**CAREER EDUCATION**

**ACCOUNTING (ACC)**

<table>
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<tr>
<th>COURSE</th>
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<td>ACC 001B</td>
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<tr>
<td>ACC 021A</td>
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<td>ACC 022</td>
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<td>ACC 031</td>
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<td>ACC 033</td>
<td>Forecasting Financial Statements Using Excel (1.5 Lecture)</td>
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<td>ACC 034</td>
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<td>ACC 040</td>
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<td>ACC 051A</td>
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<td>ACC 051B</td>
<td>Taxation of Business Entities (3.0 Lecture)</td>
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<td>ACC 053A</td>
<td>Volunteer Income Tax Assistance (VITA) I (3.0 Lecture)</td>
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<td>ACC 053B</td>
<td>Volunteer Income Tax Assistance (VITA) II (0.5 Lecture/0.5 Lab)</td>
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<td>ACC 053C</td>
<td>Volunteer Income Tax Assistance (VITA) III (0.5 Lecture/0.5 Lab)</td>
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<tr>
<td>ACC 057A</td>
<td>Cost Accounting (4.0 Lecture)</td>
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**MISSION COLLEGE CATALOG 2018**

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This course introduces fundamental investment concepts, then uses these concepts to determine the amount and type of insurance needed. Life insurance (term and cash value), health, disability, property (homeowners' and automobile) and liability insurance will be studied, then students will prepare their own personal insurance plans.
COURSES

ACC 058A  Intermediate Accounting I (4.0 Lecture)  4.0 UNITS
Advisory: MATH 903 Prerequisite: ACCTG 001A. This course is a review of financial accounting with in-depth analysis of balance sheet accounts, time value of money, and accounting theory.

ACC 058B  Intermediate Accounting II (4.0 Lecture)  4.0 UNITS
Advisory: ACC 058A Advisory: MAT 903 Prerequisite: ACC 001A This course covers principles, control and theory of accounting for liabilities and equities, preparation and analysis of cash flow statements, and financial statement analysis.

ACC 059A  Financial Auditing (4.0 Lecture)  4.0 UNITS
Prerequisite: ACC 001A Advisory: ACC 058A Advisory: ACC 058B The course covers auditing and its environment including ethics, legal issues, fraud, auditing procedures, work paper preparation and report writing.

ACC 060  Computerized Accounting: QuickBooks (3.0 Lecture)  3.0 UNITS
Advisory: ACC 001A It is recommended that students have completed, or be concurrently enrolled in, ACC 001A or have previous accounting experience. Students use QuickBooks software to set up, enter transactions, and produce reports.

ACC 065  Computerized Accounting: Sage 50 (3.0 Lecture)  3.0 UNITS
Advisory: ACC 001A It is recommended that students have completed, or be concurrently enrolled in, ACC 001A or have previous accounting experience, Eligibility for ENG 001A and REA 054. Students use Sage 50 software to set up, enter transactions, and produce reports. It is recommended that students have completed, or are concurrently enrolled in, ACC 001A or have previous accounting experience.

ACC 070  Ethics in Accounting (3.0 Lecture)  3.0 UNITS
Prerequisite ACC 001A This course involves the study of ethical problems which arise within accounting and corporate management. The focus is on ethical issues in corporate case studies such as Enron, Worldcom, Sunbeam, and Madoff.

ACC 071  Advanced Accounting (4.0 Lecture)  4.0 UNITS
Prerequisite: ACCTG 058B or equivalent. This course covers the following advanced accounting topics: preparation of consolidated financial statements using the equity method of accounting and accounting for foreign transactions and operations. In addition, the following topics may be covered: accounting for state and local governmental entities and accounting for not for profit non governmental entities. The course requires access to the Internet and knowledge of how to use spreadsheets. Grade Only.

ACC 073  Accounting Information Systems (4.0 Lecture)  4.0 UNITS
Prerequisite ACC 001A Using SAP, an enterprise resource system (ERP) adopted by the majority of Fortune 1000 companies, students will gain valuable and practical skills in Accounting Information Systems, common business processes, basic database designs, and systems controls. The skills built will be useful for individuals planning to take additional higher level business, accounting, and/or information systems classes; seeking careers in the accounting / finance department of organizations; or interested in becoming an auditor, analyst, or consultant.

ART (ART)

ART 001A  Survey of Western Art I (3.0 Lecture)  3.0 UNITS
Survey of painting, sculpture, and architecture in Western world from Prehistoric times through Medieval period.

ART 001B  Survey of Western Art II (3.0 Lecture)  3.0 UNITS
A survey of painting, sculpture, and architecture in Western world from Renaissance to the 20th century.

ART 001D  Art of the 20th Century (3.0 Lecture)  3.0 UNITS
A general survey of painting, sculpture, and architecture in the Western world from the Impressionists to the present day.

ART 004  Art Appreciation (3.0 Lecture)  3.0 UNITS
A study of the themes and purposes and media and techniques of the visual arts. Works of art from many different periods and cultures will be discussed.

ART 007  Survey of Asian Art (3.0 Lecture)  3.0 UNITS
This course is a general survey of painting, sculpture, architecture and the minor arts from prehistoric times to the present day in India, China, Korea, Japan, Indonesia and Southeast Asia, emphasizing aesthetic, cultural and historical values.

ART 011  The History of Modern Design (3.0 Lecture)  3.0 UNITS
This introductory survey course focuses on the history, perception and development of design as an art form during the Twentieth Century. The students will also learn about the evaluation criteria of two-dimensional and three dimensional design objects, while examining examples of architecture, industrial design, graphic design and interior design.

ART 020A  Museum/Gallery Internship  1.0 UNIT
Students will participate actively in the operation of a local museum/gallery as an intern under the direction of museum/gallery professionals.

ART 020B  Museum/Gallery Internship  2.0 UNITS
Students will participate actively in the operation of a local museum/gallery as an intern under the direction of museum/gallery professionals.

ART 020C  Museum/Gallery Internship  3.0 UNITS
Students will participate actively in the operation of a local museum/gallery as an intern under the direction of museum/gallery professionals.

ART 023A  Basic Design: Two-Dimensional (2.0 Lecture/1.0 Lab)  3.0 UNITS
Basic introductory course to principles & elements of 2-dimensional design.

ART 023B  Basic Design: Three-Dimensional (2.0 Lecture/1.0 Lab)  3.0 UNITS
This course introduces students to the elements and principles of design of three-dimensional forms.

ART 023C  Basic Design: Color (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 023A This course is an introduction to the principles and elements of color.

ART 031A  Drawing (2.0 Lecture/1.0 Lab)  3.0 UNITS
Beginning drawing course for students with no former drawing experience. Drawing of natural and man-made forms from observation, directed toward realistic rendering of objects; introduction to pictorial composition and perspective; introduction to drawing media; pencil, charcoal, conte, pen and ink, pastels and chalk. Studio practice emphasizes basic shading techniques.

ART 031B  Intermediate Drawing (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 031A This intermediate course is for students with previous college-level drawing experience and focuses on drawing from natural and human-made forms from observation. It is directed toward realistic rendering of objects and is an introduction to color drawing media; colored pencil, pen and ink, watercolor, pastels and chalk.

ART 033A  Introduction to Digital Art (2.0 Lecture/1.0 Lab)  3.0 UNITS
This course is an introductory computer art course. The course introduces students to microcomputers(Macintosh and PCs), their operating systems and graphic software(Adobe Photoshop) for creating and manipulating images. This course will introduce the student to basic Design Elements and Principles. Specific projects will be executed relating to visual awareness, line, shape, form, space, and color. Students will learn drawing skills on a computer and how to work with peripheral devices.

ART 034A  Advanced Digital Art (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 034A This is an advanced design course combining computer graphics and fine arts image processing.

ART 035A  Life Drawing (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 035A This course is a fundamental study of the human figure as the main subject matter of drawings.
ART 035C  Life Drawing (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 035B This course is an intermediate study of the human form and structure. It emphasizes creative interpretation and use of the human form for artistic expression. It focuses on drawing the live model in a variety of styles and media.

ART 035D  Life Drawing (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 035C This course is an advanced study of the human form and structure. It emphasizes creative interpretation and use of the human form for artistic expression. It focuses on drawing the live model in a variety of styles and media.

ART 039A  Survey of Printmaking (2.0 Lecture/1.0 Lab)  3.0 UNITS
A beginning course in printmaking media and techniques with an emphasis on monotype and the intaglio press.

ART 047A  Watercolor (2.0 Lecture/1.0 Lab)  3.0 UNITS
This course is an introduction to painting using various water base media with a focus on color mixing, composition, and content.

ART 047B  Watercolor (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 047A This course provides continuing instruction in watercolor techniques, exploration of watercolor styles, and personal development of the student's artistic direction.

ART 047C  Watercolor (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 047B This is a high intermediate level painting course with various water base media.

ART 047D  Watercolor (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 047C This course is advanced level painting with various water base media.

ART 048A  Airbrush Painting (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 031A or Prerequisite ART 033C This course is an introduction to the airbrush as a painting tool. Students explore water-based media, principles of color, transparency, masking techniques, and composition.

ART 048B  Airbrush Painting (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 048A This course is low intermediate studio practice which focuses on strengthening the basic skills learned in ART 048A.

ART 048C  Airbrush Painting (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 048B This course is high intermediate studio practice which focuses on a continued progression of intermediate techniques and portfolio development. Pass/No Pass Option.

ART 048D  Airbrush Painting (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 048C This course is advanced studio practice which focuses on advanced techniques and portfolio development. Pass/No Pass Option.

ART 049A  Painting (2.0 Lecture/1.0 Lab)  3.0 UNITS
Basic introduction to traditional & current painting techniques & media.

ART 049B  Painting (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 049A This course is low intermediate studio practice which focuses on strengthening the basic skills learned in ART 049A. Emphasis is placed upon self-expression, composition, and color theory.

ART 049C  Painting (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 049B This course is high intermediate studio practice which focuses on mixed media, self-expression, composition, and content.

ART 049D  Painting (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 049C This course is advanced studio practice which focuses on developing individual style and direction in painting.

ART 050A  Ceramics-Handbuilding (2.0 Lecture/1.0 Lab)  3.0 UNITS
Introductory course in ceramics emphasizing hand-building techniques.

ART 050B  Ceramics-Handbuilding (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 050A ART 050B is an advanced course in ceramics/handbuilding techniques, firing kilns, clay body construction, and the creation of projects directed toward individualized self-expression.

ART 050C  Ceramics-Handbuilding (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 050B ART 050C focuses on different aspects of ceramics providing students with supervised participatory experience in which artistic skills are enhanced by repetition and practice.

ART 050D  Ceramics-Handbuilding (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 050C ART 050D focuses on different aspects of ceramics, providing students with supervised participatory experience in which artistic skills are enhanced by repetition and practice.

ART 051A  Ceramics-Potter's Wheel (2.0 Lecture/1.0 Lab)  3.0 UNITS
Covers basic skills & techniques using potter's wheel. Pass/No Pass Option.

ART 051B  Ceramics-Potter's Wheel (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 051A This is an advanced course on the potter's wheel directed toward refinement of throwing skills and ceramic design.

ART 051C  Ceramics-Potter's Wheel (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 051B This course focuses on advanced aspects of working with the potter's wheel.

ART 051D  Ceramics-Potter's Wheel (2.0 Lecture/1.0 Lab)  3.0 UNITS
Focus on advanced aspects of working with potter's wheel. Pass/No Pass Option.

