS) Exam. This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

PREREQUISITE: CDM 110 or CDM 111.

AOM 132 DATABASE SYSTEMS I

[E] (F,S) (3.0, 0.0) 3.0 O,B

Database Systems I is an introductory course that teaches beginning and intermediate features of Access. The course examines the purpose and function of a database management system. Topics include creating a database, tables, adding, editing, and deleting records, creating beginning and advanced queries, generating and customizing reports, designing and customizing forms. Students may repeat this course once with different software packages for a maximum of 6 credit hours. (1.2-Articulated)

NOTE: This course along with AOM 232, will prepare students for the Access Microsoft Office Specialist (MOS) Exam.

PREREQUISITE: CDM 110 or CDM 111.

AOM 134 INTRODUCTION TO DESKTOP PUBLISHING**[E] (S) (2.0, 0.0) 2.0 O,B**

Introduction to Desktop Publishing emphasizes the practical and essential aspects of desktop publishing in today's work setting. Students learn the basics of a page layout program in the Windows software environment, beginning color handling concepts, master pages, beginning style sheet concepts, graphics and beginning pre-press preparation. Students may repeat this course once with a different software package for a maximum of 4 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math. Online courses require advanced reading.

PREREQUISITE: CDM 110 or CDM 111.

AOM 135 MEDICAL TERMINOLOGY**[E] (F,S,Su) (3.0, 0.0) 3.0 O,B**

Medical Terminology teaches basic medical language to facilitate the understanding of scientific and medical principles. Students become familiar with word parts related to the body systems, learn to build medical terms from word parts, and study anatomical terms. Medical abbreviations, pronunciation, spelling and definitions are all covered in this course. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

AOM 136 MEDICAL TRANSCRIPTION**[E] (F,S) (3.0, 0.0) 3.0 O,B**

Medical Transcription allows students to develop speed and accuracy in medical typing with expansion in the use of medical terminology. Practice in transcribing medical documents and building skill in the use of transcription software and equipment are emphasized. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

PREREQUISITE: AOM 120 and AOM 135.

AOM 140 INTEGRATED OFFICE APPLICATIONS**[E] (F) (3.0, 0.0) 3.0 O,B**

Integrated Office Applications reviews Windows concepts and guides students in gathering and using information online. Using components of Microsoft Office-Word, Excel, Access and PowerPoint, students complete integrated projects representing actual business applications. Essential concepts and techniques for using Outlook are also covered. (1.2-Articulated)

NOTE: Students must have basic keyboarding skills. Course offered odd-numbered years only. This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

PREREQUISITE: CDM 110 or CDM 111.

AOM 145 OFFICE PRACTICE**[E] (F,S,Su) (3.0, 0.0) 3.0 O**

Office Practice includes communications skill-building with an emphasis on punctuation, spelling, capitalization and number expression. Proofreading techniques are covered. Records management is also taught, including alphabetic, numeric, subject and geographic filing according to current Association of Records Managers & Administrators (ARMA) rules. (1.2-Articulated)

NOTE: Students must have basic keyboarding skills. This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

AOM 150 LEGAL TERMINOLOGY AND TRANSCRIPTION**[E] (F,S,Su) (3.0, 0.0) 3.0 O,B**

Legal Terminology and Transcription includes a study of terms used in the legal profession with emphasis on correct spelling, pronunciation, and definition of legal terms. Students will develop speed and accuracy in transcribing legal correspondence using word processing software, transcription software and foot pedal. (1.2-Articulated)

NOTE: Students must have basic keyboarding skills. This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

AOM 225 LAW FOR THE LEGAL SECRETARY**[E] (F) (4.0, 0.0) 4.0 B**

Law for the Legal Secretary provides the background needed for an administrative career in a legal environment. The course gives students an understanding of the law office and a range of related topics: clients, ethics, reminder system, legal filing, legal research, court systems and local government, law library, administrative agencies, litigation and special papers, contracts and torts, estate planning, criminal law and procedure, probate, wills, municipal law, real estate law and family law. (1.2-Articulated)

NOTE: Students must have basic keyboarding and word processing skills. Course offered odd-numbered years only. This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

AOM 231 SPREADSHEET APPLICATIONS II**[E] (S) (3.0, 0.0) 3.0 O,B**

Spreadsheet Applications II builds upon the skills learned in Spreadsheet Applications I. Students learn about Pivot Tables, Pivot Charts, macros, data validation, advanced formulas and functions, advanced What-if Analysis, connecting to external data and sharing workbooks. This course focuses on the skills needed for the Excel Microsoft Office Specialist (MOS) Exam. Students will have the opportunity to complete this exam during this course. Students may repeat this course once with different software packages for a maximum of 6 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

PREREQUISITE: AOM 131 with a grade of C or higher.

AOM 232 DATABASE SYSTEMS II**[E] (S) (3.0, 0.0) 3.0 O**

Database Systems II builds on the skills learned in Database Systems I. Students learn advanced query design, sharing, integrating, and analyzing data, advanced table relationships, Structured Query Language (SQL) concepts, macros, Visual Basic for Applications Code (VBA), managing and securing a database, advanced forms and reports. This course focuses on the skills needed for the Access Microsoft Office Specialist (MOS) Exam. Students will have the opportunity to complete this exam during this course. This course was formerly CIS 133. Students may repeat this course once with a different software package per CD&R 11/19/15 for a maximum of 6 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math. Online courses require advanced reading.

PREREQUISITE: AOM 132 with a grade of C or higher.

AOM 234 ADVANCED DESKTOP PUBLISHING**[E] (F) (2.0, 0.0) 2.0 O,B**

Advanced Desktop Publishing builds on the concepts and skills taught in Introduction to Desktop Publishing by further exploring desktop publishing features and software within Adobe Creative Suite. Students focus on graphic illustration software, advanced color handling, advanced master pages techniques, advanced style sheets, importing word processing documents, document design and printer preparation. Students may repeat this course once with a different software package for a maximum of 4 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

PREREQUISITE: AOM 134 with a grade of C or higher.

AOM 250 ADMINISTRATIVE OFFICE PROCEDURES**[E] (S) (3.0, 0.0) 3.0 O,B**

Administrative Office Procedures explores the skills and abilities needed at the operational and managerial levels in today's office environment. The course covers a range of topics, including expediting travel arrangements; collecting, presenting and directing the flow of information; ergonomics; current technology; decision-making; and human relations. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

PREREQUISITE: AOM 101 and AOM 120.

AOM 255 ADMIN OFFICE MGT INTERNSHIP**[E] (F,S) (0.0,15.0) 3.0V**

Administrative Office Management Internship gives students an opportunity to apply their newly acquired skills in a real work environment. The course is conducted cooperatively among the student, the College and the employer. Periodic review sessions are held to assess student progress and review the appropriateness of the work. Progress is based, in part, on written evaluation and consultations with the cooperating employer. Credit depends on time spent: 75 clock hours = 1 credit hour. This course is limited to certificate and degree students in Administrative Office Management. Students may repeat this course two times for a maximum of 6 credit hours under this course number. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

PREREQUISITE: 12 credit hours of AOM coursework with a grade of C or higher and written consent of the Business department chair.

AOM 299 INDEPENDENT STUDY IN AOM**[E] (F,S) (6.0, 0.0) 6.0V**

Independent Study in AOM offers the opportunity to study a specialized administrative office management topic or take on a special project not available as a regular course offering. Such study will be done under the direction of a qualified faculty member. Students may repeat this course three times for a maximum of 6 credit hours under this course number. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading.

PREREQUISITE: Written consent of the Business department chair.

ANIMATION

NOTE: For additional offerings of computer related courses, see also Computer Information Systems, and Digital Media, Database Management, Graphic Arts, Network Security, Programming, and Web Design.

ANI 100 2D ANIMATION**[E] (F) (0.0, 6.0) 3.0 O**

2D Animation will provide an introduction and rudimentary programming for animation. Topics covered will include motion and shape tweening, changing scenes, interactivity, movie clips, and adding sound. Simple programming will be done using wizards. Previous programming knowledge is not required. (1.2-Articulated)

NOTE: Students must have basic computer and file management skills. This course requires basic reading, basic writing, and basic math.

ANI 103 ANIMATION TECHNIQUES 1**[E] (F,S) (0.0, 6.0) 3.0**

Animation Techniques 1 develops skills necessary to create animations. It is an essential aspect of the Digital Media Program. Students work alone and in groups, creating projects of their choice (subject to instructor consent). Students write project outlines, scripts, create storyboards and produce animated shorts using software applications. They maintain digital and hard copy files of their work with the goal of developing animations worthy of their portfolios. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

ANI 105 3D MODELING AND ANIMATION 1**[E] (F,S) (2.0, 4.0) 3.0**

3D Modeling and Animation 1 covers the basics of 3D modeling, lighting, materials, animation and special effects. Students learn how 3D animation is applied in video games, movies, television, advertising and simulations. A series of in-class projects gives them hands-on experience. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

ANI 203 ANIMATION TECHNIQUES 2**[E] (F,S) (0.0, 6.0) 3.0**

Animation Techniques 2 builds on the animation techniques learned in Animation Techniques I. Students expand on the scripts, storyboards and projects that they began in Animation Techniques I and refine them using software applications. They also explore modeling and three-dimensional techniques which were not part of Animation Techniques I. They maintain digital and hard copy files of their work in order to demonstrate a clear evolution of concepts begun in the earlier course. All of these will be finalized as an animation worthy of their portfolio. (1.2-Articulated)

PREREQUISITE: ANI 103 with a grade of C or higher.

ANI 205 3D MODELING AND ANIMATION 2**[E] (F,S) (2.0, 4.0) 3.0**

3D Modeling and Animation 2 takes a more advanced, in-depth look at 3D animation. Students build on the modeling techniques learned in the previous course and explore particle dynamics in the creation of special effects. This is an intense, hands-on course in which students complete multiple animation projects. (1.2-Articulated)

PREREQUISITE: ANI 105 with a grade of C or higher.

ANTHROPOLOGY

ANT 151 INTRODUCTION TO ANTHROPOLOGY

[S,IS] (F,S,Su) (3.0, 0.0) 3.0 O

Introduction to Anthropology is a basic survey of anthropology and its key concepts and terminology. Students examine the interplay between the biological and cultural aspects of human existence. They also study cultural systems. (1.1-Articulated) [IAI Core Course Equivalent: S1 900N]

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math.

ANT 155 INTRODUCTION TO ARCHAEOLOGY

[S,IS] (F,S) (3.0, 0.0) 3.0

Introduction to Archaeology gives a general introduction to the field, including a brief history of archaeology; methods used in excavation and dating; and a brief survey of representative geographical research areas, such as North American and Palestinian archaeology. (1.1-Articulated) [IAI Core Course Equivalent: S1 903]

NOTE: This course requires advanced reading, advanced writing, and intermediate math.

ANT 160 INTRO TO PHYSICAL ANTHROPOLOGY

[S] (F,S) (3.0, 0.0) 3.0

Introduction to Physical Anthropology exposes students to the field and covers such topics as basic evolutionary theory, population genetics, primate behavior, the human fossil record, the concept of race, biological differences in modern humans and humanity's place in nature. The course also covers forensic anthropology. (1.1-Articulated) [IAI Core Course Equivalent: S1 902]

NOTE: This course requires advanced reading, advanced writing, and intermediate math.

ANT 170 INTRO TO CULTURAL ANTHROPOLOGY

[S,IS] (F,S,Su) (3.0, 0.0) 3.0 O

Introduction to Cultural Anthropology introduces the field and the methods by which cultural anthropologists collect data. Through discussions of the concept of culture and examinations of the various components of culture-such as subsistence, economic, kinship, political systems and religion-this course demonstrates the diversity of the world's cultures. Students come away with an appreciation for this diversity and greater insight into their own culture. (1.1-Articulated) [IAI Core Course Equivalent: S1 901N]

NOTE: This course requires advanced reading, advanced writing, and intermediate math.

ANT 255 ARCHAEOLOGICAL FIELD SCHOOL

[E,IS] (Su) (8.0, 32.0) 3.0

Archaeological Field School introduces students to basic archaeological survey, mapping, and excavation procedures through hands-on experience at an approved prehistoric or historic archaeological site located in the Midwest. Students also are introduced to basic archaeological laboratory procedures. The focus is on field work, supplemented by lecture and discussion. (1.1-Articulated)

NOTE: Students must provide their own transportation to the site. The course fee must be paid to McHenry County College at the time of registration and covers equipment and selected supplies. Students will receive a packet of information explaining the details of the project after registration. This course requires basic reading, basic writing and intermediate math.

ANT 260 ARCHAEOLOGY OF THE ANCIENT NEAR EAST

[E,IS] (F) (3.0, 0.0) 3.0

Archaeology of the Ancient Near East studies the development of ancient civilizations in the Near East, from the earliest time to the time of Christ. The course emphasizes Egypt, Syria-Palestine and Mesopotamia. Neighboring areas such as Anatolia and Cyprus are discussed as appropriate. (1.1-Articulated)

ANT 290 TOPICS IN ANTHROPOLOGY

[E] (3.0, 0.0) 3.0

Topics in Anthropology covers a variety of subspecialties within the fields of archaeology, cultural anthropology, physical anthropology and applied anthropology. Topics vary from semester to semester. Students may repeat this course three times on different topics for a maximum of 9 credit hours. (1.1-Articulated)

ARCHITECTURAL AND ENGINEERING DESIGN TECHNOLOGY

AET 141 INTERIOR DESIGN I

[E] (F,S) (2.0, 2.0) 3.0 B

Interior Design I covers theories of interior design, space planning and material selection. It explores interior design as a profession and the importance of proper planning in residential and commercial projects. The course also looks at how interior materials-e.g., lighting, fabric, color and furniture layout-affect end users. Students research existing interior designs and space plans. Then they develop their own interior projects using the design principles they've learned to create space plans, material specifications and presentation boards. (1.1-Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

AET 142 HISTORY OF INTERIORS

[E] (F,S) (2.0, 2.0) 3.0 B

History of Interiors expands on concepts and information learned in Interior Design I. This course investigates theories, styles and materials from antiquity and early civilization through current trends in interior design. It studies the structures, furnishings and architectural elements of pioneering architects and designers who paved the way for today's designs. (1.1-Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

AET 151 COMPUTER AIDED DESIGN GRAPHICS I

[E] (F,S) (2.0, 3.0) 3.0 B

Computer Aided Design Graphics I introduces students to the operation of a typical computer aided design (CAD) and graphics system. Content includes CAD graphic commands and proper manipulation of CAD software and hardware to produce technical drawings. Emphasis is placed on developing entry-level 2D CAD user skills using the latest version of the AutoCAD software package. (1.2-Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

AET 152 COMPUTER AIDED DESIGN GRAPHICS II

[E] (F,S) (2.0, 3.0) 3.0 B

Computer Aided Design Graphics II is a continuation of the material covered in AET 151. Content includes sheet set manager, tables and fields, layering systems, template drawings, advanced symbol manipulation, attribute extracation, OLE, user variables, external references, converting raster drawings, advanced editing and dimensioning, special plotting techniques, and remote and Internet file management. Emphasis is on developing higher-order 2D CAD user skills using the latest version of the AutoCAD software package. (1.2-Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.
PREREQUISITE: AET 151.

AET 153 COMPUTER AIDED DESIGN GRAPHICS III**[E] (F,S) (2.0, 2.0) 3.0 B**

Computer Aided Design Graphics III introduces students to accurate, free-form 3D modeling utilizing NURBS curves, surfaces and polygon meshes for architectural, engineering, industrial, jewelry, graphic and multimedia design. Emphasis is placed on developing entry-level 3D modeling skills using the latest version of the Rhinoceros software package. (1.2-Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

AET 154 COMPUTER AIDED DESIGN GRAPHICS IV**[E] (S) (2.0, 3.0) 3.0 B**

Computer Aided Design Graphics IV introduces students to 3D drawing, including wire frame, surface modeling and solid modeling technologies. Content includes texture mapping, rendering, lighting, shadows, dynamic viewing and portfolios. Emphasis is on developing entry-level 3D CAD user skills using the latest version of the AutoCad software package. (1.2-Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

PREREQUISITE: AET 151.

AET 158 GEOMETRIC TOLERANCING**[E] (S) (3.0, 0.0) 3.0 B**

Geometric Tolerancing studies geometric and true-position dimensioning and tolerancing principles and their relationship to product function and cost. (1.2 Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

PREREQUISITE: AET 151.

AET 161 BIM REVIT I**[E] (F,S) (2.0, 3.0) 3.0 B**

BIM Revit I is an introduction to 3-dimensional, parametric Building Information Modeling (BIM) simulation for the design, construction and facility management of the built environment. Industry-leading Autodesk Revit Architecture software is utilized to create, analyze, annotate and deliver both accurate and effective BIMs. (1.2-Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

AET 162 BIM REVIT II**[E] (S) (2.0, 3.0) 3.0 B**

BIM Revit II builds on the concepts, skills and techniques developed in BIM Revit I. This course emphasizes a deeper understanding and application of Building Information Modeling (BIM) within the architecture, engineering and construction (AEC) industry as a tool for greater visualization, productivity and management of the built environment. Industry-leading Autodesk Revit Architecture software will be utilized to create, analyze, annotate and deliver both accurate and effective BIMs. (1.2-Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

PREREQUISITE: AET 161 with a grade of C or higher.

AET 165 BIM NAVISWORKS I**[E] (S) (2.0, 2.0) 3.0 B**

BIM Navisworks I introduces students to Building Information Model (BIM) coordination for design and construction. Students will learn how to integrate, share and review 3D models and multi-format data for the coordination, planning and scheduling of construction projects. Emphasis is placed on developing entry-level 3D model coordination skills using the latest version of the Navisworks software package. (1.2-Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

AET 171 PARAMETRIC MODELING SOLIDWORKS I**[E] (F,S) (2.0, 3.0) 3.0 B**

Parametric Modeling SolidWorks I is an introduction to three-dimensional, parametric, feature-based solid modeling simulation for the design and manufacturing of machined parts and product design. Industry-leading SolidWorks software is utilized to create, analyze, annotate and deliver both accurate and efficient parametric solid models. (1.2-Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

AET 172 PARAMETRIC MODELING SOLIDWORKS II**[E] (S) (2.0, 3.0) 3.0 B**

Parametric Modeling SolidWorks II builds on the concepts, skills and techniques developed in Parametric Modeling SolidWorks I. This course emphasizes a deeper understanding and application of three-dimensional solid, parametric modeling as a tool for greater visualization, productivity and management of design iterations within the manufacturing and product design industry. Industry-leading SolidWorks software is utilized to create, analyze, annotate and deliver both accurate and effective parametric solid models. (1.2-Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

PREREQUISITE: AET 171 with a grade of C or higher.

AET 241 INTERIOR DESIGN II**[E] (S) (2.0, 2.0) 3.0 B**

Interior Design II expands on the theories and principles of interior design covered in Interior Design I. Students begin by learning the design fundamentals and historical influences of the processes that designers use. They also study design materials and tools, technical issues and specialization, and professional business models. Finally, they develop commercial and retail designs using 2D drafting and 3D model-building. (1.1-Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

PREREQUISITE: AET 141.

AET 251 DESIGN VISUALIZATION**[E] (S) (2.0, 2.0) 3.0 B**

Design Visualization is a study of the types of pictorial isometric drawings used to illustrate working drawings. (1.2-Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

PREREQUISITE: AET 152.

AET 261 TECHNICAL PORTFOLIO DESIGN I**[E] (S) (3.0, 0.0) 3.0 B**

Technical Portfolio Design I provides the framework for students to create a professional technical portfolio used for employment seeking, learning assessment, including transfer institution evaluation, and goal evaluation. Students create a portfolio that demonstrates competence outlined on their resume and cover letter. Portfolios include professional and academic work experience and samples, as well as applicable certifications, resume, cover letter, and necessary documentation needed to apply for positions in industry. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and basic math.

AET 262 TECHNICAL PORTFOLIO DESIGN II**[E] (S) (3.0, 0.0) 3.0 B**

Technical Portfolio Design II finalizes the student technical portfolio to be used for employment seeking, learning assessment, including transfer institution evaluation and goal evaluation. Students finalize the professional portfolio to solidify demonstration of competence outlined on their resume and cover letter. Research of future baccalaureate, training, and certification pathways is required. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and basic math.

PREREQUISITE: AET 261.

AET 271 APPLIED STATICS**[E] (S) (2.0, 2.0) 3.0 B**

Applied Statics covers the branch of mechanics concerned with bodies at rest and forces in equilibrium. Real force systems are studied by applying the principles of equilibrium to rigid bodies and simple structures. Distributed forces, determination of centroids, moments of inertia, analysis of structures, friction and related topics are presented. Applied methods including the use of software to evaluate static systems will be used. (1.2-Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

PREREQUISITE: AET 171 or EGR 151 with a grade of C or higher, and credit with a grade of C or higher or concurrent enrollment in MAT 106.

AET 290 TOPICS IN ARCHITECTURE/ENGINEERING**[E] (F,S) (3.0, 2.0) 4.0V B**

Topics in Architecture/Engineering have various titles depending on the specific topic being explored. Topics vary according to semester and section. Offerings are listed in the current course schedule. Students may repeat this course three times on different topics for a maximum of 12 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and basic math.

AET 299 INDEPENDENT STUDY IN DESIGN TECH**[E] (F,S) (0.0, 0.0) 6.0V B**

Independent Study in Design Tech enables students to focus on a specialized topic or project not available as a regular course offering. Study is directed by a qualified faculty member. Students may repeat this course three times on different topics, for a maximum of 6 credit hours. (1.2 Articulated)

NOTE: This course requires basic Windows and file management skills. This course requires basic reading, basic writing, and basic math.

PREREQUISITE: Varies; may require instructor consent.

ART

NOTE: A grade of C or higher is required for the prerequisite for any art course unless otherwise indicated. For studio art courses, students may need to purchase supplies that are not included in the lab fees.

ART 150 HUMANITIES THROUGH THE ARTS**[F,H] (F,S,Su) (3.0, 0.0) 3.0 O**

Humanities through the Arts explores the humanities with a focus on the role of the arts. It studies a variety of art forms and their interrelationships, including architecture, painting, sculpture, film/video, photography, drama, music and literature with an emphasis on Western art. (1.1-Articulated) [IAI Core Course Equivalent: HF 900]

NOTE: Students view and critique an art exhibition at McHenry County College as part of the written component of the course. This course requires intermediate reading and intermediate writing.

ART 151 ART APPRECIATION**[F] (F,S,Su) (3.0, 0.0) 3.0 O,H**

Art Appreciation is a survey of the visual arts (painting, drawing, printmaking, sculpture and architecture) and how they express cultural traditions and humanistic and aesthetic values. The course examines historical, social and technological factors that contribute to understanding works of art, including their function and meaning. The course does not count for credit toward a major in art. (1.1-Articulated) [IAI Core Course Equivalent: F2 900]

NOTE: This course requires intermediate reading and intermediate writing.

ART 152 INTRODUCTION TO STUDIO ART**[E] (F,S) (2.0, 2.0) 3.0**

Introduction to Studio Art is an introductory course for non-art majors. Students engage in hands-on learning in drawing, painting and sculpture. The course also involves discussion of contextual and historical issues as they relate to visual art, helping to enhance students' creative and perceptual abilities. No previous art background is needed. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

ART 153 2D DESIGN**[E] (F,S) (0.0, 6.0) 3.0**

2D Design is a studio course that explores the basic elements and principals of visual organization theory using a variety of media in two dimensions. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

ART 155 NON-WESTERN ART**[F,IS] (F,S) (3.0, 0.0) 3.0 O**

Non-Western Art is a survey of visual arts in selected non-Western societies. It covers the historical development of the visual arts, focusing on major artistic styles, movements, works of art and monuments. Works are examined as expressions of the ideas, beliefs and practices of artists, cultures and societies. No prior experience in art history is required. (1.1-Articulated) [IAI Core Course Equivalent: F2 903N]

NOTE: This course requires advanced reading and intermediate writing.

ART 156 DRAWING I**[E] (F,S,Su) (0.0, 6.0) 3.0**

Drawing I is an introduction to the fundamental concepts and techniques of drawing using a variety of media. Includes drawing from observation and invention, leading to an interpretative and evaluative approach. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

ART 157 DRAWING II**[E] (F,S) (0.0, 6.0) 3.0**

Drawing II builds on the materials, skills and techniques developed in Drawing I. This course emphasizes the exploration and advancement of individual expression of form and content. Color is introduced. (1.1-Articulated)

PREREQUISITE: ART 156.**ART 158 LIFE DRAWING****[E] (S) (0.0, 6.0) 3.0**

Life Drawing is an introduction to drawing the figure from observation or through invention. Students express the dynamic qualities of the figure through basic drawing elements, methods and materials. Draped and undraped models are used. (1.1-Articulated)

PREREQUISITE: ART 156.**ART 159 INTRODUCTION TO PRINTMAKING****[E] (0.0, 6.0) 3.0**

Introduction to Printmaking is a basic overview of various processes in the creation of multiples in a two-dimensional format. Processes like screen-printing, relief printing, monotypes and others will be explored. Students may repeat this course two times for a maximum of 9 credit hours. (1.1-Articulated)

NOTE: This course requires basic reading and basic writing.**ART 160 PAINTING I****[E] (F,S) (0.0, 6.0) 3.0**

Painting I is an introduction to basic painting techniques and color principles applied through the exploration of oil and/or acrylic painting media. Students may repeat this course three times for a maximum of 12 credit hours. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.**ART 165 ETHNIC FOLK ART****[F,IS] (F,S) (3.0, 0.0) 3.0 O**

Ethnic Folk Art is the examination of selected visual art works (e.g., paintings, drawings, prints, sculpture and decorative arts) that express the experience and construction of racial and cultural identity. (1.1-Articulated) [IAI Core Course Equivalent: F2 906D]

NOTE: This course requires advanced reading and intermediate writing.**ART 166 INTRODUCTION TO DIGITAL TOOLS****[E] (F,S) (2.0, 0.0) 2.0**

Introduction to Digital Tools provides an overview of the many practical computer applications for the traditional art-making student. Various software programs are introduced to aid students in capturing and editing digital photographs or scans (necessary for e-portfolio creation and maintenance), capturing and editing digital video, and creating digital works and/or web-based art projects as an end product. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.**ART 167 GRAPHIC DESIGN I****[E] (F,S,Su) (0.0, 6.0) 3.0**

Graphic Design I is an introduction to graphic design using the Macintosh platform. Emphasis is placed on the creative use of software to solve a series of commercial and graphic design problems. Students also engage in basic hands-on exercises to generate images and typography to be incorporated into various graphic design layouts and/or formats. (1.1-Articulated)

NOTE: ART 167 is cross-listed with GRA 167. Credit cannot be earned for both ART 167 and GRA 167. This course requires intermediate reading, intermediate writing, and basic math.**ART 168 COMPUTER ART I****[E] (F,S) (0.0, 6.0) 3.0**

Computer Art I is an introductory course in the electronic creation of artworks and images. The capture of images with scanners and other digital input devices is explored. Students learn to manipulate images and output them to print using color laser and ink jet printers. The created images will be critiqued on their technical, aesthetic, and conceptual approaches. (1.1-Articulated)

NOTE: ART 168 is cross-listed with DGM 168. Credit cannot be earned for both ART 168 and DGM 168. This course requires intermediate reading, intermediate writing, and basic math.**ART 170 INTRODUCTION TO ART EDUCATION****[E] (3.0, 0.0) 3.0 B**

Introduction to Art Education provides an opportunity for students to determine whether they wish to become teachers in the arts. The course involves interaction with and/or observation of children of appropriate ages and categories. The course will provide experiences in art making, lesson plan writing, and experience with diverse art teaching methods. (1.1-Articulated)

NOTE: This course requires intermediate reading and intermediate writing.**ART 171 ART HISTORY I****[F,IS] (F,S) (3.0, 0.0) 3.0 O**

Art History I is a survey of Western art from prehistoric times through the 15th century. It covers the historical development of the visual arts, focusing on major artistic styles, movements, works of art and monuments. Works are examined as expressions of the ideas, beliefs and practices of artists, cultures and societies. No prior experience in art history is required. (1.1-Articulated) [IAI Core Course Equivalent: F2 901]

NOTE: This course requires advanced reading and intermediate writing.**ART 172 ART HISTORY II****[F,IS] (F,S) (3.0, 0.0) 3.0 O**

Art History II is a survey of Western art beginning circa 16th century. It covers the historical development of the visual arts, focusing on major artistic styles, movements, works of art and monuments. Works are examined as expressions of the ideas, beliefs and practices of artists, cultures and societies. No prior experience in art history is required. (1.1-Articulated) [IAI Core Course Equivalent: F2 902]

NOTE: This course requires advanced reading and intermediate writing.**ART 174 STUDIES IN CONTEMPORARY ART****[F,IS] (S) (3.0, 0.0) 3.0**

Studies in Contemporary Art is a survey of the visual arts from 1945 to present. Studies in Contemporary Art begins where Art History II ends, focusing on major artistic styles and movements of the middle 20th and early 21st centuries from a global perspective. No prior experience in art or art history is necessary. (1.1-Articulated) [IAI Core Course Equivalent F2 902]

NOTE: This course requires intermediate reading, intermediate writing and basic math.**ART 175 HISTORY OF PHOTOGRAPHY****[F] (F,S,Su) (3.0, 0.0) 3.0 O**

History of Photography traces the development of photography as an art form from 1839 to the present. It includes critical analysis of types of photographs for their aesthetic and humanistic values, emphasizing photographs as expressions of the ideas and beliefs of photographers within their cultural and social contexts. (1.1-Articulated) [IAI Core Course Equivalent: F2 904]

NOTE: This course requires advanced reading and intermediate writing.

ART 176 FASHION AND ART
[IS] (F) (3.0, 0.0) 3.0

Fashion and Art is designed to critically examine the intersections between fashion and the fine arts. This course is designed to introduce students to the critique, theory and practice of fashion as a fine art; and fabric as a medium for performance, sculpture, painting, photography and film throughout various points in modern history. This course also explores fashion as social barometer, fashion as performance and spectacle, and fashion as a method for body modification. Topics like the body as canvas; fashion as art object; fashion and identity, status, power, and display; ethnicity and appropriation; scientific and biological reference; sex and gender; fashion and disability, are discussed. This course is for any student with an interest in the topics of fashion or art. No prior experience in art or art history is necessary. (1.1-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and basic math.

ART 180 SCULPTURE I
[E] (S) (0.0, 6.0) 3.0

Sculpture I is a studio course that introduces basic sculptural processes, materials and tools, including additive, subtractive and substitution methods. Students may repeat this course three times for a maximum of 12 credit hours. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

ART 184 JEWELRY/METALS I
[E] (F,S) (0.0, 6.0) 3.0

Jewelry/Metals I introduces the use, design and creation of wearable art. Students learn basic jewelry fabrication and metalsmithing concepts, processes, materials, tools and equipment usage. They work with various metals and jewelry techniques, such as sawing, piercing, soldering and forming, to construct and create their own wearable art objects. Studio safety will be emphasized. Students may repeat this course three times for a maximum of 12 credit hours. (1.1-Articulated)

NOTE: This course requires intermediate reading, basic writing, and basic math.

ART 185 FIBERS I
[E] (0.0, 6.0) 3.0

Fibers I is an introductory course emphasizing aesthetic and technical development in basic fiber construction techniques. Weaving on and off the loom is included. Two- and three-dimensional structures created with a variety of mixed media are explored, with both a traditional and non-traditional approach to fiber as an art medium. Students may repeat this course two times for a maximum of 9 credit hours. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

ART 186 JEWELRY/METALS II
[E] (F,S) (0.0, 6.0) 3.0

Jewelry/Metals II builds on the skills and knowledge learned in Jewelry I, including an introduction to contemporary conceptual art as it applies to jewelry and body adornment. Advanced fabrication and metalsmithing concepts, processes, materials, tools, equipment and techniques are introduced. Students work with various metals and techniques in jewelry creation, such as etching, forming, forging, casting, stone setting, enameling and anodizing. Studio safety will be emphasized. Students may repeat this course three times for a maximum of 12 credit hours. (1.1-Articulated)

PREREQUISITE: ART 184.

ART 190 PROFESSIONAL PRACTICES
[E] (3.0, 3.0) 3.0

Professional Practices is a comprehensive course addressing the professional and practical issues required for a career in the fine arts. Strategic skills and tools indispensable for the artist are covered. (1.1-Articulated)

PREREQUISITE: Prior or concurrent enrollment in a studio art course.

ART 241 BEGINNING PHOTOGRAPHY
[E] (F,S) (0.0, 6.0) 3.0

Beginning Photography introduces students to the basic technical and visual elements of black and white photography. They learn to use a 35 mm camera (supplied by the student), work with lens(es), and process black and white film and prints. Also covered are toning, alternative printing techniques and hand coloring techniques. This course emphasizes a quality product and the use of the medium for artistic and personal expression. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

ART 242 INTERMEDIATE PHOTOGRAPHY
[E] (F,S) (0.0, 6.0) 3.0

Intermediate Photography explores image manipulation, special effects, the use of color and the finished print, among other topics. This course may also teach advanced black and white skills and effects in digital and/or traditional formats. (1.1-Articulated)

PREREQUISITE: ART 241.

ART 244 COLOR PHOTOGRAPHY
[E] (0.0, 6.0) 3.0

Color Photography is an introductory course in which students learn to process color film (positive and negative) and color prints from positive and negative materials. Emphasis is on color photography as a tool for self-expression. Students may repeat this course two times for a maximum of 9 credit hours. (1.1-Articulated)

PREREQUISITE: ART 242 or instructor consent.

ART 245 PRIMITIVE PHOTOGRAPHY
[E] (0.0, 6.0) 3.0

Primitive Photography introduces photography students to alternative cameras such as pinhole, plastic and handmade. Students learn the unique capabilities and optical qualities that each camera offers and how to utilize and modify the cameras to make their own personal and expressive images. Students may repeat this course once for a maximum of 6 credit hours. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

ART 246 ALTERNATIVE PHOTO PROCESSING
[E] (0.0, 6.0) 3.0

Alternative Photo Processing introduces students to the photographic processes of the 19th century. It covers printing techniques like cyanotype, Van Dyke and platinum/palladium and others. Students gain competence in these processes and utilize them to make expressive art. Students may repeat this course once for a maximum of 6 credit hours. (1.1-Articulated)

PREREQUISITE: ART 242 or instructor consent.

ART 247 LARGE FORMAT PHOTOGRAPHY**[E] (0.0, 6.0) 3.0**

Large Format Photography is an introduction to both large format photography and photographic chemistry. The course centers on the use of 4 x 5 format cameras, metering and film processing. Students are also introduced to the formulation of film developers, toners and fixers. The goal of the class is for students to gain an understanding of large format photography as a tool for personal expression. Students may repeat this course two times for a maximum of 9 credit hours. (1.1-Articulated)

PREREQUISITE: Credit or concurrent enrollment in ART 241 or ART 250, or instructor consent.

ART 248 STUDIO LIGHTING I**[E] (S) (0.0, 6.0) 3.0**

Studio Lighting I is an introduction to strobe and quartz lighting in the photography studio. Emphasis is on seeing and thinking in terms of light. Students learn to use lighting as a tool for personal expression. Students may repeat this course two times for a maximum of 9 credit hours. (1.1-Articulated)

NOTE: Students will need either a film or digital camera for this course. This course requires basic reading, basic writing, and basic math.

ART 249 STUDIO LIGHTING II**[E] (S) (0.0, 6.0) 3.0**

Studio Lighting II is a continuation of Studio Lighting I. It further enables students to see and think in terms of light and explore its ability to define form and emotion. Students will create simple sets and shoot on location for some of their assignments. Personal expression is a crucial part of this class. Students may repeat this course two times for a maximum of 9 credit hours. (1.1-Articulated)

NOTE: Students will need either a film or digital camera for this course.

PREREQUISITE: ART 248 or instructor consent.

ART 250 DIGITAL PHOTOGRAPHY I**[E] (F,S,Su) (0.0, 6.0) 3.0 O**

Digital Photography I introduces students to electronic darkroom practices using current imaging technology. Students explore digital imaging using digital cameras, scanners and printers. Adobe Photoshop and other software are used. Students may repeat this course two times for a maximum of 9 credit hours. (1.1-Articulated)

NOTE: It is recommended, not required that students furnish their own cameras. Prior computer and basic photography experience recommended. This course requires basic reading, basic writing, and basic math.

ART 252 DIGITAL PHOTOGRAPHY II**[E] (F,S,Su) (0.0, 6.0) 3.0 O**

Digital Photography II provides students with more advanced instruction in digital photographic processes, with an emphasis on paper selection and color modification through various software manipulation tools. Students use digital photography as a tool for personal expression. Students may repeat this course two times for a maximum of 9 credit hours. (1.1-Articulated)

NOTE: It is recommended, not required that students furnish their own cameras.

PREREQUISITE: ART 250 or instructor consent.

ART 253 3D DESIGN**[E] (F) (0.0, 6.0) 3.0**

3D Design is a studio course that explores the basic elements and principles of visual organization theory using a variety of media in three dimensions. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

ART 254 DIGITAL PHOTOGRAPHY III**[E] (F,S,Su) (0.0, 6.0) 3.0 O**

Digital Photography III is an in-depth survey of the digital medium. Students create a portfolio of digital images after exploring papers and color palettes and experimenting with their own creative vision. The emphasis of this class is personal expression through the digital medium. Students may repeat this course two times for a maximum of 9 credit hours. (1.1-Articulated)

NOTE: It is recommended, not required that students furnish their own cameras.

PREREQUISITE: ART 252 or instructor consent.

ART 255 DIGITAL & FILM PHOTO EXPLORATION**[E] (0.0, 6.0) 3.0**

Digital & Film Photo Exploration studies digital and traditional photography. Students work in both mediums to make expressive, high-quality images. They use antique photographic chemistries and a conventional darkroom as well as computers. Students may repeat this course two times for a maximum of 9 credit hours. (1.1-Articulated)

NOTE: Students will need a camera for this course.

PREREQUISITE: ART 241, ART 250 or instructor consent.

ART 257 DRAWING III**[E] (F,S) (0.0, 6.0) 3.0**

Drawing III is the study of advanced drawing concepts and techniques. Traditional and non-traditional media are used in the development of a personal style. Students may repeat this course three times for a maximum of 12 credit hours. (1.1-Articulated)

PREREQUISITE: ART 157.

ART 258 LIFE DRAWING II**[E] (S) (0.0, 6.0) 3.0**

Life Drawing II builds on the aesthetic and technical skills developed in the introductory-level course. Draped and undraped models are used. (1.1-Articulated)

PREREQUISITE: ART 158.

ART 261 PAINTING II**[E] (F,S) (0.0, 6.0) 3.0**

Painting II explores personal style, contemporary issues and content. It expands on the technical and compositional skills acquired in Painting I to solve visual problems in oil and/or acrylic paint. (1.1-Articulated)

PREREQUISITE: ART 160.

ART 262 PAINTING III**[E] (F,S) (0.0, 6.0) 3.0**

Painting III students further explore personal style, contemporary issues and content, as they advance their technical and compositional skills. Students may repeat this course three times for a maximum of 12 credit hours. (1.1-Articulated)

PREREQUISITE: ART 261.

ART 263 PAINTING IV**[E] (F,S) (0.0, 6.0) 3.0**

Painting IV provides further study of personal style and contemporary issues while expanding on technical and compositional skills acquired in Painting III. Students solve visual problems in oils and/or acrylics based on their personal sensibilities and the premise that creating art should be both meaningful and technically proficient. Students may repeat this course three times for a maximum of 12 credit hours. (1.1-Articulated)

PREREQUISITE: ART 262 or instructor consent.

ART 264 BEGINNING WATERCOLOR**[E] (F,S) (0.0, 6.0) 3.0**

Beginning Watercolor is a basic study of materials and techniques used in watercolor painting in a variety of subject matter. Students develop techniques including handling of the specialized brushes used in this transparent medium, as well as an understanding of color. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

ART 265 ADVANCED WATERCOLOR**[E] (F,S) (0.0, 6.0) 3.0**

Advanced Watercolor offers the opportunity for more advanced learning in watercolor techniques (combining polymer medium, blocking out, resists and gesso) as well as pure watercolor. Students may repeat this course three times for a maximum of 12 credit hours. (1.1-Articulated)

PREREQUISITE: ART 264.

ART 266 ADVANCED PAINTING**[E] (F,S) (0.0, 6.0) 3.0**

Advanced Painting further explores contemporary issues and personal style. Individual sensibility and advanced technical issues are also explored. Students may repeat this course three times for a maximum of 12 credit hours. (1.1-Articulated)

PREREQUISITE: ART 263.

ART 271 CERAMICS I**[E] (F,S,Su) (0.0, 6.0) 3.0**

Ceramics I is an introductory studio course teaching both hand and wheel methods of construction. Students explore clay bodies, glazes, decoration methods and kiln firing. Students may repeat this course once for a maximum of 6 credit hours. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

ART 272 CERAMICS II**[E] (F,S,Su) (0.0, 6.0) 3.0**

Ceramics II continues hands-on learning of basic hand-building and wheel-throwing techniques. Students develop proficiency in clay use, surface applications and kiln firing. Students may repeat this course once for a maximum of 6 credit hours. (1.1-Articulated)

PREREQUISITE: ART 271.

ART 273 CERAMICS III**[E] (F,S,Su) (0.0, 6.0) 3.0**

Ceramics III involves studio work with a variety of clay bodies and techniques. Emphasis is on improving students' wheel-throwing skills and knowledge of technical processes. Students may repeat this course two times for a maximum of 9 credit hours. (1.1-Articulated)

PREREQUISITE: ART 272.

ART 274 CERAMICS IV**[E] (F,S,Su) (0.0, 6.0) 3.0**

Ceramics IV builds on the technical and aesthetic skills acquired in Ceramics III. It also offers a more in-depth exploration of personal style. Students may repeat this course three times for a maximum of 12 credit hours. (1.1-Articulated)

PREREQUISITE: ART 273.

ART 275 CERAMICS STUDIO**[E] (F,S,Su) (0.0, 6.0) 3.0**

Ceramics Studio is an advanced ceramics course. Students further grow and refine their skills as well as develop a personal aesthetic in clay. Students may repeat this course three times for a maximum of 12 credit hours. (1.1-Articulated)

PREREQUISITE: ART 274.

ART 280 SCULPTURE II**[E] (0.0, 6.0) 3.0**

Sculpture II expands upon the processes, materials and concepts covered in Sculpture I. Emphasis is placed on personal aesthetic and thematic development. Students may repeat this course three times for a maximum of 12 credit hours. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

PREREQUISITE: ART 180.

ART 290 TOPICS IN ART**[E] (F,S,Su) (0.0, 6.0) 3.0 O,B**

Topics in Art has various titles depending on the specific topic being explored. Topics vary according to semester and section. Offerings are listed in the current course schedule. Students may repeat this course three times on different topics for a maximum of 12 credit hours. (1.1-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math.

ART 299 INDEPENDENT STUDY IN ART**[E] (F,S,Su) (0.0, 0.0) 4.0V**

Independent Study in Art offers students the opportunity for independent study under the supervision of an Art Department faculty member. Students may repeat this course three times for a maximum of 4 credit hours. (1.1-Articulated)

PREREQUISITE: Written consent of the executive dean of Humanities and Social Sciences.