ART 052A  Metalsmithing (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory ART 033A and/or Advisory ART 033B This course is an introduction to the elements of design and metalsmith techniques.

ART 052B  Metalsmithing (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 052A This course continues to apply the elements of design to metal and introduces new metalsmith techniques.

ART 052C  Metalsmithing (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 052B This is an advanced course in metalsmithing that provides students with an opportunity to build on skills learned in previous course levels and explore new techniques. Topics may include advanced techniques in jewelry casting, metal sculpture construction, and color on metal.

ART 052D  Metalsmithing (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 052C This is an advanced course in metalsmithing which focuses on different aspects of course content from previous levels. Students are provided with supervised participatory experience.

ART 053A  Furniture Design and Woodworking (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory ART 033B This course covers basic skills in furniture design, construction and finishing.

ART 053B  Furniture Design and Woodworking (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 053A This course introduces more advanced techniques for design and furniture construction. Students build on skills learned in ART 053A.
ART 085C  Sculpture (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 085B This is an advanced sculpture course which provides
students with an opportunity to build on previous experience and explore
new techniques. It focuses on different aspects of course content with
supervised participatory experience.

ART 085D  Sculpture (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 085C This is an advanced course which focuses on different
aspects of sculpture with supervised participatory experience.

ART 088A  Metal Sculpture Casting (2.0 Lecture/1.0 Lab)  3.0 UNITS
This is a basic course in metal sculpture casting.

ART 088B  Metal Sculpture Casting (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 088A This course is a study of the metal casting process
which introduces new techniques and skill-building assignments, as well as
development of a personal form.

ART 088C  Metal Sculpture Casting (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 088B This course covers different aspects of metal sculpture
casting along with supervised participatory experience.

ART 088D  Metal Sculpture Casting (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 088C This course focuses on different aspects of metal
sculpture casting along with supervised participatory experience.

ART 091  Directed Studies (1.0 Lab)  1.0 UNIT
Prerequisite: An interview to determine objectives & a written contract must
be made by the instructor.

BUS 022  Principles of E-Business (3.0 Lecture)  3.0 UNITS
This course introduces students to the basics of electronic business and
commerce. Eligibility for ENGL 001A and READ 054 Advisory BUS 051

BUS 023  Social Media Marketing (3.0 Lecture)  3.0 UNITS
This course provides an overview of social media marketing tools. Students
complete hands-on activities using and relating to social media marketing.
Eligibility for ENGL 001A and READ 054 Advisory BUS 056A

BUS 028A  Business Law I (3.0 Lecture)  3.0 UNITS
This course provides an introduction to the laws in the United States with an
emphasis on matters relating to the conduct of business and commerce.

BUS 028B  Business Law II (3.0 Lecture)  3.0 UNITS
This course is a continuation of BUS 028A, an introduction to law relating
to the conduct of business, and covers laws governing sales and leases,
debt-creditor relations, negotiable instruments, international law and
governmental regulation.

BUS 037  Fundamentals of Project Management (3.0 Lecture)  3.0 UNITS
This course focuses on the fundamentals of project management.

BUS 038  Professional Selling (3.0 Lecture)  3.0 UNITS
This course is a study of sales principles and strategies. Topics include
advanced sales techniques, high impact questioning methodologies, closing
techniques and managing objections, account and territory planning and
management, resource planning and management. The course explores in
detail the "selling cycle". Students taking this course explore how to succeed
in sales.

BUS 050  Administrative Office Procedures  4.0 UNITS
Advisory: Eligibility for ENGL 108A and READ 053. This course explores
procedures and skills required for today's automated office. The latest trends
in managing global or virtual offices are discussed. The course also includes
planning and job preparation for office careers. Pass/No Pass Option.

BUS 051  Introduction to American Business (3.0 Lecture)  3.0 UNITS
In this survey course, students are introduced to career opportunities
available in business. This is a required first course for all business majors,
and should be taken within their first year as a business major.

BUS 052  Fundamentals of Financial Investing (3.0 Lecture)  3.0 UNITS
This course provides students with the fundamentals to make sound
financial investment decisions. Study involves learning about the investment
environment and the risks and returns associated with different types of
financial investments.

BUS 054  Small Business Start Up and Management (3.0 Lecture)  3.0 UNITS
This course offers methods of research and planning to start a small business
and is recommended for persons who want to explore the opportunities and
requirements of creating and managing their own business enterprise.

BUS 054A  The Business Plan  1.0 UNIT
Advisory: Eligibility for ENGL 108A and READ 053. This course offers an
organized, step-by-step approach to preparing a business plan. Pass/No Pass
Option.

BUS 055  Business Strategy for Success  3.0 UNITS
Advisory: Eligibility for ENGL 108A and READ 053. This course is designed
to provide an overview of business strategy and its impact on organization

BUS 078D  Furniture Design and Woodworking (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 088D This is an advanced course in woodworking and
furniture design that allows students to work independently to continue to
refine previously mastered design and technical skills, and to prepare for
careers in the industry.

ART 028A  Business Law I (3.0 Lecture)  3.0 UNITS
This course provides an introduction to the laws in the United States with an
emphasis on matters relating to the conduct of business and commerce.

ART 028B  Business Law II (3.0 Lecture)  3.0 UNITS
This course is a continuation of BUS 028A, an introduction to law relating
to the conduct of business, and covers laws governing sales and leases,
debt-creditor relations, negotiable instruments, international law and
governmental regulation.

ART 037  Fundamentals of Project Management (3.0 Lecture)  3.0 UNITS
This course focuses on the fundamentals of project management.

ART 038  Applied Project Management (3.0 Lecture)  3.0 UNITS
In this course, students apply project management skills to real life project
situations.

ART 085A  Sculpture (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory ART 031A or Advisory ART 033B This is an introductory course in
sculpture emphasizing personal expression. A variety of materials and
techniques will be explored.

ART 085B  Sculpture (2.0 Lecture/1.0 Lab)  3.0 UNITS
Prerequisite ART 085A ART 085B builds on skills and concepts learned in ART
085A, and introduces new techniques. Students explore the development of
a personal style of sculpture design.

BUS 010  Global Business (3.0 Lecture)  3.0 UNITS
This course provides a comprehensive overview of global business including
international management, finance, law, global strategy and marketing.

BUS 021  Introduction to Business Computing (3.0 Lecture)  3.0 UNITS
This course provides an overview of computer information systems and their
use in business and society.

BUS 021L  Introduction to Business Computing Laboratory (1.0 Lab)  1.0 UNIT
This course provides hands-on training in business applications.
BUS 055A Industry and Competitive Analysis 1.0 UNIT
Advisory: MAT 903, Eligibility for ENGL 108A and READ 053. This course is designed to provide an overview of industry and competitive analysis and the impact on organization success. Pass/No Pass Option.

BUS 056A Marketing Principles (3.0 Lecture) 3.0 UNITS
This course gives students an overall understanding of marketing functions and their society. The course covers the fundamentals of marketing, including: product planning and development; buyer behavior; pricing strategies; marketing channels; and methods of marketing research.

BUS 060 International Marketing 3.0 UNITS
Advisory: Eligibility for ENGL 001A and READ 053 AND BUS 056A. This course focuses on marketing management techniques, and strategies necessary to incorporate the marketing concept when doing business in international markets. Pass/No Pass Option.

BUS 061 Business and Society (3.0 Lecture) 3.0 UNITS
This course is a study of business and its impact on society and society's influence on business. Ethics, business and government in a global society, managing environmental issues and societal challenges, and the benefits of business activity are covered.

BUS 064A Basic Business Arithmetic 3.0 UNITS
Advisory: MAT 903, Eligibility for ENGL 108A and READ 053. This course focuses on the application of arithmetic skills to business problems and the principles of problem solving. Pass/No Pass Option.

BUS 064B Business Math (4.0 Lecture) 4.0 UNITS
This course is designed for all business majors to review the fundamental math principles. It emphasizes methods of problem interpretation and the solving of common business calculation problems.

BUS 064D Business Mathematics Prep 0.5 UNITS
This course allows students to review basic business math skills in preparation for taking BUS 064B. Pass/No Pass Option.

BUS 074 Purchasing & Supply Chain Management (3.0 Lecture) 3.0 UNITS
This course is an introduction to the basic principles of supply chain management.

BUS 077 Quality Customer Service 3.0 UNITS
This course provides an overview of the concepts and skills needed for success in delivering service to customers. Pass/No Pass Option.

BUS 077A Customer Relationship Management 1.0 UNIT
This course provides an overview of customer relationship management (CRM) including identifying the benefits of loyal customers. Pass/No Pass Option.

BUS 078B Business Communications (3.0 Lecture) 3.0 UNITS
Prerequisite: ENG 001A. This course develops writing skills to improve communication ability in the business environment.

BUS 078C Business Report Writing 3.0 UNITS
Advisory: BUS 078B. This course covers the practical aspects of report writing for business. Pass/No Pass Option.

BUS 078D Grant Writing 1.0 UNIT
Advisory: Eligibility for ENGL 108A and READ 053. This course covers the practical aspects of grant writing. Pass/No Pass Option.

BUS 078E Persuasive Business Writing 1.0 UNIT
Advisory: Eligibility for ENGL 108A and READ 053. This course covers the practical aspects of persuasive business writing. Pass/No Pass Option.

BUS 078H Writing Effective E-mail for Business 1.0 UNIT
This course covers the practical aspects of writing effective e-mails for business. This section requires enrollment in the Honors Transfer Project. More information and the online application can be found at http://honors.missioncollege.edu.

BUS 079 Human Relations Applied in Business 3.0 UNITS
This course covers patterns of behavior, motivation, perception, value clarification, coping with change, and leadership styles in business organizations.

BUS 081A Advertising Principles 3.0 UNITS
Advisory: Eligibility for ENGL 001A and READ 053 AND BUS 056A. This course is an introduction to the basic principles and techniques of advertising as applied to business and to media. Topics include: targeting customers, understanding consumer needs and motivations, identifying key consumer insights and benefits, setting advertising objectives, developing relevant messages, creative development, media planning, managing budgets and timelines, and measuring the effectiveness of advertising campaigns. Pass/No Pass Option.

BUS 084 Internet Marketing (3.0 Lecture) 3.0 UNITS
This course introduces students to Internet marketing.

BUS 086 Building Business Websites 3.0 UNITS
Advisory: BUS 021 and BUS 021L. This course is an introduction to creating and managing business Web sites. Students will develop their own Web page and present them to the class. Pass/No Pass Option.

BUS 086A Building Business Web Sites: Basics 1.0 UNIT
This course is an introduction to creating and managing business Web sites. Pass/No Pass Option.

BUS 102 Leadership (3.0 Lecture) 3.0 UNITS
This course guides students in developing life-long learning skills for leadership that apply to any organizational level in a wide variety of business environments. Both historical and cutting-edge leadership theory and practice are explored. Topics discussed include visioning, inspiring, motivating as well as the effective use of power. By taking an active leadership role in this course, students examine the issues, challenges, and practical skills of leadership in today's workplace. Presentations, team activities, reflection, interviewing, and feedback are core developmental components of this course.

BUS 103 Functions of Management (3.0 Lecture) 3.0 UNITS
Advisory: MAT 903. This course focuses on the fundamentals of project risk management. This course will be of particular value to program managers, project managers, project engineers, software systems engineers, and those responsible for the development of policies and processes.

BUS 104 Project Risk Management (3.0 Lecture) 3.0 UNITS
Advisory: MAT 903. This course focuses on the fundamentals of project risk management. This course will be of particular value to program managers, project managers, project engineers, software systems engineers, and those responsible for the development of policies and processes.

BUS 115 Operations Management (3.0 Lecture) 3.0 UNITS
This course is an introduction to the field of operations management and addresses the design and management of the activities and resources that a firm uses to produce and deliver its products or services. Topics covered include applied forecasting and aggregate operation planning. Concepts are illustrated by using real world case studies.

BUS 118 Human Resources Management (3.0 Lecture) 3.0 UNITS
This course is designed as an overview of the Human Resource functions and the employment of human resources to achieve organizational strategic goals by working with and through people. Topics include HR legal environment, recruitment and selection, training and development, compensation and benefits, performance appraisals, workforce diversity, downsizing, outsourcing, and contracting.

BUS 204 Project Management Practicum 1.0 UNIT
Advisory: Eligibility for ENGL 001A and READ 053. This course allows students to apply concepts learned in the project management certificate program to a real world project situation. Grade Only.

COMPUTER APPLICATIONS (CAP)

CAP 010A Learning the Keyboard (1.0 Lab) 1.0 UNIT
Advisory: Eligibility for ENGL 001A and READ 053. This course is designed for anyone who wants to learn the “touch” system of keyboarding on the computer. Proper techniques of keyboarding are emphasized to develop speed and accuracy. This course may be repeated one time. Pass/No Pass Only.
| COURSES |
|-----------------|-----------|
| CAP 010C        | Computer Keyboarding Speed and Accuracy (1.0 Lab) 1.0 UNIT |
| Advisory: CAP 010A This course provides students with practice on corrective drills to correct keyboarding technique and improve basic speed and accuracy. |
| CAP 011         | Beginning Keyboarding With Word Processing 3.0 UNITS |
| This course is designed for anyone who wishes to learn the “touch” system of keyboarding on the computer and word processing. |
| CAP 013         | Ten-Key Numeric Keypad (1.0 Lab) 1.0 UNIT |
| This course develops entry-level vocational proficiency in the use of 10-key numeric keypad. |
| CAP 023         | Distance Learning - How to Succeed 0.5 UNITS |
| Advisory: CA 010A and CA 070. Be a successful distance learner! In this course students will learn how to register and take a class online. Topics will include: using a browser, email, plug-ins, using a course management system, communicating online, taking a test, and sending work. Pass/No Pass Only. |
| CAP 033A        | Word Processing - Course 1 (3.0 Lecture) 3.0 UNITS |
| This course teaches word processing applications using Microsoft Word. Students learn basic word processing features. |
| CAP 033B        | Word Processing - Course 2 (3.0 Lecture) 3.0 UNITS |
| Advisory CAP 033A and Advisory CAP 010A This course covers advanced word processing features using MS Word. |
| CAP 036         | Machine Transcription With Word Processing 3.0 UNITS |
| Advisory CA 033A, CA 033B, Eligibility for ENGL 108A and READ 053. This course teaches keyboarding mailable copy from transcription machines using word processing. Pass/No Pass Option. |
| CAP 037A        | Skills for Success: Computers, Ms Office and the Internet 3.0 UNITS |
| This course emphasizes word processing, spreadsheet, and database applications using an integrated software package. Hardware components, such as hard drives, CPU, and memory are also presented. Roles and duties of the IS department, and career opportunities in the information/word processing field are provided. |
| CAP 045         | Managing Projects with Microsoft Project 3.0 UNITS |
| This is a comprehensive course on Microsoft Project covering introductory and advanced topics on Project Management and MS Project features such as assigning, modifying, and fine-tuning tasks, resources, views, and reports within the overall project plan. Students will use Microsoft Project software to successfully design, develop, manage and complete a project. |
| CAP 045A        | Introductory Microsoft Project (1.0 Lecture) 1.0 UNIT |
| Students learn how to use Microsoft Project to manage the tasks, resources, scope, and time for a project. |
| CAP 045B        | Intermediate Microsoft Project (2.0 Lecture) 2.0 UNITS |
| Students expand their knowledge of Microsoft Project to plan, manage, monitor and analyze the progress of a project. |
| CAP 046D        | Introduction to Microsoft Powerpoint (1.0 Lecture) 1.0 UNIT |
| Advisory: CAP 010A. Students learn the basic features of PowerPoint. Students learn how to create presentations and how to format them. |
| CAP 046E        | Intermediate Microsoft Powerpoint (1.0 Lecture) 1.0 UNIT |
| Students learn the advanced features of PowerPoint. They integrate MS Word and Excel with PowerPoint. Students create a presentation for use as a Web Page and customize a slide show. |
| CAP 047         | Visio for Visionaries (2.0 Lecture) 2.0 UNITS |
| Visualize your world more with Microsoft Visio. Students learn how to use MS Visio to create organization charts, flow charts, floor and landscaping plans, and network and data diagrams. Students also learn to enhance shapes, design graphics and create visual reports. |
| CAP 052         | Computers Simplified for Beginning Learners (0.5 Lecture) 0.5 UNITS |
| Build confidence in using a computer and take the mystery away from how a computer works. The course covers: the operating system software and how it works with application software, how the CPU works, the difference between memory and storage, and how the computer records data on a disk. |
| CAP 062B        | An Introduction to Microsoft Excel (1.0 Lecture) 1.0 UNIT |
| Advisory: CAP 070. This course is an introduction to Microsoft Excel. Topics covered include entering and editing worksheet information, formatting and printing worksheets, creating charts, and using functions. This course is designed for students who are computer literate. |
| CAP 063B        | Intermediate Microsoft Excel (2.0 Lecture) 2.0 UNITS |
| Advisory: CAP 062B. This course is the second in a series of Excel courses designed to help students learn Excel features that are used in business decisions. They apply What-IF Analysis such as scenario tables, goal seek, and solver. Students also use advanced functions such as VLOOKUP, NESTEDIFs, Pivot tables and Pivot charts, macros and more. This course is designed for students who are computer literate and have a previous working knowledge of Excel formulas, functions, and charts. |
| CAP 070         | Using MS Windows (1.0 Lecture) 1.0 UNIT |
| Microsoft Windows provides a "graphical environment" for access to application programs and system functions through the use of a mouse and icon-oriented commands. The student is introduced to the use of Windows, its application programs and utilities. |
| CAP 071E        | Microsoft Outlook (1.0 Lecture) 1.0 UNIT |
| Advisory: CAP 070. Students learn how to manage email with rules and folders, enter appointments and events, create and manage a schedule, track tasks, and manage contacts and contact groups. Pass/No Pass Option. |
| CAP 081B        | Introduction to Microsoft Access (1.0 Lecture) 1.0 UNIT |
| Advisory: CAP 010A and CAP 070. Learn to create database tables and enter data, organize, and retrieve data from the tables. Create simple forms to enter data into a database and format reports from the data in the database. This course is for students who are computer literate and who would like to start working with a database. |
| CAP 082B        | Intermediate Microsoft Access 2.0 UNITS |
| Go to the next professional and personal step using Access. Learn Access features to enhance database table design, customize forms and reports, create more complex queries, and manage and secure a database. Create macros to automate database tasks. Learn to use Access with other applications. This course is designed for students who are computer literate and have some knowledge of Access. This course may be repeated 2 times. |
| CAP 084         | Oracle: Check It Out! 1.0 UNIT |
| Advisory: CA 010A, CA 070, CA 120, Eligibility for ENGL 108A and READ 053. Students receive an introduction to Oracle, a powerful relational database. They learn how to use Oracle to create a table, enter and modify data, retrieve and present information from a database file. May be repeated 2 times. Pass/No Pass Option. |
| CAP 084A        | Introduction to Database and SQL 3.0 UNITS |
| Advisory:CA 010A, CA 070, CA 120, Eligibility for ENGL 108A and READ 053. Students learn how to use Oracle Developer, a graphical user interface, to build, test and maintain forms, which work with Oracle database files. Pass/No Pass Option. |
| CAP 086         | Web Development With PHP and MySQL 3.0 UNITS |
| Advisory: CA 097A, Eligibility for ENGL 001A and READ 053. Learn to create dynamic web applications! This course includes basic PHP programming elements, MySQL database basics and how to create a database driven web application using PHP and MySQL. This course is cross listed as CIS 086. Pass/No Pass Option. |
### COURSES

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<th>Course Code</th>
<th>Course Title</th>
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<td>Introduction to Javascript for the Web (1.0 Lecture)</td>
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<td>Intermediate Javascript for the Web (2.0 Lecture)</td>
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<td>CAP 092A</td>
<td>Fundamentals of Web 2.0 &amp; Cloud Technologies (2.0 Lecture)</td>
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<td>CAP 092B</td>
<td>Google Apps for Personal Productivity (2.0 Lecture)</td>
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<td>CAP 096A</td>
<td>Internet Use: Personal and Business 1</td>
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<tr>
<td>CAP 097A</td>
<td>Creating Web Pages - Course 1 (1.0 Lecture)</td>
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<td>CAP 098A</td>
<td>Creating Web Pages using XML - Course 1 (1.0 UNIT)</td>
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<td>Web Pages Using XML - Course 2 (1.0 UNIT)</td>
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<td>CHD 001</td>
<td>Child Growth and Development (3.0 Lecture)</td>
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<td>CHD 008B</td>
<td>Practicum B (1.0 Lecture/2.0 Lab)</td>
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<tr>
<td>CHD 010</td>
<td>Principles and Practices in Education (3.0 Lecture)</td>
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<tr>
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<td>3.0 UNITS</td>
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### Mission College Catalog 2018

**CAP 088A Introduction to Javascript for the Web (1.0 Lecture)**
This is an introductory course on Javascript programming for the web. Students learn to program interactive web pages using Javascript. This course covers Javascript basics, arrays, objects and web forms. This course is cross-listed with GDES*088A.

**CAP 088B Intermediate Javascript for the Web (2.0 Lecture)**
Students learn to create interactive web pages using Javascript. This course builds upon the introductory course to cover Web forms, events, dynamic content, cookies and AJAX. This course is cross-listed with GDES*088B.

**CAP 092A Fundamentals of Web 2.0 & Cloud Technologies (2.0 Lecture)**
Want to learn more about Web 2.0 and cloud technologies? This course provides an introduction to Web 2.0 applications, such as social networking sites (SNS), video-sharing sites, wikis, blogs and mashups.

**CAP 092B Google Apps for Personal Productivity (2.0 Lecture)**
This course introduces students to Google Drive and Google applications. Students learn to use GMail, Google Calendar, Document, Spreadsheet, Chrome and Presenter to achieve personal and professional productivity goals. Students also identify opportunities to utilize Google apps to communicate and collaborate within a virtual-social network.

**CAP 096A Internet Use: Personal and Business 1**
Ever get frustrated using the Internet? This class will make the Internet work for you. Is there a difference between the Internet and the World Wide Web? This class will cover how the Internet works, some history, and then hands-on "magic carpet rides" through a few of the billions of meaningful web pages. Learn more about e-mail, Internet fraud, transferring files, protecting your computer from hackers, and more. Leave knowing the "basics" of using the Internet, basics that the casual user does not know at all. This course may be repeated one time. Pass/No Pass Option.