AUTOMOTIVE

NOTE: The MCC Automotive program maintains a dress code for all students for reasons of safety as well as meeting industry standards for professionalism. Students are required to follow the dress code and practice all rules of safety including, but not limited to: School provided safety glasses must be worn in the lab at all times. Clean blue/black work pants or blue/black jeans with NO holes in them are permitted. Sagging pants are not allowed and pant legs must be worn on the outside of the boots. Cotton MCC automotive provided t-shirts must be worn to all automotive classes. Black or brown leather work shoes or boots of a traditional work boot/shoe style must be tightly laced and tongue-in. NO jewelry of any kind may be worn at any time. Baseball caps are permitted with the bill facing forward. Knit black or blue skull caps may be worn when lab area temperatures fall below 60 degrees Fahrenheit. **The instructor reserves the right to dismiss a student from class or lab if clothing, appearance, or actions are deemed unacceptable or unsafe!**

AMT 100 PRINCIPLES OF AUTOMOTIVE TECHNOLOGY**[E] (F,S,Su) (3.0, 3.0) 4.0**

Principals of Automotive Technology provides students with an introduction to the automotive industry. Students become acquainted with the major vehicle subsystems and components, identify their function and importance, and learn their service requirements. This general overview course covers shop safety, hazardous materials, basic physics principals, steering, chassis, suspension, brakes, internal combustion engines, electricity, drive train systems and basic diagnostics. The lab portion of this course offers hands-on experience that reinforces the theories and service procedures presented in the classroom. This course is the prerequisite to all other automotive courses. (1.2-Articulated)

NOTE: Students are required to practice all rules of safety including, but not limited to, wearing safety glasses, jeans with no holes, cotton shirts and work boots. No jewelry of any kind may be worn in the lab.

AMT 110 AUTOMOTIVE CUSTOMER SERVICE**[E] (F,S) (3.0, 0.0) 3.0**

Automotive Customer Service introduces fundamental topics related to the job of a service consultant at an Automobile Service Facility. The information in the course is based on the Automotive Service Excellence (ASE) Validated Task List for Automobile Service Consultants and is consistent with material found on the ASE Automobile Service Consultant Exam (C1). (1.2-Articulated)

PREREQUISITE: AMT 100 or consent of instructor or department chair.

AMT 120 AUTOMOTIVE ELECTRICITY FUNDAMENTALS**[E] (F,S) (3.0, 3.0) 4.0**

Automotive Electricity Fundamentals is designed to introduce students to basic electrical principles and their applications in automobiles. Topics include electron theory, digital multi-meter use and circuit testing, Ohm's Law, magnetism, electromagnetism, induction, circuit types, chemical storage battery science, AC/DC motors and generators, and current/voltage regulation. Fundamental principles established in this course serve as the basis for many other related topics in subsequent course offerings. (1.2-Articulated)

NOTE: Students will be required to purchase a specified digital multi-meter for the class. The meter can be purchased in the Automotive department. Contact the Automotive department chair for more information. Students are required to practice all rules of safety including, but not limited to, wearing safety glasses, jeans with no holes, cotton shirts and work boots. No jewelry of any kind may be worn in the lab.

PREREQUISITE: Credit earned for AMT 100 with a grade of C or equivalent.

AMT 140 AUTOMOTIVE ENGINE TECHNOLOGY**[E] (F,S,Su) (3.0, 3.0) 4.0**

Automotive Engine Technology presents the theory, design, and construction aspects of heat type internal combustion engines. Additionally, the inspection, service, and repair techniques necessary for successful service operations will be covered at length. Among the substantial number of topics to be covered are physical engine design configurations, liberation of power from fuel, engine operating cycles, fuel systems and the theory of compression/vacuum. (1.2-Articulated)

NOTE: Students are required to practice all rules of safety including, but not limited to, wearing safety glasses, jeans with no holes, cotton shirts and work boots. No jewelry of any kind may be worn in the lab.

PREREQUISITE: Credit earned for AMT 100 with a grade of C or equivalent.

AMT 160 AUTOMOTIVE ELECTRONIC FUNDAMENTALS**[E] (F,S) (3.0, 3.0) 4.0**

Automotive Electronic Fundamentals is the second in a series of electrical courses and is designed to provide students with an understanding of electronic principles, components, applications, and test procedures for systems in contemporary automobiles. Topics discussed in this course include electronic spark ignition theory and ignition oscilloscope testing and diagnosis, electronic components, symbols/nomenclature, semiconductors, solid state electronics, printed circuits, passive restraints, and body electrical systems. (1.2-Articulated)

NOTE: Students are required to practice all rules of safety including, but not limited to, wearing safety glasses, jeans with no holes, cotton shirts and work boots. No jewelry of any kind may be worn in the lab.

PREREQUISITE: Credit earned for AMT 100 and AMT 120 with a grade of C or equivalent.

AMT 170 MANUAL DRIVE TRAIN AND AXLES**[E] (F,S) (3.0, 3.0) 4.0**

Manual Drive Train and Axles will provide students with a thorough understanding of manual transmissions and transaxles used in passenger vehicles today. Topics include: manual transmission and transaxle theory of operation, components, power flow and clutch operation. CV joints, drive shafts, and four-wheel drive operations will also be included. (1.2-Articulated)

NOTE: Students are required to practice all rules of safety including, but not limited to, wearing safety glasses, jeans with no holes, cotton shirts and work boots. No jewelry of any kind may be worn in the lab.

PREREQUISITE: Credit earned for AMT 100, AMT 180 and AMT 220 with a grade of C or higher or equivalent.

AMT 180 AUTO STEERING-CHASSIS-SUSPENSION**[E] (F,S) (3.0, 3.0) 4.0**

Auto Steering-Chassis-Suspension is designed to provide a thorough understanding of the design, construction, and operation of automotive chassis. Topics will include the latest technology associated with framework, suspension types, steering systems, CV, universal joints, tires and conventional rear drive units. In all topics, emphasis will be placed on the systems in production today. Contrasts between current systems and traditional styles will also be drawn. (1.2-Articulated)

NOTE: Students are required to practice all rules of safety including, but not limited to, wearing safety glasses, jeans with no holes, cotton shirts and work boots. No jewelry of any kind may be worn in the lab.

PREREQUISITE: Credit earned for AMT 100 and AMT 120 with a grade of C or equivalent, or written consent of instructor or Automotive department chair.

AMT 200 COMPUTERIZED AUTOMOTIVE SYSTEMS**[E] (F,S) (3.0, 3.0) 4.0**

Computerized Automotive Systems provides an in-depth look at how microprocessors have revolutionized automotive system controls. The computerized engine systems covered in this course are fuel distribution, emission controls, ignition, and transmission systems. In addition to engine control functions, various body systems using microprocessors will also be covered. Topics include: signal processing, analog/digital circuits, sensor/actuator controls, instrumentation, suspension, brake system controls, carburetor principles and 4-gas analysis. (1.2-Articulated)

NOTE: Students are required to practice all rules of safety including, but not limited to, wearing safety glasses, jeans with no holes, cotton shirts and work boots. No jewelry of any kind may be worn in the lab.

PREREQUISITE: Credit earned for AMT 140 and AMT 160 with a grade of C or equivalent.

AMT 220 AUTOMOTIVE BRAKE SYSTEMS**[E] (F,S) (3.0, 3.0) 4.0**

Automotive Brake Systems provides instruction in the theory and servicing of automotive drum and disc style systems. Included will be hydraulic master cylinder/power boost units, split systems, proportioning units, four wheel disc systems, computerized anti-lock systems and traction control. (1.2-Articulated)

NOTE: Students are required to practice all rules of safety including, but not limited to, wearing safety glasses, jeans with no holes, cotton shirts and work boots. No jewelry of any kind may be worn in the lab.

PREREQUISITE: Credit earned for AMT 100 and AMT 120 with a grade of C or equivalent, or written consent from instructor or Automotive department chair.

AMT 230 HIGH PERFORMANCE ENGINE FUNDAMENTALS
[E] (Su) (3.0, 3.0) 4.0

High Performance Engine Fundamentals is designed for students who wish to participate in motor sports either as an occupation or as a vocation. The students will be introduced to practical information on performance engine building, cost calculation, and machine shop selection. General construction theory, design, and procedures for building a high performance engine will be introduced. Upon completion of the course, the student will be able to build a high performance engine in a computer simulated environment as well as apply it to their own live applications. (1.2-Articulated)

NOTE: Students are required to practice all rules of safety including, but not limited to, wearing safety glasses, jeans with no holes, cotton shirts and work boots. No jewelry of any kind may be worn in the lab.

PREREQUISITE: AMT 120 and AMT 140 and AMT 160 and AMT 170 and AMT 260 and AMT 270 with a grade of C or equivalent in all courses.

AMT 240 AUTOMOTIVE CLIMATE CONTROL SYSTEMS
[E] (S,Su) (3.0, 3.0) 4.0

Automotive Climate Control Systems covers the theory, operation, and maintenance of heating, air conditioning and ventilation systems used in current production automobiles. Topics include engine cooling system operation, air flow systems, manual and vacuum heater controls, thermostatic control systems, refrigeration theory, refrigerant chemicals, safety considerations, environmental concerns and regulations, refrigerant recovery, compressor repair and R-134 A technology. (1.2-Articulated)

NOTE: Students are required to practice all rules of safety including, but not limited to, wearing safety glasses, jeans with no holes, cotton shirts and work boots. No jewelry of any kind may be worn in the lab.

PREREQUISITE: AMT 120 with a grade of C or equivalent.

AMT 250 AUTOMOTIVE COOPERATIVE INTERNSHIP
[E] (Su) (0.0,30.0) 6.0V

Automotive Cooperative Internship provides students with an opportunity to apply and expand newly acquired skills in a traditional work environment. This course is carried out cooperatively between the instructor and the student's employer. Periodic review sessions will be held to assess student progress, address problems, and review appropriateness of work involvement. Evaluation of student progress will be based, in part, upon written evaluation and consultations with the cooperating employer. Students may repeat this course two times for a maximum of 6 credit hours under this course number. (1.2-Articulated)

NOTE: Students must work 90 clock hours on the job per credit hour earned.

PREREQUISITE: Written consent of Automotive department chair.

AMT 260 ADVANCED DIAGNOSTICS & DRIVEABILITY
[E] (F,S) (3.0, 3.0) 4.0

Advanced Diagnostics & Driveability is designed to give students an understanding of how a vehicle's overall driveability, emissions, and fuel consumption are interrelated. In addition, students will learn to apply information from prerequisite courses along with data from the vehicle's own malfunctions. A key topic covered is fuel injection system technology. Emphasis will be placed on the importance of maintaining emission control systems for peak vehicle operation and compliance with federal/state regulations. (1.2-Articulated)

NOTE: Students are required to practice all rules of safety including, but not limited to, wearing safety glasses, jeans with no holes, cotton shirts and work boots. No jewelry of any kind may be worn in the lab.

PREREQUISITE: Credit earned for AMT 140, AMT 200 and AMT 270 with a grade of C or equivalent.

AMT 265 ALTERNATE FUEL VEHICLES
[E] (Su) (3.0, 3.0) 4.0

Alternate Fuel Vehicles provides instruction in the theory of vehicles using alternate fuels. The vehicles dedicated to run on compressed natural gas (CNG) or propane (LPG) and bi-fuel vehicles that can be switched from gasoline to CNG or LPG. The course is designed to familiarize the technician with the operation, as well as diagnostic and repair techniques recommended by original alternate fuel manufacturers and those that provide conversion kits. (1.2-Articulated)

NOTE: The lab portion of this course is designed to support and reinforce the fundamental theories and service procedures established in classroom presentations through hands-on experience.

PREREQUISITE: AMT 200 with a grade of C or equivalent.

AMT 270 AUTOMATIC TRANSMISSIONS & TRANSAXLES
[E] (F,S) (3.0, 3.0) 4.0

Automatic Transmissions & Transaxles provides students with a thorough understanding of automotive transmissions and transaxles used in passenger vehicles today. Topics will include automatic transmission and transaxle theory of operation, components, power flow, activating mechanisms, torque converters, hydraulic circuits, planetary gear systems, sprag clutches, valve bodies and governor units. Microprocessor-controlled transmissions and transaxles will also be included. (1.2-Articulated)

NOTE: Students are required to practice all rules of safety including, but not limited to, wearing safety glasses, jeans with no holes, cotton shirts and work boots. No jewelry of any kind may be worn in the lab.

PREREQUISITE: Credit earned for AMT 170 and AMT 200 with a grade of C or equivalent.

AMT 299 AUTOMOTIVE INDEPENDENT STUDY
[E] (F,S) (3.0, 0.0) 3.0V

Automotive Independent Study provides students the opportunity to design a course of study around any automotive topic, by mutual agreement with the instructor. The parameters of the project, including conditions for evaluation, will be established prior to actual course enrollment. The student is responsible for the original project concept which must be supported by a preliminary project outline. Written progress reports must be submitted to the instructor, and a final oral report must be presented to complete course requirements. Course may be repeated two times to earn a maximum of three credit hours under this course number. (1.2-Articulated)

PREREQUISITE: Written consent of Automotive department chair.

BIOLOGY

NOTE: A grade of C or higher is required for the prerequisite listed with any biology course unless otherwise indicated. Courses taken on a pass/fail basis do not meet the prerequisite; students are required to repeat those courses for a letter grade. Due to the rapidly changing nature of biology, the prerequisite must have been taken within five years of current enrollment.

BIO 110 INTRODUCTION TO HUMAN BIOLOGY

[L] (F,S,Su) (3.0, 3.0) 4.0 B

Introduction to Human Biology is a lab science course that introduces students to the human organism and the impact of modern biology and medicinal discoveries on humans. The course covers anatomy, nutrition, immunity, reproduction, development, genetics, and the relationship between humans and their environment. Dissection of a preserved fetal pig is a required part of the class. Students unwilling to participate in the dissection should not take this course. This course is designed as a general human biology survey course for life science credit. (1.1-Articulated) [IAI Core Course Equivalent: L1 904L]

NOTE: This course cannot be used as a prerequisite for BIO 255 or BIO 263.

BIO 130 ENVIRONMENTAL FIELD BIOLOGY

[L] (F) (3.0, 3.0) 4.0

Environmental Field Biology is an introduction to the natural history of Northern Illinois. The course looks at the basic ecology and geological history of this region, including the impact of non-native species and human activities on environmental health. Students learn techniques for observing, collecting, identifying and evaluating local plants and animals. They get hands-on experience by going on field trips to collect ecological data and observe living organisms in a variety of natural environments. (This outdoor field work often requires extensive hiking.) As part of the course, students are required to volunteer with an organization or initiative focused on local environmental concerns. This field-based study fulfills the general education requirement for a life sciences lab course, but it may not meet the needs of allied health or biology majors. (1.1-Articulated) [IAI Core Course Equivalent: L1 905L]

BIO 137 HEREDITY AND ETHICS

[L] (3.0, 3.0) 4.0

Heredity and Ethics, a course for non-science majors, addresses the moral and social implications of biological advances in genetics and biotechnology. This introduction to the science and ethics of genetics, human reproduction and development includes lecture, discussion and lab. (1.1-Articulated) [IAI Core Course Equivalent: L1 906L]

BIO 157 FUNDAMENTALS OF BIOLOGY

[L] (F,S,Su) (3.0, 3.0) 4.0 B,H

Fundamentals of Biology provides the general background required for biology and science majors and for further study in the allied health areas. This introductory life science course helps students understand biological problems. It examines ecological principles, cell structure and function, photosynthesis, metabolism, cell reproduction, genetics, reproduction and development. The course incorporates lecture and lab work, including some in the field. (1.1-Articulated) [IAI Core Course Equivalent: L1 910L][IAI Major Course Equivalent: BIO910]

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math.

PREREQUISITE: MAT 095 or concurrent enrollment in either course.

BIO 158 EVOLUTION AND BIODIVERSITY

[L] (S) (3.0, 3.0) 4.0

Evolution and Biodiversity is designed for biology majors, but it also meets general education lab science requirements. The course involves lecture and lab work, including some in the field. The class begins with evolution and the diversity of organisms, from bacteria, protists and fungi to plants and animals. It continues with a comparative examination of anatomy and physiology in plants and animals. In the lab, students work on dissecting a fetal pig and other preserved specimens. (1.1-Articulated) [IAI Core Course Equivalent: L1 910L][IAI Major Course Equivalent: BIO910]

BIO 255 MICROBIOLOGY

[E] (F,S) (2.0, 4.0) 4.0

Microbiology is a study of microorganisms, concentrating on bacteria. Among topics covered: the morphology, classification and physiology of microorganisms; the growth and genetics of bacteria; the role of microorganisms in human disease; the use of antimicrobial agents in controlling microbes; and methods for manipulating and studying microorganisms. The course is designed for students in biology and allied health areas. (1.1-Articulated)

PREREQUISITE: BIO 157 or BIO 263.

BIO 263 HUMAN ANATOMY AND PHYSIOLOGY I

[E] (F,S) (3.0, 3.0) 4.0 B

Human Anatomy and Physiology I is the first course in a two-semester sequence. It teaches the organization of the human body from the molecular level to the organ systems. Areas of study include biochemistry, cell structure and function, tissues, integumentary system, skeletal system, articulations, muscular system and nervous system (including special senses). Lab work includes microscopy and dissection. A strong understanding of chemical principles is expected. (1.1-Articulated)

NOTE: This course is intended to be taken with the subsequent semester course, BIO 264, which covers the remaining body systems.

PREREQUISITE: BIO 157 with a grade of C or higher.

BIO 264 HUMAN ANATOMY AND PHYSIOLOGY II

[E] (F,S) (3.0, 3.0) 4.0 B

Human Anatomy and Physiology II is the second course in a two-semester sequence. It continues the integrated study of body systems, including circulatory (cardiovascular and lymphatic), respiratory, digestive, urinary, endocrine and reproductive. Lab work includes microscopy and dissection. (1.1-Articulated)

NOTE: This course is for students who require a two-semester anatomy and physiology sequence. It should not be taken without taking the first-semester course, BIO 263. Students can apply credit toward an MCC degree with BIO 263/264 or BIO 260, but not both.

PREREQUISITE: BIO 263 with a grade of C or higher.

BUSINESS

BUS 110 BUSINESS CAREER SKILLS

[E] (F,S) (3.0, 0.0) 3.0 O,B

Business Career Skills gives students an understanding of the changing nature of work, the workplace culture and competencies needed in today's business environment. Students come away with the ability to identify and showcase their qualifications as well as conduct an effective job search. They work on researching businesses and identifying positions, application and resume writing skills, interview skills and business etiquette. The course involves computer and Internet use. (1.1-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

BUS 145 BUSINESS APPLICATIONS OF MATHEMATICS

[E] (F,S) (3.0, 0.0) 3.0 O,B

Business Applications of Mathematics covers mathematics needed in various business activities. The content is helpful not only in the world of work, but also for students as they manage their own finances. This course covers payroll, checking accounts, investments and interest, credit costs, retail mathematics, insurance and taxes, stocks and bonds. Basic mathematical operations using whole and mixed numbers, percents, decimals and fractions are reviewed. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

BUS 150 INTRODUCTION TO BUSINESS

[E] (F,S,Su) (3.0, 0.0) 3.0 O,B,SP,H

Introduction to Business is a survey of the field of business and business organizations. It covers elementary concepts in economics, management, production, marketing, finance, data processing, the social, legal and ethical aspects of business, and international business. (1.1-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

BUS 155 BUSINESS COMMUNICATION

[E] (F,S) (3.0, 0.0) 3.0 O,B

Business Communication focuses on helping students develop, improve, and practice their communications skills. All forms of communications are discussed-verbal, nonverbal, written, listening, body language, formal and informal communications. A variety of issues, scenarios, and activities are addressed, giving students practical knowledge and tools to improve their communication in personal and professional arenas. Routine, positive, negative, and persuasive messages; reports, proposals, meetings, and presentations; emails and podcasts; employment documents, document formatting, punctuation, grammar, proofreading, and editing business documents are also discussed. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

BUS 160 INTRODUCTION TO ENTREPRENEURSHIP

[E] (F,S) (3.0, 0.0) 3.0 O,B

Introduction to Entrepreneurship is for those who want to learn the step by step process of launching a small business-how new ventures are identified, the start-up process, entrepreneurial skills and readiness, procedural and legal considerations, financial management, and current trends in ownership and management. This course helps students survey media, identify resources, and evaluate opportunities and threats to prepare them for the reality of owning their own business. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

BUS 162 ENTREPRENEURSHIP BUSINESS PLANNING

[E] (F,S) (3.0, 0.0) 3.0 O,B

Entrepreneurship Business Planning is designed for those with a basic understanding of entrepreneurship who seek to create an effective written business plan. Market analysis, strategies, management structure and business budgets are explained. Students also learn about effective business financial planning, cash flow projections, expense management, financial statements and financing strategies. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

BUS 175 INTRODUCTION: INTERNATIONAL BUSINESS

[E] (F,S) (3.0, 0.0) 3.0 O,B,SP

Introduction: International Business teaches the basic concepts, principles and practices of international business. It covers the nature of international business; international organizations and monetary systems; labor and legal issues; political and cultural considerations; and the impact on the U.S. economy and business sector. (1.2-Articulated)

BUS 220 HUMAN RELATIONS AND TEAM BUILDING

[E] (S) (3.0, 0.0) 3.0 O,B

Human Relations and Team Building equips students with the knowledge and interpersonal skills to perform effectively in organizations. The course focuses on communicating effectively, motivating and influencing others, building team skills, coping with conflict and change, increasing productivity, managing stress, and identifying career, ethical and social values. Skills learned in this class are also valuable for those looking for greater personal harmony and productivity. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

BUS 235 BUSINESS ETHICS

[E] (S) (3.0, 0.0) 3.0 B

Business Ethics explores ethical issues in business decisions and decision-making. Through lecture on relevant laws, policies and case studies, students learn to identify, analyze and solve ethical dilemmas. Issues include those applicable to accountants and other business functions as well as consumers and society. The course surveys various corporate responsibility models and practical examples of compliance procedures and policies. (1.1-Articulated).

BUS 240 COMMERCIAL LAW**[E] (F,S) (3.0, 0.0) 3.0 O,B**

Commercial Law covers the basic legal aspects of commercial transactions, including contracts, sales, commercial paper, secured transactions, and real and personal property. (1.1-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

BUS 241 LEGAL ENVIRONMENT OF BUSINESS**[E] (F,S) (3.0, 0.0) 3.0 O,B**

Legal Environment of Business is the study of the nature of the legal system in which society functions, including the application of law in the commercial context covering business agreements, business entities, business ethics and corporate social responsibilities, and regulation of business by statutes, court decisions and administrative agencies. (1.1-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

BUS 255 BUSINESS INTERNSHIP**[E] (F,S,Su) (0.0,15.0) 3.0V B**

Business Internship provides students with an opportunity to apply their newly acquired skills in a real work environment. The course is conducted cooperatively among the student, the College and the employer. Periodic review sessions are held to assess student progress and review the appropriateness of the work. Progress is based, in part, on written evaluation and consultations with the cooperating employer. Credit depends on time spent: 75 clock hours = 1 credit hour. This course is primarily for students in business programs, including accounting, business management, real estate, small business or business-related fields. Students may repeat this course two times for a maximum of 6 credit hours under this course number. (1.1-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

PREREQUISITE: 12 credit hours of BUS coursework with a grade of C or higher and written consent of the Business department chair.

BUS 270 PRINCIPLES OF EXPORTING & IMPORTING**[E] (F) (3.0, 0.0) 3.0 O,B**

Principles of Exporting & Importing provides a conceptual overview of the world marketing environment with an emphasis on global exporting and importing. The course introduces students to marketing strategies and procedures for capitalizing on domestic and overseas trade potential. (1.2-Articulated)

NOTE: Offered even numbered years only.

BUS 299 TOPICS/ISSUES IN BUSINESS**[E] (F,S) (4.0, 0.0) 4.0V**

Topics/Issues in Business discusses variable topics relevant to the business environment. No topic is presented more than once every three years. Students may repeat this course three times on different topics for a maximum of 4 credit hours. (1.1-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

CHEMISTRY

NOTE: Safety goggles are available in the laboratories. Students will be required to complete a laboratory safety exercise before performing any laboratory experiments.

CHM 115 CHEMISTRY AND SOCIETY**[P] (F,S,Su) (3.0, 3.0) 4.0 B**

Chemistry and Society demonstrates how chemistry integrates into everyday life. It presents an overview of the principles of atomic structure, chemical bonding, nuclear chemistry, and the properties of acids and bases. Water quality, energy, acid rain, nuclear energy, drug design and nutrition are discussed in context of these principles. (1.1-Articulated) [IAI Core Course Equivalent: P1 903L]

NOTE: This course requires intermediate reading, basic writing, and intermediate math.

PREREQUISITE: MAT 095 with a grade of C or higher.

CHM 164 INTRODUCTORY CHEMISTRY**[P] (F,S,Su) (3.0, 3.0) 4.0 YB**

Introductory Chemistry is a course with laboratory that teaches the fundamentals of inorganic chemistry. Topics include measurement, atomic theory, nomenclature, chemical bonding, stoichiometry, solution chemistry, chemical equilibrium, acids and bases, and nuclear chemistry. The course does not assume any previous coursework in chemistry and is designed for students who plan to pursue a career in allied health or nursing. It also serves as a preparatory course for students who plan to enroll in CHM 165 in the future. (1.1-Articulated) [IAI Core Course Equivalent: P1 902L]

NOTE: This course requires intermediate reading, basic writing, and intermediate math.

PREREQUISITE: MAT 095 with a grade of C or higher. MAT 099 is strongly recommended.

CHM 165 GENERAL CHEMISTRY I**[P] (F,S) (4.0, 3.0) 5.0**

General Chemistry I is the first course in a two-semester sequence for science and engineering majors. It covers atomic and molecular structure, chemical bonding, basic chemical stoichiometry, thermochemistry, gas laws, and the properties of liquids and solids. Laboratory experiments correlate with lecture material. (1.1-Articulated) [IAI Core Course Equivalent: P1 902L] [IAI Major Course Equivalent: CHM911]

NOTE: This course requires intermediate reading, basic writing, and intermediate math.

PREREQUISITE: Credit or concurrent enrollment in MAT 161 or MAT 165. High school chemistry, CHM 164 with a grade of C or higher, or consent of Chemistry department chair.

CHM 166 GENERAL CHEMISTRY II**[E] (S) (4.0, 3.0) 5.0**

General Chemistry II is a continuation of General Chemistry I. It covers solution chemistry, thermodynamics, kinetics, acids and bases, chemical equilibrium, electrochemistry, nuclear reactions, and coordination chemistry. Laboratory experiments correlate with lecture material. (1.1-Articulated) [IAI Major Course Equivalent: CHM912]

PREREQUISITE: CHM 165 with a grade of C or higher.

CHM 170 SURVEY OF ORGANIC AND BIOCHEMISTRY**[E] (S) (4.0, 3.0) 5.0**

Survey of Organic and Biochemistry examines the chemistry of organic compounds with an emphasis on compounds relevant to life sciences. Also included is an introduction to the structure, function and metabolism of carbohydrates, lipids, proteins, nucleic acids, and other molecules of biological importance. Laboratory experiments correlate with lecture material. (1.1-Articulated)

PREREQUISITE: Credit for CHM 165, or CHM 164 with a grade of C or higher.

CHM 265 ORGANIC CHEMISTRY I**[E] (F) (4.0, 4.0) 5.0**

Organic Chemistry I is the first course in a two-semester sequence of organic chemistry. The course includes a descriptive study of carbon compounds, including bonding, kinetics and mechanisms of reactions, aliphatic and aromatic compounds, and reactions of functional groups. Laboratory work focuses on techniques and handling procedures. (1.1-Articulated) [IAI Major Course Equivalent: CHM913]

PREREQUISITE: CHM 166.

CHM 266 ORGANIC CHEMISTRY II**[E] (S) (4.0, 4.0) 5.0**

Organic Chemistry II is a continuation of Organic Chemistry I. It includes an in-depth study of the descriptive chemistry of functional groups, reaction mechanisms, applications of mass and infrared spectroscopy to structure determinations, and carbohydrate and protein chemistry. Laboratory work focuses on the preparation and identification of organic compounds. (1.1-Articulated) [IAI Major Course Equivalent: CHM914]

PREREQUISITE: CHM 265 with a grade of C or higher.

COLLEGE EXPERIENCE**MCC 101 THE COLLEGE EXPERIENCE****[E] (F,S,Su) (1.0, 0.0) 1.0 O,B**

The College Experience (MCC 101) is an interactive freshman seminar to help students in their transition to McHenry County College and prepare them for the experiences and challenges they will face as a college student. Students examine their values, gain an appreciation for diversity, and develop life skills in a collegiate setting. They also familiarize themselves with the many campus resources and services designed to help students succeed. This course is a requirement for all first-time, full-time students at McHenry County College. The requirement must be completed during their first semester as a full-time student. (1.1-Articulated)

NOTE: This course requires intermediate reading and intermediate writing.

MCC 102 COLLEGE SUCCESS SEMINAR**[E] (3.0, 0.0) 3.0**

College Success Seminar is aimed at developing the critical thinking skills, reading proficiency and attitude needed to succeed in college courses. It emphasizes literal and interpretive comprehension of textbooks and lectures through reading rate flexibility, effective note-taking and test-taking strategies, problem solving and analytical reasoning. Students gain the information-processing strategies needed to be successful in undergraduate courses. (1.1-Articulated)

COMPUTER INFORMATION SYSTEMS

NOTE: Computer Information Systems courses require extensive use of computer equipment. Students should plan on scheduling on-campus lab time approximately equal to the number of classroom hours per week in order to complete the assigned projects. Any other arrangements should be discussed with the individual instructor at the first class meeting. Due to the rapidly changing technology in the computer area, the prerequisite must have been taken within the last seven years of current enrollment. Students must be aware that technical advancements will be reflected in course content. Students pursuing their degree or certificate program over an extended period may need to update their skills during that extension to be prepared for updated course content. Course requirements are defined as those contained in MCC's catalog at the time the student first enrolled at the College, provided there has been no break in their education exceeding five years duration. For further information, contact the division secretary at (815) 455-8732.

NOTE: For additional offerings of computer related courses, see also Animation, Database Management, Digital Media, Graphic Arts, Network Security, Programming, and Web Design.

CDM 090 INTRODUCTION TO COMPUTER APPLICATION**(1.5, 0.0) 1.5**

Introduction to Computer Application is designed for students who have very limited computer knowledge. In this hands-on course, they develop basic skills in word processing, Windows, Internet use, spreadsheets and databases. (1.6)

NOTE: This course does not satisfy any prerequisites for other CDM or CIS classes. Credit cannot be applied to a degree or certificate.

CDM 110 COMPUTER LITERACY FOR WINDOWS**[E] (F,S,Su) (3.0, 0.0) 3.0 O,B**

Computer Literacy for Windows is designed primarily for students planning to major in business. This course will acquaint and train students in the use of business software including word processing, database management, spreadsheets, presentation software, and Internet access methods. (1.2-Articulated) [IAI Major Course Equivalent: BUS902]

NOTE: Credit cannot be earned for both CDM 110 and CDM 111. To complete the work in this course, students must have a computer that runs a full current (still fully supported by Microsoft) version of Windows and a full version of Microsoft Office. Students will be able to download a student version of Microsoft Office for use during the course at no additional cost. Students cannot complete this course on a tablet, Chromebook, or similar device that does not run a full version of Windows.

CDM 111 COMPUTER LITERACY FOR MAC**[E] (F,S, Su) (3.0, 0.0) 3.0 O,B**

Computer Literacy for Mac is designed primarily for students planning to major in business. This course will acquaint and train students in the use of business software including word processing, database management, spreadsheets, presentation software, and Internet access methods. (1.2-Articulated)

NOTE: Credit cannot be earned for both CDM 111 and CDM 110. To complete the work in this course, students must have a laptop or desktop that runs a full version of a current Apple Operating System and a full version of Microsoft Office. Students will be able to download a student version of Microsoft Office for use during the course at no additional cost. Students cannot complete this course on an iPad, iPhone, iPad Pro, or a similar device. This course requires basic reading, basic writing and basic math.

CDM 120 COMPUTER ETHICS**[E] (F,S) (2.0, 0.0) 2.0 O**

Computer Ethics asks students to explore the ethical dilemmas faced by computer professionals. Discussions center on computer crime, hacking, viruses, machine errors, invasion of privacy and computerization of the workplace. (1.2-Articulated)

CDM 130 WINDOWS OPERATING SYSTEMS**[E] (F,S) (2.0, 0.0) 2.0 O**

Windows Operating Systems provides the user with an understanding of the graphics-based operating environment/system. This course will focus on computer application; customized settings, file management, Reg-Edit and installations are among the topics that will be explored. This course number will be offered as one of two current Windows Operating Systems and may be repeated once for a maximum of 4 credit hours. (1.2-Articulated)

PREREQUISITE: Credit (with a grade of C or higher) or concurrent enrollment in CDM 110 or CDM 111.

CDM 140 COMPUTER HARDWARE BASICS**[E] (F,S) (2.0, 0.0) 2.0**

Computer Hardware Basics builds on the computer fundamentals presented in Computer Literacy and Windows Operating System. Topics relate primarily to microcomputer technology. Students learn about advanced operating system commands, utility software, software options, PC maintenance and installation, and hard drive concepts. This course is taught using a current operating system (e.g., Windows) and may be repeated once for a maximum of 4 credit hours. (1.2-Articulated)

PREREQUISITE: CDM 110 or CDM 111, either with a grade of C or higher.

CDM 145 A+ CERTIFICATION PREP**[E] (S) (4.0, 0.0) 4.0 O**

A+ Certification Prep offers intermediate and advanced instruction in the servicing of personal computer systems. The course helps prepare students for the industry-endorsed A+ certification exams offered by the Computing Technology Industry Association (CompTIA). Students learn core PC techniques, basic computer concepts, hardware troubleshooting, customer service and hardware upgrades, as well as OS and Windows concepts, commands and techniques. Emphasis is on technical PC service issues with multiple demonstrations and hands-on lab experiments. (1.2-Articulated)

NOTE: This course contains material that is especially challenging and extremely technical. On successful completion of the 16-week course, students should be prepared to take both the Core and OS technology exams necessary for full A+ certification.

CDM 205 TECHNOLOGY IN EDUCATION**[E] (1.0, 1.0) 1.0**

Technology in Education is a hands-on course that demonstrates technology to be used in a classroom setting. Students work on developing lesson plans using PowerPoint and other presentation software, Word documents and spreadsheets. (1.1-Articulated)

PREREQUISITE: CDM 110 or CDM 111, either with a grade of C or higher. EDU 251 with a grade of C or higher. Written consent of the executive dean of Education, Career and Technical Education.

CDM 240 SERVER+ CERTIFICATION PREP**[E] (2.0, 2.0) 3.0 O**

Server+ Certification Prep introduces students to multi-user, multitasking network operating systems. The course incorporates extensive hands-on work in the installation, setup, maintenance and troubleshooting of various network operating systems, including Windows Server, Novell and Linux. (1.2-Articulated)

PREREQUISITE: CDM 145 with a grade of C or higher.

CDM 250 INTERNSHIP IN CDM**(F,S) (0.0,10.0) 2.0V O**

Internship in CDM gives students the opportunity to apply their computer knowledge and skill in a real work environment. Goals and objectives for each student are prepared by the internship coordinator and the cooperating employer. (Students should contact the coordinator eight weeks before the internship starts.) Students may repeat this course once for a maximum of 2 credits. Each credit requires a minimum of 75 contact hours. (1.2)

NOTE: This should be the last course in the program for every student.

PREREQUISITE: For Help Desk Certificate, completion of 12 credits of the Program Core requirements for the AAS degree, completion of 30 credits of the degree requirements. Written consent of the Computer Information Systems department chair is required for all students.

CDM 290 TOPICS IN COMPUTERS & DIGITAL MEDIA**[E] (4.0, 0.0) 4.0V O**

Topics in Computers & Digital Media covers a range of topics focused on technological advances in computer information systems. Each section features a different topic. Students may repeat this course three times on different topics for a maximum of 12 credit hours. (1.2-Articulated)

PREREQUISITE: Varies; may require instructor consent or consent of Computer Information Systems department chair, depending on the topic.

CIS 149 INTRO TO SERVER PAGE PROGRAMMING**[E] (F,S) (3.0, 0.0) 3.0 O**

Introduction to Server Page Programming is an introduction to server pages, including Active Server Pages and other technologies. Server pages are webpages that connect to remote databases to transmit information between a user's computer and the database. This course uses one of the current tools for creating server pages. Students may repeat this course once, if taught using a different software package, for a maximum of 6 credit hours. (1.2-Articulated)

PREREQUISITE: Credit or concurrent enrollment in both WEB 115 and PRG 110.

CIS 245 WEB PAGE DESIGN**[E] (S) (2.0, 0.0) 2.0 O**

Web Page Design ties together all of the web certificate skills classes, giving students the opportunity to create and design a complete website. They work with the most efficient web creation and animation software used in the industry. Because this course is taught using various programs, it may be repeated once for a maximum of 4 credit hours. (1.2-Articulated)

NOTE: Offered only in odd-numbered years.

PREREQUISITE: WEB 101.

COMPUTER SCIENCE

CSC 121 COMPUTER SCIENCE I

[E] (F) (3.0, 2.0) 4.0

Computer Science I is the first in a two-course sequence for students majoring in computer science, engineering or mathematics. Using a disciplined and procedural approach to problem-solving and algorithm development, it introduces such topics as data abstraction; selection, repetition and sequence control; arrays, records and files; and recursion. Students learn program design, testing and documentation using C++ language. (1.1-Articulated) [IAI Major Course Equivalent: CS911]
PREREQUISITE: MAT 161 or MAT 165, either with a grade of C or higher.

CSC 122 COMPUTER SCIENCE II

[E] (S) (3.0, 2.0) 4.0

Computer Science II delves into more advanced topics in programming with emphasis on data structures and file manipulation. It covers design and implementation of large-scale problems; abstract data types; data structures, including files, sets, pointers, lists, stacks, queues, trees and graphs; processing; and an introduction to searching and sorting algorithms. (1.1-Articulated) [IAI Major Course Equivalent: CS912]
PREREQUISITE: CSC 121.

CONSTRUCTION MANAGEMENT

CMT 102 CONSTRUCTION DOCUMENTS

[E] (F) (3.0, 0.0) 3.0 B

Construction Documents provides an introduction to the documents used within the construction industry. Emphasis is placed on accurately reading, interpreting and visualizing the various conceptual documents used in the construction process, including plans and specifications, in both paper and electronic mediums. Residential and commercial projects are covered. (1.2-Articulated)

CMT 105 INTRO TO BUILDING CONSTRUCTION

[E] (F) (3.0, 0.0) 3.0 B

Introduction to Building Construction introduces the principles, practices, and materials used in residential and light-commercial building construction. This course also examines the roles and responsibilities of the many participants involved within the industry. (1.2-Articulated)

CMT 110 MECHANICAL SYSTEMS AND CODES

[E] (S) (3.0, 0.0) 3.0 B

Mechanical Systems and Codes studies the theory of and code requirements for mechanical systems. It covers procedures, layouts and safety principles for heating, cooling and ventilation systems, as well as application of HVAC code for small residential units (up to six dwelling units) and light commercial buildings. The course also looks at fuel gas and energy conservation issues. (1.2-Articulated)

CMT 115 ELECTRICAL SYSTEMS AND CODES

[E] (F) (3.0, 0.0) 3.0 B

Electrical Systems and Codes covers the basic theory of and code requirements for electrical systems and their installation. It concentrates on procedures, practices and layouts, as well as code inspection problems for residential, commercial and industrial installations. (1.2-Articulated)

CMT 120 BUILDING CODES AND ENFORCEMENT

[E] (S) (3.0, 0.0) 3.0 B

Building Codes and Enforcement introduces students to building inspection principles and procedures. It looks at building codes, zoning restrictions and regulations, code interpretation using reference documents, field inspections and report requirements. Students also learn about plan and specification review, permit processes and issuance, legal ramifications and inspection law. (1.2-Articulated)

CMT 125 SURVEY LAYOUT AND MEASUREMENT

[E] (S) (3.0, 0.0) 3.0 B

Survey Layout and Measurement familiarizes students with the science of survey. Surveying techniques, site layout, ground elevations and control points are some of the topics discussed. This hands-on class gives students the opportunity to conduct their own surveys. (1.2-Articulated)

CMT 205 CONSTRUCTION PROJECT MANAGEMENT

[E] (S) (3.0, 0.0) 3.0 B

Construction Project Management examines the practical skills required of an effective construction project manager. Students learn the necessary steps for a successful project, from preconstruction through construction and closeout. This course will provide students the opportunity to integrate and apply skills and knowledge taught throughout the program. (1.2-Articulated)

CMT 250 CMT INTERNSHIP

[E] (S) (3.0, 0.0) 3.0V B

Construction Management Internship gives students the opportunity to apply their skills in a real work environment. The course is conducted cooperatively among the student, the College and the employer. Periodic review sessions are held to assess student progress toward agreed-upon learning objectives. Progress is based, in part, on written evaluation and consultations with the cooperating employer. To earn 1 credit, students complete a minimum of 80 contact hours. Students may repeat this course once for a maximum of 6 credit hours. (1.2-Articulated)

CMT 261 TECHNICAL PORTFOLIO DESIGN I

[E] (S) (3.0, 0.0) 3.0 B

Technical Portfolio Design I provides the framework for students to create a professional technical portfolio to be used for employment seeking, learning assessment, including transfer institution evaluation, and goal evaluation. Students create a portfolio that demonstrates competence outlined on their resume and cover letter. Portfolios include professional and academic work experience and samples, as well as applicable certifications, resume, cover letter, and necessary documentation needed to apply for positions in industry. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and basic math.

CMT 262 TECHNICAL PORTFOLIO DESIGN II

[E] (S) (3.0, 0.0) 3.0 B

Technical Portfolio Design II finalizes the student technical portfolio to be used for employment seeking, learning assessment, including transfer institution evaluation, and goal evaluation. Students finalize their professional portfolio to solidify demonstration of competence outlined on their resume and cover letter. Research of future baccalaureate, training, and certification pathways is required. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and basic math.

PREREQUISITE: CMT 261.

CMT 290 TOPICS IN CONSTRUCTION

[E] (F,S) (3.0, 0.0) 3.0V B

Topics in Construction has various titles depending on the specific topic being explored. Topics vary according to semester and section. Offerings are listed in the current course schedule. Students may repeat this course three times on different topics for a maximum of 12 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and basic math.