**CAP 096B Internet Use: Personal and Business 2**
Advisory: CA 096A. Travel at warp speed through databases, stock markets, research sites, and government sites. View satellites in orbit as they circle earth live. Experience different web browsers live (Firefox and Opera) and then choose which one you like best. Learn to keep your personal data secure when ordering products over the net. Do in-depth research for business, real estate, or to find a lost relative. Learn to use some basic HTML. This course may be repeated one time. Pass/No Pass Option.

**CAP 097A Creating Web Pages - Course 1 (1.0 Lecture)**
Advisory: CAP 010A. Take the first step in creating a web page for personal and business use. Students acquire basic HTML formatting commands and learn to add color, graphics, lists, and tables to their website. The final project is the creation and publication of a personal or business web page using HTML and/or content management systems.

**CAP 098A Creating Web Pages using XML - Course 1 (1.0 UNIT)**
CA 010A, CA 070, CA 097A, CA 120, Eligibility for ENGL 108A and READ 053. Students learn how to use XML to create Web pages whose content can be easily customized. Pass/No Pass Option.

**CAP 098B Web Pages Using XML - Course 2 (1.0 UNIT)**
Advisory: CA 010A, CA 070, CA 098A, CA 120, Eligibility for ENGL 108A and READ 053. Expand knowledge of using XML in Web pages! XML is used with the most popular applications 150 Microsoft Office and Oracle. In this course, create Web pages and learn more advanced XML features in a hands-on lab. Topics include: working with cascading and computational style sheets, element groups and the document object model. Pass/No Pass Option.

### Child Development (CHD)

**CHD 001 Child Growth and Development (3.0 Lecture)**
This course is a study of typical and atypical child growth and development in all domains from conception through adolescence. There is an emphasis on interactions between maturational processes and environmental factors within the family cultural context. Students observe children using investigative research methods, evaluate differences and analyze characteristics of development at various stages.

**CHD 002 Child, Family, and Community (3.0 Lecture)**
This course examines the effect of family and community on a child's development. Families, their functions, and changing family structure are examined. The factors and resources for early interventions and inclusions for families with children with differing abilities are explored. Interactions among the child, family, school, peers, media and community are discussed.

**CHD 003 Language and Literacy for the Young Child (3.0 Lecture)**
This course gives students an in-depth study of language development and the relationship to the reading process. Students develop a series of resource files which can be used as teaching aides in designing language activities and experiences.

**CHD 004 Cognitive Experiences for Children (3.0 Lecture)**
Will examine theories of cognitive development through research review and observation. Students will use information to plan curriculum.

**CHD 005 Music and Movement (3.0 Lecture)**
This course is a study of music and movement activities and how these activities affect the child's growth and development. Observation of children is required. Students develop a resource file of songs and music which they can use for curriculum design and lesson plans. Eligibility for ENGL 001A and READ 054.

**CHD 006 Supervision and Administration (3.0 Lecture)**
Prerequisite: CHD 001, CHD 002, and CHD 010. This course gives students skills and information about the effective application of supervision and administration procedures in early care and education programs. This course fulfills the State of California licensing requirements and partially fulfills the requirement for Site Supervisor or Program Director Child Development Permits.

**CHD 007 Management Issues in Child Development Programs (3.0 Lecture)**
Prerequisite: CHD 006. This course is a continuation of CHD 006. The course covers effective strategies for personnel management and leadership in early care and education settings. This course partially fulfills the requirements for the Site Supervisor or Program Director Child Development Permit.

**CHD 008A Practicum A (1.5 Lecture/2.0 Lab)**
Prerequisite: CHD 001 and Prerequisite CHD 002 and Prerequisite CHD 010 and Prerequisite CHD 015 and Prerequisite CHD 026. This course gives students the opportunity to interact with children and demonstrate developmentally appropriate early childhood teaching competencies. Students work under the supervision of a practicum supervisor at the Mission College Child Development Center.

**CHD 008B Practicum B (1.0 Lecture/2.0 Lab)**
Prerequisite: CHD 008A. Prerequisite: CHD 008B. Students continue developing child centered curriculum. Classroom management techniques are discussed as well as the effective use of environment. Students work under the supervision of a practicum supervisor at Mission College or may be placed at an approved Mentor Teacher Site. This course is required for an AS degree in Child Development.

**CHD 010 Principles and Practices in Education (3.0 Lecture)**
This course is an introductory survey of the field of education. Students explore problems and potentials of education in today's world. This course is designed for those who are considering a professional career in education.

**CHD 013 Teaching in a Diverse Society (3.0 Lecture)**
Prerequisite: CHD 001. This course is an examination of the development of social identities and the processes involved. Students explore how these processes impact work with young children and their families while exploring classroom strategies to support all children.
COURSES

CHD 014  Art and Creative Development of Young Children  (3.0 Lecture)  3.0 UNITS
Students examine theories of artistic development and learn how creativity effects the child’s overall development. Students will design developmentally appropriate lesson plans focusing on creative expression. Observation of children will be required.

CHD 015  Observation and Assessment of Children  (3.0 Lecture)  3.0 UNITS
This course focuses on the appropriate use of assessment and observation strategies to document development, growth, play and learning in order to join with families and professionals in promoting children’s success. Weekly observations are required. Eligibility for ENG 001A and REA 054 Prerequisite CHD 001 Prerequisite CHD 002

CHD 016  Infant and Toddler Development  (3.0 Lecture)  3.0 UNITS
Advisory CHD 001 This course provides students with an in-depth study of the child from years 0-3. It meets the Infant/Toddler State licensing requirement. Observation of children is required.

CHD 017  Child Health and Safety  (3.0 Lecture)  3.0 UNITS
This course is designed to give students the skills needed to be able to identify children’s health problems. The course is designed for persons working with children in early childhood environments. Included in the course is the study of infectious diseases, preventative health practices, nutrition and health promotion. The course meets State AB 962 requirements.

CHD 018  Parenting Issues for Teachers  (1.0 Lecture)  1.0 UNIT
This course is designed to give the student the skills needed as teachers to effectively work with parents and diverse families of the children in their care.

CHD 020  The Child with Special Needs in the Community  (3.0 Lecture)  3.0 UNITS
This course is designed for students who are considering a career in special education or who desire to work with children with special needs and their families. The course introduces typical development, disabilities, laws and policies and the impact a child with disabilities has on families. Eligibility for ENGL 001A and READ 054 Advisory CHD 001, Advisory CHD 002

CHD 021  Children and Play  (3.0 Lecture)  3.0 UNITS
Students examine the history and theories of play and explore how developmental stages of play affect the child’s overall growth. Students gain skills to analyze the child’s development and to design lesson plans that include developmentally appropriate play experiences that further the child’s growth. Observations of children’s play are required. Eligibility for ENGL 001A and REA 054 Advisory CHD 001

CHD 022  Adult Supervision in Early Childhood Programs  (2.0 Lecture)  2.0 UNITS
This course gives students the skills necessary to assess program and staff performance and supervise adults in early childhood settings. Students have opportunities to review program assessment models such as the National Association for the Education of Young Children (NAEYC) Accreditation self-study and to conduct self-assessments on leadership and communication styles. Career development strategies are also examined. This class partially fulfills the Site Supervisor or Program Director Permit requirements.

CHD 024  Positive Guidance in Early Childhood Programs: Managing Challenging Behaviors  (3.0 Lecture)  3.0 UNITS
This course assists students in learning positive guidance techniques to support children who are having challenging behaviors in early childhood programs. The course includes genetic, environmental, and cultural factors that impact the behavior of young children and practical strategies for intervention and prevention.

CHD 025  Inclusion Strategies and Curriculum in Early Childhood Education  (3.0 Lecture)  3.0 UNITS
This course focuses on the theories, research, and practical applications from the fields of both early childhood education and special education. This course assists students in designing effective curriculum and intervention strategies for children with disabilities who are being served in inclusive and natural environments. Advisory: CHD 001, CHD 002

CHD 026  Introduction to Curriculum  (3.0 Lecture)  3.0 UNITS
Prerequisite CHD 001 Advisory CHD 002 This course presents an overview of knowledge and skills related to providing appropriate curriculum and environments for young children from birth to age 8.

CHD 053  Contemporary Education in a Changing Society  3.0 UNITS
This course is designed for students who are considering a professional career in education. The course focuses on the history, theories, and approaches to education in a culturally and linguistically diverse student population. Students will participate in a Community Service Learning project at a school. Grade Only.

CHEMISTRY (CHM)

CHM 001A  General Chemistry  (3.0 Lecture/2.0 Lab)  5.0 UNITS
Prerequisite: CHM 002 or High School Chemistry with a “B” or better; and MAT 000C or MAT 000CM. This course is pre-professional chemistry for students planning a career in science related fields. High school Chemistry with a B or better is required.

CHM 001AH  General Chemistry I - Honors  (3.0 Lecture/2.0 Lab)  5.0 UNITS
Chemistry 001A is the first of a two-semester of general college-level inorganic chemistry series designed for students majoring in biology, chemistry, engineering, pre-med, and other fields demanding rigorous scientific preparation. Not recommended for nursing. Students cannot get credit for both CHM 001A and CHM 001AH. High school Chemistry with a B is also required. This section requires enrollment in the Honors Transfer Project. More information and the online application can be found at http://honors.missioncollege.edu.

CHM 001B  General Chemistry  (3.0 Lecture/2.0 Lab)  5.0 UNITS
Prerequisite: CHM 001A or CHM 001AH. This course is a continuation of CHM 001A (General Chemistry I) and is intended for majors in chemistry, biological sciences, engineering, and professional programs in medicine and pharmacy. Topics include chemical kinetics, chemical equilibrium, thermodynamics, electrochemistry, chemistry of the transition elements, and selected topics in nuclear chemistry.

CHM 001BH  General Chemistry II - Honors  (3.0 Lecture/2.0 Lab)  5.0 UNITS
This course is a continuation of CHEM 001A (General Chemistry I) and is intended for majors in chemistry, biological sciences, engineering, and professional programs in medicine and pharmacy. Topics include chemical kinetics, chemical equilibrium, thermodynamics, electrochemistry, chemistry of the transition elements, and selected topics in nuclear chemistry. Students cannot get credit for both CHEM 001B and CHEM 001BH. This section requires enrollment in the Honors Transfer Project. More information and the online application can be found at http://honors.missioncollege.edu.

CHM 002  Introductory Chemistry  (3.0 Lecture)  3.0 UNITS
Prerequisite MAT 000C or any MAT course higher than MAT 000C. This is a preprofessional chemistry course designed for students planning a career in science-related fields and to prepare students for CHEM 001A.

CHM 002L  Introductory Chemistry Laboratory  (1.0 Lab)  1.0 UNIT
Corequisite CHM 002 or Prerequisite CHM 002 This course is a laboratory component to accompany CHM 002: Introductory Chemistry.

CHM 007  Biochemistry: An Introduction to Structure, Enzymes, and Metabolism  (3.0 Lecture)  3.0 UNITS
Prerequisite CHM 012B or Prerequisite CHM 012BH; or Corequisite CHM 012B or Corequisite CHM 012BH Biological chemistry is the study of the molecular nature of life. This course surveys biological structures (proteins, nucleic acids, carbohydrates, and lipids), enzyme function, and the chemical processes of metabolism.
CHM 012A Organic Chemistry I (3.0 Lecture/2.0 Lab) 5.0 UNITS
Prerequisite: CHM 001B or CHM 001BH. This course is a study of the fundamentals of organic chemistry with emphasis on underlying concepts. It is recommended for chemistry majors, chemical engineering majors, and most biology majors, pre-pharmacy, pre-medical and pre-dental students.