CRIMINAL JUSTICE

CJS 101 INTRODUCTION TO CRIMINAL JUSTICE

[E] (F,S) (3.0, 0.0) 3.0 O

Introduction to Criminal Justice teaches the philosophy of social control and the history of law and criminal justice. The course explores the fundamental questions of what crime is and what causes it. It also looks at the criminal justice system, including police, courts and correctional agencies and the roles of each as they relate to offenders and society. In addition, students learn about career opportunities in the field. (1.2-Articulated) [IAI Major Course Equivalent: CRJ901]

CJS 106 INTRODUCTION TO CORRECTIONS

[E] (F) (3.0, 0.0) 3.0

Introduction to Corrections offers an overview and analysis of the U.S. correctional system: history, evolution and philosophy of punishment and treatment; operation and administration in institutional and non-institutional settings; and issues in correctional law. Field trips and visits to correctional facilities may be included in this class. (1.2-Articulated) [IAI Major Course Equivalent: CRJ911]

CJS 110 POLICING

[E] (F) (3.0, 0.0) 3.0

Policing is a survey of law enforcement, including its history, structure and function, and contemporary police practices. The class introduces the philosophy of law enforcement and explores the organization and jurisdiction of local, state and federal law enforcement agencies. (1.2-Articulated)

CJS 115 CRIMINAL LAW

[E] (F) (3.0, 0.0) 3.0

Criminal Law looks at local, state and federal laws: their development, application and enforcement. Completion of CJS 101 is recommended prior to enrolling for this course. (1.1-Articulated)

CJS 120 JUVENILE DELINQUENCY

[E] (F,S) (3.0, 0.0) 3.0 O

Juvenile Delinquency looks at the impact of juvenile delinquency on society, including a historical perspective and sociological, psychological and biological theories on its causes. Also discussed are police responsibilities and contracts; juvenile detention and processing; the juvenile court system; the organization, jurisdiction and function of juvenile agencies; and prevention and treatment programs. CJS 101 or SOC 151 recommended but not required. (1.2-Articulated) [IAI Major Course Equivalent: CRJ914]

CJS 125 PRINCIPLES OF CRIMINAL INVESTIGATION

[E] (F) (3.0, 0.0) 3.0

Principles of Criminal Investigation introduces the basic principles of criminal investigation and their development. Crime scene procedures and techniques used in follow-up investigations are discussed and demonstrated. Students also review criminalistics since its emergence, including evidence collection and crime scene technology. (1.2-Articulated)

CJS 140 CRIMINOLOGY

[E] (F,S,Su) (3.0, 0.0) 3.0 O

Criminology looks at why certain people commit crimes and how criminal acts originate and develop. It studies research on the complex relationship between individuals and cultural norms that leads to criminal conduct. Students also discuss society's response to crime through imprisonment and other sanctions, and the effectiveness of such sanctions. PSY 151 or SOC 151 are recommended but not required. (1.1-Articulated) [IAI Major Course Equivalent: CRJ912]

CJS 201 LAWS OF CRIMINAL EVIDENCE

[E] (S) (3.0, 0.0) 3.0

Laws of Criminal Evidence examines why certain testimony, objects and materials should be admitted or rejected as evidence in criminal trials. Students learn about the evolution of evidence laws, the trial process, privileges, hearsay, confessions and admissions, pretrial investigation and identification procedures, expert and lay opinion, scientific evidence, character evidence, presumptions, and evidence collection and preservation. (1.2-Articulated)

PREREQUISITE: CJS 101.

CJS 206 COMMUNITY BASED CORRECTIONS

[E] (S) (3.0, 0.0) 3.0

Community Based Corrections studies probation and parole systems, including their history, organization and operation, legal aspects, ideologies and challenges. Students also discuss supervision and evaluation of community-based correctional institutions and programs such as halfway houses and work release programs. (1.2-Articulated)

PREREQUISITE: CJS 106.

CJS 215 COMMUNITY POLICING

[E] (S) (3.0, 0.0) 3.0

Community Policing is an in-depth study of the human relationships between law enforcement personnel and agencies and the people and communities they serve. Students learn to identify different social and psychological reactions to crisis situations and methods for dealing with them. CJS 101 and PSY 151 recommended but not required. (1.2-Articulated)

CJS 220 ETHICS IN CRIMINAL JUSTICE

[E] (F) (3.0, 0.0) 3.0

Ethics in Criminal Justice is a study of the decision-making process in criminal justice as it relates to discretion, due process, truthfulness, corruption and discrimination. This course explores the role of morality in the various components of the criminal justice system. Specifically, students examine the legal and ethical roles of the defense attorney, the prosecutor, the police, the courts, the corrections/probation officer and the victim. (1.2-Articulated)

PREREQUISITE: CJS 101.

CJS 225 CRIMINAL JUSTICE MANAGEMENT

[E] (F) (3.0, 0.0) 3.0

Criminal Justice Management studies the principles of effective management and their application to criminal justice activities. Students analyze of the role of supervisor in a criminal justice organization and the essential knowledge and skills needed for success. (1.2-Articulated)

NOTE: CJS 101 recommended.

CJS 250 CRIMINAL JUSTICE INTERNSHIP**[E] (F,S,Su) (0.5,15.0) 3.0**

Criminal Justice Internship is for students majoring in criminal justice who have no prior experience in the field. Students are required to work and observe operations at a participating agency for a minimum of 15 hours per week during a regular fall or spring semester, or a minimum of 30 hours per week during a summer semester. They also participate in three seminars scheduled throughout the semester. Students may repeat this course once for a maximum of 6 credit hours. (1.2-Articulated)

NOTE: The host agency will perform a criminal background check through state and federal sources. Completion of field experience hours at a police department does not guarantee a passing grade. The grade in this course will also take into consideration the student's demonstration of professionalism and will be determined after consultation with the collaborating agency.

PREREQUISITE: At least 12 hours of CJS coursework and instructor consent.

CJS 275 CRIMINAL PROCEDURE**[E] (S) (3.0, 0.0) 3.0**

Criminal Procedure is a study of constitutional rights; police responsibilities as they pertain to those rights; and amendments to the Constitution related to the rights of the individual. CJS 115 is recommended but not required. (1.1-Articulated)

CJS 290 TOPICS IN CRIMINAL JUSTICE**[E] (3.0, 0.0) 3.0V**

Topics in Criminal Justice is a workshop-style course that discusses current criminal justice issues as they pertain to society and public policy, as well as the impact they have on the criminal justice system as a whole. Students may repeat this course three times on different topics for a maximum of 6 credit hours. (1.2-Articulated)

CULINARY MANAGEMENT**CLM 100 INTRO TO PROFESSIONAL HOSPITALITY****[E] (S) (3.0, 0.0) 3.0 B**

Introduction to Professional Hospitality provides students with a broad overview of the hospitality industry and the various careers available. The primary focus will be on building skills to help students understand the hospitality industry and learn how to market themselves for employment. Students will learn basic culinary math, how to build a hospitality resume and how to build a hospitality portfolio over the course of culinary school. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing and basic math.

PREREQUISITE: BUS 145 or MAT 090 or higher or appropriate score on the mathematics placement test.

CLM 101 CULINARY SKILLS I**[E] (F,S) (4.0, 8.0) 7.0**

Culinary Skills I introduces students to the basic foundational skills needed to work in a professional kitchen. Topics covered include the history of the industry, classic and modern kitchen brigades, equipment and safety overview, recipe costing and beginning cooking skills. Students will explore seasonings and spices and learn how to prepare stocks, sauces, soups, basic grains, vegetables and starches. (1.2-Articulated)

NOTE: MCC student uniform and knife kit are required. This course requires basic reading, basic writing and basic math.

PREREQUISITE: BUS 145 or MAT 090 or higher or appropriate score on the mathematics placement test.

CLM 102 CULINARY SKILLS II**[E] (F,S) (4.0, 8.0) 7.0**

Culinary Skills II is a continuation of the foundational training needed for success in a professional kitchen. Students will hone their knife skills while increasing speed with greater production practice. Topics covered include how to select and safely handle a variety of proteins, choosing the proper cooking method for a variety of proteins, identifying various kinds of fruits, preparing salads and salad dressings, hot and cold sandwiches and breakfast cookery. (1.2-Articulated)

NOTE: MCC student uniform and knife kit are required. This course requires basic reading, basic writing and intermediate math.

PREREQUISITE: CLM 101 with a grade of C or higher.

CLM 103 CULINARY SKILLS III**[E] (F,S) (2.0, 8.0) 5.0**

Culinary Skills III is a continuation of the Culinary Skills II course and upon completion students will be proficient in the principles of identification and cookery of meat, poultry, game, fish and shellfish. Students will learn the quality indicators when selecting and purchasing meat, poultry, game, fish and shellfish using the Institutional Meat Purchasing Specification (IMPS) and National Association of Meat Purveyors (NAMP) meat buyers guide as well as the Seafood Handbook: The Comprehensive Guide to Sourcing, Buying and Preparation. (1.2-Articulated)

NOTE: MCC student uniform and knife kit are required.

PREREQUISITE: CLM 102 with a grade of C or higher.

CLM 105 SANITATION AND SAFETY**[E] (F,S) (2.0, 0.0) 2.0**

Sanitation and Safety teaches students about sanitation and safety in a commercial kitchen. The course covers the characteristics and causes of food-borne illnesses and how to prevent unsanitary conditions. Students also learn the steps for implementing a Hazard Analysis and Critical Control Points (HACCP) program. On completion of this course, students should be prepared to take the Illinois Food Service Sanitation Certificate exam. (1.2-Articulated)

CLM 106 CULINARY NUTRITION**[E] (F) (3.0, 0.0) 3.0**

Culinary Nutrition introduces students to the basic theories of nutrition and how to apply those theories to food preparation. The class includes lectures on nutrition and how it affects the body, as well as discussions about weight control, heart disease, cholesterol levels and cancer as they relate to our diets. Students learn to prepare healthful foods pleasing to the eye and the palate. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: BUS 145 or MAT 090 or higher or appropriate score on the mathematics placement test.

CLM 107 CULINARY AND HOSPITALITY SUPERVISION**[E] (F) (3.0, 0.0) 3.0 B**

Culinary and Hospitality Supervision looks at best practices and management strategies in the hospitality and food service industries. Topics include creating a professional work environment; determining staff needs; developing job descriptions; identifying, recruiting and hiring employees; orienting, supervising, and motivating employees; working in a diverse environment; and ensuring a lawful workplace. Various management styles are profiled. (1.2-Articulated)

NOTE: This course requires intermediate reading and intermediate writing.

PREREQUISITE: CLM 100 with a grade of C or higher.

CLM 130 INVENTORY, PURCHASING & COSTING**[E] (F,S) (3.0, 0.0) 3.0**

Inventory, Purchasing & Costing is the study of procedures and practices in maintaining inventory, purchasing quality product and keeping costs in control. The success of any hospitality related business is directly related to maintaining and understanding financial information. Topics include quantity purchasing, inventory controls in receiving & storage, food cost, beverage cost, labor cost, staff scheduling and operational costs. Application of general accounting principles and the utilization of basic accounting generated information in the analysis and decision-making process for a hospitality business, will also be covered. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math skills.

PREREQUISITE: CLM 100 and BUS 145 or MAT 090 or above, or appropriate score on mathematics placement test.

CLM 140 GARDE MANGER & INT'L CUISINE**[E] (Su) (1.0, 7.0) 4.0**

Garde Manger & Int'l Cuisine will equip students with the foundation, knowledge and skills needed to be a garde manger cook/chef. Emphasis is on the operation of the garde manger/cold kitchen, advanced sauces, salads and salad dressings, sandwiches, smoking, curing and preserving meats, sausage preparation, contemporary charcuterie, plated appetizers, hors d'oeuvre, global garde manger, plate and platter presentation, contemporary buffets, garnishing and centerpieces, and molded and sculpted centerpieces. Students may repeat this course once for a maximum of 10 credit hours. (1.2-Articulated)

NOTE: MCC student uniform and knife kit are required.

PREREQUISITE: CLM 102 with a grade of C or higher.

CLM 160 MENU PLANNING**[E] (S) (3.0, 0.0) 3.0 B**

Menu Planning is designed to cover all aspects of menu planning including marketing, nutritional needs, menu layout and design, writing the menu, menu pricing, menu analysis, kitchen staff capabilities and the menu as a management tool. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing.

PREREQUISITE: CLM 100 with a grade of C or higher.

CLM 208 RESTAURANT OPERATIONAL SKILLS**[E] (F,S) (4.0, 8.0) 7.0**

Restaurant Operational Skills combines the back of the house (BOH) and front of the house (FOH) experience to ensure students receive an in-depth experience in all aspects of running a restaurant. Students will spend 8 weeks in the FOH to develop customer service skills such as serving, guest relations, basic service management and basic money management skills. The 8 weeks in the BOH will train students on how to manage a line-based kitchen operation. Menu development, communication & organization of a modern kitchen will be the focus. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing and intermediate math skills.

PREREQUISITE: CLM 103.

CLM 290 TOPICS IN CULINARY MANAGEMENT**[E] (D) (6.0, 0.0) 6.0V**

Topics in Culinary Management covers selected current topics in culinary management; one topic is identified for each section. Topics relating to current trends and techniques are discussed. Topics vary from semester to semester and are available in the current class schedule. Students may repeat this course three times on different topics for a maximum of 8 credit hours. (1.2-Articulated)

PREREQUISITE: Varies depending on specific topic.

PAS 101 PASTRY SKILLS I**[E] (F,S) (4.0, 8.0) 7.0**

Pastry Skills I introduces the theory of professional baking in a lecture and laboratory format. Students apply classic methods and techniques in the preparation of yeast and quick breads, pies and tarts, cookies and a variety of fillings. Emphasis is on learning proper recipe set-up, production planning and measurement accuracy. American Culinary Federation guidelines have been followed for this course to prepare students for ACF certification. (1.2-Articulated)

NOTE: MCC chef's uniform (coat, pants and shoes) is required for this class. This course requires basic reading, basic writing and basic math.

PREREQUISITE: BUS 145 or MAT 090 or higher or appropriate score on the mathematics placement test.

PAS 102 PASTRY SKILLS II**[E] (F,S) (4.0, 8.0) 7.0**

Pastry Skills II builds on the knowledge and skills acquired in Pastry Skills I. Students hone their techniques as they create custards, cakes, crepes, souffles and a variety of pastries. Students continue to learn management techniques including production planning and cost control. American Culinary Federation guidelines have been followed for this course to prepare students for ACF certification. (1.2-Articulated)

NOTE: MCC chef's uniform (coat, pants and shoes) is required for this class.

PREREQUISITE: PAS 101 with a grade of C or higher.

PAS 103 ADVANCED PASTRY SKILLS**[E] (F) (2.0, 8.0) 5.0**

Advanced Pastry Skills builds upon the skill sets learned in PAS 101 and PAS 102. Focus is on artisan breads, advanced cakes, and composed and plated dessert techniques. Emphasis will be placed on visually outstanding products through hands-on formula production and practical testing. The American Culinary Federation guidelines have been applied to this course. (1.2-Articulated)

PREREQUISITE: PAS 102 with a grade of C or higher.

PAS 208 BAKERY OPERATIONS**[E] (F) (2.0, 8.0) 5.0**

Bakery Operations will provide students with the hands-on experience of running a small bakery and coffee shop on campus. Topics covered will include: Bakery production plans, bakery menu creation, batch baking for service, counter service skills, bakery management skills, batch baking finishing skills & par bake operations. Students will rotate through specific assignments over the course of 16 weeks: Lead Baker, Daily Manager, Barista, Counter Help. Students may repeat this course two times for a maximum of 15 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: PAS 102 with a grade of C or higher or instructor consent.

PAS 240 DECORATIVE PASTRY SKILLS**[E] (Su) (1.0, 4.0) 3.0**

Decorative Pastry Skills is designed to help students gain the skills and confidence to decorate pastries and tiered cakes. Concentration will be on piping and cake decorating skills. Topics covered include chocolate clay, fondant, royal icing and sugar paste techniques. Students will produce a completely decorated, tiered cake. Students may repeat this course two times for a maximum of 6 credit hours. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing and basic math.

PREREQUISITE: PAS 102 with a grade of C or higher or instructor consent.

PAS 250 CONFECTIONS AND CHOCOLATES

[E] (1.0, 4.0) 3.0

Confections and Chocolates will cover the essential elements needed to produce candy, confections, chocolates and bonbons. Caramels, fudge, marshmallows, toffees and truffles are some of the recipes covered. Students will also learn various chocolate tempering techniques and produce decorative chocolate serving and showpieces. Students may repeat this course three times for a maximum of 12 credit hours. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing and basic math.

PREREQUISITE: Credit with a grade of C or higher or concurrent enrollment in PAS 102.

DATABASE MANAGEMENT

NOTE: For additional offerings of computer related courses, see Animation, Computer Information Systems, Digital Media, Graphic Arts, Network Security, Programming and Web Design.

DBM 100 INTRO TO MySQL DATABASE MGMT SYSTEMS

[E] (F) (2.0, 2.0) 3.0 O,B

Intro to MySQL Database Management Systems introduces planning, designing, and implementation of database systems. Students apply database design principles to create a database that meets business requirements. Students use a modern relational database system (MySQL) and structured query language (SQL) to create a database and access data. Students create databases on a server to be accessed by a webpage or mobile app. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

DBM 110 SQL/DATABASE CONCEPTS

[E] (S) (2.0, 2.0) 3.0 O

SQL/Database Concepts covers the theory and design of databases with attention to data modeling, Structured Query Language techniques, and security and backup/recovery issues. Emphasis is on SQL and its use in various business applications. Additional topics include database constraints, file/record locking, commitment control, distributed databases and query tools. (1.2-Articulated)

PREREQUISITE: CDM 110 or CDM 111 either with a grade of C or higher. PRG 110 with a grade of C or higher.

DIGITAL MEDIA

NOTE: Digital Media courses require extensive use of computer equipment. Students should plan on scheduling on-campus lab time approximately equal to the number of classroom hours per week in order to complete the assigned projects. Any other arrangements should be discussed with the individual instructor at the first class meeting. Due to the rapidly changing technology in the computer area, the prerequisite must have been taken within the last seven years of current enrollment. Students must be aware that technical advancements will be reflected in course content. Students pursuing their degree or certificate program over an extended period may need to update their skills during that extension to be prepared for updated course content. Course requirements are defined as those contained in MCC's catalog at the time the student first enrolled at the College, provided there has been no break in their education exceeding three years duration.

NOTE: For additional offerings of computer related courses, see also Animation, Computer Information Systems, Database Management, Graphic Arts, Mobile Application Development, Network Security, Programming, and Web Design.

All Digital Media students must purchase a USB-powered external hard drive before the start of class. The recommended drive specification is 250Gb USB-powered drive and is available in the MCC Bookstore.

DGM 107 INTRODUCTION TO DIGITAL LEGALITIES

[E] (F,S) (3.0, 0.0) 3.0

Introduction to Digital Legalities introduces students to the fundamentals of protecting a wide range of digital intellectual properties, fair use, optioning and securing rights, protecting work online and in emerging platforms, and what happens when a work is stolen. (1.2-Articulated)

DGM 110 GAME DESIGN 1

[E] (F,S) (2.0, 2.0) 3.0 B

Game Design 1 introduces students to basic game theory (including game play and strategy) and explores different uses for games, from education and training to entertainment. Students focus on the design process, from developing a basic concept and selling the proposal to production and marketing. The class also covers the history of the video game industry. (1.1-Articulated)

NOTE: Concurrent enrollment in CDM 110 or CDM 111 is strongly recommended. This course requires basic reading, intermediate writing, and basic math.

DGM 123 DIGITAL 2D DESIGN

[E] (F,S) (0.0, 6.0) 3.0

Digital 2D Design is a foundation course in the principles of design and the elements of art using digital media. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

DGM 125 DIGITAL DRAWING 1

[E] (F,S) (0.0, 6.0) 3.0

Digital Drawing 1 is an introduction to the fundamental concepts and techniques of drawing using digital media to create a variety of black and white images. Emphasis will be made on descriptive drawing techniques from geometric to organic objects. Course will include vocabulary development, critical analysis activities, development of computer hardware and software drawing tools and techniques, and reference to historical models of drawing. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

DGM 152 INTERFACE DESIGN**[E] (S) (2.0, 2.0) 3.0 O,B**

Interface Design students explore Gestalt theory, color theory, typography, and establishing a brand across mediums. Students will apply these theories to design and prototype web pages, Android applications, and iOS applications. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

DGM 153 DESIGNING THE USER EXPERIENCE**[E] (S) (2.0, 2.0) 3.0 O,B**

Designing the User Experience introduces students to the foundations of User Experience Design (UX). Students explore the difference between experience design and interface design, create personas, develop scenarios, create paper and electronic prototypes, perform usability tests and create iterative UX designs based on the findings of research with test subjects. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

DGM 160 3D GAME DEVELOPMENT 1**[E] (F,S) (0.0, 6.0) 3.0**

3D Game Development 1 introduces game development using a game engine. Students will learn to work with 3D animation, interaction, vector, and Matrices, scripting for the game engine. Students will create games using the game engine and will incorporate programming to control 3D interactions. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

DGM 168 COMPUTER ART I**[E] (F,S) (0.0, 6.0) 3.0**

Computer Art I is an introductory course in the electronic creation of artworks and images. The capture of images with scanners and other digital input devices is explored. Students learn to manipulate images and output them to print using color laser and ink jet printers. The created images will be critiqued on their technical, aesthetic, and conceptual approaches. (1.1-Articulated)

NOTE: DGM 168 is cross-listed with ART 168. Credit cannot be earned for both DGM 168 and ART 168. This course requires basic reading, basic writing, and basic math.

PREREQUISITE: Credit (with a grade of C or higher) or concurrent enrollment in GRA 100 or instructor consent.

DGM 170 DIGITAL VIDEO PRODUCTION**[E] (F,S) (0.0, 6.0) 3.0**

Digital Video Production explores the basic skills needed to videotape and edit digital video into a finished form. Students learn how to plan and shoot digital video. The digital footage is then edited using non-linear editing software, giving the completed production a professional look. The videos are then converted to formats that can be used on various platforms from DVDs to online streaming. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

DGM 210 GAME DESIGN 2**[E] (S) (2.0, 2.0) 3.0 B**

Game Design II focuses more in-depth on game design and production. Students get the experience of developing a game, moving through the process of level design, creating graphics, developing different characters, and constructing dialogue and story. Students also look at specific genres. (1.1-Articulated)

PREREQUISITE: DGM 110 with a grade of C or higher.

DGM 250 DIGITAL MEDIA INTERNSHIP**[E] (0.0, 0.0) 3.0V**

Digital Media Internship gives students real-world experience using digital media technology and helps build their portfolio. Specific goals are prepared by the internship coordinator at MCC in cooperation with the employer. (Students should contact the coordinator eight weeks before beginning an internship.) Internships are typically offered for 2 credit hours. The course may be repeated for a maximum of 6 credit hours. Each credit requires a minimum of 75 contact hours. (1.1-Articulated)

PREREQUISITE: Consent of the Digital Media department chair.

DGM 256 DIGITAL FREELANCING**[E] (F) (2.0, 2.0) 3.0 O,B**

Digital Freelancing students learn how to run their own freelancing business. They create a business plan, consider financial and tax concerns, study marketing strategies, learn to register as a business and find startup capital, explore working with customers, practice quoting jobs, and discuss other issues that arise for business startups or freelancers. Students may repeat this course two times if more than three years have passed since the course was originally taken, for a maximum of 9 credit hours. (1.2-Articulated)

NOTE: This course is intended for someone with the training or experience to start freelancing in Graphic Arts, Web Development, Videography, or any kind of Programming. Students should be either training in, or experienced in one of these areas. This course requires advanced reading, advanced writing and intermediate math.

PREREQUISITE: 15 hours of college credit completed or instructor consent.

DGM 260 3D GAME DEVELOPMENT 2**[E] (F,S) (0.0, 6.0) 3.0**

3D Game Development 2 introduces advanced aspects of game development using a game engine. Students work with scripting and programming tools. New assets development and interactions in multiplayer 3D environments are discussed. Students incorporate artificial intelligence - based decision making into games. (1.1-Articulated)

PREREQUISITE: DGM 160 with a grade of C or higher.

DGM 265 AGILE PROJECT MANAGEMENT**[E] (S) (2.0, 2.0) 3.0 O,B**

Agile Project Management students explore the differences between the traditional waterfall method of project management and the Agile process. Students work in groups to complete a digital project using iterative agile strategies. Students organize into Scrum teams, refine the backlog of requirements, plan and implement sprints, and present results. (1.2-Articulated)

NOTE: This course requires advanced reading, advanced writing and intermediate math.

PREREQUISITE: 6 credits of course work with a grade of C or higher, or current enrollment in any of the following specialties, ANI, DBM, DGM, GRA, MAD, PRG, and WEB.

DGM 275 PORTFOLIO DESIGN**[E] (F,S) (3.0, 0.0) 3.0 B**

Portfolio Design prepares students to present work for college transfer, to employers and to potential clients. Students will set up and design a web-based portfolio. Classes cover presentation techniques, visual presentation, interviewing, resumes, cover letters, requests for letters of recommendation, and a mock interview. Review of the students' portfolios will be conducted toward the end of the semester. Students will edit and refine their portfolios to meet professional standards and add materials as needed. Faculty and professional advisors use a specifically-designed rubric to score and critique end-of-program portfolio work. The portfolio goes beyond the traditional paper resume by allowing students to demonstrate evidence of their talents. (1.2-Articulated)

PREREQUISITE: Written consent of the department chair.

DGM 290 TOPICS IN DIGITAL MEDIA**[E] (4.0, 8.0) 4.0V**

Topics in Digital Media will cover changing topics, addressing new technology available in digital media. Topics will be identified for each section of the course. Students may repeat this course three times on different topics, for a maximum of 12 credit hours under this course number. (1.1-Articulated)

EARLY CHILDHOOD EDUCATION

NOTE: Various Early Childhood Education courses listed for fall or spring may be offered as needed during the summer. Students should check with the executive dean of Education, Career & Technical Education for further information and updates. A criminal background check is required of all students.

ECE 115 EARLY CHILDHOOD EDUCATION**[E] (F,S) (3.0, 0.0) 3.0**

Early Childhood Education looks at current issues and trends in the field from a historical and philosophical perspective. Students examine several educational models, including their theoretical basis and their practical application in the structure, organization and content of in early childhood programs. They also discuss the values and personal traits of successful early childhood educators. As part of the course, students participate in directed observation at several area pre-schools/child care facilities. SCANS skills included. (1.1-Articulated)

ECE 118 THE PROFESSIONAL CHILD CARE PROVIDER**[E] (D) (3.0, 0.0) 3.0**

The Professional Child Care Provider provides students with valuable information and resources to prepare for career as a nanny or home child care provider for young children. This course covers personal and professional development, communication, home management, child protection issues and the employee-employer relationship. Through group discussion and feedback sessions, students create a personal profile and portfolio to present to prospective employers. SCANS skills included. (1.2-Articulated)

ECE 120 CHILD GROWTH AND DEVELOPMENT**[E] (F,S) (3.0, 0.0) 3.0**

Child Growth and Development addresses physical, cognitive, social and emotional development from conception through adolescence and the interaction among these various domains in the developing child. Students learn theory and research methodology to better understand child development. SCANS skills included. (1.1-Articulated)

ECE 121 INFANT/TODDLER DEVELOPMENT AND CARE**[E] (S) (3.0, 0.0) 3.0**

Infant/Toddler Development and Care studies patterns of child growth and development from birth to age 3. It discusses the needs of infants and toddlers in various child care settings and highlights current research findings. Students develop skills in managing a safe environment while providing stimulating activities at appropriate levels. They also visit area infant/toddler centers as part of the course. SCAN skills included. (1.2-Articulated)

ECE 125 NUTRITION, HEALTH & SAFETY**[E] (S) (3.0, 0.0) 3.0**

Nutrition, Health & Safety is a study of basic factors affecting human health and safety. It focuses on the principles of good nutrition; maintaining a healthy diet by eating according to the USDA Food Guide Pyramid; and planning meals for children in group settings as outlined by the Illinois Department of Children and Family Services. Students also learn about sanitation, community health, signs and symptoms of communicable diseases, safety guidelines, prevention, emergency procedures, and cooking and exercise activities to encourage a healthy lifestyle. SCAN skills included. (1.1-Articulated)

ECE 131 EARLY CHILD GUIDANCE & OBSERVATION**[E] (F) (3.0, 0.0) 3.0**

Early Child Guidance & Observation teaches developmentally appropriate guidance techniques based on child development. Students learn to analyze behavior through observation and to apply the appropriate guidance technique. As part of the course, students participate in directed observations in a preschool setting. SCANS skills included. (1.2-Articulated)

PREREQUISITE: ECE 120 or consent of the Early Childhood Education department chair.

ECE 150 CHILD STUDY AND OBSERVATION**[E] (F) (3.0, 0.0) 3.0**

Child Study and Observation introduces students to techniques for observing and interacting with children and teachers in educational settings, often with a diverse group of students. Using guidelines and evaluation methods for specific areas of development, students become more visually and perceptually alert to children and their needs. They get 15 hours of observational experience based on prominent theories of growth and development. SCANS skills included. (1.2-Articulated)

PREREQUISITE: ECE 120.

ECE 155 CHILD, FAMILY, COMMUNITY RELATIONS**[E] (S) (3.0, 0.0) 3.0**

Child, Family, Community Relations discusses the teacher's role in working with a child's family and the community in a pre-school or day care environment. Students develop skills and gain practice in effective parent-teacher communication. They also learn about parent education and get an in-depth look at community resources. SCANS skills included. (1.1-Articulated)

ECE 204 EARLY CHILDHOOD LANGUAGE ARTS**[E] (F) (3.0, 0.0) 3.0**

Early Childhood Language Arts focuses on normal language development and communication skills of children birth to 8 years old. Students study social and environmental influences on the development of language and literacy, and create a file of age-appropriate activities designed to promote language development in young children. The course includes observation and participation in an early childhood setting. SCANS skills included. (1.2-Articulated)

PREREQUISITE: ECE 120 or consent of the Early Childhood Education department chair.

ECE 209 EARLY CHILD MUSIC/RHYTHMIC ACTIVITIES**[E] (S) (3.0, 0.0) 3.0**

Early Childhood Music/Rhythmic Activities explores various ways to provide enjoyable and age-appropriate music experiences for young children. Students build a working file of music activities as well as participate in a pre-school setting. Musical skills and talents are not a prerequisite. SCANS skills included. (1.2-Articulated)

ECE 214 EARLY CHILDHOOD ART ACTIVITIES**[E] (S) (3.0, 0.0) 3.0**

Early Childhood Art Activities looks at the development of creativity in young children. This course provides firsthand experience with various art media appropriate for young children. Students learn methods and activities for presenting art in a way that enhances children's creativity, skill and sense of fulfillment. They also participate in a pre-school setting as part of the course. SCANS SKILLS included. (1.2-Articulated)

ECE 219 EARLY CHILDHOOD SCIENCE AND MATH**[E] (F) (3.0, 0.0) 3.0**

Early Childhood Science and Math covers the theory and practice of teaching science and math to children from pre-K to 3rd grade. It focuses on the creation and evaluation of developmentally appropriate science and math activities and materials that encourage young children to use their natural curiosity and interest in objects. Students come away with a repertoire of science and math activities. SCANS skills included. (1.2-Articulated)

ECE 229 EARLY CHILD CURRICULUM & ACTIVITIES**[E] (S) (4.0, 0.0) 4.0**

Early Child Curriculum & Activities focuses on planning a developmentally appropriate environment for young children. Students learn about the role of the teacher in planning creative activities, developing and using resources, and selecting appropriate materials and equipment. As part of the course, students observe and participate in an early childhood setting. SCANS skills included. (1.2-Articulated)

PREREQUISITE: ECE 115.**ECE 234 CHILD CARE CENTER MANAGEMENT****[E] (D) (3.0, 0.0) 3.0**

Child Care Center Management examines current trends in the organization and administration of a preschool or day care center, including philosophy, goals and policies; personnel selection and supervision; budgeting; purchasing; record keeping; licensing; building and safety codes; facilities; insurance; evaluation procedures; and community resources. SCANS skills included. (1.2-Articulated)

PREREQUISITE: ECE 115 and ECE 120.**ECE 250 EARLY CHILDHOOD PRACTICUM****[E] (S) (2.0,10.0) 4.0**

Early Childhood Practicum provides students with supervised, real-world experience in working with young children. The course includes practical application of early childhood education theories, principles and practices, including observation, lesson plan writing, presentation of activities to young children and implementation of classroom procedures. Students spend two hours a week in class and 10 hours a week working directly with young children at the Children's Learning Center at MCC. SCANS skills included. (1.1-Articulated)

PREREQUISITE: ECE 115, ECE 120, ECE 131, ECE 150, ECE 204, ECE 219 and ECE 229, with a grade of C or higher and written consent from the Education department chair.**ECE 290 TOPICS IN EARLY CHILDHOOD EDUCATION****[E] (6.0, 0.0) 6.0V**

Topics in Early Childhood Education has various titles, depending on the specific topic being explored. Topics vary from semester to semester, and offerings are listed in the current course schedule. Students may repeat this course three times on different topics, for a maximum of 6 credit hours. (1.1-Articulated)

EARTH SCIENCE**EAS 120 INTRODUCTION TO METEOROLOGY****[P] (F,S,Su) (3.0, 3.0) 4.0 O**

Introduction to Meteorology looks at the processes that produce weather. It covers the basic elements of meteorology-temperature, pressure, moisture and wind-and analyzes severe storms such as tornadoes and hurricanes. Lab work focuses on basic weather forecasting and weather conditions that affect our daily lives. (1.1-Articulated) [IAI Core Course Equivalent: P1 905L] **NOTE:** Credit cannot be earned for both EAS 120 and EAS 171. This course requires intermediate reading, intermediate writing, and intermediate math.

PREREQUISITE: Credit or concurrent enrollment in MAT 095.**EAS 170 GEOLOGY + OCEANOGRAPHY****[P] (F,S,Su) (3.0, 2.0) 4.0 H,B**

Geology + Oceanography is an introductory course that covers mineral and rock identification, plate tectonics, mountain formation, earthquakes, volcanic activity, hydrology, geologic time, coastal processes, mass wasting, ocean seafloors, and glaciers. Oceanography is discussed briefly. No scientific background is assumed (1.1-Articulated) [IAI Core Course Equivalent: P1 905L]

NOTE: Credit cannot be earned for both EAS 170 and GEL 101.

This course requires intermediate reading, intermediate writing, and intermediate math.

EAS 171 ASTRONOMY + METEOROLOGY**[P] (F,S) (3.0, 2.0) 4.0 H,B**

Astronomy + Meteorology is an introductory course that covers ancient astronomy, the solar system, stars, cosmology, extraterrestrial life, earth-sun relationships, weather, climatic phenomena and recent developments in the field. No scientific background is required. (1.1-Articulated) [IAI Core Course Equivalent: P1 905L]

NOTE: Credit cannot be earned for both EAS 171 and EAS 180.

This course requires intermediate reading, intermediate writing, and intermediate math.

PREREQUISITE: Credit or concurrent enrollment in MAT 095.**EAS 180 INTRODUCTION TO ASTRONOMY****[P] (S,Su) (3.0, 3.0) 4.0**

Introduction to Astronomy looks at the origin, development and future of the physical universe. Students learn about the solar system, stars and galaxies, and they discuss topics of current interest such as black holes, quasars, pulsars and neutron stars. Lab work includes a study of the constellations and some telescopic observations. (1.1-Articulated) [IAI Core Course Equivalent: P1 906L]

NOTE: Credit cannot be earned for both EAS 180 and EAS 171.

This course requires intermediate reading, intermediate writing, and intermediate math.

PREREQUISITE: Credit or concurrent enrollment in MAT 095.**EAS 185 NATURAL HAZARDS AND DISASTERS****[P] (F,S,Su) (3.0, 0.0) 3.0 O**

Natural Hazards and Disasters examines the causes and impacts of earthquakes, volcanoes, tornadoes, hurricanes, tsunamis, floods and wildfires. Students look at patterns of occurrence, research, prediction, and our adaptation to geophysical and atmospheric threats. Students also analyze past and present extremes of nature from human and environmental perspectives. (1.1-Articulated) [IAI Core Course Equivalent: P1 908]

NOTE: This course requires intermediate reading, intermediate writing, and basic math.

ECONOMICS

ECO 150 INTRODUCTION TO ECONOMICS

[S] (F,S) (3.0, 0.0) 3.0 SP

Introduction to Economics is a non-technical overview course for students who want to understand how the economy works and how it affects their lives. Basic economic concepts are clearly presented using relevant, real-world examples from the U.S. economy. The course covers supply and demand, government price controls, how the government manipulates the economy, the business cycle, inflation, interest rates, and the federal budget and trade deficits. (1.1-Articulated) [IAI Core Course Equivalent: S3 900]

NOTE: This course is not designed or recommended for students majoring in business, business-related programs or the social sciences, or for students who have taken or are planning to take ECO 251 or ECO 252.

ECO 251 MICROECONOMICS

[S] (F,S,Su) (3.0, 0.0) 3.0 O,B

Microeconomics is an introduction to the decision-making behavior of individual consumers, firms and markets. The course emphasizes the concepts of supply and demand, how they work together to determine prices and production in various markets, and how such interactions affect the use of resources. (1.1-Articulated) [IAI Core Course Equivalent: S3 902]

NOTE: This course, in conjunction with ECO 252 (Macroeconomics), is recommended for students majoring in business, business-related disciplines, the social sciences, or public administration.

ECO 252 MACROECONOMICS

[S] (F,S,Su) (3.0, 0.0) 3.0 O,B

Macroeconomics is an introduction to the forces influencing inflation, unemployment and economic growth. This course studies the national economy and the roles of the federal government and the banking system, as well as an introduction to international economics. (1.1-Articulated) [IAI Core Course Equivalent: S3 901]

PREREQUISITE: ECO 251.

ECO 261 ECONOMIC DEVELOPMENT DYNAMICS

[E] (S) (3.0, 0.0) 3.0

Economic Development Dynamics looks at economic development theory and its practical applications for economic growth and change at the local, state, national and international levels. The course examines the economic environment and other factors that impact the development process. Special attention is given to government policies, education and technology, income distribution, infrastructure and culture. (1.1-Articulated)

PREREQUISITE: ECO 251.

EDUCATION

EDU 251 INTRODUCTION TO EDUCATION

[E] (F) (3.0, 0.0) 3.0 O

Introduction to Education studies the U.S. education system from historical and modern perspectives. It explores the philosophical and socioeconomic factors that influence education in a multicultural society. Prospective teachers learn about career options, current issues, policies, trends and future directions in education. The course requires 15 clock hours of observation in local elementary, middle and secondary schools. SCANS skills included. (1.1-Articulated)

NOTE: A criminal background check is required of all students.

EDU 252 CHILDREN'S LITERATURE

[E] (S) (3.0, 0.0) 3.0

Children's Literature studies quality literature taught to children from pre-kindergarten through middle school. Students read and evaluate a variety of award-winning books and poetry, study selected authors and illustrators, and develop resources to enhance children's experience in learning about literature. The course requires participating in literacy activities in a school setting. SCANS skills included. (1.1-Articulated)

EDU 253 CHILDREN WITH EXCEPTIONALITIES

[E] (F,S) (3.0, 0.0) 3.0

Children with Exceptionalities teaches students about exceptional cognitive, physical, social and emotional characteristics in infants through young adults. It focuses on identifying developmental and educational needs as well as current intervention strategies, teaching methods and programming for children with exceptionalities. Students also learn about the education reform that led to federal and state laws like IDEA and ADA. They become familiar with Free and Appropriate Public Education, the Individualized Family Service Plans, Individualized Education Plans and the Inclusion. The course requires 15 clock hours of observing children with special needs in local elementary, middle and secondary schools. SCANS skills included. (1.1-Articulated)

NOTE: A criminal background check is required of all students.

PREREQUISITE: ECE 120, PSY 151 or instructor consent.

EDU 255 DIVERSITY OF SCHOOLS

[E] (S) (3.0, 0.0) 3.0

Diversity of Schools provides students with an understanding of and appreciation for diverse groups in a typical school setting. This course explores the influence of social, cultural and global perspectives on classroom practices. (1.1-Articulated)

PREREQUISITE: EDU 251 or consent of the Education department chair.

EDU 257 LANGUAGE DEVELOPMENT

[E] (S) (3.0, 0.0) 3.0

Language Development studies the development of language from birth through school age, including how children progress at different rates. This course also gives students an understanding of the impact of diversity-cultural and linguistic-on language development. Some observation of children in an education setting is required. (1.1-Articulated)

NOTE: A criminal background check is required of all students.

PREREQUISITE: ECE 120.

EDU 261 INTRO TO FOUNDATIONS OF READING

[E] (S) (3.0, 0.0) 3.0

Introduction to Foundations of Reading covers the theory and practice of teaching reading and related language arts. Students learn the importance of literacy as well as the basic components of reading instruction. The course includes an introduction to the Illinois Learning Standards for reading and language arts. (1.1-Articulated)

PREREQUISITE: EDU 251.

EDU 275 CLASSROOM OBSERVATION
[E] (S) (2.0, 3.0) 3.0

Classroom Observation provides students with pre-clinical experience observing classroom dynamics and different levels of growth and development. They observe for a minimum of 48 clock hours during regular school days in McHenry County elementary, middle and secondary schools. Two hours each week are spent in the college classroom to process observations and review reading assignments. This early exposure to current classroom practice helps clarify students' commitment to teaching. SCANS skills included. (1.1-Articulated)

NOTE: A criminal background check is required of all students.
PREREQUISITE: Credit or concurrent registration in EDU 251, PSY 251, EDU 253, or PSY 271.

EDU 290 TOPICS IN EDUCATION
[E] (3.0, 0.0) 3.0V

Topics in Education has various titles, depending on the specific topic being explored. Topics vary from semester to semester, and offerings are listed in the current course schedule. Students may repeat this course on different topics for a maximum of 12 credit hours. (1.1-Articulated)

PREREQUISITE: Varies by topic.

ELECTRONICS ENGINEERING TECHNOLOGY

NOTE: A grade of C or higher is required for the prerequisite for any Electronics Engineering Technology (EET) course unless otherwise indicated.

EET 099 INTRODUCTION TO ELECTRONICS
(1.5, 1.5) 2.0

Introduction to Electronics is an overview class for students wanting to explore electronics as a possible career choice. Students learn about basic analog and digital circuit fundamentals to better understand the highly technological world they live in. This course prepares them for entry-level EET courses. (1.2)

NOTE: Credit cannot be applied to a degree or certificate.

EET 110 PRINCIPLES OF DIRECT CURRENT
(3.0, 2.0) 4.0

Principles of Direct Current is for students with limited or no previous experience in electronics. It provides an in-depth analysis of a variety of direct current circuits using Ohm's law, Kirchoff's law and advanced theorems. Students also gain experience with basic electronic test equipment and printed circuit board repair. (1.2)

PREREQUISITE: MAT 097.

EET 111 PRINCIPLES OF ALTERNATING CURRENT
(3.0, 2.0) 4.0

Principles of Alternating Current is for students who have mastered direct current principles. They analyze alternating current circuits, including phasor, RC and L/R time constants, resonance and filters. Students become proficient at using industry standard test equipment, including oscilloscopes, function generators, digital multi-meters and power supplies. (1.2)

PREREQUISITE: EET 110 and credit or concurrent enrollment in MAT 106 or MAT 165.

EET 120 DIGITAL CIRCUITS
(3.0, 2.0) 4.0

Digital Circuits provides students with a thorough understanding of the digital devices and circuits essential to all areas of electronics. Topics include Boolean algebra, basic logic gates, encoders, decoders, multiplexers, flip flops, counters, shift registers, Karnaugh maps and analysis of digital systems. Students gain experience with systems, troubleshooting to the component level using state-of-the-art test equipment. (1.2)

PREREQUISITE: EET 110.

EET 121 ANALOG CIRCUITS
(3.0, 2.0) 4.0

Analog Circuits studies semiconductor devices and analog circuits. Topics include diodes, transistors, operational amplifier circuits, oscillators, small and large signal amplifiers, active filters, voltage regulators and optoelectronic circuits. Mathematical analysis of the circuits is followed by practice in troubleshooting. (1.2)

PREREQUISITE: EET 111.

EET 140 MICROPROCESSOR FUNDAMENTALS
(3.0, 2.0) 4.0

Microprocessor Fundamentals helps students understand the internal structure of microprocessors and how they function. Topics include microprocessor architecture, the instruction set, addressing modes, interrupts and basic input/output. This course also teaches machine and assembly language programming and discusses the latest developments in microprocessors. (1.2)

PREREQUISITE: Credit or concurrent enrollment in EET 120.

EET 141 MICROPROCESSOR SYSTEMS
(3.0, 2.0) 4.0

Microprocessor Systems builds on the Microprocessor Fundamentals course. It teaches students how the microprocessor works with other support circuitry essential for a microprocessor-based system. Topics include standard and multiplexed bus structures, RAM, ROM, I/O interfacing, the PIA, the USART, controllers, address decoding, serial and parallel communication techniques and standards, and system troubleshooting to the component level. (1.2)

PREREQUISITE: EET 140.

EET 240 COMMUNICATION SYSTEMS I
(3.0, 2.0) 4.0

Communication Systems I covers basic AM and FM receiver concepts, radio frequency amplifiers, intermediate frequency amplifiers, detectors, discriminators, mixers, AGC systems and phase-locked loops. Students also learn AM and FM transmitter fundamentals, as well as alignment and troubleshooting. (1.2)

PREREQUISITE: EET 121.

EET 241 COMMUNICATION SYSTEMS II
(3.0, 2.0) 4.0

Communication Systems II studies modulation and multiplexing techniques used for data transmission on telephone lines and specialized data networks. Discussed in detail are digital and analog signaling techniques, phone circuits, networking, communication standards, protocol and security. (1.2)

PREREQUISITE: EET 140.

EET 250 COMPUTER SYSTEMS I
(3.0, 2.0) 4.0

Computer Systems I analyzes the circuitry and associated software found in the most common types of personal computers. Students learn the function of each device and how the devices interact with the software. They practice system troubleshooting on the replaceable unit. (1.2)

PREREQUISITE: EET 141.

EET 251 COMPUTER SYSTEMS II

(3.0, 2.0) 4.0

Computer Systems II is a continuation of Computer Systems I. Topics include the function and operation of a variety of peripheral devices such as keyboards, CRTs, printers, plotters, disk drives and modems. Students receive instruction on basic data communications systems and local area networks. (1.2)

PREREQUISITE: EET 250.

EET 299 INDEPENDENT STUDY IN ELECTRONICS

(6.0, 0.0) 6.0V

Independent Study in Electronics gives students a chance to complete an electronics project or learn about a specialized topic not available as a regular course offering. Study is directed by a qualified faculty member. Students may repeat this course once for a maximum of 6 credit hours. (1.2)

PREREQUISITE: Written consent of executive dean of Education, Career and Technical Education.

EMERGENCY MEDICAL SERVICES

EMS 105 FIRST RESPONDER EMERGENCY AID

[E] (F,S,Su) (3.0, 0.0) 3.0

First Responder Emergency Aid is for those interested in a career in emergency services. It teaches students to identify and treat patients with emergency trauma and illness, with a focus on stabilizing victims and providing life support until emergency medical personnel arrive. Students learn to physically assess patients, administer CPR (cardiopulmonary resuscitation), control bleeding, manage shock, treat fractures, handle childbirth and remove patients from hazardous situations. The class includes lecture and practical lab experience. (1.2-Articulated)

NOTE: HFE 151 is not equivalent to EMS 105. This course requires intermediate reading, basic writing, and basic math.

EMS 110 EMERGENCY MEDICAL TECHNICIAN-BASIC

(F,S,Su) (6.0, 2.0) 7.0

Emergency Medical Technician - Basic is an in-depth study of the identification and treatment of people with illness and traumatic injuries. It is intended for those who are involved with fire/rescue agencies or private ambulance services or those who wish to pursue a career in emergency medicine in a prehospital setting. Training is conducted in cooperation with the Illinois Department of Public Health Division of Emergency Medical Services and Highway Safety, in accordance with the U.S. Department of Transportation's EMT-Basic National Standard Curriculum. The training promotes an assessment-based approach to identifying illness or injury and developing an appropriate plan of treatment within the limitations of basic life support practices, including the use of prehospital patient care and rescue equipment. Instruction includes classroom lecture, practical skill demonstration in a lab setting, and 30 hours of direct patient care in a hospital emergency department. On completion of the course, students are eligible to take the Illinois EMT licensure exam. Licensure is required for employment as an EMT-B. Salaries vary greatly from volunteer/paid-per-call compensation to full-time employment. (1.2)

NOTE: Uniform requirements for clinical work are dark slacks (no jeans), dark shoes, and light blue polo shirt with a collar, stethoscope and watch with a second hand. Students must be 18 years old and provide evidence of a high school diploma or GED to take the state exam.

PREREQUISITE: Documentation of current CPR for Healthcare Providers. EMS 105 or NAE 100 with a grade of C or higher, or consent of NIMC Department of EMS. If not on rescue squad, must provide proof of your own medical insurance for the clinical work.

EMS 120 EMT-PARAMEDIC-MODULE I

(F) (6.0, 2.0) 7.0

EMT-Paramedic - Module I is the first in a three-course sequence which, together with a hands-on internship, provides the intensive classroom training and clinical experience needed to become a licensed EMT-Paramedic in the state of Illinois. This module addresses the roles and responsibilities of the EMT-P in the prehospital healthcare delivery system. It covers an overview of human body systems, medical terminology and patient assessment; disaster scene and hazardous materials management; and the use of radio telemetry equipment to communicate findings and treatments to the hospital emergency department. This module focuses on advanced life support management techniques used in respiratory emergencies and for traumatic injuries. Students are required to complete clinical work in a hospital emergency department, in respiratory therapy and in an anesthesia/operating room, plus 15 patient contact hours in delivering prehospital care with an area ALS provider agency. (1.2)

NOTE: Uniform requirements for clinical work are dark slacks (no jeans), dark shoes, departmental uniform shirt or white shirt with a collar, stethoscope and watch with second hand. On successful completion of the course (i.e., 75% or higher) students are eligible to register for EMS 121 - Module II.

PREREQUISITE: Current CPR for Healthcare Providers; EMS 110 with current EMT-B licensure (6 months' prehospital experience preferred); affiliation with a local ALS provider agency; successful completion of the program pretest and interview; and BIO 110.

EMS 121 EMT-PARAMEDIC-MODULE II

(S) (4.0, 3.0) 5.0

EMT-Paramedic - Module II is the second in the three-course paramedic sequence. The focus of this module is the cardiovascular system and medical emergencies in adult patients related to cardiovascular disease, neurology, endocrine disorders, blood disorders, autoimmune disease, toxicology, gastroenterology, urology and behavioral disorders. Also covered are the special needs of geriatric patients; advanced skills in cardiac ECG monitoring; and cardiovascular management techniques, including cardioversion, external cardiac pacing and pharmacological therapies. Students are required to complete clinical work in a hospital emergency department, intensive care unit and monitored care unit, plus 10 patient contact hours in delivering prehospital care with an area ALS provider agency. (1.2)

NOTE: Uniform requirements for the clinical work are dark slacks (no jeans), dark shoes, departmental uniform shirt or white shirt with a collar, stethoscope and watch with a second hand.

PREREQUISITE: Successful completion of EMS 120, current EMT-B licensure with CPR for Healthcare Providers, and affiliation with a local ALS provider agency.

EMS 122 EMT-PARAMEDIC-MODULE III

(S) (4.0, 3.0) 5.0

EMT-Paramedic - Module III is the last in the three-course paramedic sequence. It focuses on the management of adult patients with obstetric and gynecological emergencies as well as special considerations in caring for newborns. This module also studies pediatric patients with medical emergencies, including respiratory distress, cardiopulmonary failure, shock, neurological deficits, abdominal pain, allergic reactions/anaphylaxis and environmental emergencies. Students learn advanced skills in pediatric airway maintenance, intraosseous fluid administration and pharmacology. Students are required to complete clinical work in a hospital emergency department, labor and delivery/nursery unit and pediatric ward, plus 10 patient contact hours in delivering prehospital care with an area ALS provider agency. (1.2)

NOTE: Uniform requirements for clinical work are dark slacks (no jeans), dark shoes, departmental uniform shirt or white shirt with a collar, stethoscope and watch with a second hand.

PREREQUISITE: Successful completion of EMS 121, current EMT-B licensure with CPR for Healthcare Providers, and affiliation with a local ALS provider agency.

EMS 123 EMT-PARAMEDIC-INTERNSHIP
(Su) (0.5, 8.0) 2.0

EMT-Paramedic - Internship gives students the opportunity to work for three months under the supervision of an Illinois-licensed EMT-Paramedic, gaining experience in the delivery of prehospital advanced life support patient care. Students get ambulance experience and attend several seminars on the role and responsibilities of a paramedic. A minimum of 25 patient contact hours must be documented during this three-month period. Student-instructor conferences are scheduled throughout the internship to evaluate progress. EMT-Paramedics typically find employment with a municipal service, most often combined with the fire service, or with a private ambulance transport agency. Salaries vary significantly from paid-on-call/paid-on-premise compensation to full-time employment. On successful completion of EMS 123, students are eligible to take the Illinois EMT-Paramedic licensure exam. (1.2)

NOTE: This class will be evaluated on a pass/fail basis.

PREREQUISITE: Successful completion of EMS 122, current EMT-B licensure and affiliation with an ALS prehospital provider agency.

ENGINEERING

EGR 151 ENGINEERING GRAPHICS
[E] (F,S,Su) (3.0, 3.0) 4.0 B

Engineering Graphics introduces the graphical language used by engineers, designers and drafters, to communicate technical ideas in the context of engineering design/manufacturing processes in industry. The course covers such topics as technical sketching, measurement/scaling, geometric constructions, multiview/working drawings, auxiliary projection, pictorials, solid modeling and descriptive geometry. The use of CAD is emphasized throughout the course. (1.1-Articulated) [IAI Major Course Equivalent: EGR941]

EGR 251 STATICS
[E] (F,S) (3.0, 0.0) 3.0

Statics covers analysis of static structures. Topics include particle statics, general principles and force vectors, rigid body equilibrium, moments of inertia, distributed forces and centroids, analysis of structures, virtual work, and friction. Theory is applied to analyze engineering structures such as trusses, frames and machines. This course is designed for students interested in engineering transfer programs. (1.1-Articulated) [IAI Major Course Equivalent: EGR942]

PREREQUISITE: MAT 175 with a grade of C or higher and PHY 291 with a grade of C or higher.

EGR 252 DYNAMICS
[E] (S,Su) (3.0, 0.0) 3.0

Dynamics introduces students to particle kinematics (rectilinear and curvilinear); Newton's laws; energy, work, and momentum methods; planar dynamics and rigid bodies; rigid body kinematics; impulse and momentum; and vibrations. Application to engineering structures and mechanical systems is emphasized. This course is designed for students interested in engineering transfer programs. (1.1-Articulated) [IAI Major Course Equivalent: EGR943]

PREREQUISITE: EGR 251 and MAT 255.

EGR 260 ELECTRICAL CIRCUITS ANALYSIS
[E] (3.0, 3.0) 4.0

Electrical Circuits Analysis teaches the basic principles of circuit analysis, transient analysis, semiconductor devices, digital logic circuits, op-amps., AC steady state analysis and A/D and D/A conversions. Experiments in the laboratory portion of the course illustrate these principles. (1.1-Articulated) [IAI Major Course Equivalent: EGR931L]

PREREQUISITE: PHY 292 and MAT 255 or concurrent enrollment in MAT 260.

ENGLISH

ENG 088 SPELLING
(2.0, 0.0) 2.0

Spelling helps students to develop strategies and skills for spelling. Students use texts and audio materials to address their individual spelling needs. Students may repeat this course three times for a maximum of 8 credit hours. (1.4)

NOTE: Credit cannot be applied to a degree or certificate. This course requires basic reading and basic writing.

PREREQUISITE: Instructor consent or referral by the Sage Learning Center.

ENG 089 SENTENCE STRUCTURE
(2.0, 0.0) 2.0

Sentence Structure covers major sentence components, sentence types, style, and usage. It helps students to construct better sentences and to express their ideas in college writing more effectively. Students may repeat this course three times for a maximum of 8 credit hours. (1.4)

NOTE: Credit cannot be applied to a degree or certificate. This course requires basic reading and basic writing.

PREREQUISITE: Instructor consent or referral by the Sage Learning Center.

ENG 090 FOUNDATIONS OF WRITING
(F,S) (3.0, 0.0) 3.0

Foundations of Writing reviews fundamental academic writing skills. Students practice the writing process, review the conventions of English grammar, and write in response to readings and rhetorical situations. Coursework includes written paragraphs and essays, including a persuasive essay. Students may repeat this course three times for a maximum of 12 credit hours. (1.4)

NOTE: Credit cannot be applied to a degree or certificate. This course requires intermediate reading, and basic writing.

PREREQUISITE: Appropriate score on the English placement test or equivalent.

ENG 095 INTRODUCTION TO COLLEGE WRITING
(F,S,Su) (3.0, 0.0) 3.0

Introduction to College Writing reviews the skills necessary for good college writing. The course covers sentence structure, usage, punctuation, paragraphing, prewriting, organizational skills, and complete compositions. Students may repeat this course three times for a maximum of 12 credit hours. (1.4)

NOTE: Credit cannot be applied to a degree or certificate. All students must pass the course final exam in order to earn a grade of C or higher. This course requires intermediate reading and intermediate writing.

PREREQUISITE: Appropriate score on the English placement test or equivalent.

ENG 097 ACADEMIC READING AND WRITING FOR ELL
(F,S) (3.0, 0.0) 3.0

Academic Reading and Writing for English Language Learners (ELL) focuses on academic reading and writing skills, vocabulary enrichment, and grammar practice. Coursework includes reading assignments, written paragraphs, and written essays, including an argumentative essay. Students may repeat this course three times for a maximum of 12 credit hours. (1.4)

NOTE: Credit cannot be applied to a degree or certificate. All students must pass the course final exam in order to earn a grade of C or higher. This course requires intermediate reading and intermediate writing.

PREREQUISITE: Appropriate score on the English placement test or equivalent.

ENG 099 EFFECTIVE WRITING**(F,S,Su) (1.0, 0.0) 1.0**

Effective Writing offers individualized study support to students needing a focused review of specific writing skills. Students may repeat this course three times for a maximum of 4 credit hours. (1.4)

NOTE: Credit cannot be applied to a degree or certificate. This course requires intermediate reading and intermediate writing.

PREREQUISITE: Concurrent enrollment in ENG 090, ENG 095, ENG 097, ENG 105, ENG 151 or ENG 152 and written consent of the English Department.

ENG 105 TECHNICAL COMMUNICATIONS**[E] (F,S,Su) (3.0, 0.0) 3.0 O**

Technical Communications is the study of various types of business and technical writing including letters, memoranda, resumes, and formal and informal reports. Students become familiar with applicable points of composition, and they learn to adapt their writing and speaking skills to various audience types, including those of different cultures. (1.2-Articulated)

NOTE: This course requires advanced reading and intermediate writing.

PREREQUISITE: Successful performance on the English placement test, an ACT English score of 21 or higher, an SAT composite score of 990 or higher, an SAT writing score of 490 or higher, ENG 095 or ENG 097 with a grade of C or higher, or equivalent.

ENG 108 WRITING FOR THE WEB**[E] (S) (3.0, 0.0) 3.0**

Writing for the Web trains students to write the content of various types of websites. The student writers analyze the multiple audiences and other factors that affect the websites, select appropriate visuals and compose the message using effective language. (1.1-Articulated)

NOTE: This course requires advanced reading and intermediate writing.

PREREQUISITE: Successful performance on the English placement test, an ACT English score of 21 or higher, an SAT composite score of 990 or higher, an SAT writing score of 490 or higher, ENG 095 or ENG 097 with a grade of C or higher, or equivalent.

ENG 151 COMPOSITION I**[C] (F,S,Su) (3.0, 0.0) 3.0 O,B,H**

Composition I teaches the fundamentals of effective writing combined with the reading of selected texts. Students read and write narrative, descriptive, expository, and argumentative prose with emphasis on clear, concise expression of ideas. (1.1-Articulated) [IAI Core Course Equivalent: C1 900]

NOTE: An Advanced Placement English score of 3 grants a student 3 credit hours for ENG 151. Credit is given for ENG 151 if a student receives a CLEP score of 50 or more. A grade of C or higher is required for IAI transfer. For more information, see an academic advisor. This course requires advanced reading and intermediate writing.

PREREQUISITE: Successful performance on the English placement test, an ACT English score of 21 or higher, an SAT composite score of 990 or higher, an SAT writing score of 490 or higher, ENG 095 or ENG 097 with a grade of C or higher, or equivalent.

ENG 152 COMPOSITION II**[C] (F,S,Su) (3.0, 0.0) 3.0 O,B,H**

Composition II builds on the knowledge and skills gained in Composition I. Students continue to practice essay writing with a focus on research papers supported by scholarly evidence as well as the critical analysis of literature. (1.1-Articulated) [IAI Core Course Equivalent: C1 901R]

NOTE: A grade of C or higher is required for IAI transfer. For more information, see an academic advisor. This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 240 INTRODUCTION TO SHAKESPEARE**[H] (F) (3.0, 0.0) 3.0**

Introduction to Shakespeare focuses on the reading and critical interpretation of representative poems, comedies, histories, tragedies, and romances from two perspectives: 'page' and 'stage.' (1.1-Articulated) [IAI Core Course Equivalent: H3 905]

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 250 CREATIVE WRITING**[E] (F,S,Su) (3.0, 0.0) 3.0**

Creative Writing teaches students the skills and techniques for writing poetry, fiction, and drama. Emphasis is on self-evaluation and revision; students also submit work for in-class evaluation by fellow students. (1.1-Articulated)

NOTE: This course requires advanced reading and intermediate writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 251 INTRODUCTION TO LITERATURE**[H] (F,S) (3.0, 0.0) 3.0 O**

Introduction to Literature helps students develop sensitivity and skill in the critical interpretation of poetry, drama, and prose fiction. (1.1-Articulated) [IAI Core Course Equivalent: H3 900]

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 252 STUDIES IN LITERATURE**[E] (F,S,Su) (3.0, 0.0) 3.0**

Studies in Literature focuses on variable topics of literary interest. Topics vary each semester. Students may repeat this course three times for a maximum of 12 credit hours. (1.1-Articulated)

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 253 WORLD LITERATURE TO 1650**[H,IS] (F) (3.0, 0.0) 3.0**

World Literature to 1650 covers significant literary forms and works in Japanese, Chinese, Indian, Greek, Roman, Hebrew, Islamic, and European literature before 1650. (1.1-Articulated) [IAI Core Course Equivalent: H3 906]

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 254 WORLD LITERATURE 1650 TO PRESENT**[H,IS] (S) (3.0, 0.0) 3.0**

World Literature 1650 to Present covers significant literary forms and works in Japanese, Chinese, Indian, Greek, Roman, Hebrew, Islamic, and European literature from 1650 to the present. (1.1-Articulated) [IAI Core Course Equivalent: H3 907]

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 255 BRITISH LITERATURE TO 1800**[H] (F) (3.0, 0.0) 3.0**

British Literature to 1800 examines the development of British literature from its beginnings to 1800. (1.1-Articulated) [IAI Core Course Equivalent: H3 912]

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 256 BRITISH LITERATURE 1800 TO PRESENT**[H] (S) (3.0, 0.0) 3.0**

British Literature 1800 to Present examines the development of British literature from 1800 to the present. (1.1-Articulated) [IAI Core Course Equivalent: H3 913]

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 260 AMERICAN LITERATURE TO 1860**[H] (F) (3.0, 0.0) 3.0**

American Literature to 1860 covers the development of American literature before the Civil War. (1.1-Articulated) [IAI Core Course Equivalent: H3 914]

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 261 AMERICAN LITERATURE 1860 TO PRESENT**[H] (S) (3.0, 0.0) 3.0**

American Literature 1860 to Present covers the development of American literature from the Civil War to the present. (1.1-Articulated) [IAI Core Course Equivalent: H3 915]

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 270 THE BIBLE AS LITERATURE**[H] (S) (3.0, 0.0) 3.0**

The Bible as Literature examines significant literary masterpieces in the Old and New Testaments. (1.1-Articulated) [IAI Core Course Equivalent: H5 901]

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 271 GREEK AND ROMAN MYTHOLOGY**[H] (F,S) (3.0, 0.0) 3.0 O**

Greek and Roman Mythology introduces students to the mythology of ancient Greece and Rome as it appears in literature, art, and music. Through classroom presentations and group discussion, students learn about the influence of this body of material throughout history and in contemporary culture. (1.1-Articulated) [IAI Core Course Equivalent: H9 901]

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 272 NON-WESTERN MYTHOLOGIES**[H,IS] (F,S) (3.0, 0.0) 3.0 O,B**

Non-Western Mythologies examines the mythologies of non-Western societies, including Asian, African, South and Central American, and Native American cultures. Students explore the social, political and cultural development of these societies through literature and study these cultures through the lens of their literature and belief systems. (1.1-Articulated) [IAI Core Course Equivalent: H9 901]

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 275 WOMEN'S LITERATURE**[H,IS] (S) (3.0, 0.0) 3.0**

Women's Literature explores literary works written by, for, or about women. Students examine contextual, thematic, ideological and analytical aspects of the female experience over time and across cultures. (1.1-Articulated) [IAI Core Course Equivalent: H3 911D]

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 276 ASIAN LITERATURE**[H,IS] (S) (3.0, 0.0) 3.0**

Asian Literature covers representative masterpieces from Asia with an emphasis on modern works. (1.1-Articulated) [IAI Core Course Equivalent: H3 908N]

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

ENG 277 INTRODUCTION TO CHILDREN'S LITERATURE**[H,IS] (F) (3.0, 0.0) 3.0**

Introduction to Children's Literature is a study of formal and thematic elements of several different genres of children's literature (fables, fairy tales, nursery rhymes, picture books, chapter books, novels, etc.), and children's literary scholarship. This course will teach students to recognize the differences between children's, pre-adolescent, adolescent, and young adult fiction, and to critically analyze the texts themselves - as they pertain to the intended audiences, and more academically, how they signify identities, cultures, ethics and contexts. (1.1-Articulated) [IAI Core Course Equivalent: H3 918]

NOTE: This course requires advanced reading and advanced writing.

PREREQUISITE: ENG 151 with a grade of C or higher.

FIRE SCIENCE**FRS 100 INTRODUCTION TO EMERGENCY SERVICES****[E] (F) (2.0, 0.0) 2.0**

Introduction to Emergency Services is an overview of the training requirements, job responsibilities and interactions in the fields of emergency medical services, fire science and law enforcement. This course provides valuable information for students considering a career in one of these in-demand areas. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

FRS 101 INTRODUCTION TO FIRE SCIENCE**[E] (F) (3.0, 0.0) 3.0**

Introduction to Fire Science introduces students to the field of fire protection, the history of the fire service, and the roles and responsibilities of fire service professionals in the community, including departmental functions and characteristics. The course covers terms, theories and practices, as well as types of equipment and hazardous materials. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math.

FRS 121 FIRE SUPPRESSION**[E] (S) (3.0, 0.0) 3.0**

Fire Suppression introduces students to fire suppression operations. Emphasis is on the following topics: fire ground tactics and control; manpower and equipment mobilization and utilization; building design and occupancy; extinguishing agents; and equipment and apparatus utilization. Students will discuss current issues affecting fire departments. (1.2-Articulated)

PREREQUISITE: FRS 101.

FRS 122 BUILDING CONSTRUCTION-FIRE SCIENCE**[E] (S) (3.0, 0.0) 3.0**

Building Construction-Fire Science analyzes building construction and how it may be affected by fire. The course focuses on types of construction, principles of construction design, features of fire-resistant materials and basic blueprint-reading skills. (1.2-Articulated)

FRS 123 FIRE PROTECTION SYSTEMS**[E] (S) (3.0, 0.0) 3.0**

Fire Protection Systems looks at fire protection systems from the components to final installation. Emphasis is on automatic sprinkler and extinguishing systems, including various automatic signaling and detection devices. (1.2-Articulated)

FRS 150 BASIC OPERATIONS FIREFIGHTER**[E] (F,S) (11.0, 8.0) 15.0**

Basic Operations Firefighter introduces basic firefighting skills and equipment. Through classroom lecture and practical exercises, students learn the theories of fire suppression and prevention and become proficient in operating fire service tools and equipment. This course has three modules that cover all of the subject areas outlined in NFPA 1001: Standard for Fire Fighter Professional Qualifications-level I. It also meets the requirements students need to take the Office of the State Fire Marshal Certification Exam for Firefighter Basic. (1.2-Articulated)

NOTE: Sponsoring agency must have an equipment agreement on file with McHenry County College Business Services Office. Students can apply credit toward an MCC degree or certificate with FRS 150 or FRS 252, but not both. This course requires advanced reading, intermediate writing, and intermediate math.

PREREQUISITE: Per Illinois Administrative Code 140.50a, students must be engaged in firefighting in an organized Illinois fire department and provide National Fire Protection Association (NFPA)-compliant protective clothing and self-contained breathing apparatus (SCBA). In accordance with NFPA safety standards, students must be clean-shaven.

FRS 205 FIRE INSPECTION AND CODE ENFORCEMENT**[E] (F) (3.0, 0.0) 3.0**

Fire Inspection and Code Enforcement introduces students to proper fire inspection techniques and fire prevention activities. It covers building, fire and life safety codes; public education programs; basic plan review practices; water supply systems; and storage of hazardous materials. (1.2-Articulated)

FRS 220 FIRE SERVICE MANAGEMENT I**[E] (F) (3.0, 0.0) 3.0 B**

Fire Service Management I familiarize students with the role of company officer and introduces basic management theories, practices and functions. It also discusses leadership and management skills needed for the role of front line supervisor. This course is one of five that meet the requirements for Fire Officer I and for eligibility to take the Office of the State Fire Marshal Certification Exam. (1.2-Articulated)

PREREQUISITE: FRS 150 or consent of Fire Science department chair.

FRS 221 FIRE SERVICE MANAGEMENT II**[E] (S) (3.0, 0.0) 3.0 B**

Fire Service Management II familiarize students with the group dynamics and communication issues that company officers must manage. Emphasis is on the manager's ability to handle personnel problems, conflict and change. This course is one of five that meet the requirements for Fire Officer I certification and for eligibility to take the Office of the State Fire Marshal certification Exam. (1.2-Articulated)

PREREQUISITE: FRS 220 or consent of Fire Science department chair.

FRS 222 FIRE SERVICE INSTRUCTOR I**[E] (F) (3.0, 0.0) 3.0**

Fire Service Instructor I is for those who wish to know more about teaching in the fire science field. It provides basic information about teacher-student relationships, the learning environment, methods of teaching and writing lesson plans. This course is one of five that meet the requirements for Fire Officer I certification. (1.2-Articulated)

PREREQUISITE: FRS 150 or consent of Fire Science department chair.

FRS 223 FIRE SERVICE TACTICS & STRATEGIES I**[E] (F,S) (3.0, 0.0) 3.0**

Fire Service Tactics & Strategies I is an introduction to the fire ground tactics and strategies required of the company officer. It covers size-up, fire ground operations, pre-fire planning, and basic engine and truck company operations. This course is one of five that meet the requirements for Fire Officer I certification. (1.2-Articulated)

PREREQUISITE: FRS 150 or consent of Fire Science department chair.

FRS 224 FIRE PREVENTION PRINCIPLES I**[E] (S) (3.0, 0.0) 3.0**

Fire Prevention Principles I covers fire inspection and fire investigation. Inspection topics include laws, codes, ordinances, Life Safety Code applications, building construction, occupancy and inspection techniques. Fire investigation concentrates on determining the cause and point of origin of a fire. This course is one of five that meet the requirements for Fire Officer I certification. (1.2-Articulated)

PREREQUISITE: FRS 150 or consent of Fire Science department chair.

FRS 250 FIRE SCIENCE PRACTICUM**[E] (F,S,Su) (0.0,30.0) 6.0**

Fire Science Practicum provides students with the opportunity to apply and expand their newly acquired skills in a traditional work environment. This course is carried out cooperatively between the student and the host facility. Periodic review sessions are held to assess progress, address problems and review appropriateness of work involvement. Participation depends on student qualifications and facility restrictions. Students spend 2 hours per week in the classroom with an instructor, and up to 30 hours on-site, for 2 credit hours. Students may repeat this course three times for a maximum of 6 credit hours. (1.2-Articulated)

NOTE: Students are required to submit proof of a recent (within 6 months) physical exam. They also must obtain NFPA-compliant fire boots.

PREREQUISITE: FRS 100, FRS 101, EMS 105 and consent of Fire Science department chair.

FRS 252 HAZ-MAT FIRST RESPONDER-OPERATIONS**[E] (F) (3.0, 0.0) 3.0**

Haz-Mat First Responder-Operations covers the chemical characteristics and reactions of flammable liquids, solids, oxidizers and corrosives, as well as safe storage and transportation of these hazardous materials. Students learn about identification, labeling, handling, firefighting and spill control. This course meets the requirements for eligibility to take the Office of the State Fire Marshal Certification Exam. (1.2-Articulated)

NOTE: Students can apply credit toward an MCC degree or certificate with FRS 150 or FRS 252, but not both.

PREREQUISITE: FRS 150 or consent of Fire Science department chair.

FRS 253 FIRE APPARATUS ENGINEER**[E] (S) (2.0, 1.0) 2.5**

Fire Apparatus Engineer teaches the theory and practical application of hydraulics used in fire protection. Students learn methods for calculating water supply capabilities and determining installed system requirements at a fire scene. This course meets the requirements for eligibility to take the Office of the State Fire Marshal Certification Exam. (1.2-Articulated)

PREREQUISITE: FRS 150 or consent of Fire Science department chair.

FRS 290 TOPICS IN FIRE SCIENCE

[E] (F,S) (3.0, 0.0) 3.0

Topics in Fire Science addresses various topics and current issues in the field of fire science and in fire service in general. Course content varies based according to the topic and issue being offered. Sample topics include fire behavior, leadership in fire service, and homeland security. Students may repeat this course three times on different topics for a maximum of 12 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: Consent of Fire Science department chair.

FRENCH

FRE 151 ELEMENTARY FRENCH I

[E,IS] (F,S) (4.0, 0.0) 4.0

Elementary French I takes an active approach to learning French. In addition to traditional course materials, students explore French culture through literature, cinema and music. All activities and assignments stress the four language skills of understanding, speaking, reading and writing. The course aims to build a solid vocabulary and grammatical foundation, and an understanding of basic French conversation. (1.1-Articulated)

NOTE: Students who are native speakers or who have advanced language skills are strongly encouraged to take placement testing in the Testing Center. This will ensure placement at the correct course level. This course requires basic reading and basic writing.

FRE 152 ELEMENTARY FRENCH II

[E,IS] (F,S) (4.0, 0.0) 4.0

Elementary French II builds on Elementary French I, developing students' language comprehension and speaking abilities. It also continues cultural exploration through literature, cinema and music. (1.1-Articulated)

PREREQUISITE: FRE 151 with a grade of C or higher, or appropriate score on the College French placement test.

FRE 251 INTERMEDIATE FRENCH I

[E,IS] (F,S) (4.0, 0.0) 4.0

Intermediate French I builds on Elementary French II, with an even stronger focus on understanding and speaking French. The course involves more advanced reading, composition and language skills activities. Discussions of literature, cinema and music continue, giving students further insight into French culture. (1.1-Articulated)

PREREQUISITE: FRE 152 with a grade of C or higher, or appropriate score on the College French placement test.

FRE 252 INTERMEDIATE FRENCH II

[H,IS] (F,S) (4.0, 0.0) 4.0

Intermediate French II builds on Intermediate French I, with an even stronger focus on understanding and speaking French. The course involves more advanced reading, composition and language skills activities. Discussions of literature, cinema and music continue, giving students further insight into French culture. (1.1-Articulated) [IAI Core Course Equivalent: H1 900]

PREREQUISITE: FRE 251 with a grade of C or higher, or appropriate score on the College French placement test.

GEOGRAPHY

GEG 107 INTRODUCTION TO PHYSICAL GEOGRAPHY

[P] (F,S) (3.0, 3.0) 4.0

Introduction to Physical Geography studies the physical components of the Earth including topics in Earth-Sun relationships, maps, weather, climate, landforms, soil, and the hydrosphere. Analysis will be on the processes involved, the world distribution and interrelationships of these topics and their relationship to humans. Laboratory exercises include experiences in analysis and interpretation of maps, weather processes, climate classification, soil surveys, GPS use, landform processes and the hydrosphere. (1.1-Articulated) [IAI Core Course Equivalent: P1 909L]

NOTE: This course requires intermediate reading, intermediate writing, and basic math.

GEG 123 ENERGY RESOURCES

[P] (F,S) (3.0, 0.0) 3.0 O,B

Energy Resources examines the processes, occurrence, acquisition, consumption, and societal benefits and hazards associated with earth's geologic energy resources. In this inclusive course, students learn about the non-renewable resources of coal, petroleum, natural gas and uranium, as well as the renewable resources of biomass, hydropower, wind, geothermal and sunlight. Environmental and societal topics include: energy consumption and societal development, pollution legislation and mitigation, environmental hazards and policies, waste disposal, energy-related health hazards, and land use planning related to energy resource acquisition and consumption. [IAI Core Course Equivalent: P9 900] (1.1-Articulated)

NOTE: This course requires intermediate reading, basic writing, and intermediate math.

GEG 124 ENERGY RESOURCES LAB

[P] (F,S,Su) (0.0, 3.0) 1.0

Energy Resources Lab complements the Energy Resources class. It is an interdisciplinary scientific investigation of the non-renewable resources of coal, petroleum, natural gas and uranium, as well as the renewable resources of biomass, hydropower, wind, geothermal and sunlight. Students are exposed to several physical science disciplines, including chemistry, physics and the geosciences. Each lab connects to human activities and society, including energy consumption and societal development, pollution, environmental hazards, waste disposal, and land use planning related to energy resource acquisition and consumption. (1.1-Articulated) [IAI Major Course Equivalent P9 900L]

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math.

PREREQUISITE: Credit or concurrent enrollment in GEG 123.

GEG 202 GEOGRAPHY OF THE DEVELOPED WORLD

[S,IS] (F) (3.0, 0.0) 3.0

Geography of the Developed World studies the developed regions of the world, including Europe, North America, Russia, Japan, Korea, Taiwan, New Zealand and Australia. The course looks at the spatial arrangement of resources, populations, human institutions, economic activities, political patterns, religion and cultural landscapes. Each culture is analyzed in context of the international community with special attention given to current events and issues. (1.1-Articulated) [IAI Core Course Equivalent: S4 901]

NOTE: This course requires advanced reading and intermediate writing.

GEG 203 GEOGRAPHY OF THE DEVELOPING WORLD**[S,IS] (F,S,Su) (3.0, 0.0) 3.0 O,SP,H**

Geography of the Developing World studies the underdeveloped regions of the world, including China, India, Southeast Asia, Middle and South America, the Middle East and Africa. The course looks at the spatial arrangement of resources, populations, human institutions, economic activities, political patterns, religion and cultural landscapes. Each culture is analyzed in context of the international community with special attention given to current events and issues. (1.1-Articulated) [IAI Core Course Equivalent: S4 902N]

NOTE: This course requires advanced reading and intermediate writing.

GEG 204 ECONOMIC GEOGRAPHY**[S,IS] (F) (3.0, 0.0) 3.0**

Economic Geography introduces spatially based economic practice and theory. It focuses on place, population, environment and resources, and locational and international business theory. Students explore trends in global economics; extraction and distribution of the world's natural resources; rural and urban land use patterns; economic issues between developed and developing nations; and international business and commerce. The class analyzes case studies and current events within the larger context of the international economic community. (1.1-Articulated) [IAI Core Course Equivalent: S4 903N]

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math.

GEG 220 THE GLOBAL ENVIRONMENT**[P] (F,S,Su) (3.0, 0.0) 3.0 O,B**

The Global Environment looks at the world environment from a geographical and ecological perspective. It studies the impact of humans on the environment and natural resources: pollution; global climate; land and water resources; population; world agriculture; mineral and energy resources; environmental economics and politics; parks and wilderness areas; and environmental quality. Students also focus on humans as agents of change and the need to achieve a sustainable global environment. (1.1-Articulated) [IAI Core Course Equivalent: P9 901]

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math.

GEG 221 THE GLOBAL ENVIRONMENT LAB**[P] (F,S,Su) (0.0, 3.0) 1.0 O,B**

The Global Environment Lab complements the Global Environment course. It is an interdisciplinary scientific investigation of environmental systems and issues. The laboratory work, field analysis and investigations focus on biogeographical studies; land use; energy resources; air and water quality; solid wastes; population studies; politics and environmental policy; agricultural productivity; and environmental planning. The course includes field trips and field work. (1.1-Articulated) [IAI Core Course Equivalent: P9 901L]

NOTE: Lab students must enroll in the same section number for GEG 220 and GEG 221. This course requires intermediate reading, intermediate writing, and intermediate math.

PREREQUISITE: Credit or concurrent enrollment in GEG 220.

GEG 290 TOPICS IN GEOGRAPHY**[E] (3.0, 0.0) 3.0V**

Topics in Geography is an investigation of timely and specialized topics in geography. Topics are selected from human and environmental relationships, cultural issues, and resource studies. The specific topic for a given semester is listed in the class schedule. Topics may be offered for 1-3 credit hours. This course has a more specialized focus than other geography courses. Students may repeat this course and can be repeated two times on different topics for a maximum of 6 credit hours. (1.1-Articulated)

PREREQUISITE: Varies by topic.

GEOLOGY**GEL 105 INTRODUCTION TO PHYSICAL GEOLOGY****[P] (S,Su) (3.0, 3.0) 4.0 O,SP**

Introduction to Physical Geology covers the materials, structures and features of the Earth's surface and the processes that led to their development. Special units focus on volcanoes, glaciers, deserts and mountain terrain. Laboratory work involves mineral and rock identification; topographic and geologic map exercises, and some fieldwork. Students cannot receive credit for both GEL 105 and EAS 170. (1.1-Articulated) [IAI Core Course Equivalent: P1 907L]

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math.

GEL 110 GEOLOGY OF THE NATIONAL PARKS**[P] (F,S) (3.0, 0.0) 3.0**

Geology of the National Parks develops geological background, concepts and principles through study of selected national parks and monuments. This course examines the geological framework and history, modern geological processes, and factors influencing the present-day landscape for each park area. (1.1-Articulated) [IAI Core Course Equivalent P1 907]

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math.

GERMAN**GER 151 ELEMENTARY GERMAN I****[E,IS] (F,S) (4.0, 0.0) 4.0**

Elementary German I teaches fundamental German language skills in comprehension, speaking, reading and writing. Students learn the basic structure of the language. Cultural readers, discussion about contemporary issues, and exposure to practical, everyday situations provides a context for meaningful learning. (1.1-Articulated)

NOTE: Students who are native speakers or who have advanced language skills are strongly encouraged to take placement testing in the Testing Center. This will ensure placement at the correct course level. This course requires basic reading and basic writing.

GER 152 ELEMENTARY GERMAN II**[E,IS] (F,S) (4.0, 0.0) 4.0**

Elementary German II builds on Elementary German I, covering German grammar, composition and conversation. Cultural readers help to further develop practical language skills as well as knowledge of German culture, history and contemporary issues. (1.1-Articulated)

PREREQUISITE: GER 151 with a grade of C or higher, or appropriate score on the College German placement test.

GER 251 INTERMEDIATE GERMAN I**[E,IS] (F,S) (4.0, 0.0) 4.0**

Intermediate German I builds on Elementary German II and takes a cultural approach to the study of German. Students review previously learned grammar and structure, and refine their communication and comprehension skills. Cultural readers offer further insight into German culture, history and contemporary issues. (1.1-Articulated)

PREREQUISITE: GER 152 with a grade of C or higher, or appropriate score on the College German placement test.

GER 252 INTERMEDIATE GERMAN II
[H,IS] (F,S) (4.0, 0.0) 4.0

Intermediate German II builds on Intermediate German I, with practice in more advanced conversation, comprehension, composition and grammar. Reading assignments from contemporary literature, current news sources and cultural readers give the course a practical context. Students also discuss the social, economic and political issues in Germany today. (1.1-Articulated) [IAI Core Course Equivalent: H1 900]

PREREQUISITE: GER 251 with a grade of C or higher, or appropriate score in the College German placement test.

GRAPHIC ARTS

NOTE: For additional offerings of computer related courses, see Animation, Computer Information Systems, Database Management, Digital Media, Network Security, Programming, and Web Design.

GRA 100 ADOBE DESIGN SUITE
[E] (F,S) (0.0, 6.0) 3.0

Adobe Design Suite deals with the introduction of the industry standard software used within design and multimedia production fields. Graphic design, web design, video game design and animation, among other areas, will be discussed within the course in direct application of the software. Students gain a solid foundation of software knowledge to prepare them for success while pursuing a degree in the design and multimedia production fields. Students may repeat this course three times for a maximum of 12 credit hours. (1.2-Articulated)

GRA 167 GRAPHIC DESIGN I
[E] (F,S) (0.0, 6.0) 3.0

Graphic Design I is an introduction to graphic design using the Macintosh platform. Emphasis will be placed on the creative use of software to solve a series of commercial and graphic design problems. Students also engage in basic hands-on exercises to generate images and typography to be incorporated into various graphic design layouts and/or formats. (1.1-Articulated)

NOTE: GRA 167 is cross-listed with ART 167. Credit cannot be earned for both GRA 167 and ART 167. This course requires basic reading, basic writing, and basic math.

GRA 180 HISTORY OF GRAPHIC DESIGN
[E] (S) (2.0, 2.0) 3.0

History of Graphic Design is a historical survey of illustration, typography and commercial art. Topics include formal, stylistic, social, political, economic and historical aspects. Emphasis is placed on art movements, schools of thought, individuals and technology that have contributed to the development of graphic design and its role as a vital component of each culture and period in human history. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math.

PREREQUISITE: Credit (with a grade of C or higher) or concurrent enrollment in GRA 100 or instructor consent.

GRA 183 TYPOGRAPHY I
[E] (F) (0.0, 6.0) 3.0

Typography I is an introductory course in the use of type, type form and type creation in the generation of design and graphics projects on the computer. Students utilize creative approaches in the use of type to solve a number of visual problems in graphic design and visual communications. Time is spent discussing and working with the elements of art and the principles of design that will be incorporated into various projects. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

PREREQUISITE: Credit (with a grade of C or higher) or concurrent enrollment in GRA 100 or instructor consent. Must complete GRA 167 or ART 167 both with a grade of C or higher.

GRA 185 COLOR THEORY
[E] (F,S) (0.0, 6.0) 3.0

Color Theory explores the theory of color as it pertains to visual communications, including additive and subtractive color. Students participate in class discussions, readings, activities, weekly and bi-weekly projects on color and its relationship to composition through the elements and principles of design. (1.2-Articulated)

PREREQUISITE: Credit (with a grade of C or higher) or concurrent enrollment in GRA 100.