CHM 012AH Organic Chemistry I - Honors (3.0 Lecture/2.0 Lab) 5.0 UNITS
This course is a study of the fundamentals of organic chemistry with emphasis on underlying concepts. It is recommended for chemistry majors, chemical engineering majors, and most biology majors, pre-pharmacy, pre-medical and pre-dental students. Students cannot get credit for both CHEM 012A and CHEM 012AH. This section requires enrollment in the Honors Transfer Project. More information and the online application can be found at http://honors.missioncollege.edu.

CHM 012B Organic Chemistry II (3.0 Lecture/2.0 Lab) 5.0 UNITS
Prerequisite: CHM 012A or CHM 012AH. This course is the continuing study of the fundamentals of organic chemistry with emphasis on underlying concepts. It is recommended for chemistry majors, chemical engineering majors, and most biology majors, pre-pharmacy, pre-medical and pre-dental students.

CHM 012BH Organic Chemistry II - Honors (3.0 Lecture/2.0 Lab) 5.0 UNITS
This honors course is the continuing study of the fundamentals of organic chemistry with emphasis on underlying concepts. It is recommended for chemistry majors, chemical engineering majors, and most biology majors, pre-pharmacy, pre-medical and pre-dental students. Students cannot get credit for both CHM 012B and CHM 012BH. This section requires enrollment in the Honors Transfer Project. More information and the online application can be found at http://honors.missioncollege.edu.

CHM 030A Fundamentals of Chemistry (3.0 Lecture/1.0 Lab) 4.0 UNITS
Prerequisite MAT 903 or Prerequisite MAT 903M or higher CHM 030A is an introductory chemistry course designed for nursing and allied-health majors. Topics include dimensional analysis, inorganic nomenclature, atomic and molecular structure, bonding, chemical reactions, gas laws, solutions, acids-bases, oxidation-reduction, equilibrium and electrolyte systems. This course is not recommended for students majoring in biology or chemistry or for those seeking entry to professional programs in medicine or pharmacy.

CHM 030B Fundamentals of Chemistry (3.0 Lecture/1.0 Lab) 4.0 UNITS
Prerequisite CHM 030A This course is a continuation of CHM 030A. It is intended for pre-nursing students and is not recommended for science majors or those seeking entry to professional programs in medicine or pharmacy. This course is a survey of the major classes of biological macromolecules and their role in the chemistry of life processes. This course satisfies the general education requirements for non-science majors.

CHM 060 Survey of General, Organic, and Biological Chemistry (3.0 Lecture/1.0 Lab) 4.0 UNITS
Prerequisite MAT 903 or Prerequisite MAT 903M or any higher math Chemistry 060 is a one-semester survey of General, Organic, and Biological Chemistry designed for students majoring in health sciences such as nursing or physical therapy.

COMPUTER INFORMATION SYSTEMS (CIS)

CIS 007 Python Programming (3.0 Lecture/1.0 Lab) 4.0 UNITS
This is an introductory course in programming using Python. No prior programming experience required. Students learn to design, code, and execute programs using the Python programming language. This class covers basic programming concepts, object-oriented programming and GUI programming concepts and topics.

CIS 008 Advanced Python Programming (3.0 Lecture/1.0 Lab) 4.0 UNITS
This is an advanced course in Python programming that covers features of the language and its libraries. Students learn about parallel programming using threads and processes, network programming (client-side and server-side), database programming and persistence, text processing and regular expressions, and HTML and XML parsing.

CIS 033 Robotics and Embedded System (3.0 Lecture/1.0 Lab) 4.0 UNITS
Advisory: CIS 037A and CIS 039 This course is an introduction to microcontrollers and interfacing. It covers the basic hardware components such as LEDs, switches, motors and sensors needed to build a robot and introduces the components needed for the drone hardware. In addition it includes programming of the microcontroller.

CIS 037A Introduction to C Programming (3.0 Lecture/1.0 Lab) 4.0 UNITS
This course is an introduction to the concepts and methods of computer programming using C language. The course covers data types, expressions, control structures, functions, sequential files, arrays, pointers, strings, string library and ADTs. It also covers low level programming elements such as memory manipulations, pass-by reference pointers, structs and bit level manipulation.

CIS 039 Introduction to Computer Systems (2.5 Lecture/0.5 Lab) 3.0 UNITS
This course provides a solid introduction to computer systems and machine language programming. Students learn the inner working of computer systems, instruction sets, assembly language programming, and data representation. Students also learn how to understand the code that a compiler generates, the memory layout and hierarchy, and the details of linking and loading.

CIS 040 C++ Programming (3.0 Lecture/1.0 Lab) 4.0 UNITS
Advisory: CIS 037A This is an introductory course in programming using C++. Students learn to design, code, and execute programs using the C++ programming language. This class includes control structures, functions, object-oriented programming concepts and topics.

CIS 043 Software Development With Java Programming (3.0 Lecture/1.0 Lab) 4.0 UNITS
This course is an introduction to the concepts and methods of computer programming with an emphasis on OOP (Object-Oriented Programming), using Java programming language. This course also includes applets, GUI (graphical user interface), arrays lists, arrays, streams and exception handling.

CIS 044 Introduction to Data Structures Using Java (3.0 Lecture/1.0 Lab) 4.0 UNITS
This course is an advanced course in Java Programming Language. It covers basic data structures such as stacks, lists, dynamic arrays, trees, and the algorithms of their implementation.

CIS 044A Perl Programming 4.0 UNITS
Advisory: MATH 903 or MATH 903M, Eligibility for ENGL 001A and READ 053. This is an introductory course in Perl programming. This course includes instruction on the basic features of Perl scripting/programming. It covers regular expressions, operators, arrays, functions, file handlers, system interface and exception handling. Pass/No Pass Option.

CIS 045 Linux Essentials I (2.5 Lecture/0.5 Lab) 3.0 UNITS
This is an introductory course in the Linux operating system. Students learn the basic Linux commands and utilities, including files, editors and shell scripting.

CIS 046 Linux Essentials II (Shell Programming) (2.5 Lecture/0.5 Lab) 3.0 UNITS
This course builds upon CIS 045, Linux Essentials I, to cover shell and scripting in depth. Students learn to program in Bourne Again Shell, including variables, expressions, control structure, files and subroutines. This course also includes networking, internet and Perl scripting.

CIS 047 Linux System Administration I (3.0 Lecture/1.0 Lab) 4.0 UNITS
This is an introductory course in Linux system administration. Students learn hands-on skills for Linux administration, including system initialization, file system management, user and services administration and network configuration.
CIS 048 Advanced Linux System Administration (2.0 Lecture/1.0 Lab) 3.0 UNITS
This is an advanced course in the Linux system administration series. Students learn to set-up and configure Linux based servers and networks. The course covers file systems, file sharing, mail server, LDAP, DNS, firewall, web server and network security.

CIS 055 Introduction to Database and SQL (2.5 Lecture/0.5 Lab) 3.0 UNITS
This course covers the concepts of relational databases and SQL query language. Students learn to create tables, insert data, update data and retrieve records in a database. This course introduces students to widely used database systems such as Oracle, Microsoft SQL server, and MySQL.

CIS 056 Database Essentials - PL/SQL (2.5 Lecture/0.5 Lab) 3.0 UNITS
Advisory: CIS 055 This course is an introduction to database programming and management. It builds upon the basic database and SQL course to cover stored procedures, functions, packages, and database triggers.

CIS 060 Mobile Apps Programming - Iphone (3.0 Lecture/1.0 Lab) 4.0 UNITS
Advisory CIS 043 or Advisory CIS 040 This course is an introduction to programming iPhone and iPad applications using an object-oriented paradigm. Students learn to develop simple to more advanced applications using Swift including Model-View-Control framework, graphical-user interface, classes, methods, and messages.

CIS 063 Mobile Apps Programming - Android (3.0 Lecture/1.0 Lab) 4.0 UNITS
This course is an introduction to programming applications for the Android operating system. Students learn to develop simple to more advanced applications using the latest Java technologies and the Android SDK.

CIS 064 Advanced Android Apps Development (2.0 Lecture/1.0 Lab) 3.0 UNITS
Advisory CIS 063 This is an advanced course on Android application development that builds upon CIS 063, Mobile Apps Programming-Android. Topics include broadcast, services, custom views, widgets, SMS, and device hardware features.

CIS 065 C# .Net Programming (4.0 Lecture) 4.0 UNITS
This course builds upon CIS 65, C#.NET programming, to cover web-based programming including graphical user interfaces with Web forms, ASP.NET and database access. Students learn to design, code, and execute programs using Visual C# programming language in a Microsoft Visual Studio development environment.

CIS 082 Ruby and Ruby on Rails (3.0 Lecture/1.0 Lab) 4.0 UNITS
This is a web programming course on agile web development using Ruby on Rails. It covers Ruby on Rails framework, Ruby programming language, Model-View-Controller (MVC) framework, site layouts, data models, authentication, validations, updates, user management and application deployment.

CIS 086 Web Development with PHP and MySQL (2.0 Lecture/1.0 Lab) 3.0 UNITS
Advisory CA 097A and Advisory CIS 007 This is an introductory course on web server side programming using PHP and MySQL. This course includes basic PHP programming elements, MySQL database basics and how to create a database driven web application using PHP and MySQL.

CIS 088 Advanced Javascript for Web Developers (3.0 Lecture/1.0 Lab) 4.0 UNITS
This is an advanced course on JavaScript. It covers the following advanced topics: IIFEs, Regular expressions, JSON, XML, REST, HTML5 Canvas, jQuery, MVC, single page applications, Angular, client-server interaction, Node.js and Ajax.

COMPUTER INFORMATION TECHNOLOGY (CIT)

CIT 011 Introduction to Computer Hardware and Software (A+) (3.0 Lecture/1.0 Lab) 4.0 UNITS
Advisory: MAT 903. This course covers the fundamentals of computer hardware and software and advanced concepts such as security, networking, mobile devices such as tablets and smartphones, client side virtualization, and the responsibilities of an IT professional. It helps students prepare for entry-level career opportunities in ICT and for the CompTIA A+ certification. It also provides a learning pathway to Cisco CCNA.

CIT 012 Introduction to Networking (Network+) (3.0 Lecture/1.0 Lab) 4.0 UNITS
This course introduces the fundamental building blocks that form the modern network, such as protocols, media, topologies and hardware. It then provides in-depth coverage of the most important concepts in contemporary networking, such as TCP/IP, Ethernet, wireless transmission, virtual networks, security and troubleshooting. This course helps students prepare for entry-level career opportunities in ICT and the CompTIA Network+ certification. It also provides a learning pathway to Cisco CCNA.

CIT 016 CyberSecurity and Ethical Hacking (3.0 Lecture/1.0 Lab) 4.0 UNITS
This course is an introduction to IT security and ethical hacking using the latest operating systems, security techniques, and wireless standards. It also covers the fundamentals of system security, network infrastructure, access control, assessments and audits, cryptography, and organizational security. Students gain hands-on experience with various ethical hacking methods and techniques.

CIT 021 Cisco Network Fundamentals (CISCO-1) (3.0 Lecture/1.0 Lab) 4.0 UNITS
This course is the first of four courses leading to the CCNA designation. This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks.

CIT 022 Routing and Switching Essentia (CISCO-2) (3.0 Lecture/1.0 Lab) 4.0 UNITS
Prerequisite CIT 021 This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality.