GRA 267 GRAPHIC DESIGN II
[E] (S) (0.0, 6.0) 3.0

The Graphic Design II course is a continuation of the graphic and design principles of Graphic Design I. The goal of this class is for the continued growth and development of aesthetic and technical skills related to graphic design. Strong emphasis will be placed on the creative use of the computer hardware and software applications to solve a series of commercial problems. Students may repeat this course three times for a maximum of 12 credit hours; repeatable for increased skills development, if the programs used have changed or program versions have changed. (1.1-Articulated)

PREREQUISITE: GRA 167 or ART 167, either with a grade of C or higher.

HEALTH AND FITNESS EDUCATION

HFE 101 VOLLEYBALL I
[E] (F,S) (1.0, 2.0) 1.0

Volleyball I introduce students to the sport, including basic serving, passing and spiking skills. It also covers offensive and defensive team play, rules and strategies. Volleyball conditioning is discussed in context of physical fitness and health issues. Students may repeat this course once for a maximum of 2 credit hours. (1.1-Articulated)

HFE 103 MARTIAL ARTS/SELF DEFENSE
[E] (F,S,Su) (0.0, 2.0) 1.0

Martial Arts/Self Defense teaches strategies for preventing or responding to situations that jeopardize students' personal safety. Each section of this course covers a particular martial art and the history, terminology and skills and/or techniques associated with that particular martial art. All sections are activity-based classes. Students may repeat this course three times for a maximum of 4 credit hours. (1.1-Articulated)

HFE 105 YOGA I
[E] (F,S,Su) (0.0, 2.0) 1.0

Yoga I is an activity-based course focused primarily on the physical aspects of yoga, introducing breath work and the primary poses of hatha yoga. Some history, philosophy and terminology are also addressed. Students may repeat this course once for a maximum of 2 credit hours. (1.1-Articulated)

NOTE: Students must bring a personal yoga mat.

HFE 110 GOLF I
[E] (F,S,Su) (0.0, 2.0) 1.0

Golf I is an introductory course designed for the beginning golfer. It covers fundamental golf skills and techniques, basic rules and terminology, safety, equipment, etiquette and scoring. Students may repeat this course once for a maximum of 2 credit hours. (1.1-Articulated)

HFE 120 PHYSICAL FITNESS**[E] (F,S,Su) (0.0, 2.0) 1.0 O,B**

Physical Fitness builds students' knowledge and fitness through online study, exercise tests, individual fitness consultations and conditioning programs. The course provides guidance for lifelong participation in health and fitness programming. Students may repeat this course three times for a maximum of 4 credit hours. (1.1-Articulated)

NOTE: Each student receives a comprehensive individualized exercise program through a structured open lab in the Fitness Center. Use Canvas to access the syllabus, reading assignment, quiz and forms to complete. Contact the Fitness Center to schedule an appointment for a fitness evaluation and one-on-one fitness consultation: (815) 455-8551.

HFE 121 STRENGTH TRAINING I**[E] (F,S,Su) (0.0, 2.0) 1.0**

Strength Training I is for students interested in beginning-level strength training concepts and exercises. They learn the five major muscle groups, their function and the primary exercise for each group in developing muscular strength, power, tone and endurance. Students may repeat this course once for a maximum of 2 credit hours. (1.1-Articulated)

HFE 122 AEROBIC EXERCISE**[E] (F,S,Su) (0.0, 2.0) 1.0**

Aerobic Exercise is designed to improve cardiovascular fitness through aerobic exercise routines performed to music. Students gain muscle strength, flexibility, coordination and cardiovascular endurance. Students may repeat this course two times for a maximum of 3 credit hours. (1.1-Articulated)

NOTE: This course is offered on a pass/fail basis.

HFE 123 FITNESS WALKING**[E] (F,S,Su) (0.0, 2.0) 1.0**

Fitness Walking provides students with a low-impact fitness alternative. It covers the benefits of a walking program with an emphasis on wellness promotion. Students may repeat this course three times for a maximum of 4 credit hours. (1.1-Articulated)

NOTE: This course is offered on a pass/fail basis.

HFE 125 FENCING I**[E] (F,S,Su) (0.0, 2.0) 1.0**

Fencing I is an activity-based course that introduces students to the footwork and blade work of competitive fencing. It also teaches them about fencing history, terminology, techniques, strategies, and rules and regulations. Students may repeat this course three times for a maximum of 4 credit hours. (1.1-Articulated)

NOTE: Course includes a \$15 equipment rental fee, payable to the instructor, for masks, gloves and jackets.

HFE 140 THEORY OF BASEBALL**[E] (F) (2.0, 0.0) 2.0 B**

Theory of Baseball is an introductory class that studies the sport of baseball. It covers skills, knowledge, equipment, strategies, and techniques for teaching and coaching baseball. (1.1-Articulated)

HFE 141 THEORY OF BASKETBALL**[E] (F) (2.0, 0.0) 2.0 B**

Theory of Basketball is an introductory class that studies the sport of basketball. It covers skills, knowledge, equipment, strategies, and techniques for teaching and coaching basketball. (1.1-Articulated)

HFE 150 CONTEMPORARY HEALTH ISSUES**[E] (F,S,Su) (3.0, 0.0) 3.0 O,B**

Contemporary Health Issues looks at the physical, mental and social aspects of health as it relates to personal growth and quality of life. It emphasizes motivation toward self-direction of health behavior based on current research findings. (1.1-Articulated)

HFE 151 FIRST AID AND CPR**[E] (F,S,Su) (2.0, 0.0) 2.0**

First Aid and CPR teaches the basic first aid skills needed to handle most at-home and on-the-job emergencies. Students learn about and practice responding to child and adult choking, CPR, shock, neck-spinal injuries and other conditions. Participants can earn CPR and First Aid certificates through the American Red Cross and/or American Heart Association with successful completion of this course. (1.1-Articulated)

NOTE: Credit cannot be earned for both HFE 151 and EMS 105.

HFE 152 WOMEN'S HEALTH ISSUES**[E,IS] (F,S,Su) (3.0, 0.0) 3.0 O**

Women's Health Issues is a course designed to provide an investigation into current topics concerning women's health. Students will focus on biological as well as emotional, cultural, and social issues that impact the health of women. Consumer decision-making will be emphasized in content of women's healthcare. (1.1-Articulated)

HFE 161 PERSONAL FITNESS**[E] (F,S,Su) (2.0, 2.0) 3.0**

Personal Fitness addresses fitness and wellness principles in a combination of lecture and activities. Students come away with a solid foundation for lifelong wellness. As part of the course, each student designs a personal fitness/wellness program. (1.1-Articulated)

HFE 170 FITNESS PROFESSIONS**[E] (F,S) (2.0, 0.0) 2.0**

Fitness Professions is an introductory course covering the general scope, purpose, history and development of the health and fitness field. Students explore various career opportunities, professional organizations and national certification options. (1.1-Articulated)

NOTE: Students pursuing the AAS degree or FIT Certificate are strongly encouraged to complete this course during their first semester.

HFE 171 EXERCISE SCIENCE I**[E] (F,S) (3.0, 0.0) 3.0**

Exercise Science I studies theoretical aspects of the sciences associated with physical activity. The course looks at exercise from a biological, anatomical, biomechanical and kinesiological perspective. Students explore the dynamics of the movement sciences and their application to human performance and training. (1.1-Articulated)

NOTE: Students pursuing the AAS degree or FIT Certificate are strongly encouraged to complete this course during their first semester.

PREREQUISITE: Credit or concurrent enrollment in HFE 170.

HFE 175 GROUP EXERCISE PRINCIPLES**[E] (F,S) (1.0, 2.0) 2.0**

Group Exercise Principles covers basic theory and techniques that involve methods of group exercise instruction and cueing. Students develop skills to create, design, and teach small and large group exercise sessions. (1.1-Articulated)

HFE 176 STRENGTH AND CONDITIONING PRINCIPLES**[E] (F,S) (1.5, 1.0) 2.0**

Strength and Conditioning Principles studies the basic theory and application of resistance training principles. Students work on developing conditioning programs aimed at improved personal and athletic performance. Emphasis is on plyometrics, speed development, Olympic lifts and sport-specific training programs. (1.1-Articulated)

HFE 202 LIFEGUARD TRAINING**[E] (F,S) (2.0, 1.0) 2.0**

Lifeguard Training provides entry-level lifeguard participants with the knowledge and skills to prevent, recognize and respond to aquatic emergencies and to provide care for breathing and cardiac emergencies, injuries and sudden illness until emergency medical services (EMS) personnel take over. (1.1-Articulated)

NOTE: Students interested in Lifeguarding certification must be able to pass a swimming skills test at the beginning of class.

HFE 210 GOLF II**[E] (F,S,Su) (0.0, 2.0) 1.0**

Golf II is an intermediate-level class for students who have a basic command of golf skills and knowledge of the game. The course concentrates on more advanced skills, game strategies and computing of handicaps. Students may repeat this course once for a maximum of 2 credit hours. (1.1-Articulated)

PREREQUISITE: HFE 110.

HFE 221 STRENGTH TRAINING II**[E] (F,S,Su) (0.0, 2.0) 1.0**

Strength Training II is a continuation of Strength Training I. Students design an individual workout program covering a larger scope of muscle groups and more intensive exercises. Students may repeat this course once for a maximum of 2 credit hours. (1.1-Articulated)

PREREQUISITE: HFE 121.

HFE 250 NUTRITION FOR WELLNESS**[E] (F,S,Su) (3.0, 0.0) 3.0 O,B**

Nutrition for Wellness explores the current relationship between nutrition and health, principles of human nutrition including classification of nutrients and their application to the needs of persons throughout the life cycle. Students analyze the nutrients in their own diet. (1.1-Articulated)

PREREQUISITE: Students must place into MAT 095 or earn a grade of C or higher in MAT 090.

HFE 251 DRUGS IN A CONTEMPORARY SOCIETY**[E] (F,S,Su) (3.0, 0.0) 3.0**

Drugs in a Contemporary Society explores some of the sociocultural factors that contribute to substance use and abuse in today's society. It also discusses the physiological and pharmacological effects of drugs on the body, as well as education and prevention techniques. (1.1-Articulated)

HFE 252 ISSUES IN FAMILY VIOLENCE**[E] (S,Su) (3.0, 0.0) 3.0**

Issues in Family Violence gives an overview of domestic violence, including a historical perspective and societal attitudes toward domestic violence issues. The course covers causes and cycles of violence, crisis intervention, advocacy, and legal ramifications and sanctions. (1.1-Articulated)

HFE 255 STRESS MANAGEMENT**[E] (F,S) (3.0, 0.0) 3.0**

Stress Management covers formal stress theory and the management of personal health through recognition and understanding of comprehensive stress management strategies. The relationship between stress, illness, and health is examined with emphasis on prevention and control of stress through techniques such as aerobic exercise, biofeedback, medication, and relaxation. (1.1-Articulated)

HFE 260 EXERCISE PSYCHOLOGY AND MOTIVATION**[E] (F,S) (3.0, 0.0) 3.0**

Exercise Psychology and Motivation covers theory and application of social-psychological principles to leisure-time physical activity. Students develop skills to implement behavior modification and motivational techniques into a variety of exercise professions. (1.1-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math.

PREREQUISITE: BIO 110 or BIO 157 or HFE 171.

HFE 270 EXERCISE TESTING & PROGRAM DESIGN**[E] (F,S) (3.0, 0.0) 3.0**

Exercise Testing & Program Design explores the science of designing exercise programs. Students focus on fitness testing and assessment, exercise programming for healthy populations, and tailoring programs to populations dealing with specific health issues or challenges. (1.1-Articulated)

PREREQUISITE: HFE 170 and HFE 171.

HFE 271 EXERCISE SCIENCE II**[E] (F,S) (3.0, 0.0) 3.0**

Exercise Science II studies biological, physiological and biochemical sciences and their relationship to exercise. Students explore more in-depth exercise science principles and concepts associated with physical activity and human performance. (1.1-Articulated)

PREREQUISITE: HFE 170 and HFE 171.

HFE 278 APPLICATION OF FITNESS INSTRUCTION**[E] (Su) (2.0, 0.0) 2.0**

Application of Fitness Instruction teaches the methods and techniques of individualized exercise instruction. Students learn practical teaching strategies to assess, motivate, educate and train clients in a safe and effective manner to meet their personal fitness objectives. (1.1-Articulated)

PREREQUISITE: HFE 150, HFE 151, HFE 170, HFE 171, HFE 250, HFE 270 and HFE 271 all with a grade of C or higher or prior written consent of the FIT Program advisor or Health and Fitness Education department chair.

HFE 279 HFE INTERNSHIP**[E] (Su) (0.0,10.0) 2.0V**

HFE Internship enables students to apply and refine their developed skills in a professional fitness/human performance work environment. This course is implemented cooperatively with a designated site qualified to provide the professional development required to meet fitness program objectives. Students may repeat this course once for a maximum of 2 credit hours. (1.1-Articulated)

PREREQUISITE: Credit (with a grade of C or higher) or concurrent enrollment in HFE 278.

HFE 280 HEALTH COACHING**[E] (F) (3.0, 0.0) 3.0**

Health Coaching explores the integration of exercise science, behavioral science, and nutritional science in order to assess clients and develop individualized lifestyle-modification programs. Students are prepared to take the ACE Health Coach Certification Examination upon completion of the class. (1.2-Articulated)

NOTE: Students must be 18 years or older and hold a current CPR/AED certification. Students must also submit proof of one of the following: An associate's degree or higher from an accredited college or university in fitness, exercise science, nutrition, health care, wellness, human resources, or a related field; or a current NCAA-accredited certification in fitness, nutrition, health care, wellness, human resources, or related field; or comparable work experience in any of the industries specified. This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: Instructor consent.

HFE 290 TOPICS IN HEALTH AND FITNESS EDUCATION**[E] (F,S,Su) (3.0, 0.0) 3.0V**

Topics in Health and Fitness Education explores timely and specialized topics in health and fitness education. The content varies and offers a more in-depth focus than other health and fitness courses. Students may repeat this course four times on different topics for a maximum of 6 credit hours. (1.1-Articulated)

HEALTH INFORMATION TECHNOLOGY**HIT 137 BASIC CPT CODING****[E] (F,S) (2.0, 2.0) 3.0 O,B**

Basic CPT Coding introduces students to the Current Procedural Terminology (CPT) coding system for procedures in ambulatory care and services rendered by physicians. Individual code numbers are assigned to all procedures and services, and the course will emphasize the application of coding principles to accurately assign CPT codes to health records. The role of CPT codes in billing and reimbursement will be included. Students may repeat this course once for a maximum of 6 credit hours. This course was formerly AOM 137. (1.2-Articulated)

PREREQUISITE: AOM 135 and BIO 110, both with a grade of C or higher.

HIT 138 ICD CODING**[E] (F,S) (2.0, 2.0) 3.0 O,B**

ICD Coding introduces students to the theory, structure and organization of the International Classification of Diseases (ICD) coding system. Students learn to apply coding principles to accurately assign ICD codes to health records. The role of ICD codes in billing and reimbursement is also covered. Students may repeat this course once for a maximum of 6 credit hours. This course was formerly AOM 138. (1.2-Articulated)

PREREQUISITE: AOM 135 and BIO 110, both with a grade of C or higher.

HIT 139 HEALTHCARE REIMBURSEMENT**[E] (F,S) (3.0, 0.0) 3.0 O,B**

Healthcare Reimbursement introduces health records and insurance processing procedures in the medical office. Students will learn the relationship between health information and billing procedures. An overview of both medical and insurance terminology is included. This course was formerly AOM 139. (1.2-Articulated)

PREREQUISITE: AOM 135 and BIO 110, both with a grade of C or higher, and credit (with a grade of C or higher) or concurrent enrollment in HIT 137.

HIT 160 INTRO TO HEALTH INFO TECHNOLOGY**[E] (F,S) (3.0, 0.0) 3.0 O,B**

Introduction to Health Information Technology familiarizes students with the practice of information technology in healthcare settings. The focus is on the content, structure, use and storage of healthcare data and medical records. In addition, students will be introduced to the organization of healthcare providers and insurers. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

HIT 180 HEALTHCARE DELIVERY SYSTEMS**[E] (F,S) (3.0, 0.0) 3.0 O,B**

Healthcare Delivery Systems examines the organization, operation, financing and delivery of healthcare services. The emphasis is on the standards and regulations that apply to healthcare organizations. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and basic math.

PREREQUISITE: HIT 160 with a grade of C or higher.

HIT 210 HEALTHCARE LAW AND ETHICS**[E] (F,S) (3.0, 0.0) 3.0 O,B**

Healthcare Law and Ethics explores current legal, regulatory and ethical requirements in healthcare delivery systems. Students review and discuss legal principles, professional liability, informed consent, medical documentation, privacy and confidentiality. Ethical discussions focus on recognizing various patient needs. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and basic math.

PREREQUISITE: HIT 160 with a grade of C or higher.

HIT 220 QUALITY & PERFORMANCE IMPROVEMENT**(F) (2.0, 0.0) 2.0 B**

Quality & Performance Improvement introduces implementation of quality tools and techniques to analyze workflows and process improvement plans as related to health information department and medical staff activities. (1.2)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: HIT 160 with a grade of C or higher.

HIT 235 HIT PATHOPHYSIOLOGY & PHARMACOLOGY**(F,S,Su) (3.0, 0.0) 3.0 O,B**

Pathophysiology & Pharmacology examines the physiological, cellular and biochemical processes, the resulting homeostatic responses, and the manifestation of diseases, while introducing commonly used treatments. Drug development, effects, and mechanisms of drug delivery are discussed. (1.2)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: BIO 110 with a grade of C or higher.

HIT 237 ADVANCED CPT AND ICD CODING**[E] (F,S) (2.0, 2.0) 3.0 O,B**

Advanced CPT and ICD Coding uses the student's current CPT and ICD knowledge and applies it to real-life case studies in a variety of medical specialties. Case auditing is emphasized for ICD, CPT and HCPCS codes. Students familiarize themselves with an encoder software. Students may repeat this course once if a newer software version becomes available, for a maximum of 6 credit hours. This course was formerly AOM 237. (1.2-Articulated)

NOTE: This course requires advanced reading, intermediate writing and basic math.

PREREQUISITE: AOM 135, HIT 137, HIT 138, all with a grade of C or higher.

HIT 240 ELECTRONIC HEALTH RECORDS**[E] (F,S) (3.0, 0.0) 3.0 O,B**

Electronic Health Records (EHR) introduces students to the history, concepts and operations of EHR. Students will perform a variety of hands-on exercise and learn the importance of data entry at the time of care, electronic, problem lists, results management, flow sheets and trending. Health Insurance Portability and Accountability Act (HIPAA) privacy and security regulations of health records are emphasized. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: AOM 135 with a grade of C or higher.

HIT 260 HEALTHCARE MANAGEMENT**[E] (F,S) (3.0, 0.0) 3.0 O,B**

Healthcare Management covers the principles of management of healthcare facilities by focusing on financial, organizational resources, and human capital. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: HIT 180 with a grade of C or higher.

HIT 270 HEALTHCARE STATISTICS AND RESEARCH

[E] (F,S) (3.0, 0.0) 3.0 O,B

Healthcare Statistics and Research provides students with the essentials of basic hospital and health statistics including descriptive statistics, statistical applications with healthcare data. Students develop skills in data collection, maintenance, organization and reporting. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: HIT 180 with a grade of C or higher.

HIT 280 HIT PRACTICUM

[E] (F,S) (0.0,6.0) 3.0 B

HIT Practicum is designed to provide students with an opportunity to gain hands-on professional practice experience in a healthcare related organization. Students apply knowledge, skills and abilities pertaining to health information. (1.2-Articulated)

NOTE: Students will receive a grade of satisfactory or no credit for this course. This course does not count toward GPA. This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: HIT 160, HIT 180, HIT 210, and HIT 240 all with a grade of C or higher.

HEALTH SCIENCES

HCE 100 INTRODUCTION TO HEALTH CAREERS

[E] (F) (3.0, 0.0) 3.0

Introduction to Health Careers investigates the healthcare delivery systems, services and occupations. It gives students an overview of areas of employment in the healthcare field, as well as communication and personal skills needed for success. Students learn about specific health-related careers, including education and skills requirements, earnings and advancement opportunities, and the future outlook for the field. On completion of this course, students are better equipped to decide if they want to pursue a health-related career. (1.2-Articulated)

HCE 110 MEDICATION MATH

[E] (F,S,Su) (1.0, 0.0) 1.0 O

Medication Math teaches the basic principles of pharmacology, including the ethical and legal implications of medication administration. This course reviews the mathematics and measurement systems involved in the calculation of medication doses. It also assists students in identifying and using information needed to administer medication safely. (1.2-Articulated)

NOTE: This course must be completed within one year prior to acceptance into the Nursing Program. Completion of most or all nursing prerequisite courses is strongly recommended.

PREREQUISITE: MAT 099 with a grade of C or higher, or a qualifying score on the math placement test.

HCE 111 EVIDENCE BASED PRACTICE

[E] (F,S,Su) (1.0, 0.0) 1.0 O

Evidence Based Practice (EBP) provides students with the tools to address healthcare questions with a scientific approach. Students learn to assess current and past research, clinical guidelines, and other information resources in order to identify relevant literature while differentiating between high-quality and low-quality findings. (1.2-Articulated)

NOTE: CDM 110 or CDM 111 is strongly recommended.

HISTORY

HIS 130 ANCIENT CIVILIZATION (TO 300CE)

[E,IS] (F,S,Su) (3.0, 0.0) 3.0

Ancient Civilization (to 300 CE) studies the evolution of Mediterranean and Middle Eastern civilization from prehistoric/Paleolithic times to the rise of the Roman Empire in the 4th century. Students explore the political, economic, social, religious, intellectual and cultural activities of these ancient civilizations. Discussion also relates the ancient past to the present human condition (particularly through religion, culture and what it means to be human). (1.1-Articulated)

HIS 131 WESTERN CIVILIZATION I, 300 BCE-1500

[S,IS] (F,S,Su) (3.0, 0.0) 3.0 O

Western Civilization I (300 BCE-1500) studies the development of Western civilization from Rome to the Renaissance of the 15th century. The course looks at the political, economic, social, religious, intellectual and cultural activities of Western civilization. (1.1-Articulated) [IAI Core Course Equivalent: S2 902]

NOTE: This course fulfills MCC's Social & Behavioral Science general education requirement.

HIS 132 WESTERN CIVILIZATION II 1500CE-PRES

[S] (F,S,Su) (3.0, 0.0) 3.0 O

Western Civilization II (1500CE-Present) explores the development of Western civilization from the Renaissance of the late 15th century to the present. Students discuss the political, economic, social, religious, intellectual and cultural activities of Western civilization and the trends that have transformed the West and the world. (1.1-Articulated) [IAI Core Course Equivalent: S2 903]

NOTE: This course fulfills MCC's Social & Behavioral Science general education requirement.

HIS 141 WOMEN'S HISTORY

[E,IS] (3.0, 0.0) 3.0 O,B

Women's History reviews historical events through the perspective of women. Consideration is given to the role women played in both seminal historical events and general culture of various historical periods. Special attention is paid to the evolution of women's rights and responsibilities over time. (1.1-Articulated)

HIS 165 HISTORY OF LATIN AMERICA

[S,IS] (F) (3.0, 0.0) 3.0 O,B

History of Latin America examines the political, economic, social and cultural history of Latin America from its pre-Columbian origins to present times. It gives students a good understanding of modern Latin America through the study of regional and national historical movements and cultural characteristics. (1.1-Articulated) [IAI Core Course Equivalent: S2 910N]

HIS 170 UNITED STATES HISTORY I

[S,IS] (F,S,Su) (3.0, 0.0) 3.0 O,SP

United States History I studies the enduring themes, developments and conflicts in American history from Colonial times to 1865. (1.1-Articulated) [IAI Core Course Equivalent: S2 900]

HIS 172 UNITED STATES HISTORY II

[S,IS] (F,S,Su) (3.0, 0.0) 3.0 SP

United States History II studies the enduring themes, developments and conflicts in American history from 1865 to the present. (1.1-Articulated) [IAI Core Course Equivalent: S2 901]

HIS 180 HISTORY OF ILLINOIS**[E] (F) (3.0, 0.0) 3.0**

History of Illinois provides students with an understanding of and appreciation for the history of this state and how it relates to the nation's history. The course covers the political, economic, social and cultural development of Illinois. It also looks at key geographical features, religious movements and the impact of different groups that have migrated here. (1.1-Articulated)

HIS 290 TOPICS IN HISTORY**[E] (3.0, 0.0) 3.0**

Topics in History will have various titles depending on the specific topic being explored. Topics will vary according to semester and section. Students may repeat this course three times on different topics for a maximum of 12 credit hours.(1.1-Articulated)

HORTICULTURE**HRT 100 INTRODUCTION TO HORTICULTURE****[E] (S) (2.0, 2.0) 3.0**

Introduction to Horticulture covers the science and practice of horticultural plant cultivation. Students learn about the growth, development and management of fruits and vegetables, flowers, greenhouse and nursery plants, landscaping, and turf grass. This course also discusses technology and computational models used in the industry, as well as the communication and manual skills needed in any horticultural career. (1.2-Articulated) [IAI Major Course Equivalent: AG905]

NOTE: This course requires intermediate reading, intermediate writing, and basic math.

HRT 103 INTRODUCTION TO PLANT SCIENCE**[L] (F,S,Su) (3.0, 3.0) 4.0 O**

Introduction to Plant Science focuses on the relationship of plants to society with emphasis on scientific inquiry. Students explore the biology of plants including their structure, function, heredity, growth and evolution. They learn how the sciences of genetics, physiology and reproduction are applied to improve, manage and produce plants. The course also discusses the historical and economic significance of plants as food, feed and fiber; plant classification; growth and development; propagation; and influences of the botanical environment on plant processes. (1.1-Articulated) [IAI Core Course Equivalent: L1 901L]

NOTE: This course requires intermediate reading, intermediate writing, and basic math.

HRT 105 INTRODUCTION TO SOIL SCIENCE**[E] (S) (3.0, 3.0) 4.0**

Introduction to Soil Science covers a range of topics: the chemical, physical and biological properties of soils; the origin, classification and distribution of soils and their influence on people and plant production; the management and conservation of soil and water resources; and the environmental impact of soil use. Sustainable agriculture topics discussed include composting plant materials, soil organic matter and biology, soil erosion control, groundwater protection, and soil fertility. (1.1-Articulated) [IAI Major Course Equivalent: AG904]

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math.

HRT 112 HORTICULTURE MECHANICS**[E] (F) (2.0, 2.0) 3.0**

Horticultural Mechanics provides students with an overview of design, function, and simple repair of mechanical systems and equipment involved with growing plants through lecture and lab instruction. Topics of discussion include essentials of how to operate, maintain, and troubleshoot plumbing, HVAC, and electrical systems. Small engine, power equipment, and tool maintenance and repair are also discussed. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing and basic math.

HRT 120 BASIC FLORAL DESIGN**[E] (F,S) (2.0, 2.0) 3.0**

Basic Floral Design teaches the basic mechanics of professional floral design. The course covers principles of design, materials used in the field, and specific techniques for arranging flowers and corsages. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math.

HRT 125 INTERMEDIATE FLORAL DESIGN**[E] (S) (2.0, 2.0) 3.0**

Intermediate Floral Design builds on the skills learned in the introductory class. Students focus on quality arrangements as they practice more advanced techniques of floral assembly and design. They also look at various aspects of running a floral design business, including inventory and cost control, the value of different flowers, product availability and marketing. Students may repeat this course once for a maximum of 6 credit hours. (1.2-Articulated)

PREREQUISITE: HRT 120.

HRT 130 FALL GREENHOUSE PRODUCTION**[E] (F) (2.0, 2.0) 3.0**

Fall Greenhouse Production is an introduction to the greenhouse environment and industry. Various greenhouse structures are studied, including glass, fiberglass and poly. Students grow fall crops and vegetables while learning about managing and maintaining greenhouses. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

HRT 135 FRUIT AND VEGETABLE CROPS**[E] (S) (2.0, 2.0) 3.0**

Fruit and Vegetable Crops covers growing fruit and vegetable crops in northern Illinois from the planning stages through harvest. Hardy fruit crops appropriate for our area along with specific vegetable crops are discussed in detail, including cultivar selection, cultural needs, pest management, and harvesting. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing and basic math.

HRT 150 PLANT PROBLEM DIAGNOSIS & MANAGEMENT**[E] (F) (2.0, 2.0) 3.0**

Plant Problem Diagnosis & Management covers the diagnosis and management of major insect, disease and noninfectious problems in trees and shrubs, turf grass, fruit and vegetable crops, and herbaceous ornamental plants in Northern Illinois. Students learn to identify and analyze problems and what various chemical and non-chemical management options involve. Students prepare a portfolio of plant problems, outlining the diagnosis and management options for each. This course prepares students for Illinois Pesticide Certification in the green industry categories. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math.

HRT 159 LANDSCAPE PERENNIALS**[E] (S,Su) (2.0, 2.0) 3.0**

Landscape Perennials gives students interested in garden design a background in perennials. It covers the identification, use and environmental requirements of herbaceous perennials in landscaping. Laboratory and field work stress identification of species as well as designing with and caring for perennials. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math.

HRT 160 TREES & SHRUBS IN THE LANDSCAPE**[E] (F,Su) (2.0, 2.0) 3.0**

Trees & Shrubs in the Landscape is a practical field course. It equips students to identify local trees and shrubs using plant keys and field manuals. The course also discusses the adaptability of these plants and their suitability in various landscape settings. Illinois native tree species are highlighted. Students participate in outdoor labs and field trips to local sites. (1.2-Articulated)

NOTE: This course requires intermediate reading and basic writing.

HRT 161 LANDSCAPE DESIGN**[E] (F) (2.0, 2.0) 3.0**

Landscape Design introduces students to the principles of landscape design and the use of drafting tools. It covers the design process from site analysis and client inventory to the final plan. The focus is primarily on residential design. Drawing exercises begin with simple lines and lettering, and end with a complete home landscape planting plan. (1.2-Articulated)

NOTE: This course requires intermediate reading, basic writing, and intermediate math.

HRT 181 TURF & LAWN MANAGEMENT**[E] (F,Su) (2.0, 2.0) 3.0 B**

Turf & Lawn Management provides an introduction to various turf grasses and techniques for optimizing their growth. Discussion includes turf grass adaptation, identification, selection, establishment, fertilization, pest control, irrigation and other maintenance practices. The course focuses on residential lawns. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math.

HRT 203 INTRODUCTION TO HYDROPONICS**[E] (2.0, 2.0) 3.0**

Introduction to Hydroponics is an in-depth hands-on study of hydroponic and aquaponic systems for growing horticultural crops and plants in indoor environments. Lecture and lab include the essentials of building a system, equipment considerations, starting and maintaining crop plants and fish, and troubleshooting problems. Students learn hands-on in a greenhouse setting. (1.2-Articulated)

NOTE: Previous credit in HRT 130 and HRT 231 recommended. This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: HRT 103.

HRT 205 ORGANIC AND SUSTAINABLE PRACTICES**[E] (F) (2.0, 2.0) 3.0**

Organic and Sustainable Practices is an in-depth study of various methods and systems to produce fruit and vegetable crops organically or with minimum use of chemicals. Topics of discussion include composting and soil building, maximizing use of production areas, organic pest control, extending the season, standards and laws, and marketing. (1.2-Articulated)

NOTE: This course requires intermediate reading, basic writing and basic math.

PREREQUISITE: HRT 103 and HRT 105.

HRT 221 ADVANCED FLORAL DESIGN**[E] (S) (2.0, 2.0) 3.0**

Advanced Floral Design is an in-depth study of professional floral design, including wedding, sympathy and home decor. The course emphasizes the design, assembly, and marketing of bridal and sympathy arrangements. (1.2-Articulated)

PREREQUISITE: HRT 125.

HRT 222 FLOWER SHOP MANAGEMENT**[E] (F) (3.0, 0.0) 3.0**

Flower Shop Management is an introductory course in flower shop management. It discusses equipment, supplies, living and non-living materials, shop design and construction, and day-to-day operations. (1.2-Articulated)

PREREQUISITE: HRT 120.

HRT 229 SILK AND DRIED FLORAL DESIGN**[E] (F) (2.0, 2.0) 3.0**

Silk and Dried Floral Design covers the history and mechanics of professional silk and dried floral designing. Students learn to assemble arrangements using polyester, hand-tied and natural silk materials as well as commercial and collected dried flowers and pods (imported and locally grown). They follow current patterns and design trends in their projects. They also focus on the salability and care of dried designs. (1.2-Articulated)

PREREQUISITE: HRT 120.

HRT 231 SPRING GREENHOUSE PRODUCTION**[E] (S) (2.0, 2.0) 3.0**

Spring Greenhouse Production covers the commercial production of spring crops and bedding plants. Students learn about watering, fertilization, containers, growing media, scheduling, temperature control, insects and diseases, height control, and marketing. The course details bedding plant production from selection and seeding to final retail sale at the end of the semester. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

HRT 250 HORTICULTURE INTERNSHIP**(F,S,Su) (0.0,10.0) 3.0V**

Horticulture Internship is a supervised on-the-job training program in a student's area of interest. The student selects a training site; sets goals with an instructor, who visits the site periodically during the semester; and completes a special project. Credit depends on time spent; 80 clock hours = 1 credit hour. Students may repeat this course once. (1.2)

PREREQUISITE: Written approval of Horticulture department chair.

HRT 251 INTEGRATED PEST MANAGEMENT**[E] (S) (3.0, 0.0) 3.0 O**

Integrated Pest Management (IPM) covers the latest integrated pest management practices for insect, disease and weed problems affecting trees, shrubs, turf grass, flowers, fruit and vegetable crops and foliage plants. Students learn about monitoring, trapping, thresholds, forecasting, and using traditional and alternative pest management materials and methods. Each student designs a complete IPM program for a horticulture commodity of his or her choice. (1.2-Articulated)

PREREQUISITE: HRT 150.

HRT 264 ARBORICULTURE**[E] (S,Su) (2.0, 2.0) 3.0**

Arboriculture discusses the care of trees, shrubs and vines growing in landscapes, parks and municipal areas. It looks in-depth at site analysis and preparation, selection of plant material, planting procedures, watering, mulching, fertilizing, pruning, weed and brush control, pest and disease management, and assessing tree health and hazards. (1.2-Articulated)

PREREQUISITE: HRT 160.

HRT 265 LANDSCAPE CAD**[E] (S) (2.0, 2.0) 3.0**

Landscape CAD teaches computer assisted design/drafting (CAD) applications for landscape horticultural businesses. Students get hands-on experience in creating digital landscape horticulture graphics using AutoCAD software. Students use the program to produce plan, detail, elevation and/or section drawings. (1.2-Articulated)

PREREQUISITE: HRT 161 and AET 151.

HRT 266 LANDSCAPE CONSTRUCTION**[E] (F) (2.0, 2.0) 3.0**

Landscape Construction details landscape installation from planning to completion. It covers site analysis and measurements, blueprint reading, site preparation, and specific installation and construction techniques. Retaining walls, patios and walkways, decks, planters, raised beds, water features, and plant material are among the landscape features discussed. (1.2-Articulated)

PREREQUISITE: HRT 161.**HRT 282 GOLF COURSE & SPORTS TURF MANAGEMENT****[E] (F) (2.0, 2.0) 3.0**

Golf Course & Sports Turf Management offers an in-depth study of the establishment, maintenance and improvement of golf course and athletic field turf. It covers construction of golf courses and athletic fields, establishment procedures, irrigation systems, mowing, fertilization, soil compaction and drainage issues, renovation techniques, and management of insects, weeds and diseases. Students also discuss equipment selection and care, budgeting, planning and scheduling events, and working with governing boards and the public. (1.2-Articulated)

NOTE: Offered in fall semester of even-numbered years only.**HRT 290 TOPICS AND ISSUES IN HORTICULTURE****[E] (2.0, 2.0) 3.0**

Topics and Issues in Horticulture discusses various topics and current issues in the field of horticulture. Course content and teaching techniques vary based on the focus. Sample topics: horticultural Spanish, equipment and pesticide safety, marketing and horticultural therapy. Students may repeat this course once for a maximum of 6 credit hours. (1.2-Articulated)

PREREQUISITE: Consent of Horticulture department chair.**HRT 299 HORTICULTURE INDEPENDENT STUDY****(F,S,Su) (0.0, 6.0) 3.0V**

Horticulture Independent Study offers the opportunity to do research in a particular area of interest. Students submit a written proposal at the beginning of the semester and complete a full written report on their laboratory and theoretical research. Students may repeat this course two times for a maximum of 3 credit hours. (1.2)

PREREQUISITE: Demonstrated ability to excel in area of interest, and written consent of Horticulture department chair.**INDEPENDENT STUDY****IND 150 INDEPENDENT STUDY****[E] (F,S) (0.0, 0.0) 6.0V**

Independent Study engages students in advanced study or a special project in a specific area of interest. The course is carried out under the supervision of a faculty member. Students may repeat this course three times for a maximum of 6 credit hours. (1.1-Articulated)

PREREQUISITE: Written consent of executive dean of Humanities and Social Sciences.**IND 160 INDEPENDENT STUDY IN HUMANITIES****[E] (F,S) (0.0, 0.0) 6.0V**

Independent Study in Humanities offers the opportunity for advanced study or a special project in a humanities discipline of interest. The course is carried out under the supervision of a faculty member. Students may repeat this course three times for a maximum of 6 credit hours. (1.1-Articulated)

PREREQUISITE: Written consent of executive dean of Humanities and Social Sciences.**IND 170 INDEP STUDY IN LIFE & PHYS SCIENCE****[E] (F,S) (0.0, 0.0) 6.0V**

Independent Study in Life & Physical Science offers the opportunity for advanced study or a special project in a science discipline of interest. The course is carried out under the supervision of a faculty member. Students may repeat this course three times for a maximum of 6 credit hours. (1.1-Articulated)

PREREQUISITE: Written consent of executive dean of Mathematics, Sciences and Health Professions.**IND 180 INDEP STUDY IN SOCIAL & BEHAV SCIENC****[E] (F,S) (0.0, 0.0) 6.0V**

Independent Study in Social & Behavioral Science engages students in advanced study or a special project in a social or behavioral science of interest. The course is carried out under the supervision of a faculty member. Students may repeat this course three times for a maximum of 6 credit hours. (1.1-Articulated)

PREREQUISITE: Written consent of executive dean of Humanities and Social Sciences.**INTERDISCIPLINARY STUDIES****NOTE:** Interdisciplinary Studies courses integrate diverse perspectives through the study of problems and topics too broad to be addressed fully by any one discipline.**LAS 250 LEADERSHIP DEVELOPMENT****[E] (F) (3.0, 0.0) 3.0**

Leadership Development is designed to provide emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. Students taking this course will gain a basic understanding of the concept of leadership theory and group dynamics while developing a personal philosophy of leadership, an awareness of the moral and ethical responsibilities of leadership, and an awareness of one's own ability and style of leadership. Selected excerpts from classical and contemporary writings, speeches and biographies provide the content for analysis, while the humanities provides the foundation for the training through the study of literature, essays, drama, and film. Discussions, experiential exercises, and creative group projects promote direct student participation. The course encourages participants to develop their leadership potential and to engage in productive leadership behavior. (1.1-Articulated)

NOTE: Students will be required to participate in some outside-of-class group activities.**LAS 290 TOPICS IN INTER-DISCIPLINARY STUDIES****[E] (6.0, 0.0) 6.0V**

Topics in Interdisciplinary Studies is a cross-disciplinary discussion of timely and specialized topics. Sample topics include: A Moral History of the 20th century; The HIV Crisis: Scientific and Human Perspectives. Students may repeat this course three times on different topics, for a maximum of 12 credit hours. (1.1-Articulated)

JOURNALISM

JRN 152 INTRODUCTION TO MASS COMMUNICATION

[E] (F,S) (3.0, 0.0) 3.0 O

Introduction to Mass Communication gives a broad overview of the journalism field, emphasizing mass media and its impact on public opinion. (1.1-Articulated) [IAI Major Course Equivalent: MC911]

JRN 155 MEDIA NEWS WRITING

[E] (F,S) (3.0, 0.0) 3.0

Media News Writing teaches techniques and skills necessary for success as a journalist today. This course covers the mechanics of writing, copy editing, layout and design, and proofreading in all platforms of media. (1.1-Articulated) [IAI Major Course Equivalent: MC919]

JRN 165 INTRODUCTION TO BROADCASTING

[E] (F,S) (3.0, 0.0) 3.0

Introduction to Broadcasting provides a broad overview of the field, including the history of American radio and television broadcasting; comparative broadcasting systems; organization and operation of stations and networks; social and legal responsibilities of radio and television; broadcasting codes and guidelines; and audience survey results and methods. (1.1-Articulated) [IAI Major Course Equivalent: MC914]

JRN 170 MEDIA FEATURE WRITING

[E] (F,S) (3.0, 0.0) 3.0

Media Feature Writing is an introductory course in researching and writing feature articles for newspapers and magazines in all platforms of media. Students write non-fiction articles (typically 500 to 2,000 words long), which they are encouraged to submit for publication. All work must be typed. (1.1-Articulated)

JRN 180 INTRODUCTION TO FILM

[F] (F,S,Su) (3.0, 0.0) 3.0

Introduction to Film examines the art and craft of filmmaking to improve understanding of and appreciation for the cinematic medium. Students learn about lighting, camera work, editing, sound and character relationship. Films of the 19th, 20th and 21st century are viewed and discussed. (1.1-Articulated) [IAI Core Course Equivalent: F2 908]

JRN 290 TOPICS IN JOURNALISM

[E] (F,S) (3.0, 0.0) 3.0

Topics in Journalism covers a variety of specific areas of study in the journalism field. Topics vary from semester to semester and offerings are listed in the current course schedule. Sample topics include screenwriting, authoritarian media systems, writing for social media, or studio production. Students may repeat this course three times on different topics, for a maximum of 12 credit hours. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing and basic math skills.

LIBRARY

LIB 110 INFORMATION LITERACY AND RESEARCH

[E] (F,S) (1.0, 0.0) 1.0 O,B

Information Literacy and Research provides students with the skills needed to locate, evaluate and use information effectively in the modern information age. Topics include determining the appropriate search strategy and tools, database and web searching techniques, source evaluation, and information ethics. (1.1-Articulated)

NOTE: This course requires basic reading and intermediate writing.

MANAGEMENT

MGT 110 SUPERVISORY RESPONSIBILITY

[E] (F,S) (3.0, 0.0) 3.0 O,B

Supervisory Responsibility covers the role and responsibilities of the supervisor as an effective director of employee activities in the modern workplace. (1.2-Articulated)

NOTE: MGT 110 is cross-listed with IMT 110. Credit cannot be earned for both courses. This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

MGT 150 PRINCIPLES OF MANAGEMENT

[E] (F,S,Su) (3.0, 0.0) 3.0 O,B

Principles of Management introduces students to the concepts, terminology, principles and theories of management. It emphasizes the skills needed to be an effective manager and covers the primary functions of management, including planning, organizing, leading and controlling. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

MGT 205 CREATIVE LEADERSHIP

[E] (F,S) (3.0, 0.0) 3.0 O,B

Creative Leadership shows the positive impact that effective decision-making can have on personal and organizational well-being. It outlines a systematic process for creative thinking and problem-solving, and students develop their skills in these areas through individual and group activities and exercises. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

MGT 210 HUMAN RESOURCES MANAGEMENT

[E] (F,S) (3.0, 0.0) 3.0 O,B

Human Resources Management presents a study of the objectives, functions and organization of personnel programs; selection, training, placement, job analysis, classification, and rating of employees; wage incentive systems; discipline and techniques of supervision; elimination or reduction of employment hazards; and the collective bargaining process. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

MGT 225 CROSS CULTURAL MANAGEMENT

[E] (F,S) (3.0, 0.0) 3.0 O,B

Cross Cultural Management emphasizes the interpersonal skills needed to manage across domestic and global borders. Development of skills, understanding and synthesizing how cultural factors influence behavior in the workplace, and negotiation processes are all utilized. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

MGT 230 EXPERIENCING MANAGEMENT DECISIONS

[E] (F,S) (3.0, 0.0) 3.0 O,B

Experiencing Management Decisions looks at management concepts and problems using case studies and simulation. Students participate in the running of a fictitious company by making decisions and competing with other 'companies.' Simulations are designed to reflect real business situations and provide valuable practice in making decisions as a manager. (1.2-Articulated)

NOTE: It is recommended that this course be completed during the last semester of your Business Management certificate and/or degree program(s). This course requires intermediate reading, intermediate writing, and intermediate math. Online courses require advanced reading and advanced writing.

PREREQUISITE: ACC 151, BUS 150, and MGT 150.

MANUFACTURING MANAGEMENT

IMT 100 INTRODUCTION TO MANUFACTURING

[E] (F,S,Su) (3.0, 0.0) 3.0 B

Introduction to Manufacturing is a broad exploratory course that introduces students to the manufacturing industry. Through hands-on activities, students will learn how manufacturers use technology to change raw materials into finished products. This course will include: a brief history of manufacturing, social impacts, types of manufacturing production, design processes, properties of materials, manufacturing processes and career exploration. (1.2-Articulated)

IMT 102 MANUFACTURING PROCESSES

[E] (S) (3.0, 0.0) 3.0 B

Manufacturing Processes covers the principles, practices and sequence of the primary manufacturing processes. Topics include metal casting and forming, powder metallurgy, ceramic applications, plastics technology, and joining and welding. (1.2-Articulated)

NOTE: IMT 103 is recommended.

IMT 103 MATERIALS OF INDUSTRY

[E] (F) (3.0, 0.0) 3.0 B

Materials of Industry studies the physical, chemical and electrical properties of industrial materials: ferrous and non-ferrous metals, ceramics, and natural and synthetic organic materials (plastics). Students also learn about the origin of these materials and their primary uses in industrial applications. This course is recommended for those planning further study in industrial technology. (1.2-Articulated)

IMT 104 BLUEPRINT READING FOR MANUFACTURING

[E] (F,S,Su) (3.0, 0.0) 3.0 B

Blueprint Reading for Manufacturing teaches students how to read shop blueprints and study the information needed to fabricate parts and perform assembly operations. (1.2-Articulated)

IMT 105 INTRODUCTION TO MANUAL MACHINING

[E] (F,S,Su) (2.0, 2.0) 3.0 B

Introduction to Manual Machining covers introductory-level machining skills used in metal manufacturing. Students learn machine shop safety and are introduced to the basics of operating drills, saw and cut off machines, lathes and mills. Students also learn inspection and quality assurance functions as they relate to a machine shop. (1.2-Articulated)

PREREQUISITE: IMT 100, and credit (with a grade of C or higher) or concurrent enrollment in IMT 104.

IMT 106 CNC PROGRAMMING I

[E] (F,S,Su) (2.0, 2.0) 3.0 B

CNC (Computer Numerical Control) Programming I covers introductory level machine skills used in metal manufacturing. The course covers the setup and operation of CNC machining and turning centers through laboratory experiences and the manufacture of pre-programmed parts, including part holding techniques, alignment, process planning, tooling for CNC machine tools, and inspection of machined products. Students may earn NIMS Machining Level 1 credential. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and basic math.

PREREQUISITE: IMT 105.

IMT 109 MECHANICS OF MATERIALS

(3.0, 0.0) 3.0 B

Mechanics of Materials examines the internal stresses and deformation of elastic bodies resulting from the action of external forces. Students learn the simple and combined stresses and properties of materials required in the design of beams, columns, shafts, joints and other support structures. (1.2)

PREREQUISITE: MAT 106 with a grade of C or higher.

IMT 110 SUPERVISORY RESPONSIBILITY

[E] (F) (3.0, 0.0) 3.0 B

Supervisory Responsibility covers the role and responsibilities of the supervisor as an effective director of employee activities in the modern workplace. (1.2-Articulated)

NOTE: IMT 110 is cross-listed with MGT 110. Credit cannot be earned for both courses.

IMT 112 TRAINING THE TRAINER

[E] (S) (3.0, 0.0) 3.0 B

Training the Trainer covers the basic teaching techniques needed to successfully train workers on the job. A four-step approach is used along with practical in-class training sessions. (1.2-Articulated)

IMT 116 INDUSTRIAL SAFETY MANAGEMENT

[E] (S) (3.0, 0.0) 3.0 B

Industrial Safety Management covers the federal Occupational Safety and Health Act as it relates to industrial safety programs, safety code and standards, compensation and safety inspection, safety devices for equipment, and safety education programs. (1.2-Articulated)

IMT 117 SUPPLY CHAIN MANAGEMENT I

[E] (S) (3.0, 0.0) 3.0 B

Supply Chain Management I outlines basic concepts of the supply chain including operations planning, inventory management, sourcing, and logistics. Students learn about planning scheduling, typical process and layout types, and control of material flow throughout the supply chain. (1.2-Articulated)

IMT 120 METROLOGY FOR QUALITY

[E] (F) (3.0, 0.0) 3.0 B

Metrology for Quality covers metrology techniques found in industry by using hands-on methods with contemporary measurement tools. This course also covers quality applications of metrology examining sampling techniques, statistical process control, and quality process plans.

(1.2-Articulated)

IMT 121 QUALITY PRACTICES AND MANAGEMENT

[E] (F,S) (3.0, 0.0) 3.0 B

Quality Practices and Management covers industry standard practices such as statistical process control, capability studies, repeatability and reliability. Management implementation strategies such as Total Quality Management, Six Sigma and International Standards Organization Quality Standards will be examined. Data analyses and chart creation will be completed using statistical analysis software. (1.2-Articulated)

IMT 125 PRIN OF PERSONNEL + INDUSTRIAL RELN

[E] (F) (3.0, 0.0) 3.0 B

Principles of Personnel + Industrial Relations studies the primary aspects of personnel and industrial relations: job analysis, recruitment, wages and salary, employee development, morale, communications, safety, government regulations, and labor relations. (1.2-Articulated)

IMT 130 FACILITIES PLANNING AND DESIGN

[E] (S) (3.0, 0.0) 3.0 B

Facilities Planning and Design covers the essential elements of plant floor layout, and materials handling and storage. Flow patterns, material handling requirements, equipment placement, and storage and retrieval methods are explored. Analyses of design for efficiency, safety and feasibility are completed. Facility layouts will be created using CAD programs. (1.2-Articulated)

PREREQUISITE: AET 151.

IMT 135 MAINTENANCE MANAGEMENT**[E] (S) (3.0, 0.0) 3.0 B**

Maintenance Management gives an overview of maintenance function in an organization and the responsibilities of management. It covers the role of maintenance leaders and the development of maintenance teams in an organization. It also introduces computer systems that can help in the development and implementation of preventive maintenance programs within manufacturing organizations. (1.2-Articulated)

IMT 155 CNC PROGRAMMING II**[E] (F,S,Su) (2.0, 2.0) 3.0 B**

CNC Programming II (Computer Numerical Control) provides experience with G-code programming and CNC fundamentals. Programming and operations planning are used to reproduce various 3D CAD drawings. Students learn how to determine the proper tooling, programming and set up of specific numerical control operations. Students program operations and integrate the computer-controlled system with other procedures, such as computer-aided manufacturing (CAM) and/or computer integrated manufacturing (CIM). Both lathe and mill work are included in this course. (1.2-Articulated)

PREREQUISITE: IMT 106**IMT 200 COMPUTER INTEGRATED MANUFACTURING I****[E] (F,S) (2.0, 0.0) 2.0 B**

Computer Integrated Manufacturing I is the first of two courses covering computer technology in today's manufacturing environment. This course focuses on how computers are used to control machines and manufacturing processes. It covers numerical control (NC), machine/process interfaces, CAD/CAM, and robotics. It also introduces students to the basic concept of computer integrated manufacturing (CIM) as it relates to machine/process control. (1.2-Articulated)

PREREQUISITE: IMT 102 or instructor consent.**IMT 205 COMPUTER INTEGRATED MANUFACTURING II****[E] (F,S) (2.0, 0.0) 2.0 B**

Computer Integrated Manufacturing II is the second of two courses covering computer technology in today's manufacturing environment. This course introduces data collection, communications, and analysis systems and how to implement them. It also covers manufacturing execution systems (MES), which help manage production and link to other company systems, such as quality control, shipping and maintenance. Students learn how computer integrated manufacturing (CIM) can lower manufacturing costs, improve quality performance, and reduce design to manufacture time. (1.2-Articulated)

PREREQUISITE: IMT 200.**IMT 210 CONTINUOUS IMPROVEMENT PRACTICES****[E] (F,S) (3.0, 0.0) 3.0 B**

Continuous Improvement Practices introduces the tools and techniques for manufacturing process problem-solving. Students learn about the basic concepts of statistical process control and designed experiments, as well as methods for troubleshooting specific production processes. (1.2-Articulated)

IMT 215 SUPPLY CHAIN MANAGEMENT II**[E] (S) (3.0, 0.0) 3.0 B**

Supply Chain Management II focuses on the details involved in planning and controlling across the supply chain including Enterprise Resource Planning (ERP) components, process planning, shop floor control, and capacity analysis and control. (1.2-Articulated)

PREREQUISITE: IMT 117.**IMT 250 MANUFACTURING INTERNSHIP****[E] (F) (0.0, 0.0) 3.0V B**

Manufacturing Internship gives students the opportunity to apply their manufacturing knowledge and skills in a real industry environment. Specific goals and objectives for each student are prepared by the program coordinator and the cooperating employer. (Students should contact the coordinator eight weeks prior to the beginning of the internship.) Students complete a minimum of 75 contact hours for each credit. Students may repeat this course once for a maximum of 3 credit hours. (1.2-Articulated)

PREREQUISITE: Written consent of the department chair.**IMT 261 TECHNICAL PORTFOLIO DESIGN I****[E] (S) (3.0, 0.0) 3.0 B**

Technical Portfolio Design I provides the framework for students to create a professional technical portfolio to be used for employment seeking, learning assessment, including transfer institution evaluation, and goal evaluation. Students create a portfolio that demonstrates competence outlined on their resume and cover letter. Portfolios include professional and academic work experience and samples, as well as applicable certifications, resume, cover letter, and necessary documentation needed to apply for positions in industry. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and basic math.**IMT 262 TECHNICAL PORTFOLIO DESIGN II****[E] (S) (3.0, 0.0) 3.0 B**

Technical Portfolio Design II finalizes the student technical portfolio to be used for employment seeking, learning assessment, including transfer institution evaluation, and goal evaluation. Students finalize the professional portfolio to solidify demonstration of competence outlined on their resume and cover letter. Research of future baccalaureate, training, and certification pathways is required. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and basic math.**PREREQUISITE:** IMT 261.**IMT 290 TOPICS IN MANUFACTURING****[E] (F,S) (3.0, 0.0) 3.0V B**

Topics in Manufacturing has various titles depending on the specific topic being explored. Topics vary according to semester and section. Offerings are listed in the current course schedule. Students may repeat this course three times on different topics for a maximum of 12 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and basic math.**IMT 299 INDEP STUDY IN MANUFACTURING****[E] (F,S) (0.0, 0.0) 6.0V B**

Independent Study in Manufacturing focuses on a specialized mechanical engineering topic or project which is not available as a regular course offering. The study is done under the direction of a qualified faculty member. Students may repeat this course three times for a maximum of 6 credit hours. (1.2-Articulated)

PREREQUISITE: Written consent of the department chair.

MARKETING

MKT 110 PRINCIPLES OF MARKETING

[E] (F,S,Su) (3.0, 0.0) 3.0 O,B,SP

Principles of Marketing provides an overview of marketing practices: product development and planning, pricing strategies, promotional efforts including advertising and sales, and evolving distribution channels. (1.1-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math. Online courses require advanced writing.

MKT 120 PRINCIPLES OF ADVERTISING

[E] (F,S) (3.0, 0.0) 3.0 O,B

Principles of Advertising provides an overview advertising practices and the role of advertising in marketing. The course covers campaign strategy, use of media, use of behavior sciences in advertising and branding, labeling, and packaging. Students develop an advertising plan and execute their plan using print media and radio and television commercials. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math. Online courses require advanced writing.

MKT 130 PROFESSIONAL SELLING

[E] (3.0, 0.0) 3.0 O,B

Professional Selling covers strategies and techniques taught from an application perspective. Students learn analysis and application of professional sales principles and how they apply to goods and services in Business to Consumer (B2C) and Business to Business (B2B) situations. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math. Online courses require advanced writing.

MKT 140 PRINCIPLES OF RETAILING

[E] (3.0, 0.0) 3.0 O,B

Principles of Retailing gives a general overview of retailing operations for students considering a career in the field. It covers store location, store layout, personnel, budgets, pricing, services, inventory and buying. It also discusses various careers in retailing. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math. Online courses require advanced writing.

MKT 155 ELECTRONIC COMMERCE (E-COMMERCE)

[E] (F,S) (3.0, 0.0) 3.0 O,B

Electronic Commerce (E-Commerce) focuses on the integration of electronic commerce tools and multimedia technologies, and strategies for their effective use in organizations. Emphasis is on the use of these technologies in a marketing application. As part of the course, students develop a multimedia marketing presentation. (1.2-Articulated)

NOTE: CDM 110 or CDM 111 recommended. This course requires intermediate reading, intermediate writing, and basic math. Online courses require advanced writing.

MKT 225 CONSUMER BEHAVIOR

[E] (F,S) (3.0, 0.0) 3.0 O,B

Consumer Behavior is a study of consumers' informational search, acquisition, purchasing/post-purchasing, understanding, and analysis of the buying process. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math. Online courses require advanced writing.

PREREQUISITE: MKT 110 or written consent of the Marketing department chair.

MKT 248 DIRECT MARKETING

[E] (F) (3.0, 0.0) 3.0 O,B

Direct Marketing focuses on creating and implementing direct marketing strategies. Students learn about researching customer characteristics and purchase patterns, identifying target markets, designing campaigns, and establishing databases. They also discuss database management, telemarketing and catalogs. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math. Online courses require advanced writing.

MKT 249 MARKETING INTERNSHIP

[E] (F,S,Su) (1.0,15.0) 3.0V

Marketing Internship provides students with an opportunity to apply their acquired skills in a real work environment. The course is conducted cooperatively among the student, the College and the employer. Periodic review sessions are held to assess student progress and review the appropriateness of the work. Progress is based, in part, on written evaluation and consultations with the cooperating employer. Credit depends on time spent: 75 clock hours = 1 credit hour. This course is primarily for students in the marketing programs. Students may repeat this course two times for a maximum of 6 credit hours under this course number. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math. Online courses require advanced writing.

PREREQUISITE: 12 credit hours of MKT coursework with a grade of C or higher and written consent of the Business department chair.

MKT 250 MARKETING PRACTICUM

[E] (F,S,Su) (0.0,15.0) 3.0V

Marketing Practicum students majoring in marketing/retailing may apply for this course, which offers real-world project-based experience. Students work from five to 15 hours per week on a project that offers an opportunity to apply the marketing skills acquired in class. This is an elective course that requires consent from both the Business department chair and the cooperating business prior to registration. Students may repeat this course once for a maximum of 6 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math. Online courses require advanced writing.

PREREQUISITE: 30 credit hours toward marketing/retailing program requirements and written consent of Marketing department chair.

MKT 264 INTERNATIONAL MARKETING

[E] (F,S) (3.0, 0.0) 3.0 O,B

International Marketing gives students a broad understanding of the global marketing arena. They learn about strategies for evaluating overseas market potential, opportunities and risks. They also explore how international marketing is conducted, looking at product, price, promotion and distribution in context of different countries' cultures, languages, and political and economic dynamics. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math. Online courses require advanced writing.

MKT 290 TOPICS & ISSUES IN MARKETING

[E] (6.0, 0.0) 6.0V

Topics & Issues in Marketing presents various topics and issues related to marketing. Course content and teaching techniques vary based on the focus each semester. Students may repeat this course two times on different topics for a maximum of 6 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing, and basic math. Online courses require advanced writing.

MATHEMATICS

NOTE: All students must take mathematics assessment tests prior to registering for their first mathematics course at McHenry County College. Assessment test results will be valid for one year. A grade of C or higher is required for the prerequisite listed unless otherwise indicated. Courses taken on a pass/fail basis do not meet the prerequisite; students are required to repeat the course for a letter grade. If two or more years have elapsed since the prerequisite was satisfied, it is recommended that the prerequisite course be retaken.

MAT 090 ESSENTIALS OF MATHEMATICS (F,S,Su) (3.0, 0.0) 3.0

Essentials of Mathematics reviews arithmetic operations and mathematical principles. Topics include basic computation involving whole numbers, fractions, decimals, percentages, ratios, pre-algebra and problem-solving. This course requires basic reading. (1.4)

NOTE: Credit cannot be applied to a degree or certificate. This course requires basic reading.

MAT 095 ELEMENTARY ALGEBRA (F,S,Su) (4.0, 0.0) 4.0

Elementary Algebra covers operations and applications dealing with integers, linear equations, ratios and proportions, exponents, polynomials, factoring, graphing linear equations and inequalities, and solving linear systems. (1.4)

NOTE: Credit cannot be applied to a degree or certificate.

PREREQUISITE: MAT 090 with a grade of C or higher, or appropriate score on mathematics placement test.

MAT 096 GEOMETRY (F,S,Su) (4.0, 0.0) 4.0

Geometry studies shapes (circles, rectangles, triangles, cylinders and cubes) with a concentration on terminology and real-world applications of theorems and formulas. Work with proofs is limited. (1.4)

NOTE: Credit cannot be applied to a degree or certificate.

PREREQUISITE: MAT 095 or MAT 099 with a grade of C or higher, or appropriate score on mathematics placement test.

MAT 097 TECHNICAL MATHEMATICS I (F) (3.0, 0.0) 3.0 O

Technical Mathematics I covers fractions, decimals, percentages, introductory geometry, the metric system and elementary algebra. (1.2)

NOTE: Credit cannot be applied to a degree or certificate.

MAT 098 MATHEMATICS FOR ELECTRONICS I (3.0, 0.0) 3.0

Mathematics for Electronics I studies operations on numbers, basic equation-solving (addition and multiplication principles), ratios and proportions, variations, powers of 10, units, special products and factoring techniques, algebraic functions, and fractional equations. Topics and concepts in this course are applied to electronics (1.2)

NOTE: Students are encouraged to contact the Mathematics department chair for advisement prior to registering for this course. Credit cannot be applied to a degree or certificate.

MAT 099 INTERMEDIATE ALGEBRA (F,S,Su) (4.0, 0.0) 4.0

Intermediate Algebra studies problem-solving, factoring, rational expressions, graphing, rational exponents, radicals, logarithms and quadratic equations. (1.4)

NOTE: Credit cannot be applied to a degree or certificate.

PREREQUISITE: MAT 095 with a grade of C or higher, or appropriate score on mathematics placement test.

MAT 106 TECHNICAL MATHEMATICS II (E) (S) (3.0, 0.0) 3.0

Technical Mathematics II studies general algebra and trigonometry for technology students. Students learn about linear equations, exponents, radicals, algebraic fractions, quadratic equations and right-triangle trigonometry. (1.2-Articulated)

PREREQUISITE: MAT 097 or appropriate score on mathematics placement test.

MAT 107 MATHEMATICS FOR ELECTRONICS II (E) (3.0, 0.0) 3.0

Mathematics for Electronics II studies graphing algebraic functions, solving simultaneous equations, exponents and radicals, solving quadratic equations and number systems for computers. Topics and concepts in this course are applied to electronics. (1.2-Articulated)

NOTE: Students are encouraged to contact the Mathematics department chair for program advisement prior to registering for this course.

PREREQUISITE: MAT 098, or an appropriate score on the mathematics placement test.

MAT 120 GENERAL EDUCATION STATISTICS (M) (F,S,Su) (3.0, 0.0) 3.0 O

General Education Statistics covers elementary statistics to meet the general education requirement. Students acquire a reasonable level of statistical literacy and reasoning in this hands-on course. They learn to use statistics to analyze and develop solutions for professional, societal and even personal problems. (1.1-Articulated) [IAI Core Course Equivalent: M1 902]

NOTE: This 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 or social science), or mathematical statistics. Credit is not granted for both MAT 120 and MAT 220. A TI-83 or TI-84 graphing calculator is required. Statistical computer software may be used in lieu of the graphing calculator for online sections.

PREREQUISITE: MAT 099 with a grade of C or higher or appropriate score on mathematics placement test, or placement by ACT or SAT scores.

MAT 140 CONCEPTS IN MATHEMATICS (3.0, 0.0) 3.0

Concepts in Mathematics covers selected topics that illustrate the development of important ideas in various branches of mathematics and how these topics are interrelated. Topics include calculator use, logic, problem-solving, measurement, consumer mathematics, statistics, geometry, probability and computers. (1.2)

PREREQUISITE: MAT 095 with a grade of C or higher, or appropriate score on mathematics placement test.

MAT 150 ELEMENTS OF MATHEMATICS (M) (F,S,Su) (3.0, 0.0) 3.0 O

Elements of Mathematics focuses on mathematical reasoning and solving real-life problems. Topics include: Logic, modeling, financial management and a maximum of one optional topic from the categories of game theory, graph theory, networking or linear programming. This course is designed to meet the general education requirement; it is intended for students who do not plan to continue study in a math-related field. (1.1-Articulated) [IAI Core Course Equivalent: M1 904]

PREREQUISITE: MAT 099 with a grade of C or higher, or appropriate score on mathematics placement test, or placement by ACT or SAT scores.

MAT 158 TECHNICAL MATHEMATICS III
(3.0, 0.0) 3.0

Technical Mathematics III studies logarithms, triangle theory, trigonometry formulas and identities, complex numbers, vectors and analytic geometry. (1.2)

PREREQUISITE: MAT 106.

MAT 159 MATHEMATICS FOR ELECTRONICS III
[E] (3.0, 0.0) 3.0

Mathematics for Electronics III covers solutions of right triangles, trigonometry identities and equations, plane vectors, periodic functions, phasor algebra, waveshaping, rates of change (average and instantaneous), and integration. Topics and concepts in this course are applied to electronics. (1.2-Articulated)

PREREQUISITE: MAT 107.

MAT 161 COLLEGE ALGEBRA
[E] (F,S,Su) (3.0, 1.0) 3.0 O

College Algebra covers solution of equations and inequalities, exponential and logarithmic functions, polynomial functions and graphs. This course is primarily intended for business and social science students (MAT 165 is the course for mathematics, science and engineering students and other students who are preparing to take MAT 175). This course requires a one hour lab each week. (1.1-Articulated)

NOTE: Credit is not granted for both MAT 161 and MAT 165. A graphing calculator is required. It may be any brand, but the TI-83 or TI-84 is used by the instructor for classroom presentations.

PREREQUISITE: MAT 096 and MAT 099 both with a grade of C or higher, or appropriate score on mathematics placement test or placement by ACT or SAT scores.

MAT 165 COLLEGE ALGEBRA AND TRIGONOMETRY
[E] (F,S,Su) (5.0, 0.0) 5.0

College Algebra and Trigonometry covers equations and inequalities, exponential and logarithmic functions, trigonometric functions, solution of triangles, identities, graphs, and topics in analytic geometry. (1.1-Articulated)

NOTE: Credit is not granted for both MAT 161 and MAT 165. A graphing calculator is required. It may be any brand, but the TI-83 or TI-84 is used by the instructor for classroom presentations.

PREREQUISITE: MAT 096 and MAT 099 both with a grade of C or higher, or appropriate score on mathematics placement test, or placement by ACT or SAT scores.

MAT 170 FINITE MATHEMATICS
[M] (S,Su) (3.0, 0.0) 3.0

Finite Mathematics is a course for business and social science students. It studies set theory, counting techniques, probability, matrix algebra and linear programming. (1.1-Articulated) [IAI Core Course Equivalent: M1 906]

PREREQUISITE: MAT 161 or MAT 165, either with a grade of C or higher, or appropriate score on mathematics placement test, or placement by ACT or SAT scores.

MAT 171 CALCULUS FOR BUSINESS/SOCIAL SCIENCE
[M] (F,S,Su) (4.0, 0.0) 4.0

Calculus for Business/Social Science teaches the calculus topics that are most useful in the business and social science disciplines. Students looking for in-depth coverage of calculus should consider MAT 175, MAT 245 and/or MAT 255 instead of this survey course. (1.1-Articulated) [IAI Core Course Equivalent: M1 900-B]

NOTE: Credit is not granted for both MAT 171 and MAT 175. A graphing calculator is required. It may be any brand, but the TI-83 or TI-84 is used by the instructor for classroom presentations.

PREREQUISITE: MAT 161 or MAT 165, either with a grade of C or higher, or appropriate score on mathematics placement test, or placement by ACT or SAT scores.

MAT 175 CALCULUS WITH ANALYTIC GEOMETRY I
[M] (F,S,Su) (5.0, 0.0) 5.0

Calculus with Analytic Geometry I is the first of three courses in calculus and analytic geometry. Topics include the Cartesian plane, limits, derivatives, the mean value theorem, anti-derivatives, the fundamental theorem of calculus, elementary integration, and applications. (1.1-Articulated) [IAI Core Course Equivalent: M1 900-1][IAI Major Course Equivalent: MTH901]

NOTE: Credit is not granted for both MAT 171 and 175. A graphing calculator is required. It may be of any brand, but the TI-83 or TI-84 will be used by the instructor for classroom presentations.

PREREQUISITE: MAT 165 with a grade of C or higher, or MAT 161 with a grade of C or higher and 70% or higher on the Trigonometry test, or appropriate score on mathematics placement test, or placement by ACT or SAT scores.

MAT 201 MATH FOUNDATIONS FOR ELEM EDUC I
[E] (F) (3.0, 0.0) 3.0

Math Foundations for Elementary Education I is designed for students preparing to teach at the elementary level. The course covers problem-solving strategies, sets, number systems, number theory, integers, fractions, decimals and discusses the National Council of Teachers of Mathematics (NCTM) and Common Core standards. (1.1-Articulated)

PREREQUISITE: MAT 096 and MAT 099 both with a grade of C or higher, or appropriate score on mathematics placement test, or placement by ACT or SAT scores.

MAT 202 MATH FOUNDATIONS FOR ELEM EDUC II
[M] (S) (3.0, 0.0) 3.0

Math Foundations for Elementary Education II builds on the previous course, including a more in-depth look at problem-solving strategies and National Council of Teachers of Mathematics (NCTM) and Common Core standards. Students also learn about functions, statistics, probability, geometry, measurement and coordinate geometry. (1.1-Articulated) [IAI Core Course Equivalent: M1 903]

PREREQUISITE: MAT 201 with a grade of C or higher.

MAT 220 STATISTICS
[M] (F,S,Su) (3.0, 0.0) 3.0 O

Statistics covers basic statistics for business and social science students. Topics covered include measures of central tendency and variation, frequency distributions, probability, sampling, regression, analysis of variance, and statistical inference, and business applications. (1.1-Articulated) [IAI Core Course Equivalent: M1 902][IAI Major Course Equivalent: BUS901]

NOTE: Credit is not granted for both MAT 120 and MAT 220. A TI-83 or TI-84 graphing calculator is required.

PREREQUISITE: MAT 161 or MAT 165, either with a grade of C or higher, or appropriate score on mathematics placement test or placement by ACT or SAT scores.

MAT 245 CALCULUS WITH ANALYTIC GEOMETRY II
[M] (F,S) (5.0, 0.0) 5.0

Calculus with Analytic Geometry II is the second of three courses in calculus and analytic geometry. It covers derivatives and integrals involving logarithmic, exponential and trigonometric functions; integration techniques; conic sections; polar coordinates; parametric equations; indeterminate forms and proper integrals; and infinite series. (1.1-Articulated) [IAI Core Course Equivalent: M1 900-2][IAI Major Course Equivalent: MTH902]

PREREQUISITE: MAT 175 with a grade of C or higher.

MAT 253 LINEAR ALGEBRA**[E] (4.0, 0.0) 4.0**

Linear Algebra studies matrix algebra and solutions to systems of linear equations, matrix inversion, determinants, vector spaces, linear dependence, basis and dimension, subspaces, inner product spaces, the Gram-Schmidt process, linear transformation, matrices of a linear transformation, eigenvalues and eigenvectors, and Gaussian elimination. (1.1-Articulated)

NOTE: A graphing calculator is required. The TI-82/83 is used for classroom presentations.

PREREQUISITE: Credit with a grade of C or higher, or concurrent enrollment in MAT 245.

MAT 255 CALCULUS WITH ANALYTIC GEOMETRY III**[M] (F,S) (4.0, 0.0) 4.0**

Calculus with Analytic Geometry III is the last of three courses in calculus and analytic geometry. It studies three-dimensional spaces, vector functions, partial differentiation, double and triple integrals, divergence and curl, line and surface integrals, and the theorems of Green, Stokes, and Gauss. (1.1-Articulated)

[IAI Core Course Equivalent: M1 900-3][IAI Major Course Equivalent: MTH903]

PREREQUISITE: MAT 245 with a grade of C or higher.

MAT 260 DIFFERENTIAL EQUATIONS**[E] (S) (3.0, 0.0) 3.0**

Differential Equations studies first order and simple higher order differential equations, linear differential equations with constant coefficients, systems of linear differential equations, power series solutions, Laplace transforms and applications. (1.1-Articulated) [IAI Major Course Equivalent: MTH912]

PREREQUISITE: Credit with a grade of C or higher, or concurrent enrollment in MAT 255.

MOBILE APPLICATION DEVELOPMENT**MAD 105 PROGRAMMING FOR ANDROID I****[E] (F) (2.0, 2.0) 3.0 O,B**

Programming for Android I teaches the fundamentals of programming in the Android Studio Development Environment using the Java language. Students learn core Java concepts and language fundamentals as they apply to Android app development. Students also learn debugging, version control, and object-oriented programming. (1.2-Articulated)

NOTE: This course requires advanced reading, intermediate writing and intermediate math.

PREREQUISITE: PRG 105 with a grade of C or higher.

MAD 107 PROGRAMMING FOR iOS I**[E] (F) (2.0, 2.0) 3.0 O,B**

Programming for iOS I teaches the fundamentals of programming in the Xcode Development Environment using the Swift language. Students learn core Swift concepts and language fundamentals as they apply to iOS app development. Students also learn debugging, version control, and object-oriented programming. (1.2-Articulated)

NOTE: This course requires advanced reading, intermediate writing and intermediate math.

PREREQUISITE: PRG 105 with a grade of C or higher.

MAD 155 PROGRAMMING FOR ANDROID II**[E] (S) (2.0, 2.0) 3.0 O,B**

Programming for Android II teaches students to create event driven applications using the Android platform. Students focus on: user interaction, data storage, using external resources, and using phone hardware resources. Students implement the agile development process to produce functional iterations of their Android apps. Students may repeat this course two times for a maximum of 9 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: MAD 105 with a grade of C or higher or instructor consent.

MAD 157 PROGRAMMING FOR iOS II**[E] (S) (2.0, 2.0) 3.0 O,B**

Programming for iOS II teaches students to create event driven applications using the Apple iOS platform. Students focus on user interaction: data storage, using external resources, using phone hardware resources. Students implement the agile development process to produce functional iterations of their iOS apps. Students may repeat this course two times for a maximum of 9 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: MAD 107 with a grade of C or higher or instructor consent.

MAD 255 PROGRAMMING FOR ANDROID III**[E] (S) (2.0, 2.0) 3.0 O,B**

Programming for Android III teaches students to create advanced apps that connect to a backend database. Students focus on: user experience, device provisioning, analytics, working with the cloud, multi-threaded programming, and device security. Students implement the agile development process to produce functional iterations of their Android apps. Students may repeat this course two times for a maximum of 9 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: MAD 155 with a grade of C or higher or instructor consent.

MAD 257 PROGRAMMING FOR iOS III**[E] (S) (2.0, 2.0) 3.0 O,B**

Programming for iOS III teaches students to create advanced apps that connect to a backend database. Students focus on user experience, device provisioning, analytics, working with the cloud, multi-threaded programming, and device security. Students implement the agile development process to produce functional iterations of their iOS apps. Students may repeat this course two times for a maximum of 9 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: MAD 157 with a grade of C or higher or instructor consent.

MUSIC

NOTE: After registering for an applied music class (MUS 201 through MUS 218), students are contacted by a member of the Music Department by phone before or during the first week of the term to schedule music lessons. Each applied music class may be repeated three times for a maximum of 8 credit hours.

MUS 100 CHORUS

[E] (F,S) (0.0, 2.0) 1.0

Chorus studies choral and performance techniques, primarily through participation in choral activities at the College. Students may repeat this course three times for a maximum of 4 credit hours. (1.1-Articulated)

NOTE: This course requires basic reading.

MUS 101 FUNDAMENTALS OF MUSIC

[E] (F,S,Su) (3.0, 0.0) 3.0

Fundamentals of Music is for students who have had little or no formal training in music. It covers standard pitch and rhythmic notation, major and minor scales, key relationships, simple intervals, and the qualities of triads. The course also includes simple ear training and an introduction to keyboard skills. (1.1-Articulated)

NOTE: This course requires intermediate reading, basic writing, and basic math.

MUS 104 INTRO TO ELECTRONIC MUSIC PROCESSING

[E] (F,S) (3.0, 0.0) 3.0

Introduction to Electronic Music Processing covers the basics of creating music digitally with audio files and computer software. Students create their own compositions using various digital processes and programs. They also learn about the history of electronics in music. (1.1-Articulated)

NOTE: This course requires intermediate reading, basic writing, and basic math.

PREREQUISITE: MUS 101, MUS 140 or instructor consent.

MUS 111 CLASS PIANO I

[E] (F,S,Su) (2.0, 0.0) 2.0

Class Piano I is group piano instruction intended for non-music majors with little or no musical background and music majors without prior piano study. This course includes performing ensemble and solo pieces in various styles and the development of basic keyboard skills such as technique, scale playing, harmonizing simple melodies, transposing and improvising. Regular practice is expected. (1.1-Articulated)

MUS 140 MUSIC THEORY I

[E] (F) (3.0, 0.0) 3.0

Music Theory I introduce students to scales and key signatures, intervals, triads and seventh chords, melody criticism, harmonic progression, cadences and instrument transposition. This course includes a short composition project. (1.1-Articulated)

NOTE: This course requires intermediate reading, basic writing, and basic math.

PREREQUISITE: Concurrent enrollment in MUS 141.

MUS 141 EAR TRNG, SIGHT SING + KEYBD HARM I

[E] (F) (1.0, 2.0) 2.0

Ear Training, Sight Singing and Keyboard Harmony I cover aural recognition of intervals, rhythmic and melodic dictation, playing scales and chords on the keyboard, and beginning sight singing skills. (1.1-Articulated)

NOTE: This course requires basic reading, basic writing, and basic math.

PREREQUISITE: Concurrent enrollment in MUS 140.

MUS 145 MUSIC THEORY II

[E] (S) (3.0, 0.0) 3.0

Music Theory II is a continuation of Music Theory I with more in-depth study of melody, harmony and rhythm. (1.1-Articulated)

PREREQUISITE: MUS 140, MUS 141 and concurrent enrollment in MUS 146.

MUS 146 EAR TRNG, SIGHT SING + KEYBD HARM II

[E] (S) (1.0, 2.0) 2.0

Ear Training, Sight Singing and Keyboard Harmony II is a continuation of Ear Training, Sight Singing and Keyboard Harmony I, emphasizing more complex music. (1.1-Articulated)

PREREQUISITE: MUS 141 and concurrent enrollment in MUS 145.

MUS 151 MUSIC APPRECIATION

[F] (F,S,Su) (3.0, 0.0) 3.0 O,B,H

Music Appreciation is designed for non-music majors. Students study basic elements in musical literature by prominent composers from various historical periods and examine the importance of music in history and society's influence on music. Outside listening is required. (1.1-Articulated) [IAI Core Course Equivalent: F1 900]

NOTE: This course requires intermediate reading and intermediate writing.

MUS 153 INTRODUCTION TO NON-WESTERN MUSIC

[F,IS] (F,S) (3.0, 0.0) 3.0

Introduction to Non-Western Music is designed for non-music majors. Students look at music in various parts of the world and the role music plays in each society and culture. (1.1-Articulated)

[IAI Core Course Equivalent: F1 903N]

NOTE: This course requires intermediate reading and intermediate writing.

MUS 154 INTRODUCTION TO AMERICAN MUSIC

[F] (F,S,Su) (3.0, 0.0) 3.0 O,B

Introduction to American Music is designed for non-music majors. The course gives students an overview of this country's rich and diverse musical heritage, from Colonial times to the 20th century. It explores classical music, folk, blues and jazz, as well as music created for the stage and screen. Outside listening is required. (1.1-Articulated) [IAI Core Course Equivalent: F1 904]

NOTE: This course requires intermediate reading and intermediate writing.

MUS 160 JAZZ ENSEMBLE

[E] (F,S,Su) (0.0, 2.0) 1.0

Jazz Ensemble is the study and performance of jazz. Students are introduced to the works of traditional and contemporary jazz composers and music and develop their technical skills for performance. Students may repeat this course three times for a maximum of 4 credit hours. (1.1-Articulated)

NOTE: This course requires basic reading.

MUS 161 CHAMBER ENSEMBLE

[E] (F,S,Su) (0.0, 2.0) 1.0

Chamber Ensemble introduces a variety of chamber music, including analysis of composition and performance practices. Students develop written, aural and instrumental competence on selected instruments. Students may repeat this course three times for a maximum of 4 credit hours. (1.1-Articulated)

NOTE: This course requires basic reading.

MUS 162 CONCERT BAND

[E] (F,S,Su) (0.0, 2.0) 1.0

Concert Band involves the study and performance of repertoire for concert band. Students develop aural and instrumental competence on selected instruments and technical competence in performance. Students may repeat this course three times for a maximum of 4 credit hours. (1.1-Articulated)

NOTE: This course requires basic reading.

MUS 171 MUSIC HISTORY I**[F] (F) (3.0, 0.0) 3.0**

Music History I studies styles, composers and literature from music's origins through the Baroque period. This course is intended for music majors and those with a strong music background. (1.1-Articulated) [IAI Core Course Equivalent: F1 901]

NOTE: This course requires intermediate reading and advanced writing.

MUS 172 MUSIC HISTORY II**[F] (S) (3.0, 0.0) 3.0**

Music History II studies musical styles, composers and literature from the Classical period through the 1950s. This course is intended for music majors and those with a strong music background. (1.1-Articulated) [IAI Core Course Equivalent: F1 902]

NOTE: This course requires intermediate reading and advanced writing.

MUS 201 APPLIED MUSIC - OBOE**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Oboe offers private lessons in oboe. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 202 APPLIED MUSIC - ORGAN**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Organ offers private lessons in organ. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 203 APPLIED MUSIC - PIANO**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Piano offers private lessons in piano. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 204 APPLIED MUSIC - FRENCH HORN**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - French Horn offers private lessons in French horn. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 205 APPLIED MUSIC - VOICE**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Voice offers private lessons in voice. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 206 APPLIED MUSIC - VIOLIN**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Violin offers private lessons in violin. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 207 APPLIED MUSIC - SAXOPHONE**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Saxophone offers private lessons in saxophone. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 208 APPLIED MUSIC - CLARINET**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Clarinet offers private lessons in clarinet. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 209 APPLIED MUSIC - STRING & ELECTRIC BASS**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - String and Electric Bass offers private lessons in string and electric bass. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 210 APPLIED MUSIC - TRUMPET**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Trumpet offers private lessons in trumpet. Students may repeat this course three times with a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 211 APPLIED MUSIC - TROMBONE**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Trombone offers private lessons in trombone. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 212 APPLIED MUSIC - BARITONE HORN**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Baritone Horn offers private lessons in baritone horn. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 213 APPLIED MUSIC - GUITAR**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Guitar offers private lessons in guitar. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 214 APPLIED MUSIC - FLUTE**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Flute offers private lessons in flute. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 215 APPLIED MUSIC - VIOLA**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Viola offers private lessons in viola. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 216 APPLIED MUSIC - CELLO**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Cello offers private lessons in cello. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 217 APPLIED MUSIC - PERCUSSION**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Percussion offers private lessons in percussion. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 218 APPLIED MUSIC - BASSOON**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music - Bassoon offers private lessons in bassoon. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit-hour option. This course requires basic reading.

MUS 219 APPLIED MUSIC – TUBA**[E] (F,S,Su) (2.0, 0.0) 2.0V**

Applied Music – Tuba offers private lessons in tuba. Students may repeat this course three times for a maximum of 8 credit hours. (1.1-Articulated)

NOTE: Fee doubles for 2-credit hour option. This course requires basic reading.

MUS 240 MUSIC THEORY III**[E] (F) (3.0, 0.0) 3.0**

Music Theory III is a continuation of Music Theory II. It studies techniques of chromatic harmony, advanced modulation, analysis and modal harmony. Students also learn modulation to remote tonal areas and are introduced to the structure and form of 18th and 19th century tonal compositions. (1.1-Articulated)

PREREQUISITE: MUS 140, MUS 145 and concurrent enrollment in MUS 241.

MUS 241 EAR TRNG, SIGHT SING/KEYBD HARM III**[E] (F) (1.0, 2.0) 2.0**

Ear Training, Sight Singing and Keyboard Harmony III teaches skills that correspond to and enhance the content of Music Theory III. (1.1-Articulated)

PREREQUISITE: MUS 141, MUS 146 and concurrent enrollment in MUS 240.

MUS 245 MUSIC THEORY IV**[E] (S) (3.0, 0.0) 3.0**

Music Theory IV is a continuation of Music Theory III, with analysis of large forms in 18th and 19th century music and a study of 20th century tonalities. (1.1-Articulated)

PREREQUISITE: MUS 140, MUS 145, MUS 240 and concurrent enrollment in MUS 246.

MUS 246 EAR TRNG, SIGHT SING/KEYBD HARM IV**[E] (S) (1.0, 2.0) 2.0**

Ear Training, Sight Singing and Keyboard Harmony IV teaches skills that correspond to and enhance the content of Music Theory IV. (1.1-Articulated)

PREREQUISITE: MUS 141, MUS 146, MUS 241 and concurrent enrollment in MUS 245.

NETWORK SECURITY

NOTE: For additional offerings of computer related courses, see also Animation, Computer Information Systems, Database Management, Digital Media, Graphic Arts, Programming and Web Design.