CIT 023 Scaling Networks (CISCO-3) (3.0 Lecture/1.0 Lab) 4.0 UNITS
Prerequisite CIT 022 This course is the third of four courses leading to the Cisco Certified Network Associate Routing and Switching (CCNA Routing and Switching) designation. It describes the architecture, components, and operations of routers and switches in a larger and more complex network. Students learn how to configure routers and switches for advanced functionality.

CIT 024 Connecting Networks (CISCO-4) (3.0 Lecture/1.0 Lab) 4.0 UNITS
Prerequisite CIT 023 This course is the fourth of four courses leading to the CCNA designation. This course discusses the WAN technologies and network services required in Enterprise networks.

CIT 025 Cisco 5-IMPLEMENTING Cisco Ip Routing 4.0 UNITS
Prerequisite: CIT 024. Advisory: Eligibility for ENGL 001A and READ 053. This course teaches students how to implement, monitor, and maintain routing services in an enterprise network. Students will learn how to plan, configure, and verify the implementation of complex enterprise LAN and WAN routing solutions, using a range of routing protocols in IPv4 and IPv6 environments. The course also covers the configuration of secure routing solutions to support branch offices and mobile workers. Comprehensive labs emphasize hands-on learning and practice to reinforce configuration skills. Pass/No Pass Option.

CIT 026 Cisco 6-IMPLEMENTING Cisco Ip Switched N 4.0 UNITS
Prerequisite: CIT 024. Advisory: Eligibility for ENGL 001A and READ 053. This course teaches students how to implement, monitor, and maintain switching in converged enterprise campus networks. Students learn how to plan, configure, and verify the implementation of complex enterprise switching solutions. The course also covers the secure integration of VLANs, WLANs,
voice, and video into campus networks. Comprehensive labs emphasize hands-on learning and practice to reinforce configuration skills. Pass/No Pass Option.

CIT 027 Cisco 7 Troubleshooting Cisco Ip Switch 4.0 UNITS
Prerequisite: CIT 024, Eligibility for ENGL 001A and READ 053. This course teaches students how to monitor and maintain complex, enterprise routed and switched IP networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices, in a systematic and ITIL-compliant approach. Extensive labs emphasize hands-on learning and practice to reinforce troubleshooting techniques. Pass/No Pass Option.

CIT 046 Designing a Secure Windows 2000 Network 3.0 UNITS
Prerequisite: CIT 044. Advisory: CIS 054B. Students will learn how to provide secure access to local network users, remote users and remote offices, between private and public networks and to partners. Pass/No Pass Option.

CIT 060 NetWare Administration 3.0 UNITS
Corequisite: CIT 160. Advisory: CIS 054B, This is the day to day administration of a NetWare 5 server, clients, printer, etc. Pass/No Pass Option.

CIT 078 Microsoft Server Essentials 1 (3.0 Lecture/1.0 Lab) 4.0 UNITS
Advisory: CIT 011 This course focuses primarily on the installation, storage, “compute features and functionality” and the “networking features and functionality” available in Windows Server 2016. It covers general installation tasks and considerations and the installation and configuration of Nano Server, in addition to the creation and management of images for deployment. It also covers DFS and BranchCache solutions, high performance network features and functionality, and implementation of software-defined networking (SDN) solutions, such as Hyper-V Network Virtualization (HNV) and Network Controller.

CIT 079 Microsoft Server Essentials 2 4.0 UNITS
Advisory: CIT 078 and ENGL 001A. This course is the second of three courses leading to the Microsoft Server Certificate program. This course provides the basic knowledge necessary to understand and identify the tasks involved in designing, building, administering, managing and supporting Network Operating Systems based networks. Pass/No Pass Option.

ECONOMICS (ECN)

ECN 001A Principles of Macroeconomics (3.0 Lecture/1.0 Lab) 4.0 UNITS
Prerequisite MAT 903 Advisory MAT 000C. This course is a general study of the U.S. economy, including national output, employment, price level, and fiscal and monetary policy. The course also includes an online lab component.

ECN 001AL Principles of Macroeconomics Lab 1.0 UNIT
Prerequisite: MAT 903 or higher Advisory MAT 000C. Corequisite ECN 001A. This online lab course reinforces concepts learned in ECN 001A, Principles of Macroeconomics, and provides additional practice with solving problems in economics. Concurrent enrollment with ECN 001A is required.

ECN 001B Principles of Microeconomics (3.0 Lecture/1.0 Lab) 4.0 UNITS
Advisory MAT 000C. Prerequisite MAT 903 This course is a study of decision making by households, firms, and government in a market-oriented economy. This course includes an online lab component.

ECN 001BL Principles of Microeconomics Lab 1.0 UNIT
Prerequisite: MAT 903 or higher Advisory MAT 000C. Corequisite ECN 001B. This is an online lab section that provides additional practice and enforced learning techniques of Econ 18 Principles of Microeconomics. This lab must be concurrently taken with ECN 001B.

ECN 006 The Global Economy (3.0 Lecture) 3.0 UNITS
This course is an examination of the basic principles of international economics and the relationships between nations and their economic policies. Topics to be covered include the pros and cons of economic globalization, the WTO and IMF, debt relief, outsourcing of jobs, multinational corporations and sweat shops, capital flows, and free trade versus fair trade.

COURSES

HOSPITALITY MANAGEMENT (FDR)

FDR 050A Introduction to the Hospitality Industry (3.0 Lecture) 3.0 UNITS
This course is an overview of the Hospitality and Tourism Industry designed to prepare students for careers in hospitality management. Tours and guest lectures highlight this course. Information about the Hospitality Management Program is explained. Advisory: MAT 900.

FDR 051 Basic Food Preparation (2.0 Lecture/3.0 Lab) 5.0 UNITS
Corequisite: FDR 051S. Advisory: INF 050. It is highly recommended that INF 050 be taken simultaneously with FDR 051. This is a lecture and laboratory course dealing with the fundamentals of food preparation. Students practice the basic principles of food preparation and prepare small quantities from standard recipes, and international cuisines are introduced. Materials Fee $200.00

FDR 051S Introductory Catering Operations Lab (0.5 Lab) 0.5 UNITS
Corequisite: FDR 051. This supplemental instruction class gives students hands-on practice in catering operations. It is a required corequisite to FDR 051: Basic Food Preparation.

FDR 052 Quantity Foods Operation (1.0 Lecture/5.0 Lab) 6.0 UNITS
Prerequisite FDR 051 Prequisite FDR 055 Prequisite FDR 058 Prerequisite FDR 075 Prerequisite INF 050 Corequisite FDR 052 Students engage in and plan an actual cafeteria style lunch operation. Action skills in preparation and catering operations are emphasized. Menu planning, purchasing, commercial kitchen organization, sanitation and safety, and cost accounting are reinforced. A chef's uniform is required. Lab fee: $150.00. Registered students are responsible for logging on to Angel and retrieving the posted information prior to the first day of class.
http://wvmccd.angellearning.com/frames.aspx

FDR 052S Quantity Foods Lab (0.5 Lab) 0.5 UNITS
This course is a required supplement for students enrolled in FDR 052. Quantity Foods. Students must fulfill 24-30 hours working on department on-site and off-site banquet and catering events. Activities include, but are not limited to: client contact and communication, event planning, service and execution, breakdown and followup.

FDR 053 Restaurant Operations (1.0 Lecture/5.0 Lab) 6.0 UNITS
Prerequisite FDR 052 Prequisite FDR 059 Corequisite FDR 053S Students engage in 'live' restaurant and catering operations. Every student rotates through all positions necessary to carry out service to the public. Front of the house and back of the house uniforms are required. $150 lab fee. Registered students are responsible for logging on to Angel and retrieving posted information prior to the first day of class. http://wvmccd.angellearning.com/ frames.aspx

FDR 053S Restaurant Operations Lab (0.5 Arranged Lab) 0.5 UNITS
Corequisite: FDR 053. Students enrolled in Restaurant Operation are required to spend at least 27.5 hours working on department banquet and catering events. The efforts of students who repeat the course are directed towards event supervision and management.

FDR 054 Hotel and Restaurant Accounting (3.0 Lecture) 3.0 UNITS
Study of the basic principles of Hotel and Restaurant accounting.

FDR 055 Food Purchasing (3.0 Lecture) 3.0 UNITS
This course covers two basic areas. Product information which is required for procurement in the food services industry and fundamental principles and purchasing techniques, receiving and storage of supplies.

FDR 058 Food, Beverage and Labor Cost Controls (3.0 Lecture) 3.0 UNITS
Advisory: FDR 051, MAT 900. This course covers the scope of food and beverage control systems used in small and large food and beverage operations. Pre-cost control, inventory systems, cost analysis, food and beverage cost percentages and profit and loss statement are covered. Also
This class introduces students to chocolate and sugar confectionary work.

**FDR 059** Hospitality Supervision and Leadership (4.0 Lecture) 4.0 UNITS
Advisory: MAT 900, FDR 050A This course approaches hospitality supervision from the perspective of general management theory and the operational functions of supervision.

**FDR 060A** Food Service Facilities Planning (3.0 Lecture) 3.0 UNITS
Course designed to familiarize student with complexities of planning, designing and equipping a food service operation.

**FDR 072** Intermediate Cuisine (2.0 Lecture/1.0 Lab) 3.0 UNITS
Advisory: FDR 051 Advanced cooking techniques and international cuisines are explored in this class.

**FDR 072S** Intermediate Cuisine Lab (0.5 Lab) 0.5 UNITS
Corequisite FDR 072 This supplemental instruction class gives students hands-on practice in cooking operations. It is a required corequisite for FDR 072: Intermediate Cuisine.

**FDR 073** Fundamentals of Baking and Confectionery (1.0 Lecture/1.0 Lab) 2.0 UNITS
An introduction to baking & pastry work. A uniform is required.

**FDR 074** Intermediate Baking and Confectionery (1.0 Lecture/1.0 Lab) 2.0 UNITS
Prerequisite FDR 073 This course is a continuation of FDR 073 with an emphasis on advanced techniques and baking skills and confectionery design. A uniform is required. A $200.00 fee is required at the time of registration.

**FDR 075** Menu Planning (2.0 Lecture) 2.0 UNITS
The core competencies covered in menu planning include: marketing,nutritional needs, menu layout and design, calculating basic pricing methods, and evaluating both a sales performance analysis and a menu sales mix analysis.

**FDR 076** Sales and Marketing in the Hospitality Industry (3.0 Lecture) 3.0 UNITS
Advisory: MAT 900 This course is designed to provide students with a solid understanding of hospitality sales and marketing, and how daily operations is influenced by marketing effort.

**FDR 078** Advanced Baking and Pastry (1.0 Lecture/1.0 Lab) 2.0 UNITS
Advisory: FDR 073, FDR 074. This is the third in the series of hands on baking classes offered for the Baking and Pastry certificate or A.S. degree. It covers the most advanced baking and decorating techniques.

**FDR 079** Introduction to Food and Wine Pairing (2.0 Lecture/1.0 Lab) 3.0 UNITS
Advisory: FDR 081, FDR 051 Valid proof of age must be provided at first class meeting. Food and wine pairing is explored. Students will produce a variety of ethnic cuisine to pair with wines from around the world. Traditional and non-traditional approaches will be learned. A uniform is required.