NET 110 NETWORK+ CERTIFICATION PREP**[E] (F,S) (3.0, 1.0) 3.0 O**

Network+ Certification Prep covers intermediate and advanced information on installing, configuring and troubleshooting computer networks. It covers a wide range of material, including local area networks, wide area networks, protocols, topologies, transmission media and security. The course helps prepare students for the industry-endorsed Network+ certification exam offered by the Computing Technology Industry Association (CompTIA). Students may repeat this course once for a maximum of 6 credit hours. (1.2-Articulated)

NOTE: This course contains material that is especially challenging and extremely technical. Upon successful completion of the 16-week course, students should be prepared to take the exam necessary for Network+ Certification.

NET 140 LINUX OPERATING SYSTEMS**[E] (F,S) (2.0, 0.0) 2.0 O**

Linux Operating Systems acquaints students with the history and adaptation to today's architecture, basic commands, shell language and programming, and online help (main pages). Students gain hands-on experience with these tools, as well as the common UNIX text editors. Students may repeat this course once, if a newer version of the operating system becomes available, for a maximum of 4 credit hours. (1.2-Articulated)

PREREQUISITE: CDM 110 with a grade of C or higher.

NET 145 UNIX SYSTEM ADMINISTRATION**[E] (F) (3.0, 0.0) 3.0**

UNIX System Administration teaches the fundamentals of UNIX Operating System administration, including planning, installation and management. System administrators are responsible for keeping computers fully functional with minimum downtime, as well as backing up data in case of hardware failures. The course helps prepare students for this work. Students may repeat this course once for a maximum of 6 credit hours. (1.2-Articulated)

NET 151 ADVANCED WINDOWS WORKSTATION**[E] (S) (4.0, 0.0) 4.0 O,B**

Advanced Windows Workstation provides students with the knowledge and skills necessary to install and configure Microsoft Windows client operating system on stand-alone and client computers that are part of a workgroup or domain. Students may repeat this course once for a maximum of 8 credit hours. (1.2-Articulated)

NOTE: This course is intended for those who support or administer Microsoft Windows client operating systems or who are pursuing the Microsoft Certified IT Professional (MCITP) certification. The course contains material that is especially challenging and extremely technical.

PREREQUISITE: NET 110.

NET 152 ADVANCED WINDOWS SERVER**[E] (F) (4.0, 0.0) 4.0 O,B**

Advanced Windows Server provides students with the knowledge and skills necessary to install and configure Microsoft Windows server operating to create file, print, web, and remote access servers. Students may repeat this course once for a maximum of 8 credit hours. (1.2-Articulated)

NOTE: This course is intended for those who support or administer Microsoft Windows server operating systems or who are pursuing the Microsoft Certified IT Professional (MCITP) certification. The course contains material that is especially challenging and extremely technical.

PREREQUISITE: NET 110 with a grade of C or higher.

NET 170 ROUTER BASICS**[E] (2.0, 2.0) 3.0**

Router Basics is a collaborative effort between McHenry County College and the Cisco Networking Academy Program. This course offers extensive hands-on laboratory work coupled with web-enhanced curriculum. Cisco Semester One concentrates on general networking concepts. This course focuses heavily on the 7-layer OSI reference model and its importance, network protocols, network cabling, physical/logical addressing and the importance and implementation of the TCP/IP protocol. Students will be introduced to and learn how to create various types of network cables, how to determine IP addresses & IP classes, segment networks using sub network masks, how to design & document a local area network and how to use network analyzing equipment. This course was formerly CIS 170. (1.2-Articulated)

NOTE: This course contains material that is especially challenging and is extremely technical in its content. McHenry County College, in academic partnership with Cisco, Inc., is offering this class as semester one of a four semester series. At the successful completion of all four Cisco classes, students will be prepared to take the Cisco CCNA certification test.

PREREQUISITE: CDM 140 and CDM 145, both with a grade of C or higher.

NET 171 ROUTER CONFIGURATION**[E] (2.0, 2.0) 3.0**

Router Configuration is a collaborative effort between McHenry County College and the Cisco Networking Academy Program. This course offers extensive hands-on laboratory work coupled with web-enhanced curriculum. Cisco Semester Two concentrates on router specific concepts. This course focuses on the different types of memory used by routers, the creation and structure of router configuration files and USER vs. PRIVILEGED modes of operation. The student will concentrate on various router operating system commands using the Cisco IOS command set, how to recover passwords, and how to incorporate different routing protocols in a LAN environment. Additionally, the students will be taught to setup, provide proper addressing and troubleshoot routing problems on Cisco routers. This course was formerly CIS 171. (1.2-Articulated)

NOTE: This course contains material that is especially challenging and is extremely technical in its content. McHenry County College, in academic partnership with Cisco, Inc., is offering this class as semester two of a four semester series. At the successful completion of all four Cisco classes, students will be prepared to take the Cisco CCNA certification test.

PREREQUISITE: NET 170 with a grade of C or higher.

NET 172 ROUTER LAN TECHNOLOGY**[E] (2.0, 2.0) 3.0**

Router LAN Technology is a collaborative effort between McHenry County College and the Cisco Networking Academy Program. This course offers extensive hands-on laboratory work coupled with web-enhanced curriculum. Cisco Semester Three concentrates on router concepts as they pertain to the Local Area Networking environment. This course focuses on several different LAN routing protocols including RIPv1, RIPv2, OSPF, and EIGRP as well as concentrating on switching technologies (Fast Ethernet and VLANs). Students will concentrate on various router operating commands using the Cisco IOS command set on both routers and switches in a LAN environment. This course was formerly CIS 172. (1.2-Articulated)

PREREQUISITE: NET 171 with a grade of C or higher.

NET 173 ROUTER WAN TECHNOLOGY**[E] (2.0, 2.0) 3.0**

Router Wan Technology is a collaborative effort between McHenry County College and the Cisco Networking Academy Program. This course offers extensive hands-on laboratory work coupled with web-enhanced curriculum. Cisco Semester Four concentrates on router specific concepts as they pertain to the Wide Area Networking environment. This course focuses on different types of WAN services. It also focuses on the set up and implementation of Frame Relay networks and using ISDN (integrated services digital networks) in a WAN environment. The student will concentrate on various router operating system commands using Cisco and OS command set to configure wide area networks. Additionally, students will be taught to set up, provide proper addressing and troubleshoot problems on Cisco routers in a WAN environment. (1.2-Articulated)

PREREQUISITE: NET 172 with a grade of C or higher.

NET 180 COMPUTER SECURITY AWARENESS**[E] (F) (2.0, 0.0) 2.0 O,B**

Computer Security Awareness provides students with practical skills for protecting their computer systems from the increasingly sophisticated attacks that make many home computers vulnerable. These attacks include viruses, worms and Trojan horses. Students also learn about spyware and adware, as well as how to install and configure anti-virus, firewall and spyware removal software. Students may repeat this course two times due to changing technology. (1.2-Articulated)

PREREQUISITE: CDM 130.

NET 183 SECURITY+ CERTIFICATION PREP**[E] (S) (4.0, 0.0) 4.0 O,B**

Security+ Certification Prep offers intermediate and advanced instruction in computer security. This class helps prepare students for the industry-endorsed Security+ certification exam offered by the Computer Technology Industry Association (CompTIA). The exam covers a range of topics, including communication security, infrastructure security, cryptography, access control, authentication, external attacks and the operational security of an organization. Students may repeat this course two times due to changing technology. (1.2-Articulated)

NOTE: Offered only in even-numbered years.

PREREQUISITE: NET 110 and NET 180, both with a grade of C or higher.

NET 185 ETHICAL HACKING**[E] (S) (4.0, 0.0) 4.0 O,B**

Ethical Hacking offers intermediate and advanced instruction in computer security. This class helps prepare students for the industry-endorsed Certified Ethical Hacker Certification exam offered by the International Council of Electronic Commerce Consultants (EC-Council). It covers how intruders escalate privileges and what steps can be taken to secure a system. Students also learn about intrusion detection, policy creation, social engineering, open source intelligence, incident handling and log interpretation. Students may repeat this course two times due to changing technology. (1.2-Articulated)

NOTE: Offered only in odd-numbered years.

PREREQUISITE: NET 110, NET 140 and NET 180 all with a grade of C or higher.

NET 251 WINDOWS NETWORK INFRASTRUCTURE**[E] (F,S) (4.0, 0.0) 4.0 O,B**

Windows Network Infrastructure provides students with the knowledge and skills necessary to install, configure and troubleshoot Microsoft Windows Network Infrastructure components, DNS for Active Directory, and Active Directory security solutions. Students may repeat this course once for a maximum of 8 credit hours. (1.2-Articulated)

NOTE: This course is intended for those who support or administer Microsoft Windows server operating systems or who are pursuing the Microsoft Certified IT Professional (MCITP) certification. This course contains material that is especially challenging and extremely technical.

PREREQUISITE: NET 151 or NET 152, either with a grade of C or higher.

NET 252 DIRECTORY SERVICES INFRASTRUCTURE**[E] (S) (4.0, 0.0) 4.0 B**

Directory Services Infrastructure provides students with the knowledge and skills necessary to install and configure Microsoft Windows Active Directory components, DNS for Active Directory, and Active Directory security solutions. Students may repeat this course once for a maximum of 8 credit hours. (1.2-Articulated)

NOTE: This course is intended for those who support or administer Microsoft Windows server operating systems using Active Directory in a domain environment or who are pursuing the Microsoft Certified IT Professional (MCITP) certification. The course contains material that is especially challenging and extremely technical.

PREREQUISITE: NET 151 or NET 152, either with a grade of C or higher.

NURSING**NAE 100 BASIC NURSING ASSISTANT****[E] (F,S,Su) (6.0, 6.0) 9.0 B**

Basic Nursing Assistant prepares students to assist licensed healthcare providers in delivering care in various settings. This course includes theory, lab practice and a clinical component. The course is approved by the Illinois Department of Public Health (77 Ill. Adm. Code 395). Successful completion of this course leads to eligibility to take the written Illinois Nursing Assistant Competency Exam for employment and certification as a Certified Nursing Assistant (CNA). (1.2-Articulated)

NOTE: Clinical times differ from theory. Clinical times are found in the comment field of the online schedule. Students must have their own transportation to clinical.

PREREQUISITE: Prior to the start of class, students must have a criminal background check. A list of disqualifying convictions can be found at www.idph.state.us/il//nar/disconvictions. Also required prior to start of class, students must have a two-step TB, or chest X-ray, a physical exam, a valid Social Security card, be 16 years old by course completion, and have an eighth grade education. The required steps, with their deadlines and links to forms can be found at: www.mchenry.edu/nae/requiredstepsNAEstudents.pdf. Students must have an ACT Reading Test score of 18 or higher, an Accuplacer Reading Placement score of 55 or higher, or ENG 151 with a grade of C or higher.

NUR 095 DIRECTED STUDY IN NURSING**(Su) (1.0, 0.0) 1.0**

Directed Study in Nursing gives students an opportunity to work with a faculty member on an individualized program of study while preparing them for the NCLEX-RN examination. Students develop and implement a plan for remediation, using resources identified and provided by Health Education Systems, Inc. (HESI). Successful completion of this course is determined by student's score on the HESI Exit Exam (E2). (1.6)

NOTE: Credit cannot be applied to a degree or certificate.

PREREQUISITE: Written consent from director of Nursing.

NUR 112 FUNDAMENTALS OF NURSING THEORY**(F) (2.0, 3.0) 3.0**

Fundamentals of Nursing Theory introduces the roles of the professional registered nurse based on the professional standards of nursing practice. The essential concepts of nursing practice including safety, legal and ethical principles, and holistic care are introduced for diverse patient populations through the lifespan. Critical thinking is introduced through the nursing process as it relates to basic physical assessments and introductory nursing skills. (1.2)

NOTE: Prior to the first day of class, students must submit the following to the Nursing Department: Current American Heart Association Basic Life Support Healthcare Provider certification (CPR), the student health record requirements including physical form, vaccination record, drug screening and background check. This course requires intermediate reading, intermediate writing and intermediate math skills.

PREREQUISITE: Admission to the Nursing Program (AAS in Registered Nursing) and completion of the following prerequisite courses: BIO 255, BIO 263 and BIO 264, ENG 151, HCE 110, HCE 111, HFE 250, PHI 251 or PHI 252, PSY 151, PSY 250 and SPE 151, all with a grade of C or higher.

NUR 115 FUNDAMENTALS OF NURSING PRACTICE**(F) (2.0, 6.0) 4.0**

Fundamentals of Nursing Practice focuses on the use of the nursing process as students are presented with clinical situations involving client response to illness and disease across the lifespan. Students apply the nursing process in developing holistic care plans demonstrating critical thinking, safety, and the beginning knowledge of pathophysiology. Students are introduced to medication administration in the clinical setting. (1.2)

NOTE: Prior to the first day of class students must submit the following to the Nursing Department: current American Heart Association Basic Life Support Healthcare Provider certification (CPR), the student health record requirements including physical form, vaccination record, drug screening and background check. This course requires intermediate reading, intermediate writing and intermediate math skills.

PREREQUISITE: NUR 112 with a grade of C or higher.

NUR 125 LPN TO ADN TRANSITION**(F) (3.0, 0.0) 3.0 O,B**

LPN to ADN Transition builds upon the basic nursing skills and concepts learned by the Licensed Vocational or Licensed Practical Nurse. The course is designed to assist in transitioning the Licensed Practical Nurse into the role of the Registered Nurse. Areas of study include the role of the Associate Degree Nurse, role socialization, communication principles, review of the nursing process, critical thinking, teaching and learning principles, legal-ethical standards and the role of cultural competence in contemporary nursing. Students will be required to demonstrate competencies in pharmacological concepts, medication administration and basic nursing skills. Upon successful completion of all components of the course, students may apply to the Nursing program. (1.2)

NOTE: Students may be concurrently enrolled in other nursing program prerequisites while taking this course. If admitted into the nursing program, NUR 112 and NUR 115 will be waived. Students will be admitted to NUR 130 and will have earned, by advanced standing, 4 credit hours in the ADN program.

PREREQUISITE: Current, active or unrestricted Illinois licensure as a practical nurse and written consent from the director of Nursing.

NUR 130 CONCEPTS OF NURSING PRACTICE I

(S) (3.0, 6.0) 5.0

Concepts of Nursing Practice I focuses on applying critical thinking and the nursing process to clients with dysfunctional health patterns including activity-exercise (musculoskeletal, cardiovascular, and respiratory) and nutrition-metabolic function (diabetes), through the lifespan. Students apply nursing skills in the clinical setting and develop holistic nursing care plans for clients with multiple dysfunctional health patterns. (1.2)

NOTE: Prior to the first day of class, students must submit the following to the Nursing Department: Current American Heart Association Basic Life Support Healthcare Provider certification (CPR), the student health record requirements including physical form, vaccination record, drug screening and background check. This course requires advanced reading, intermediate writing and intermediate math skills.

PREREQUISITE: NUR 115 with a grade of C or higher, or NUR 125 with a grade of C or higher and admission into the Nursing program.

NUR 135 CONCEPTS OF NURSING PRACTICE II

(S) (3.0, 6.0) 5.0

Concepts of Nursing Practice II focuses on applying critical thinking and the nursing process to clients with dysfunctional health patterns including nutrition-metabolic-elimination (gastrointestinal, urinary, fluid and electrolytes) and activity-exercise (hematology, oncology, immunology) through the lifespan. Students apply nursing skills in the clinical setting and develop holistic nursing care plans for clients with multiple dysfunctional health patterns. (1.2)

NOTE: Prior to the first day of class, students must submit the following to the Nursing Department: Current American Heart Association Basic Life Support Healthcare Provider certification (CPR), the student health record requirements including physical form, vaccination record, drug screening and background check. This course requires advanced reading, intermediate writing and intermediate math skills.

PREREQUISITE: NUR 115 with a grade of C or higher, or NUR 125 with a grade of C or higher and admission into the Nursing program.

NUR 212 CONCEPTS OF NURSING PRACTICE III

(F) (3.0, 6.0) 5.0

Concepts of Nursing Practice III focuses on applying critical thinking and the nursing process to clients with dysfunctional health patterns including nutrition-metabolic (endocrine and integumentary), cognitive-perceptual (neurology and sensory) through the lifespan. Students apply nursing skills in the clinical setting and utilize holistic nursing care plans for clients with multiple dysfunctional health patterns. (1.2)

NOTE: Prior to the first day of class, students must submit the following to the Nursing Department: Current American Heart Association Basic Life Support Healthcare Provider certification (CPR), the student health record requirements including physical form, vaccination record, drug screening and background check. This course requires advanced reading, intermediate writing and intermediate math skills.

PREREQUISITE: NUR 130 and NUR 135 both with a grade of C or higher.

NUR 215 CONCEPTS OF PSYCHIATRIC NURSING

(F) (2.0, 6.0) 4.0

Concepts of Psychiatric Nursing focuses on applying the core components of nursing to the care of patients with mental illness through the lifespan. Students utilize therapeutic communication techniques and incorporate holistic nursing care plans for patients in outpatient, inpatient and community settings. (1.2)

NOTE: Prior to the first day of class, students must submit the following to the Nursing Department: Current American Heart Association Basic Life Support Healthcare Provider certification (CPR), the student health record requirements including physical form, vaccination record, drug screening and background check. This course requires advanced reading, intermediate writing and intermediate math skills.

PREREQUISITE: NUR 130 and NUR 135 both with a grade of C or higher.

NUR 222 CONCEPTS OF FAMILY NURSING

(F,S) (2.0, 6.0) 4.0

Concepts of Family Nursing focuses on applying the core components of nursing from conception through the postpartum period to childbearing women and families. Students care for the antepartum, intrapartum, postpartum and newborn clients. Alterations in health related to the female reproductive system are addressed. (1.2)

NOTE: Prior to the first day of class, students must submit the following to the Nursing Department: Current American Heart Association Basic Life Support Healthcare Provider certification (CPR), the student health record requirements including physical form, vaccination record, drug screening and background check. This course requires advanced reading, intermediate writing and intermediate math skills.

PREREQUISITE: NUR 212 and NUR 215 both with a grade of C or higher.

NUR 225 COMPLEX ISSUES IN HEALTHCARE

(F,S) (2.0, 0.0) 2.0 O,B

Complex Issues in Healthcare focuses on the role of the nurse in challenging healthcare situations. Students apply medical-surgical, legal and ethical principles to difficult patient situations. As the student applies these concepts, growth toward the professional behaviors of caring, role competence, critical thinking and self-directed learning are evidenced. This course requires advanced reading, intermediate writing and intermediate math skills. (1.2)

PREREQUISITE: NUR 212 and NUR 215 both with a grade of C or higher.

NUR 240 NURSING LEADERSHIP

(F,S) (2.0, 8.0) 5.0 B

Nursing Leadership emphasizes the role of professional nurses in national and global issues. Students prepare for the National Council Licensure Examination (NCLEX) including completion of an NCLEX predictor exam. Students synthesize and apply the core competencies of the professional nurse emphasizing leadership, care management and professionalism. (1.2)

NOTE: Prior to the first day of class, students must submit the following to the Nursing Department: Current American Heart Association Basic Life Support Healthcare Provider certification (CPR), the student health record requirements including physical form, vaccination record, drug screening and background check. This course requires advanced reading, intermediate writing and intermediate math skills.

PREREQUISITE: NUR 212 and NUR 215 both with a grade of C or higher.

OCCUPATIONAL THERAPY ASSISTANT

OTA 110 FOUNDATIONS OF OCCUPATIONAL THERAPY

[E] (F,S,Su) (2.0, 0.0) 2.0

Foundations of Occupational Therapy introduces the concepts of occupation, occupational performance and occupational therapy as a health and wellness profession. Occupational therapy as a profession is explored by introducing methods used for intervening in disorders and conditions that disrupt occupational performance. The history of the profession and its current philosophy are examined as a means to understand the emergence of the occupational therapist and occupational therapy assistant and their professional collaboration. (1.2-Articulated)

NOTE: CDM 110 or CDM 111 is highly recommended.

PREREQUISITE: ENG 151, SPE 151 and PSY 151 with a grade of C or higher.

OTA 120 THERAPEUTIC METHODS I

[E] (F,S) (2.0, 3.0) 3.0

Therapeutic Methods I presents the unique approach of occupational therapy to use occupations and activities as therapeutic interventions. Skills learned include analysis of activities and their application to client needs in order to enhance occupational performance. Students will demonstrate beginning documentation skills through experiential learning in actual practice settings. The course includes Level I fieldwork hours. (1.2-Articulated)

PREREQUISITE: Admission to the Occupational Therapy Assistant program; BIO 263, BIO 264, ENG 151, SPE 151 and PSY 151 all with a grade of C or higher.

OTA 130 OCCUPATIONS ACROSS THE LIFESPAN

[E] (F,S) (3.0, 0.0) 3.0

Occupations Across the Lifespan includes observation, analysis and performance of human occupation in the domains of work, self-care, education and play/leisure throughout the lifespan. The course emphasizes interpersonal communication, activity analysis and an introduction to professional language and terms. The course examines the intrinsic value in human occupations and builds the basic skills necessary for teaching activities. Emphasis is on creative and critical thinking and strategies to develop self as an agent of change in the therapeutic process. (1.2-Articulated)

PREREQUISITE: Admission to the Occupational Therapy Assistant program; BIO 263, BIO 264, ENG 151, SPE 151 and PSY 151 all with a grade of C or higher.

OTA 140 DYNAMICS OF HUMAN MOVEMENT

[E] (F,S) (1.0, 6.0) 3.0

Dynamics of Human Movement studies the organization of the brain, spinal cord, peripheral nerves and joints of the trunk and upper and lower extremities of the human body. Students explore the interrelationship among the central nervous system, peripheral nervous system and musculoskeletal system and analysis of functional movement required for work, self-care and play. (1.2-Articulated)

PREREQUISITE: Admission to the Occupational Therapy Assistant program; BIO 263, BIO 264, both with a grade of C or higher.

OTA 150 CONDITIONS DISRUPTING PARTICIPATION

[E] (F,S) (3.0, 0.0) 3.0

Conditions Disrupting Participation introduces many of the clinical conditions that are encountered in occupational therapy practice, including an overview of various diagnoses including the etiology, incidence, signs and symptoms, management and prognosis of each condition. Students learn to evaluate the impact of the condition on an individual's ability to engage in the areas of occupation. Research and information retrieval are continued as skills are needed for future course and professional practice. (1.2-Articulated)

PREREQUISITE: HCE 111, PSY 250, OTA 110, OTA 120, OTA 130, and OTA 140, all with a grade of C or higher.

OTA 160 PSYCHOSOCIAL REHAB THEORY & METHODS

[E] (F,S) (4.0, 3.0) 5.0

Psychosocial Rehab Theory and Methods presents the principles and practice of observing, assessing, documenting, teaching, adapting and grading self-care, work, education and play/leisure for individuals with psychological, cognitive and social challenges. Students explore contexts of culture and spirituality in relation to human occupation. The course includes Level I fieldwork hours. (1.2-Articulated)

PREREQUISITE: HCE 111, PSY 250, OTA 110, OTA 120, OTA 130, and OTA 140, all with a grade of C or higher.

OTA 170 THERAPEUTIC METHODS II

[E] (F,S) (2.0, 3.0) 3.0

Therapeutic Methods II focuses on developing measurable goals and intervention strategies for varying diagnoses across the lifespan. Students demonstrate necessary skills including principles of problem identification, treatment implementation, activity grading and adapting and the use of assistive technologies for individuals with difficulty in occupational performance. (1.2-Articulated)

PREREQUISITE: HCE 111, PSY 250, OTA 110, OTA 120, OTA 130, and OTA 140, all with a grade of C or higher.

OTA 210 PHYSICAL THEORY AND REHAB METHODS

[E] (F,S) (4.0, 3.0) 5.0

Physical Theory and Rehab Methods explores principles and practice of observing, assessing, documenting, teaching, adapting and grading self-care, work, and play/leisure for individuals with physical challenges. Techniques and equipment that maximize participation in meaningful occupations, improve independence, assure safety and prevent deformity are emphasized. Students examine ethical, critical and clinical reasoning, and considerations of culture and environment as integral components of occupational therapy assistance practice. The course includes Level I fieldwork hours. (1.2-Articulated)

PREREQUISITE: OTA 150, OTA 160 and OTA 170 all with a grade of C or higher.

OTA 220 THERAPEUTIC METHODS III

[E] (F,S) (3.0, 3.0) 4.0

Therapeutic Methods III focuses on intervention for occupational performance challenges due to disrupted client factors associated with impaired motor and process skills such as cognitive-perceptual functioning, sensory processing and neuromusculoskeletal functions. Students learn facility-based and community-based interventions used by the OTA in the areas of assessment, planning, implementation of treatment programs and service discontinuation, with emphasis on use of meaningful occupation and understanding of individual performance contexts and patterns. (1.2-Articulated)

PREREQUISITE: OTA 150, OTA 160 and OTA 170 all with a grade of C or higher.

OTA 230 PROFESSIONAL ANALYSIS IN PRACTICE

[E] (F,S) (3.0, 0.0) 3.0

Professional Analysis in Practice is a seminar course utilizing case inquiry approaches to solidify understanding of professional reasoning, communication and self-reflection. Students work in small groups, using evidence-based approaches to interpret, analyze and strategize varied intervention options. (1.2-Articulated)

PREREQUISITE: OTA 150, OTA 160 and OTA 170 all with a grade of C or higher.

OTA 240 HEALTH SERVICES MANAGEMENT**[E] (F,S) (2.0, 0.0) 2.0**

Health Services Management explores basic management and support tasks relevant to the role of the occupational therapy assistant including ethical principles in the workplace, the roles and functions of regulatory agencies, funding and reimbursement systems and healthcare delivery systems. The role of the occupational therapy assistant in program development is experientially explored. (1.2-Articulated)

PREREQUISITE: OTA 150, OTA 160 and OTA 170, all with a grade of C or higher.

OTA 250 PROFESSIONAL PRACTICE SEMINAR**[E] (F,S) (2.0, 0.0) 2.0 B**

Professional Practice Seminar examines professional issues, the role of agencies and associations that support and regulate occupational therapy practice and advocacy roles of the occupational therapy assistant. Topics include preparation activities for Level II Fieldwork, licensure and certification, employment acquisition and development of a professional development plan. (1.2-Articulated)

NOTE: This course requires weekly use of computer systems and access to the Internet for assignments, discussions, and communication with peers and instructor.

PREREQUISITE: OTA 210, OTA 220, OTA 230 and OTA 240 with a grade of C or higher. Concurrent enrollment in OTA 260 and OTA 265 is required.

OTA 260 FIELDWORK LEVEL IIA**[E] (F,S) (0.0,40.0) 5.0**

Fieldwork Level IIA provides a minimum of eight weeks of supervised experience practicing the skills of an entry-level occupational therapy assistant. Students are assigned to a setting where they receive practical experience integrating and applying knowledge and skills to a consumer population that offers a diversity of clinical experience from that offered in OTA 265 (Fieldwork Level IIB). OTA 260 and OTA 265 must be completed within 18 months from the date of completion of the academic portion of the program. (1.2-Articulated)

NOTE: Students must successfully pass the FWPE and course requirements to receive satisfactory (S) for the course. Students will be graded as satisfactory/no-credit for this course. This does not count towards GPA.

PREREQUISITE: OTA 210, OTA 220, OTA 230 and OTA 240 all with a grade of C or higher and concurrent enrollment in OTA 250. Successful completion of all required coursework of the OTA curriculum, current CPR certification and consent of the department chair prior to enrolling in the course.

OTA 265 FIELDWORK LEVEL IIB**[E] (F,S) (0.0,40.0) 5.0**

Fieldwork Level IIB provides a minimum of eight weeks of supervised experience practicing the skills of an entry-level occupational therapy assistant. Students are assigned to a setting where they receive practical experience integrating and applying knowledge and skills to a consumer population that offers a diversity of clinical experience from that offered in OTA 260 (Fieldwork Level IIA). OTA 260 and OTA 265 must be completed within 18 months from the date of completion of the academic portion of the program. (1.2-Articulated)

NOTE: Students must successfully pass the FWPE and course requirements to receive satisfactory (S) for the course. Students will be graded as satisfactory/no-credit for this course. This does not count towards GPA.

PREREQUISITE: OTA 210, OTA 220, OTA 230 and OTA 240 all with a grade of C or higher and concurrent enrollment in OTA 250. Successful completion of all required coursework of the OTA curriculum, current CPR certification and consent of the department chair prior to enrolling in this course.

OTA 290 TOPICS IN OCCUPATIONAL THERAPY**[E] (3.0, 0.0) 3.0V**

Topics in Occupational Therapy has various titles depending on the specific topic being explored. Topics vary from semester to semester and offerings are listed in the current course schedule. Students may repeat this course three times on different topics for a maximum of 12 credit hours. (1.2-Articulated)

NOTE: This course requires intermediate reading, intermediate writing and basic math.

PREREQUISITE: OTA 150, OTA 160, OTA 170 with a grade of C or higher, or consent of department chair prior to enrolling in the course with documentation of current OTR or COTA license.

PARALEGAL STUDIES**PAR 101 INTRODUCTION TO PARALEGAL STUDIES****[E] (F,S) (3.0, 0.0) 3.0**

Introduction to Paralegal Studies provides students with a comprehensive overview of the American legal system and the various careers, skill sets, responsibilities and "real life" scenarios related to the paralegal profession. After a brief review of study skills and the legal system, students will learn legal terminology and the importance of legal research and writing, interviewing and investigating. Additionally, students will briefly examine various substantive areas of the law, such as civil procedure, litigation and corporation. Finally, the course will delve into practical approaches to law office culture, career strategies, and techniques for success in the work force. (1.2-Articulated)

NOTE: This course requires advanced reading, advanced writing and basic math.

PREREQUISITE: Successful performance on the Glaser-Watson Critical Thinking Appraisal with a score of 80% or higher, is required prior to registering for this course.

PAR 102 LEGAL RESEARCH AND WRITING**[E] (F,S) (3.0, 0.0) 3.0**

Legal Research and Writing introduces students to the sources of case, statutory and regulatory law, resources to access and analyze these laws, and the writing standards by which the legal profession communicates. Through lecture on relevant laws, written exercises, and verbal presentations, students learn to identify, analyze and communicate in an organized, articulate fashion. (1.2-Articulated)

NOTE: This course requires advanced reading, advanced writing and basic math.

PREREQUISITE: PAR 101 with a grade of C or higher.

PAR 103 CIVIL LITIGATION & DISCOVERY**[E] (F,S) (3.0, 0.0) 3.0**

Civil Litigation and Discovery will cover theory and practical aspects of basic civil litigation, including preliminary investigation, pleadings, motions, discovery, trial, appeal, administrative law, arbitration and alternative dispute resolution. (1.2-Articulated)

NOTE: This course requires advanced reading, advanced writing and basic math.

PREREQUISITE: PAR 101 with a grade of C or higher.

PAR 110 LAW OFFICE TECHNOLOGY**[E] (F,S) (3.0, 0.0) 3.0**

Law Office Technology introduces legal software applications utilized in the law firm environment. Students learn specific computer skills required for employment as a paralegal. Students also gain practical knowledge and hands-on training in legal timekeeping and billing software, along with various legal software applications used to prepare a case from beginning through trial. (1.2-Articulated)

NOTE: This course requires advanced reading, advanced writing and basic math.

PREREQUISITE: PAR 101 with a grade of C or higher. Credit with a grade of C or higher or concurrent enrollment in CDM 110 or CDM 111.

PAR 120 TORT AND INSURANCE LAW**[E] (F,S) (3.0, 0.0) 3.0**

Tort and Insurance Law emphasizes the role of the paralegal in tort and insurance law. This class covers basic tort and insurance principles, examines insurance claim procedures and pleading forms used in litigation of various civil actions. (1.2-Articulated)

NOTE: This course requires advanced reading, advanced writing and basic math.

PREREQUISITE: PAR 101 with a grade of C or higher.

PAR 121 CONTRACT LAW**[E] (F,S) (3.0, 0.0) 3.0**

Contract Law provides students with the knowledge and skills to read, research, evaluate and draft various contracts in accordance with applicable law and in a variety of specific situations. It includes an analysis of the law pertaining to contract formation, dispute resolution and the impact of the Uniform Commercial Code on traditional contract theory. (1.2-Articulated)

NOTE: This course requires advanced reading, advanced writing and basic math.

PREREQUISITE: PAR 101 with a grade of C or higher.

PAR 122 REAL PROPERTY**[E] (F,S) (3.0, 0.0) 3.0**

Real Property provides an analysis of the basic legal principles involved in real estate, landlord-tenant, land use and personal property law, as well as practical guidance in creating, organizing and completing real estate transactions. Students use Internet and library resources to obtain specific forms to conform the material to the rules of a given jurisdiction. (1.2-Articulated)

NOTE: This course requires advanced reading, advanced writing and basic math.

PREREQUISITE: PAR 101 with a grade of C or higher.

PAR 123 FAMILY LAW**[E] (F,S) (3.0, 0.0) 3.0**

Family Law covers theory and practical aspects of basic family law including premarital agreements, domestic violence, laws of divorce and separation, child custody, child support, spousal support, division of property, jurisdiction, paternity, child abuse and neglect, and adoption. (1.2-Articulated)

NOTE: This course requires advanced reading, advanced writing and basic math.

PREREQUISITE: PAR 101 with a grade of C or higher.

PAR 124 INTELLECTUAL PROPERTY LAW**[E] (F,S) (3.0, 0.0) 3.0**

Intellectual Property Law provides students with a comprehensive overview of the various forms of intellectual property including copyrights, patents, trade secrets, trademarks and trade names. Students learn the paralegal's role in analyzing and applying for remedies available for infringing including injunctions, compensatory and punitive damages. (1.2-Articulated)

NOTE: This course requires advanced reading, advanced writing and basic math.

PREREQUISITE: PAR 101 with a grade of C or higher.

PAR 125 ESTATE PLANNING AND PROBATE LAW**[E] (F,S) (3.0, 0.0) 3.0**

Estate Planning and Probate Law covers theory and practical aspects of basic estate planning, including client interviews, electronic forms and filings, tax considerations, legal requirements, and ethical duties of a paralegal. (1.2-Articulated)

NOTE: This course requires advanced reading, advanced writing and basic math.

PREREQUISITE: PAR 101 with a grade of C or higher.

PAR 255 PARALEGAL STUDIES INTERNSHIP**[E] (0.0, 16.0) 6.0V**

Paralegal Studies Internship provides practical experience for advanced students in applying paralegal skills within selected law firms, corporate law departments and governmental agencies. Students keep a journal, participate in online discussions with other student interns, if available, and write a report evaluating their experience. Internships are generally completed in a student's second year of study. Paralegal internships may be paid or unpaid. Credit depends on time spent: 75 clock hours = 1 credit hour. This course is limited to degree students in Paralegal Studies. Students may repeat this course once for a maximum of 6 credit hours under this course number. (1.2-Articulated)

NOTE: This course requires advanced reading, advanced writing and basic math.

PREREQUISITE: 14-16 credit hours of PAR coursework with a grade of C or higher and written consent of the department chair.

PASTRY**(see CULINARY MANAGEMENT)****PERSONAL DEVELOPMENT****PDV 100 PERSONAL DEVELOPMENT****[E] (F,S) (1.0, 0.0) 1.0**

Personal Development covers a variety of topics each semester. It gives students the opportunity to examine their values, attitudes and unique qualities through small group discussion and interaction. Students may enroll in up to three different topics for a maximum of 3 credit hours. (1.1-Articulated)

NOTE: Students will receive a grade of satisfactory or no credit for this course. This course does not count toward GPA. This course requires basic reading and basic writing.

PDV 105 LIFELONG LEARNING SKILLS**[E] (F,S) (1.0, 0.0) 1.0**

Lifelong Learning Skills helps students examine their approach to learning by looking at their motivation, attitudes and emotional blocks. Each semester has a different focus, and students may enroll up three times for a maximum of 3 credit hours. (1.1-Articulated)

NOTE: Students will receive a grade of satisfactory or no credit for this course. This course does not count toward GPA.

PDV 110 CAREER DEVELOPMENT**[E] (F,S) (1.0, 0.0) 1.0**

Career Development helps students analyze their values, strengths, skills and interests as they consider possible careers. Working in a small group setting, students research a variety of career options and evaluate them in context of their self-assessment. Students may repeat this course once for a maximum of 2 credit hours. (1.1-Articulated)

NOTE: Students will receive a grade of satisfactory or no credit for this course. This course does not count toward GPA. This course requires basic reading and basic writing.

PHILOSOPHY

PHI 151 INTRODUCTION TO PHILOSOPHY

[H] (F,S,Su) (3.0, 0.0) 3.0 H,O

Introduction to Philosophy examines the ultimate questions of human existence: reality, truth, knowledge, human nature, God and morality. (1.1-Articulated) [IAI Core Course Equivalent: H4 900]

PHI 155 INTRODUCTION TO LOGIC

[H] (F,S) (3.0, 0.0) 3.0

Introduction to Logic studies the methods and principles of inductive and deductive reasoning. Discussion primarily centers on inductive reasoning and on techniques for analyzing, evaluating and presenting arguments in everyday situations. (1.1-Articulated) [IAI Core Course Equivalent: H4 906]

PHI 158 STUDIES ABOUT WOMEN

[E,IS] (F,S) (3.0, 0.0) 3.0

Studies About Women offers a current perspective on women's studies, including history; philosophy; personal relationships; women and religion; and theories of gender, patriarchy and oppression. (1.1-Articulated)

PHI 160 EASTERN PHILOSOPHY

[H,IS] (F,S) (3.0, 0.0) 3.0

Eastern Philosophy introduces students to the work of selected philosophers, such as Confucius, Lao Tzu, the Buddha and D.T. Suzuki. Discussion focuses on reality, knowledge, ethics, political theory and other topics. (1.1-Articulated) [IAI Core Course Equivalent: H4 903N]

PHI 240 PHILOSOPHY OF RELIGION

[H] (F,S) (3.0, 0.0) 3.0

Philosophy of Religion studies 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 afterlife. This course examines the nature of religious language and experience. (1.1-Articulated) [IAI Core Course Equivalent: H4 905]

PHI 251 INTRODUCTION TO ETHICS

[H] (F,S,Su) (3.0, 0.0) 3.0 Y

Introduction to Ethics will study the relationship between ethical principles and the problems of individual and social conduct in everyday life (such as racial discrimination, sexual behavior, capital punishment, etc.). (1.1-Articulated) [IAI Core Course Equivalent: H4 904]

PHI 252 BIOETHICS

[E] (F) (3.0, 0.0) 3.0

Bioethics discusses how ethical theories apply to situations in medicine and healthcare that raise moral questions: abortion, assisted suicide, genetics and human reproduction, allocation of medical resources, human experimentation and the professional-patient relationship. (1.1-Articulated)

PHI 255 LIVING WITH DEATH

[E] (F,S) (3.0, 0.0) 3.0

Living with Death discusses general topics related to death, such as the dying and grief process, ethical and legal issues, and human attitudes toward life and death. (1.1-Articulated)

PHI 261 RELIGIONS OF THE WORLD

[H,IS] (F,S,Su) (3.0, 0.0) 3.0 O

Religions of the World studies the basic tenets of major world religions: Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism, and Taoism. Students discuss each religion in context of the social, cultural, geographic, political and economic environment in which it developed and flourished. (1.1-Articulated) [IAI Core Course Equivalent: H5 904N]

PHI 262 FOUNDATIONAL RELIGIOUS TEXTS

[H,IS] (F,S) (3.0, 0.0) 3.0

Foundational Religious Texts is a humanistic study of one or more of the foundational documents of the world's major religions, such as the Hebrew Bible, the New Testament, the Quran (Koran) and/or the Vedas. (1.1-Articulated) [IAI Core Course Equivalent: H5 901]

PHI 290 TOPICS IN PHILOSOPHY

[E] (3.0, 0.0) 3.0V

Topics in Philosophy explores selected topics in philosophy. Content varies and may focus on a single philosopher, a school of philosophy or a particular philosophical issue. Students may repeat this course three times on different topics for a maximum of 12 credit hours. (1.1-Articulated)

PHYSICAL THERAPIST ASSISTANT

PTA 110 PTA PATIENT ASSESSMENT I

[E] (S) (3.0, 3.0) 4.0

PTA Patient Assessment I prepares students to gather data essential for carrying out the patient's plan of care developed by the physical therapist. Students learn how to perform components of the assessments of arousal, mentation and cognition; aerobic capacity and endurance; vital signs, anthropometric characteristics, joint integrity and mobility; muscle performance, gait, locomotion, and balance. They learn how to assess normal and abnormal integumentary, and how to administer standardized tests for pain as well as how to assess factors that contribute to pain. They will learn normal and abnormal patient responses. Students are exposed to medical and surgical conditions that are commonly seen by the PTA. (1.2)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: PTA 120 and PTA 140, both with a grade of C or higher, or written consent of the PTA program director.

PTA 120 PTA PATIENT INTERVENTIONS I

[E] (F) (2.0, 6.0) 4.0

PTA Patient Interventions I prepares students to implement components of the plan of care established by the physical therapist. Students relate the plan of care developed by the physical therapist to short and long term goals and intended outcomes. They learn how to implement functional training, perform selected therapeutic exercise interventions, and apply superficial heat and cold modalities. They also learn how to incorporate effective teaching strategies during interventions, how to consult with the physical therapist, and how to contribute to facilitate patients' discontinuation of care discharge from the facility or service. (1.2)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: Admission to the Physical Therapist Assistant program or written consent of the PTA program director.

PTA 140 INTRODUCTION TO PTA**[E] (F) (3.0, 0.0) 3.0**

Introduction to PTA students learn about the healthcare continuum and the range of patient care services offered, legal and ethical guidelines for practice, healthcare teams, Physical Therapist (PT) / Physical Therapist Assistant (PTA) relationships, the legal and ethical guidelines for practice, and effective intercultural and interpersonal communication skills. They also learn how to document patient care services along the healthcare continuum. Students explore collaborative relationships with the PT and other healthcare team members, and learn how to recognize what is beyond the scope of PTA practice. (1.2)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: Admission to the Physical Therapist Assistant program or written consent of the PTA program director.

PTA 141 PTA KINESIOLOGY**[E] (S) (2.0, 6.0) 4.0 O,B**

PTA Kinesiology provides students an opportunity to apply their knowledge of musculoskeletal anatomy to functional movements and activities of daily living. Instruction includes soft tissue/boney landmark palpation, joint structure, muscle function as well as osteo-kinematic and arthro-kinematic motion of each major joint of the musculoskeletal system. Students study normal/abnormal postures and gait patterns. This course is a foundation for the students' Physical Therapist Assistant Program Assessment courses, PTA Intervention II course, and PTA Rehabilitation Strategies. (1.2)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: PTA 120 and PTA 140, both with a grade of C or higher, or written consent of the PTA program director.

PTA 142 PTA PATHOPHYSIOLOGY**[E] (S) (2.0, 0.0) 2.0 O,B**

PTA Pathophysiology includes the study of diseases and disorders commonly seen in physical therapy practice. The course includes an overview of the etiology, pathogenesis, signs/symptoms, medical management, and how pathology may impact the delivery of physical therapy services. Study covers body systems pathologies across the life span including neuromuscular, musculoskeletal, cardiovascular, pulmonary, integumentary, gastrointestinal, endocrine, lymphatic, and other special systems. Age-related changes pertaining to various body systems are identified to provide students with awareness of life span changes. This course is a foundation for the students' Physical Therapist Assistant Program Assessment courses, PTA Interventions II course, and PTA Rehabilitation Strategies. (1.2)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: PTA 120 and PTA 140, both with a grade of C or higher, or written consent of PTA program director.

PTA 145 INTRODUCTION TO CLINICAL EDUCATION**[E] (S) (0.0, 5.0) 1.0 O,B**

Introduction to Clinical Education is a part-time, 5 hours per day, 1 day per week for 12 weeks (total of 60 hours) clinical education experience where foundational knowledge and skills are applied to direct patient care in selected physical therapy settings. Students may be scheduled at one or more clinical sites. Concurrent with spring semester courses, this course provides students the opportunity to perform physical therapy data collection techniques and treatment interventions with uncomplicated patients along with a high degree of supervision and guidance from the supervising physical therapist and/or physical therapist assistant who function as the students' clinical instructor (C.I.). Students have opportunities to apply

and further develop learning from the didactic portion of the curriculum in a clinical environment that fosters learning, problem solving, and critical thinking. (1.2)

NOTE: Students must successfully perform all items on the Introduction to Clinical Education Skills Checklist in order to successfully pass this course. Students will receive a grade of satisfactory/no credit for this course. This course does not count toward GPA. This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: PTA 120 and PTA 140, both with a grade of C or higher, or written consent of PTA program director.

PTA 151 PTA CLINICAL EXPERIENCE I**[E] (Su) (0.0, 40.0) 3.0 O,B**

PTA Clinical Experience I is a full-time, 40 hours per week for 4.5 weeks (total of 180 hours) clinical experience, where students continue their preparation to function as entry-level physical therapist assistants while they are provided opportunities to apply and further develop knowledge, behaviors, and skills from the didactic portion of the first year of the curriculum. Students may be scheduled at one or more clinical sites. Students follow established interventions, perform selected data collection, and practice hands-on techniques while supervised and mentored by clinical instructors (licensed physical therapists and/or licensed physical therapist assistants). (1.2)

NOTE: Students will receive a grade of satisfactory/no credit for this course. This course does not count toward GPA. This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: PTA 110, PTA 141, PTA 142, all with a grade of C or higher, PTA 145 with a grade of S or written consent of the PTA program director.

PTA 210 PTA PATIENT ASSESSMENT II**[E] (F) (2.0, 3.0) 3.0**

PTA Patient Assessment II continues to prepare students to gather data identified essential for carrying out the patient's plan of care developed by the physical therapist. In this course, students learn how to perform components of the assessments after activity with measurement of vital signs, cardiovascular function, ventilation, respiration, and self-care and home management and community or work reintegration. They learn how to identify normal and abnormal responses in patients. They also learn how to recognize positions, postures or activities that could aggravate or relieve pain and skin trauma. (1.2)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: PTA 151 with a grade of S or written consent of PTA program director.

PTA 220 PTA PATIENT INTERVENTIONS II**[E] (F) (2.0, 6.0) 4.0**

PTA Patient Interventions II continues to prepare students to implement components of the plan of care established by the physical therapist. Students learn how to perform and teach balance, coordination, posture and breathing exercises; perform massage, deep heat, traction, biofeedback, hydrotherapy and electrotherapeutic agents; perform wellness interventions, wound management, isolation and infection control techniques. They also learn how to apply patient education (motor learning) interventions directed by the physical therapist, and how to contribute to patients' discontinuation of care from the facility or service. (1.2)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: PTA 151 with a grade of S or written consent of PTA program director.

PTA 240 PTA ADMINISTRATION**[E] (F) (1.0, 0.0) 1.0**

PTA Administration students expand their understanding of Physical Therapist (PT) / Physical Therapist Assistant (PTA) relationships, focusing on discharge planning, quality assurance, and social responsibility. They explore their role in education and participate in professional and community organizations. They will also develop a resume suitable for beginning their search for employment. (1.2)

NOTE: This course requires advance reading, advanced writing and intermediate math.

PREREQUISITE: PTA 151 with a grade of S or written consent of PTA program director.

PTA 242 PTA REHABILITATION STRATEGIES**[E] (F) (2.0, 3.0) 3.0 O,B**

PTA Rehabilitation Strategies continues to prepare students to perform appropriate assessment techniques and treatment interventions from within the plan of care established by the physical therapist, for patients with acquired and/or progressive neurological disorders as well as for special patient populations including pediatrics, geriatrics, and patients with amputations. Other topics of study include the study of neuro-motor development, neuromuscular rehabilitation techniques, and the effects of age-related changes on functional movement across the lifespan. (1.2)

NOTE: This course requires intermediate reading, intermediate writing and intermediate math.

PREREQUISITE: PTA 151 with a grade of S or written consent of PTA program director.

PTA 250 PTA CLINICAL EXPERIENCE II**[E] (S) (0.0, 40.0) 4.0**

PTA Clinical Experience II is a full-time, 40 hours per week for six (6) weeks (total of 240 hours), clinical experience that continues to prepare students to function as entry-level physical therapist assistants while they are provided opportunities to apply and further develop knowledge, behaviors and skills learned in all prior PTA program courses. Students apply established interventions, perform selected data collection and practice hands-on techniques while supervised and mentored by clinical instructors (C.I.) (licensed physical therapists and/or licensed physical therapist assistants). (1.2)

NOTE: Students will receive a grade of satisfactory/no credit for this course. This course does not count toward GPA. This course requires advance reading, advanced writing and advanced math.

PREREQUISITE: PTA 210, PTA 220, PTA 240, PTA 242, all with a grade of C or higher, and concurrent enrollment in PTA 252, or written consent of PTA program director.

PTA 251 PTA CLINICAL EXPERIENCE III**[E] (S) (0.0, 40.0) 4.0**

PTA Clinical Experience III is a full-time, 40 hours per week for six (6) weeks (total of 240 hours), clinical experience that continues to prepare students to function as entry-level physical therapist assistants while they are provided opportunities to apply and further develop knowledge, behaviors and skills learned in all prior PTA program courses. Students apply established interventions, perform selected data collection and practice hands-on techniques while supervised and mentored by clinical instructors (licensed physical therapists and/or licensed physical therapist assistants). Upon completion of this course, students are expected to demonstrate patient care skills compatible to the role of an entry-level PTA. (1.2)

NOTE: Students will receive a grade of satisfactory/no credit for this course. This course does not count toward GPA. This course requires advance reading, advanced writing and advanced math.

PREREQUISITE: PTA 210, PTA 220, PTA 240, and PTA 242, all with a grade of C or higher, and concurrent enrollment in PTA 252, or written consent of PTA program director.

PTA 252 PTA CLINICAL SEMINAR**[E] (S) (2.0, 0.0) 2.0 B**

PTA Clinical Seminar, concurrent with PTA Clinical Experience II and PTA Clinical Experience III, provides the opportunity for presentation and discussion of student clinical experiences. Discussions are facilitated by the instructor and include issues such as: appropriate clinical behaviors, ethical issues, cultural difference, legal issues, patient outcomes/discharge planning, fiscal management, and the changing health care environment. This course also explores current issues in Physical Therapy, including preparing for the licensure exam, and for employment; composing a resume; and the importance of continuing education and lifelong learning. (1.2)

NOTE: This course requires use of computer systems and access to the Internet for assignments, discussions, and communication with peers and instructor. This course requires advanced reading, advanced writing and intermediate math.

PREREQUISITE: PTA 210, PTA 220, PTA 240, PTA 242 all with a grade of C or higher and concurrent enrollment in PTA 250, and PTA 251, or written consent of PTA program director.

PHYSICS**PHY 280 GENERAL PHYSICS I****[P] (F) (3.0, 3.0) 4.0 B**

General Physics I introduces students to Newtonian mechanics, fluids, heat and sound. Laboratory experiments are chosen to illustrate lecture material. This course is primarily oriented toward biological and medical science students and is not designed for students majoring in physics, chemistry, engineering or applied mathematics. (1.1-Articulated) [IAI Core Course Equivalent: P1 900L]

NOTE: This course requires intermediate reading, intermediate writing, and expert math.

PREREQUISITE: MAT 165 with a grade of C or higher.

PHY 281 GENERAL PHYSICS II**[E] (S) (3.0, 3.0) 4.0 B**

General Physics II is a continuation of General Physics I. This course introduces students to electricity and magnetism, optics and selected topics in modern physics. Laboratory experiments are designed to illustrate lecture material. (1.1-Articulated)

PREREQUISITE: PHY 280.

PHY 291 PRINCIPLES OF PHYSICS I**[P] (F) (3.0, 3.0) 4.0**

Principles of Physics I is the first in a three-course sequence in calculus-based physics. The sequence is designed for students in engineering, mathematics, chemistry, and physics. Topics covered include Newtonian mechanics, oscillatory motion and fluids. Laboratory experiments are designed to illustrate the lecture material. (1.1-Articulated) [IAI Core Course Equivalent: P2 900L][IAI Major Course Equivalent: PHY911]

NOTE: This course requires intermediate reading, intermediate writing, and expert math.

PREREQUISITE: MAT 175 with a grade of C or higher and credit or concurrent enrollment in MAT 245.

PHY 292 PRINCIPLES OF PHYSICS II**[E] (S) (3.0, 3.0) 4.0**

Principles of Physics II is the second in a three-course sequence in calculus-based physics. Topics covered include electricity and magnetism and thermodynamics. Laboratory experiments are designed to illustrate the lecture material. (1.1-Articulated) [IAI Major Course Equivalent: PHY912]

PREREQUISITE: PHY 291 and MAT 245 with a grade of C or higher.

PHY 293 PRINCIPLES OF PHYSICS III**[E] (Su) (3.0, 3.0) 4.0**

Principles of Physics III is the third in a three-course sequence in calculus-based physics. Topics covered include sound, optics, electromagnetic waves and selected topics in modern physics. Laboratory experiments are designed to illustrate the lecture material. (1.1-Articulated) [IAI Major Course Equivalent: PHY914]

PREREQUISITE: PHY 292 and MAT 255 with a grade of C or higher.

PHY 294 THERMAL PHYSICS**[E] (F,S) (2.0, 0.0) 2.0**

Thermal Physics is a calculus-based, introductory course in thermal physics. Topics include the first and second law of thermodynamics, including the kinetic theory of gases and heat capacity, heat engines, an introduction to entropy and statistical mechanics, and an introduction to free energy. (1.1-Articulated)

NOTE: This course requires advance reading, intermediate writing and advanced math.

PREREQUISITE: PHY 291 with a grade of C or higher, credit with a grade of C or higher or concurrent enrollment in PHY 292, and credit with a grade of C or higher or concurrent enrollment in MAT 255.

POLITICAL SCIENCE**PLT 150 INTRODUCTION TO POLITICAL THOUGHT****[S, IS] (F) (3.0, 0.0) 3.0 O**

Introduction to Political Thought introduces students to the institutions and ideologies of contemporary democratic and authoritarian governments with a special emphasis on American and European political theory. This course discusses the concepts of power, constitutionalism, the nation-state system, government, civil liberties and more. (1.1-Articulated) [IAI Core Course Equivalent: S5 903][IAI Major Course Equivalent: PLS913]

PLT 151 UNITED STATES GOVERNMENT**[S] (F,S,Su) (3.0, 0.0) 3.0 O,SP**

United States Government examines our system of federal government, emphasizing its origin, principles, organizations and processes. Students also discuss the U.S. Constitution; contemporary political issues facing our nation; and the changing relationship between the federal and state governments. The course includes a discussion of how the institutions of our government interact. (1.1-Articulated) [IAI Core Course Equivalent: S5 900]

PLT 155 STATE AND LOCAL GOVERNMENT**[S] (S) (3.0, 0.0) 3.0**

State and Local Government studies the organization and function of state and local governments in the United States. It looks at the political issues and problems currently facing state and city governments and explores alternative solutions through interstate and intrastate cooperation. Special attention is given to Illinois political history and contemporary government, as well as the Illinois Constitution. (1.1-Articulated) [IAI Core Course Equivalent: S5 902]

PLT 160 THE CONSTITUTION: THAT DELICATE BAL**[E] (Su) (3.0, 0.0) 3.0**

The Constitution: That Delicate Balance studies the U.S. Constitution, a living document that provides a balance between individual freedoms and the common good. This course covers the Constitution's historical development, purposes and primary functions in civil society; the changing meaning and interpretation of significant portions of the document; the ongoing impact of its amendments; major Supreme Court decisions regarding civil liberties and civil rights; constitutional issues such as capital punishment, affirmative action, abortion, executive privilege, national security and freedoms of speech, press and religion; the judicial selection process; and the current makeup of the U.S. Supreme Court. (1.1-Articulated)

PLT 251 INTERNATIONAL RELATIONS**[S,IS] (F,S) (3.0, 0.0) 3.0 O**

International Relations studies the political, economic, military and social factors that affect relationships among nations. (1.1-Articulated) [IAI Core Course Equivalent: S5 904]

PLT 255 COMPARATIVE GOVERNMENT**[S, IS] (F) (3.0, 0.0) 3.0 O**

Comparative Government is a comparative study of government and society in countries such as Great Britain, Russia, France, Germany, Canada, Mexico and the U.S. or other nations of contemporary interest. Students look at their histories; social and economic systems, cultures, and political institutions and processes. They also discuss current issues confronting the nations being studied. (1.1-Articulated) [IAI Core Course Equivalent: S5 905]

PLT 261 MODERN LATIN AMERICA**[E,IS] (F,S,Su) (3.0, 0.0) 3.0 O**

Modern Latin America is a multidisciplinary course covering the 20th century politics, economics, societies and history of Latin America and the Caribbean. It focuses on issues and events that are crucial to understanding the development of the region and its relationship with the U.S. and the world. The course looks specifically at the historical roots of regional tensions, national economics and free trade issues, reform movements and revolutions, the impact of migration and urbanization, changing ethnic identities, the evolving role of women, religious upheaval, and cultural/artistic movements. (1.1-Articulated)

PLT 281 INTRODUCTION TO ASIA**[E,IS] (F,S,Su) (3.0, 0.0) 3.0**

Introduction to Asia provides an overview of Asia and its standing on the world stage. It focuses on the development of the region's culture, history, government, position in the global economy, and relationship to the United States. (1.1-Articulated)

PROGRAMMING

NOTE: For additional offerings of computer related courses, see also Animation, Computer Information Systems, Database Management, Digital Media, Graphic Arts, Network Security and Web Design.

PRG 105 PROGRAMMING LOGIC

[E] (F,S) (2.0, 2.0) 3.0 O

Programming Logic introduces core programming concepts including sequence, iteration, decision statements, data types, accessing and storing data, objects and classes. Students plan and create programs using modern planning tools and the Python programming language. This course will prepare students for advanced object oriented programming coursework. (1.2-Articulated)

PREREQUISITE: Students must test into MAT 095 (or higher) and ENG 095 (or higher) on placement tests.

PRG 147 JAVASCRIPT PROGRAMMING I

[E] (F) (2.0, 2.0) 3.0 O

JavaScript Programming I provides students with the knowledge and skills necessary to develop JavaScript enhanced web pages. Students will also learn the basic syntax of JavaScript and how to develop programs using JavaScript. Students may repeat this course once for a maximum of 6 credit hours. (1.2-Articulated)

PREREQUISITE: WEB 105 with a grade of C or higher and PRG 105 with a grade of C or higher.

PRG 149 JAVA WEB APPLICATION PROGRAMMING

[E] (2.0, 2.0) 3.0 O,B

Java Web Application Programming focuses on programming multi-tiered applications in the web environment. The programming model involves writing code for web servers that communicate with client computers (browsers) and with other servers including database servers. Students design and implement object-oriented programs using Java servlets and JSP technology. (1.2-Articulated)

NOTE: This course offered in odd numbered years.

PREREQUISITE: Credit or concurrent enrollment in both WEB 105 and DBM 110 or instructor consent.

PRG 150 ASP.NET WEB APPLICATION PROGRAMMING

[E] (F) (2.0, 2.0) 3.0 O,B

ASP.NET Web Application Programming focuses on programming multi-tiered applications in the web environment. The programming model involves writing code for web servers that communicate with client computers (browsers) and with other servers including database servers. Students will design and implement object-oriented programs using Microsoft technologies, the ASP programming language and the .NET platform. (1.2-Articulated)

NOTE: This course is offered in odd numbered years.

PREREQUISITE: Credit or concurrent enrollment in both WEB 105 and DBM 110 or instructor consent.

PRG 151 C# AND .NET PROGRAMMING

[E] (F) (2.0, 2.0) 3.0 O,B

C# and .NET Programming focuses on programming for Microsoft programming platform. C# is a rapidly growing programming language and is a powerful tool for programmers developing for Windows operating system or web. Students develop object-oriented code and connect to the Internet in order to retrieve data from a database. (1.2-Articulated)

NOTE: This course is offered in even numbered years.

PREREQUISITE: Credit or concurrent enrollment in both WEB 105 and DBM 110 or instructor consent.

PSYCHOLOGY

PSY 151 INTRODUCTION TO PSYCHOLOGY

[S] (F,S,Su) (3.0, 0.0) 3.0 O,B,SP,H

Introduction to Psychology teaches students about basic psychological concepts and human behavior. It also helps increase their self-awareness and their ability to relate to other people. (1.1-Articulated) [IAI Core Course Equivalent: S6 900]

NOTE: This course requires intermediate reading, intermediate writing, and basic math.

PSY 175 HUMAN SEXUALITY

[E,IS] (F,S) (3.0, 0.0) 3.0

Human Sexuality helps people to better understand their own sexual needs and behaviors and to be more accepting of sexual attitudes and behaviors that may differ from their own. This course focuses on the physiological, psychological and sociological implications of human sexuality. (1.1-Articulated)

PREREQUISITE: PSY 151.

PSY 250 HUMAN DEVELOPMENT OVER THE LIFE SPAN

[S,IS] (F,S,Su) (3.0, 0.0) 3.0 O,SP

Human Development Over the Life Span explores the impact of physical, cognitive, psychosocial, historical and cultural influences in each major stage of human development. (1.1-Articulated) [IAI Core Course Equivalent: S6 902]

NOTE: There is significant overlap between PSY 250 and PSY 251. PSY 250 covers the information in PSY 251 in less depth. If students have a specific interest in children, PSY 251 is encouraged instead of PSY 250. Please check program requirements. Some programs require PSY 250 instead of PSY 251.

PREREQUISITE: PSY 151.

PSY 251 CHILD PSYCHOLOGY

[S,IS] (F,S,Su) (3.0, 0.0) 3.0 O

Child Psychology studies the physical, mental and social development of children, emphasizing experiences in the family, school and community that contribute to an integrated personality. (1.1-Articulated) [IAI Core Course Equivalent: S6 903]

NOTE: There is significant overlap between PSY 251 and PSY 250. PSY 251 covers half of the information in PSY 250 in more depth. If students have a specific interest in children, PSY 251 is encouraged instead of PSY 250. Please check program requirements. Some programs require PSY 251 instead of PSY 250.

PREREQUISITE: PSY 151.

PSY 255 ADULT DEVELOPMENT

[S,IS] (D) (3.0, 0.0) 3.0

Adult Development studies individuals from post-adolescence to death. It looks at the biological, cognitive, personality and social characteristics at various stages of development. (1.1-Articulated) [IAI Core Course Equivalent: S6 905]

PREREQUISITE: PSY 151.

PSY 260 INTRODUCTION TO GERONTOLOGY

[S,IS] (D) (3.0, 0.0) 3.0

Introduction to Gerontology studies the physical, psychological and sociological aspects of old age. Students learn about normal versus pathological aging and discuss issues such as healthcare, finances, and social and cultural change. (1.1-Articulated) [IAI Core Course Equivalent: S6 905]

PREREQUISITE: PSY 151.

PSY 265 SOCIAL PSYCHOLOGY**[E] (F,S,Su) (3.0, 0.0) 3.0 O**

Social Psychology introduces students to theory and research on how social factors influence individual and group behavior. This course examines attitudes, social perception, the establishment of norms, conformity, leadership, group dynamics and research methods, emphasizing their effect on the individual. (1.1-Articulated) [IAI Core Course Equivalent: S8 900] [IAI Major Course Equivalent: PSY908]

PREREQUISITE: PSY 151.**PSY 271 EDUCATIONAL PSYCHOLOGY****[E,IS] (F,S) (3.0, 0.0) 3.0 O**

Educational Psychology explores the principles of how students learn and develop in educational settings and discusses effective management of the learning process. (1.1-Articulated)

PREREQUISITE: PSY 151.**PSY 275 ABNORMAL PSYCHOLOGY****[E,IS] (F,S,Su) (3.0, 0.0) 3.0 O,SP**

Abnormal Psychology explores psychological disorders by examining their diagnostic criteria, their theoretical explanations, the research methods used to study them, the interventions used to treat them, and the legal aspects of their treatment and prevention. (1.1-Articulated) [IAI Major Course Equivalent: PSY905]

PREREQUISITE: PSY 151.**PSY 280 THEORIES OF PERSONALITY****[E] (D) (3.0, 0.0) 3.0**

Theories of Personality covers the major theories of personality, with an emphasis on experimental and clinical research. The course also discusses the various methods and techniques used in personality assessments. (1.1-Articulated)

PREREQUISITE: PSY 151.**PSY 290 TOPICS IN PSYCHOLOGY****[E] (3.0, 0.0) 3.0**

Topics in Psychology covers a variety of areas in psychological fields ranging from biopsychology to forensic psychology. Topics will vary from offering to offering. Students may repeat this course two times on different topics for a maximum of 9 credit hours. (1.1-Articulated)

PREREQUISITE: PSY 151.**READING****RDG 089 BASIC READING SKILLS****(F,S) (3.0, 0.0) 3.0V**

Basic Reading Skills helps students to improve their reading through the use of prefixes, suffixes, root words, phonics, word meanings, and context clues. Students practice finding main ideas and details in phrases, sentences, paragraphs, and short essays. Students may repeat this course three times for a maximum of 12 credit hours. (1.4)

NOTE: Credit cannot be applied to a degree or certificate. This course requires basic reading and basic writing.

PREREQUISITE: Appropriate score on reading placement test.**RDG 090 READING IMPROVEMENT****(F,S) (3.0, 0.0) 3.0**

Reading Improvement covers reading and study techniques for students who wish to improve their skills in identifying main ideas, thinking critically, and remembering what is read. Students may repeat this course three times for a maximum of 12 credit hours. (1.4)

NOTE: Credit cannot be applied to a degree or certificate. This course requires basic reading and basic writing.

PREREQUISITE: Appropriate score on the reading placement test.**RDG 092 CONCENTRATION AND NOTE-TAKING****(1.0, 0.0) 1.0**

Concentration and Note-Taking provides a systematic strategy for memory development and effective techniques for taking notes from textbooks and lectures. Students may repeat this course three times for a maximum of 4 credit hours. (1.4)

NOTE: Credit cannot be applied to a degree or certificate. This course requires intermediate reading and basic writing.

RDG 093 TEST-TAKING**(1.0, 0.0) 1.0**

Test-Taking helps students develop strategies for taking multiple-choice, true-false, matching, short answer, completion, and essay tests. Students may repeat this course three times for a maximum of 4 credit hours. (1.4)

NOTE: Credit cannot be applied to a degree or certificate. This course requires intermediate reading and basic writing.

RDG 110 CRITICAL COLLEGE READING SKILLS**[E] (F,S) (3.0, 0.0) 3.0**

Critical College Reading Skills helps students understand and interpret college-level written material. Students improve their reading comprehension, vocabulary, reading rate, critical thinking and other reading-related skills necessary for success in college and beyond. (1.1-Articulated)

NOTE: This course requires intermediate reading and basic writing.

PREREQUISITE: Appropriate score on reading placement test.**ROBOTICS****ROB 110 INTRODUCTION TO ROBOTICS****[E] (F,S) (2.0, 2.0) 3.0**

Introduction to Robotics discusses the field of robotics and constitutes a foundation for subsequent robotics courses. Students learn the theory of robotics and develop algorithms for robot control systems. A range of sensors is used. Students engage in several robot competitions, involving building robots and developing appropriate algorithms and software. This course provides a platform for discussing such topics as algorithms and parallel programming. (1.2-Articulated)

PREREQUISITE: Credit or concurrent enrollment in CDM 110 or CDM 111, or instructor consent.

ROB 115 INTRODUCTION TO ELECTRONICS**[E] (F,S) (2.0, 2.0) 3.0**

Introduction to Electronics explores electronics through hands-on labs and simulations. Topics range from Ohm's Law to semiconductor circuits, series and parallel circuits, capacitors, inductors, and magnetic, with focus on analog and digital circuits. Background in basic algebra recommended for understanding electronics concepts. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing and basic math.

ROB 116 ELECTRICITY AND AUTOMATIC CONTROLS**[E] (F,S) (2.0, 2.0) 3.0**

Electricity and Automatic Controls will introduce students to electricity and automatic controls. Students will learn basic wiring skills and become familiar with electrical components, including household wiring, wire sizing, conduit sizing, series and parallel circuits, and will learn to work with electrical tools and meters. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing and basic math.

ROB 145 HYDRAULICS, PNEUMATICS AND CONTROLS**[E] (F,S) (2.0, 2.0) 3.0**

Hydraulics, Pneumatics and Controls is divided between hydraulic, pneumatic and control areas. Hands-on operation and troubleshooting or training equipment is used to illustrate fluid properties, pressure and pipe friction. Actual components used include: pumps, reservoirs and accumulators, actuators, control valves, packing and seals, compressors and electrical controls (including PLCs). The course targets those who maintain and design fluid power systems. (1.2-Articulated)

NOTE: This course requires basic reading, basic writing and basic math.

PREREQUISITE: Students should have a working knowledge of basic electricity and electronic components. Some background in mechanics and physics is also required

ROB 150 PLC AUTOMATION APPLICATIONS I**[E] (S) (2.0, 2.0) 3.0**

Programmable Logic Controller (PLC) Automation Applications I builds upon the skills learned in Introduction to Robotics and discusses fundamental aspects of 3D robot design. This course focuses on designing robotic hardware using 3D modeling tools. Students learn modeling techniques for constructing robots as well as basic simulation techniques for animating robot movements. The course is relevant to typical manufacturing, civilian and military applications, in which the robotic system needs to be tested in a virtual environment before costly production begins. (1.2-Articulated)

PREREQUISITE: ROB 110 with a grade of C or higher.

ROB 151 PLC AUTOMATION APPLICATIONS II**[E] (F) (2.0, 2.0) 3.0**

Programmable Logic Controller (PLC) Automation Applications II builds upon skills learned in PLC Automation Applications I and discusses advanced aspects of design and simulation of robotic systems. Students use advanced modeling techniques, scripting and state-of-the-art 3D simulation engines to create virtual environments and test robot applications before real-world applications are implemented. (1.2-Articulated)

PREREQUISITE: ROB 150 with a grade of C or higher.

ROB 200 CYBER-PHYSICAL SYSTEMS**[E] (S) (2.0, 2.0) 3.0**

Cyber-Physical Systems focuses on systems that operate within the realm of the laws of physics (i.e., simulation systems and auto-pilot systems). This course concentrates on Newton's Laws of Motion, kinematics and kinetics. This theory is applied to problems that a robotics system programmer must understand, such as collisions between objects, projectiles and their trajectories and real-time simulation of motion. Special objects, such as robots, cars, aircraft and ships, are discussed. (1.2-Articulated)

PREREQUISITE: PRG 110 with a grade of C or higher, or instructor consent.

ROB 211 DISTRIBUTED ROBOTIC SYSTEMS**[E] (F) (2.0, 2.0) 3.0**

Distributed Robotic Systems discusses aspects of distributed systems applied to typical autonomous robotic systems. The scenarios involve military and civilian applications and center on intelligent guiding systems in situations when humans are not able to control multiple systems. Students learn basic algorithms, write code and test their results on simulation systems and use robots in laboratory settings. (1.2-Articulated)

PREREQUISITE: PRG 110 with a grade of C or higher, or instructor consent.

ROB 220 ARTIFICIAL INTELLIGENCE**[E] (F) (2.0, 2.0) 3.0**

Artificial Intelligence introduces students to fundamental concepts of the field of computer science called Artificial Intelligence. Students learn problem-solving algorithms, decision-making system design, artificial neural networks, machine learning, classical, non-monotonic and fuzzy logic. Implementations discussed in this course are a foundation of current and future civilian and military robotic system applications. The applications include space explorations, military and civilian scenarios. (1.2-Articulated)

PREREQUISITE: Credit in PRG 110 with a grade of C or higher, or instructor consent.

SOCIOLOGY**SOC 151 INTRODUCTION TO SOCIOLOGY****[S] (F,S,Su) (3.0, 0.0) 3.0 O,B,SP,H**

Introduction to Sociology gives an overview of sociology, which is the study of society and human social interaction. It covers development of individuality, group dynamics, inequality, education, deviance, organizations, religion and population. (1.1-Articulated) [IAI Core Course Equivalent: S7 900]

NOTE: This course requires advanced reading, intermediate writing, and intermediate math.

SOC 175 SOCIOLOGY OF FAMILIES**[S,IS] (F,S,Su) (3.0, 0.0) 3.0 O**

Sociology of Families helps students see through the sentiment and ideology surrounding family life, and to understand why families are the way they are, why they change, and why they do not. The course also discusses practical issues of relationships and parenthood. (1.1-Articulated) [IAI Core Course Equivalent: S7 902]

NOTE: Students cannot receive credit for both SOC 101 and SOC 175. SOC 151 is recommended. This course requires advanced reading, advanced writing, and intermediate math.

SOC 251 SOCIAL PROBLEMS**[S] (F,S,Su) (3.0, 0.0) 3.0 O**

Social Problems explores what makes certain social issues significant, emphasizing the role and importance of individuals, institutions, and groups that define and legitimize social problems. This course makes students cognizant of contemporary social problems in the U.S. and world through presentation of empirical evidence and sociological theories. Additionally, students evaluate existing solutions and learn to propose meaningful solutions to major social problems. Upon completion of this course, students will gain a sociological perspective on social problems. A prior course in a social science is recommended but not required. (1.1-Articulated) [IAI Core Course Equivalent: S7 901]

NOTE: This course requires advanced reading, advanced writing, and intermediate math.

SOC 256 SOCIOLOGY OF DEVIANCE**[E,IS] (F) (3.0, 0.0) 3.0**

Sociology of Deviance examines how deviance is constructed in our society by exploring mechanisms and processes that make certain behaviors deviant. This course examines the consequences of the deviant label in terms of deviant identity and stigma management, how deviant persons organize their lives and the development of deviant careers. In addition, we will evaluate the various theories of deviant behavior. Upon completion of this course, students will gain a sociological perspective on deviance. (1.1-Articulated)

NOTE: This course requires advanced reading, advanced writing, and intermediate math.

PREREQUISITE: SOC 151, SOC 175, SOC 251, or CJS 101, with a grade of C or higher, or instructor consent.

SOC 260 SOCIOLOGY OF RACE AND ETHNICITY**[S,IS] (F) (3.0, 0.0) 3.0**

Sociology of Race and Ethnicity studies racial and ethnic groups in a sociological context. It looks at racial and ethnic conflict, the politics of race and ethnicity, and social problems related to race and ethnicity. While much of the focus is on the Americas, global issues are also addressed. This course includes an all-day field trip to ethnic neighborhoods in Chicago. (1.1-Articulated) [IAI Core Course Equivalent: S7 903D]

NOTE: This course requires advanced reading, advanced reading, advanced writing, and intermediate math.

PREREQUISITE: SOC 151 or SOC 251 with a grade of C or higher, or instructor consent.

SOC 261 SOCIOLOGY OF SEX AND GENDER**[S,IS] (S) (3.0, 0.0) 3.0**

Sociology of Sex and Gender examines the constructions of sex and gender from a sociological perspective. It examines the ways that sex and gender interact with various social institutions such as families, schools, marriage, the labor market, government, reproduction, and violence. In addition, a discussion on how gendered attitudes affect the expectations, experiences and opportunities of women and men is covered. Upon completion of this course, students will be aware of the gender inequalities embedded in culture and social institutions. (1.1-Articulated) [IAI Core Course Equivalent: S7 904D]

NOTE: This course requires advanced reading, advanced writing, and intermediate math.

PREREQUISITE: SOC 151, SOC 175 or SOC 251 with a grade of C or higher, or instructor consent.

SPANISH**SPA 101 OCCUPATIONAL SPANISH I****[E] (F,S) (3.0, 0.0) 3.0**

Occupational Spanish I is an introduction to practical Spanish. It helps students strengthen their conversational skills in order to better communicate in daily, on-the-job interactions with native Spanish speakers. (1.1-Articulated)

NOTE: This course requires basic reading and basic writing.

SPA 102 OCCUPATIONAL SPANISH II**[E] (F,S) (3.0, 0.0) 3.0**

Occupational Spanish II is a continuation of elementary conversational Spanish. Students work on their speaking and comprehension for job situations, everyday contact with native Spanish speakers in the community, and travel. The focus is on meeting the individual needs of each student; at the beginning of the course, students are asked to state their objectives. Students should have some Spanish-speaking ability. (1.1-Articulated)

PREREQUISITE: SPA 101 with a grade of C or higher or instructor consent.

SPA 151 ELEMENTARY SPANISH I**[E,IS] (F,S,Su) (4.0, 0.0) 4.0**

Elementary Spanish I is an introductory course designed for students with no previous knowledge of the language. Students begin to develop their skills in listening comprehension, speaking, reading and writing for practical, everyday situations. The use of technology helps them develop skills. Cultural topics are explored, and supplementary beginner-level material may be read in class or as outside assignments. (1.1-Articulated)

NOTE: Those students who are native speakers or who have previous knowledge of the language are highly encouraged to take placement testing in the Testing Center. This will ensure placement at the correct course level. This course requires basic reading and basic writing.

SPA 152 ELEMENTARY SPANISH II**[E,IS] (F,S,Su) (4.0, 0.0) 4.0**

Elementary Spanish II builds on SPA 151. Students continue to develop their skills in listening comprehension, speaking, reading and writing for practical, everyday situations. The use of technology helps them develop those skills. Cultural topics are explored, and supplementary beginner-level material may be read in class or as outside assignments. (1.1-Articulated)

PREREQUISITE: SPA 151 with a grade of C or higher, or appropriate score on College Spanish placement test.

SPA 251 INTERMEDIATE SPANISH I**[E,IS] (F,S,Su) (4.0, 0.0) 4.0**

Intermediate Spanish I builds on SPA 152. Students continue to develop their skills in listening comprehension, speaking, reading and writing for practical, everyday situations. The use of technology helps them develop those skills. Cultural topics are explored, and supplementary intermediate-level material may be read in class or as outside assignments. (1.1-Articulated)

PREREQUISITE: SPA 152 with a grade of C or higher, or appropriate score on the College Spanish placement test.

SPA 252 INTERMEDIATE SPANISH II**[H,IS] (F,S,Su) (4.0, 0.0) 4.0**

Intermediate Spanish II builds on SPA 251. Students review previously learned grammar, refine comprehension and communication skills, and explore the history and culture of the Spanish-speaking world. The use of technology helps them develop their language skills. Supplementary intermediate-level material may be read in class or as outside assignments. (1.1-Articulated) [IAI Core Course Equivalent: H1 900]

PREREQUISITE: SPA 251 with a grade of C or higher, or appropriate score on the College Spanish placement test.

SPA 290 TOPICS IN SPANISH**[E,IS] (F,S,Su) (3.0, 0.0) 3.0**

Topics in Spanish has various titles depending on the specific topic being explored. Topics vary according to semester and section. Offerings are listed in the current course schedule. Students may repeat this course three times on different topics for a maximum of 12 credit hours. (1.1-Articulated)

NOTE: Prerequisite varies depending on topic.

SPEECH**SPE 151 INTRODUCTION TO SPEECH****[C] (F,S,Su) (3.0, 0.0) 3.0 O**

Introduction to Speech explores the theory and practice of oral communication- speaking and listening. The class emphasizes the extemporaneous method of presenting speeches, including the idea development, research and organization that go into preparing a speech. (1.1-Articulated) [IAI Core Course Equivalent: C2 900]

SPE 155 INTERPERSONAL COMMUNICATION**[E] (F,S) (3.0, 0.0) 3.0 O**

Interpersonal Communication looks at the many factors that influence one-on-one communication, including self-concept, perception and defensiveness. Students learn the practical skills of listening, conflict management, and verbal and nonverbal communication. They work on communicating more effectively to build and maintain satisfying interpersonal relationships. (1.1-Articulated)

SPE 161 SMALL GROUP COMMUNICATION**[E] (F) (3.0, 0.0) 3.0**

Small Group Communication explores the theory and practice of small group communication aimed at collaborative decision-making in business, educational and community groups. Students learn about leadership skills, assertive communication, agenda design, conflict management and intercultural communication. They choose current topics and participate in learning and problem-solving discussions on those topics. (1.1-Articulated)

SPE 251 INTERCULTURAL COMMUNICATION**[E,IS] (3.0, 0.0) 3.0**

Intercultural Communication provides students with basic principles of effective communication between people of diverse cultures. Coverage of cultural identity, language, nonverbal communication, transitions and relationships gives students awareness, knowledge, attitude and skills for successful interaction in domestic and international contexts of diversity. (1.1-Articulated)

SPE 265 FUNDAMENTALS OF ORAL INTERPRETATION**[E] (S) (3.0, 0.0) 3.0**

Fundamentals of Oral Interpretation is an introduction to the art of reading aloud. Students perform poetry, prose, drama and reader's theater, as well as humorous pieces, documentary works and children's literature. Students further their appreciation of literature as they analyze the selections for content and emotional appeal. (1.1-Articulated)

THEATRE**THE 151 INTRODUCTION TO THEATRE****[F] (F,S) (3.0, 0.0) 3.0**

Introduction to Theatre examines theatre as an art form. Study and discussion focus on great plays and playwrights; theatre history and theory; and acting, directing, design and other aspects of production. (1.1-Articulated) [IAI Core Course Equivalent: F1 907]

NOTE: Attendance at theatre performances is required.

THE 153 THEATRE PRACTICE**[E] (F,S,Su) (0.0, 0.0) 5.0V**

Theatre Practice provides academic credit for real-world learning experiences. The College Theatre Department stages two to four productions a year. Each provides opportunities for students to be involved and learn about acting, set construction and painting, lighting, props, costumes and theatre management. Students interested in working on theatre productions should attend specific auditions or contact the instructor. Previous theatre experience is not required. (1.1-Articulated)

NOTE: This is not a class, but credit is given for the practical theatre work. Students may earn 1 or 2 credit hours per production but not more than 5 credit hours altogether.

PREREQUISITE: Written consent of Theatre department chair.

THE 157 ACTING I - PREPARATION**[E] (F,S) (3.0, 0.0) 3.0**

Acting I - Preparation provides beginning actors with the tools and techniques for developing their acting skills. It uses exercises, theatre games and improvisation to help students with relaxation, concentration, imagination and self-awareness. Students hone their skills by developing and presenting monologues. Previous acting experience is not required. (1.1-Articulated) [IAI Major Course Equivalent: TA914]

THE 158 ACTING II - THE ACTOR AT WORK**[E] (F,S) (3.0, 0.0) 3.0**

Acting II - The Actor at Work focuses on the skills needed for acting in a production. Students apply techniques from Acting I as they use scenes from modern plays to learn play analysis, character analysis, character development, scene preparation, and rehearsal process and discipline. (1.1-Articulated)

THE 159 STAGECRAFTS**[E] (F,S) (3.0, 0.0) 3.0**

Stagecrafts covers the basics of the technical side of theatre, including set design and construction, lighting, sound, props and costuming. (1.1-Articulated) [IAI Major Course Equivalent: TA911]

TRANSPORTATION, WAREHOUSING, AND LOGISTICS**TWL 101 WORKING IN A WAREHOUSING ENVIRONMENT****[E] (F,S) (1.5, 0.0) 1.5**

Working in a Warehousing Environment is an introductory course in the Certified Warehousing and Distribution Specialist Program. This course covers business principles, general plant safety, training practices, change management, self-management, and maintaining a positive work ethic. It briefly introduces warehouse and distribution skills. (1.2-Articulated)

TWL 102 WAREHOUSING WORKFORCE SKILLS**[E] (F,S) (1.5, 0.0) 1.5**

Warehousing Workforce Skills is an introductory course for the Certified Warehousing and Distribution Specialist Program. This course covers the interpersonal skills needed to work in a warehousing environment. Primarily, it focuses on effective communication skills for job searching, interviewing, team building and active listening. (1.2-Articulated)

TWL 110 WAREHOUSING AND DISTRIBUTION PROCESS**[E] (F,S) (2.5, 0.0) 2.5**

Warehousing and Distribution Process is an intermediate course in the Certified Warehousing and Distribution Specialist Program. Units in this course cover warehousing and distribution; measuring productivity; inventory management; protecting material and merchandise; palletizing; handling systems; and processing hazardous materials. (1.2-Articulated)

TWL 111 WAREHOUSING AND TECHNOLOGY SKILL**[E] (F,S) (2.0, 0.0) 2.0**

Warehousing and Technology Skills introduces the practical skills needed in a warehouse environment. Students learn to use scanners and data applications as well as understand industrial controls, and automation. (1.2-Articulated)

TWL 115 REPRESENTATIVE WAREHOUSING SKILLS**[E] (F,S) (2.5, 0.0) 2.5**

Representative Warehousing Skills covers a range of skills needed in a warehousing environment. Among other topics, it teaches the mathematical concepts used in warehousing and distribution, and powered material handling equipment operation and safety. Through warehousing simulations, students have the opportunity to develop solutions to workplace and personnel problems. Interviewing, teamwork and personal work ethics are some of the issues presented. (1.2-Articulated)

WEB DESIGN

NOTE: For additional offerings of computer related courses, see also Animation, Computer Information Systems, Database Management, Digital Media, Graphic Arts, Network Security, and Programming.

WEB 105 WEB FUNDAMENTALS

[E] (F,S) (2.0, 2.0) 3.0 O,B

Web Fundamentals provides students with the tools to access, explore and contribute to the Internet. Students work with current web tools as well as create a basic website by hand coding. (1.2-Articulated)

WEB 115 HTML & CSS

[E] (F,S) (2.0, 2.0) 3.0 O,B

HTML & CSS introduces professional web scripting, creation and management techniques. Upon completion of the course, students are able to script a website using current standards approved by the World Wide Web Consortium (W3C). (1.2-Articulated)

PREREQUISITE: WEB 105 with a grade of C or higher.

WEB 175 WEBSITE DEVELOPMENT 1

[E] (S) (2.0, 2.0) 3.0 O,B

Website Development 1 is an introduction to professional website design, creation and management techniques. This course uses current industry standard software for image management, website design and planning software. Upon completion of the course, students are able to plan, develop, test, upload and maintain a website. Students may repeat this course two times for a maximum of 9 credit hours. (1.2-Articulated)

PREREQUISITE: WEB 105 with a grade of C or higher

WEB 212 PHP AND MySQL

[E] (S) (2.0, 2.0) 3.0

PHP and MySQL students combine two of the most popular tools on the web to create dynamic websites. Students plan and implement full stack database solutions, focusing on the back-end technologies. Students create databases in MySQL and combine Structured Query Language with PHP to store and retrieve information on a web database while interacting with the user through a HTML Interface. (1.2-Articulated)

NOTE: This course requires advanced reading, advanced writing and intermediate math.

PREREQUISITE: WEB 105 and PRG 105 with a grade of C or higher.