**FDR 081** Intro to Wines and Spirits of the World (2.0 Lecture) 2.0 UNITS
This class is an introduction to wines and spirits of the world. The class includes lecture and tasting of wines, beers, and spirits of the world. Students taking this course must be over 21; ID showing proof of age is requested at the first class meeting. Materials Fee $100.00

**FDR 082** Introduction to Chocolate and Confectionary (1.0 Lecture/1.0 Lab) 2.0 UNITS
This class introduces students to chocolate and sugar confectionary work.

**FDR 085** Sustainable Operations for Hosp Industry (2.0 Lecture) 2.0 UNITS
Going green. Everyone talks about it, but what can hospitality operations do to actually reduce their impact on the earth? This class addresses this topic with practical tools for reducing waste and energy use.

**FDR 086** Beginning Bread Making (1.0 Lecture/1.0 Lab) 2.0 UNITS
Advisory: FDR 073 Beginning Bread Making introduces baking students to artisan, loaf, flat and hearth breads, their ingredients, and how to utilize them to insure the best results.

**FDR 096** Healthy Cuisine (1.0 Lecture/1.0 Lab) 2.0 UNITS
Light and healthy food preparation techniques is introduced, demonstrated and practiced in a hands on food laboratory environment. Emphasis is on the selection of healthier ingredients, and introducing cooking methods to produce lighter and satisfying gourmet cuisine.

**FDR 105** Catering Management and Operations (1.0 Lecture/1.0 Lab) 2.0 UNITS
Advisory: MAT 900 Students engage in an in-depth study of managing catering operations. Students gain hands-on experience at planning, preparing for and execution of, actual catering events. Uniform requirements are: a chef’s uniform, black slacks/skirt, a white button blouse or shirt.

**FDR 106A** Food Trucks: Starting a Mobile Food Business (2.0 Lecture) 2.0 UNITS
Food trucks are the single fastest growing sector of the restaurant industry. Discover how to develop your business, build your brand, and gain a loyal following.

**FDR 106B** Food Trucks: Mobile Food Operations (1.0 Lecture/0.5 Lab) 1.5 UNITS
Corequisite INF 050 Prerequisite FDR 106A This is a continuation of Food Truck Course FDR 106A. Students engage in an in-depth study of managing food truck operations. Students gain hands-on experience at planning, preparing for, and execution of actual food truck concession events. Students must be concurrently enrolled in or have completed Sanitation and Safety course INF 050. Students must also have completed FDR 106A with a passing grade. A chef’s uniform and a $100.00 fee is required.

**FIRE TECH (FPT)**

**FPT 051** Fire Protection Organization (3.0 Lecture) 3.0 UNITS
Advisory MAT 903 This course provides an introduction to the history and career opportunities of Fire Protection, the basic chemistry and physics of fire control techniques and fireground strategy and tactics.

**FPT 052** Fire Behavior and Combustion (3.0 Lecture) 3.0 UNITS
This course focuses on the theory and fundamentals of how and why fires start, fire spread and control methods; fire chemistry and physics; fire characteristics of materials; extinguishing agents and fire control techniques.

**FPT 053** Fire Protection Equipment and Systems (3.0 Lecture) 3.0 UNITS
Advisory FPT 052 This course focuses on: utilizing portable fire extinguishing equipment including inspection and maintenance procedures; fundamentals of design and operation of various types of sprinkler systems; special hazard protection systems and associated fire detection and signaling systems; water supply requirements.

**FPT 054** Building Construction for Fire Protection (3.0 Lecture) 3.0 UNITS
Advisory MAT 903 Advisory FPT 051 This course provides instruction regarding; theory and fundamentals of building construction; laws, regulations and standards; the Uniform Building Code requirements for fire safety in buildings; classification of buildings by occupancy; elements of building construction and design.

**FPT 055** Fire Prevention Technology (3.0 Lecture) 3.0 UNITS
This course provides instruction on the following: the organization and function of fire prevention; fire and life safety inspections; utilization of the Uniform Fire Code and related standards; surveying and mapping
procedures; recognition of fire and life hazards; enforcing the solution of a fire hazard; public education aspects of fire prevention; and firefighters' responsibility in determining the cause of fire.

FPT 056 Hazardous Materials Technology (3.0 Lecture) 3.0 UNITS
Advisory FPT 052 and Advisory MAT 903 This course provides an in-depth study of the materials presenting special problems in fire fighting operations, including the identification of hazardous materials and the handling procedures utilized for emergencies.

FPT 057 Rescue Practices (2.0 Lecture/1.0 Lab) 3.0 UNITS
This lecture and lab course focuses on rescue procedures; patient assessment; controlling bleeding; orthopedic, poison and environmental emergencies; multiple casualties and triage; manual lifts and carries; low angle and confined space rescue; hazardous materials awareness and decontamination procedures; transportation techniques; extraction procedures.

FPT 060 Wildland Fire Technology (1.5 Lecture/1.5 Lab) 3.0 UNITS
This course focuses on the organizational skills necessary for wildland fire protection. The minimum safety equipment required for the field evolutions consists of an OSHA approved helmet with chin strap, impact goggles and leather gloves. Safety equipment and/or uniforms required.

FPT 061 Fundamentals of Fire Suppression (1.5 Lecture/1.5 Lab) 3.0 UNITS
This course provides instruction in the identification and operation of the specific fire service tools and equipment including knots and hitches; portable fire extinguishers; protective breathing apparatus; basic hose evolutions and effective hose lines; fire service ladders and basic salvage and overhaul techniques.

FPT 065 Emergency Medical Technician I Theory (6.0 Lecture) 6.0 UNITS
Prerequisite AHL 011 or American Heart Association BLS for the Healthcare Provider or equivalent. Corequisite FPT 065L and Corequisite FPT 065C This EMT-I training program is designed to prepare individuals to render pre-hospital basic life support. This course meets all the theory requirements for certification as an Emergency Medical Technician-I as specified in the regulations approved by the State of California Emergency Medical Services Authority April, 2013. Students must also successfully complete FPT 065L and FPT 065C concurrently to be eligible for certification.

FPT 065C Emergency Medical Technician I Clinical Experience (0.5 Lab) 0.5 UNITS
This course meets all the clinical requirements for certification as an Emergency Medical Technician-I as specified in the regulations approved by the State of California Emergency Medical Services Authority in April, 2013. The student needs to show proof of a current TB test.

FPT 065L Emergency Medical Technician Laboratory (1.5 Lab) 1.5 UNITS
Prerequisite AHL 011 American Heart Association BLS for the Healthcare Provider or equivalent. Corequisite FPT 065 and Corequisite FPT 065C Advisory MAT 903 This course meets all the skills laboratory requirements for certification as an Emergency Medical Technician-I as specified in the regulations approved by the State of California Emergency Medical Services Authority in April, 2013. Students must successfully complete concurrently FPT 065 and FPT 065C to be eligible for certification.

FPT 110 Emergency Medical Technician (3.5 Lab) 3.5 UNITS
Prerequisite: Students must be registered through the South Bay Regional Public Safety Training Consortium; Prerequisite: Current First Aid or Medic First Aid card and Prerequisite: AHL 011 or current CPR card (either American Heart Association/BLS Healthcare Provider level or American Red Cross/Professional Rescuer level) or Prerequisite: Current Emergency Medical Responder card (preferred) Advisory AHL 003 or a solid understanding of medical terminology Advisory BIO 022 or a solid understanding of human anatomy and physiology. This course provides instruction to the level of Emergency Medical Technician (previously called EMT-I or EMT Basic). Students acquire the knowledge and skills necessary to provide emergency medical care at a basic life support level with a fire, ambulance, or other specialized service.
GDS 039A  3D Animation and Modeling Using Maya (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: ART 035A This is an introductory course in learning to make 3D art assets for animation. Students learn modeling and texturing techniques using 3D software. Students learn to design and create 3D movies.

GDS 039B  Intermediate Computer Animation  3.0 UNITS
Advisory: Eligibility for ENGL 108A and READ 053, GDES 039A. Students learn advanced animation techniques using 3D modeling and animation software (i.e. Autodesk Maya), including texture mapping and lighting effects. Students create complex 3-dimensional scenes and create animations on different platforms. Pass/No Pass Option

GDS 041  Mobile Game Design and Development (2.0 Lecture/1.0 Lab)  3.0 UNITS
This class focuses on creating mobile games using third party developer tools. Students learn how to design, program, test, and publish their mobile game to various mobile platforms.

GDS 043A  3D Game Character Animation with Maya (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: ART 031A, GDS 039A This is an introductory course in character animation using Maya to generate animation. Using pre-built 3D characters, students learn basic animation principles such as squash and stretch, and anticipation. Students learn the controls for 3D mesh characters, and generate walk cycles, run cycles, and action sequences. Students develop concepts for short movies for 3D characters in action sequences, and add lighting and textures to their scenes in making their animated movie shorts.

GDS 045  Web Design with HTML and CSS (2.0 Lecture/1.0 Lab)  3.0 UNITS
This introductory course focuses on the design and technical skills required to create effective web designs using HTML, CSS and a variety of software packages. The basic principles of type, color, and layout are explored, along with necessary basic coding skills. Emphasis is placed on using industry standard workflows and techniques to create compelling designs.

GDS 046  Web Design and Development 2 (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: GDS 045 This intermediate level course focuses both on the creative design and the appropriate software and coding skills required in web design and front end web development. This course provides an intermediate level content continuum of the GDS 045 course. Advanced design principles of type, color, illustration and layout are explored, along with intermediate to advanced HTML and CSS. There is also an introduction to JavaScript and other relevant technologies. A basic understanding of computer system operation is required.

GDS 047  Web Animation (2.0 Lecture/1.0 Lab)  3.0 UNITS
This introductory course focuses on the skills required to create effective web animations using a variety of software applications. Principles of animation, visual communication, UI design, and web and mobile optimization are explored. A basic understanding of computer system operation is assumed. Eligibility for ENGL 001A and READ 054 Advisory GDS 045.

GDS 049  Wordpress and Content Management Systems (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: CAP 088A, GDS 046 In this advanced web design and development class, students use WordPress to build dynamic websites that can be updated easily. Students are also introduced to PHP & MySQL, theme customization, and other CMS frameworks.

GDS 051  Mobile Application and Web Development With Web Standards (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: GDS 045, GDS 046 This class focuses on using web technologies like HTML5 and CSS3 to create rich web applications as well as native mobile applications. Students learn to develop media using web standards. Current options for delivery methods on mobile devices are explored.

GDS 055A  Design Agency and Branding (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: GDS 035, GDS 062. In a real-world environment, this course is designed to increase the skills and abilities needed by students in the design industry, with an emphasis on creating brands and promoting brand awareness across all media, including interactive and print. The course includes project-based exploration of creative ideas in logo design, concept work, layout, package design, advertising, and more. The students, with active faculty involvement and supervision, work on real-world projects responding to design needs of clients.

GDS 056  Advanced Presentation Design (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: CAP 046D, CAP 046E This class focuses on the visual communication skills necessary to produce compelling presentations. Topic include color design, animation, interaction, storytelling, and advanced technical skills used in the production of assets for presentation. The class assumes an existing intermediate knowledge of Microsoft Powerpoint.

GDS 058  Photoshop and Video Editing (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: CAP 046D, CAP 046E This is an intermediate level course that focuses on techniques and skills necessary to produce compelling multimedia presentations. Topic include video editing, color design, animation, interaction, storytelling, and advanced technical skills used in the production of assets for presentation. The class assumes an existing intermediate knowledge of Microsoft Powerpoint.

GDS 062  Mobile Application and Web Development With Web Development Tools (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: Eligibility for ENGL 108A and READ 053, GDES 039A. Students learn advanced animation techniques using 3D modeling and animation software (i.e. Autodesk Maya), including texture mapping and lighting effects. Students create complex 3-dimensional scenes and create animations on different platforms. Pass/No Pass Option

GDS 063  Introduction to Adobe InDesign (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: GDS 062 This introductory level course in page layout uses Adobe InDesign software. Students assemble a variety of printed pieces such as booklets, brochures, magazines, newspapers, newsletters, and other communication materials. Emphasis is on learning techniques used by graphics professionals to create full-color pieces integrating text, photos, and illustrations.

GDS 064  Introduction to Adobe Photoshop (2.0 Lecture/1.0 Lab)  3.0 UNITS
This is a beginning Adobe Photoshop course for graphic designers, artists, and photographers. Students learn how to create original artwork, refine photographs and manipulate digital imagery. Basic design principles are explored.

GDS 066  Advanced Adobe Illustrator (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: GDS 062 This advanced level course uses Adobe Illustrator software. Designed for the student who wishes to continue with techniques and methods beyond the GDES 062 beginning course, students produce a variety of sophisticated digital illustrations. Emphasis is on technique as well as methodologies for creating illustrations with a distinctive style.

GDS 067  Advanced Adobe InDesign (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: GDS 063. This advanced level course uses Adobe InDesign software, and is designed for students who want to learn advanced techniques of page layout beyond those covered in GDS 063. Projects emphasize the creation of professional level pieces using industry standard techniques and best practices. Students create materials for both print and electronic publishing.

GDS 068  Advanced Adobe Photoshop (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: GDS 064 This is an advanced course in Adobe Photoshop. This course provides instruction on: image manipulation, enhancement, and compositing; advanced special effects; and the creation of original product and fine art illustrations. This course is designed for students who have completed GDES 064 or students who have previous experience using Photoshop.

GDS 070  User Experience, Interface, and Multimedia Design (2.0 Lecture/1.0 Lab)  3.0 UNITS
In this course students are introduced to the fields of User Experience Design and Interface Design. Key topics covered in this course are interaction design, mobile and desktop interface design, information architecture, user research,
necessary materials such as logos, resumes, business cards, stationery, etc.

Advisory: GDS 035, GDS 055A This course introduces students to the basic design processes. Focus will be on creating elements of brand identity for a small business on the Web. The course also includes in-depth examination of motion graphics, video editing and audio editing are explored. Access to a camera capable of recording video, and a basic understanding of computer system operation is required. Students must have access to a digital camera.

GDS 080 Packaging Design (2.0 Lecture/1.0 Lab) 3.0 UNITS
Advisory: GDS 035 This course introduces the student to the skills required to create effective packaging designs. The role of typography, color and the use of materials such as paper, plastics, and other materials are examined and design solutions created using both traditional and computer generated techniques. The variety of packaging styles available and the environmental implications of packaging are discussed.

GDS 081 Motion Graphics With After Effects (2.0 Lecture/1.0 Lab) 3.0 UNITS
Advisory: GDS 064, GDS 074 This course focuses on the preparation and production of motion graphics/visual effects for video, film and the internet. The student develops an understanding of the principles of type in motion, keyframe animation, masking/keying, tracking, color correction and compositing. The focus is on creative visual communication. The student develops skill in the use of After Effects, as well as other appropriate software. Access to a camera capable of recording video, and a basic understanding of Adobe Photoshop and computer system operation are recommended.

GDS 082 Game Design and Architecture (2.0 Lecture/1.0 Lab) 3.0 UNITS
This introductory course focuses on the planning and methodology of game design. The students will develop an understanding of conceptual game development process and game architecture. The students will also examine and evaluate a number of case studies. A basic understanding of computer system operation is required.

GDS 083 Designing Websites for e-Commerce 3.0 UNITS
Advisory: GDS 045, and GDES 046 or GDES 047. This course focuses on the planning and methodology of e-commerce Web site design. The students will develop an understanding of the strategic interaction of the business and design processes. Focus will be on creating elements of brand identity for a small business on the Web. The course also includes in-depth examination and comparison of corporate identity, branding and emotional branding in both the old and new economies. The students will also examine and evaluate a number of case studies. Pass/No Pass Option.

GDS 085 Professional Portfolio and Design (1.0 Lecture/1.0 Lab) 2.0 UNITS
Advisory: GDS 035, GDS 055A This course introduces students to the basic principles and skills related to building a professional portfolio as well as preparing for work as a freelance designer. The student prepares the necessary materials such as logos, resumes, business cards, stationery, etc. to present a professional image. The course includes portfolio evaluation, self-promotional techniques, interviewing techniques, and the procedures to set up a successful design office. The students also interact with professionals in the field of design. Credit/No Credit Option

GDS 088A Introduction to Javascript for the Web (1.0 Lecture) 1.0 UNIT
Advisory: CAP 097A This is an introductory course on Javascript programming for the web. Students learn to program interactive web pages using Javascript. This course covers Javascript basics, arrays, objects, an introduction to DOM scripting and debugging. (This course is cross-listed as CA 088A.)

GDS 088B Intermediate Javascript for the Web (2.0 Lecture) 2.0 UNITS
Advisory: GDS 088A Students learn to create interactive web pages using Javascript. This course builds on CA088A (Introduction to JavaScript) to cover advanced objects, Web forms, events, DOM Scripting dynamic content, cookies and Web storage, and an introduction to advanced topics such as AJAX and JavaScript libraries. This course is also cross-listed as CA 088B.

GDS 089 Javascript 1 (2.0 Lecture/1.0 Lab) 3.0 UNITS
Advisory: GDS 045 This is an introductory course on Javascript to develop applications for the web. Students learn to develop interactive web pages using Javascript. The course covers Javascript basics, arrays, objects, an introduction to DOM scripting and debugging. Intermediate topics include advanced objects, Web forms, events, DOM Scripting dynamic content, cookies and Web storage, and an introduction to advanced topics such as AJAX and JavaScript libraries.

HMT 075 Housekeeping in Hotels, Motels and Institutions (3.0 Lecture) 3.0 UNITS
In a hotel, housekeeping is the largest department and is responsible for the delivery of the hotel's basic product, a clean room. A highly diverse workforce in this department necessitates skilled managers, according to hotel industry advisory board members. Standards today are such that managers whose ultimate goal is to achieve the executive position as general manager must have experience successfully managing the housekeeping department. This course provides students with fundamental principles for managing housekeeping operations. This is an elective course that is part of the Associate of Sciences Degree Foodservice/Restaurant Management, as well as the Hospitality Management transfer major.

HMT 076 Hotel and Motel Front Office Management (3.0 Lecture) 3.0 UNITS
This course is an introduction to the principles of effective front office management. Students examine the guest services role, reservations, registration, account settlement, the audit process and evaluate a hotel operation. Computer simulation provides a hands-on interactive learning experience.

HEALTH OCCUPATIONS (HOC)

HOC 001 Medical Terminology (3.0 Lecture) 3.0 UNITS
This course offers 14 modules over the semester, with the scheduled requirement that one module be completed each week. The modules introduce medical terminology related to medical specialties, diagnostic and therapeutic procedures, and an overview of each body system.

HOC 002 Cardiopulmonary Resuscitation (0.5 Lecture) 0.5 UNITS
The course is designed to prepare the student to provide mouth-to-mouth rescue breathing and closed chest heart compression (Basic Life Support) to a victim of sudden death. This course is taught according to guidelines of the American Heart Association. AHA CPR/AED course completion cards are issued to students who successfully meet course objectives. The student is required to read the textbook "BLS for Healthcare Providers" prior to attending class.

HOC 003 Emergency Disaster Preparedness for Allied Health Professionals (0.5 Lecture) 0.5 UNITS
This course is designed to assist health workers in assessing and developing plans for emergency and disaster situations.
HOC 004  First Aid and CPR (0.5 Lecture)  0.5 UNITS
This course covers Adult/Child/Infant CPR/AED (automated external defibrillator) and first aid instruction and skills. A certificate of completion is given to successful participants. American Heart Association fee must be paid to Mission Cashier prior to first class meeting. Students’ workbook (text) must be purchased and read before class.

HOC 005  Introduction to Community Health Worker (3.0 Lecture)  3.0 UNITS
Learn the various roles, skills and function of Community Health Workers. This course introduces important core competencies for providing direct services, including, cultural humility, scope of practice, ethics, client-centered coaching, care management, and home visiting. Eligibility for ENGL 001A and READ 054

HOC 006  Personal Health and Life Style (3.0 Lecture)  3.0 UNITS
This course is designed to provide students with learning experiences that will lead to a better understanding of the concept of a healthy lifestyle. Major topics covered in the class are: understanding the dynamics of behavior and change, relationships, cardiovascular health, fitness, nutrition and weight control, stress management, drug and alcohol abuse, reproductive issues, self-care and utilization of the health care system. Eligibility for ENGL 001A and READ 054 Advisory: CAP 033A

HOC 008  Chronic Disease Management and Community Wellness (3.0 Lecture)  3.0 UNITS
This is an introductory community health course with a focus on community health issues, including chronic disease and substance abuse, and management strategies that address these problems. This course is required for students in the community health worker program and individuals working in residential care agencies. Eligibility for ENGL 001A and READ 054 Advisory: MAT 900

HOC 010  Health Communication: Health Literacy, Health Coaching, and Motivational Interviewing (3.0 Lecture)  3.0 UNITS
Students will learn methods of communication in healthcare: health literacy, health coaching, group dynamics, and motivational interviewing. In addition, students will demonstrate an understanding of how one’s culture affects health behavior and will develop a client-informed plan. Advisory: MAT 900

HOC 011  Community Health Worker Internship (1.0 Lecture / 2.0 Arranged Lab)  3.0 UNITS
This internship course provides students with an opportunity to learn in a work setting while obtaining practical experience in community health work. Students will contract for a minimum of 100 hours at an internship placement and participate in a weekly seminar to discuss their fieldwork and apply academic theory to practice. Eligibility for ENGL 001A and READ 054 Prerequisite: HOC 005

HOC 019A  Nursing Assistant Fundamentals (3.5 Lecture/0.5 Lab)  4.0 UNITS
This beginning course in nursing fundamentals gives the student a foundation in the basic scientific principles required to provide health care in a skilled nursing facility. Students who successfully complete this course, along with HOC 019B, are eligible to apply for the California Certified Nurse Assistant (CNA) examination. (Advisory: HED-004)

HOC 019B  Nursing Assistant Clinical Experience (2.0 Lab)  2.0 UNITS
This clinical practicum provides the Nurse Assistant student with experience in the application of basic patient care skills in a skilled nursing facility. Students who successfully complete this course, along with HOC 019A, are eligible to apply for the examination National Nurses Aide Assessment Program (NNAAP) examination. Eligibility for ENG 001A and READ 054 Corequisite HOC 019A Students must pass the course with 75% or higher.

HOC 019F  Home Health Aide Fundamentals (1.5 Lecture)  1.5 UNITS
This course introduces the Certified Nurse Assistant (CNA) to the basic concepts of home care nursing. Students learn entry-level skills for employment as a home health aide. Successful completion of this course, along with HOC 019G, provides eligibility for a California Home Health Aide (HHA) certificate.

HOC 019G  Home Health Aide Clinical (0.5 Arranged Lab)  0.5 UNITS
This clinical practicum provides the student with experience in basic nursing skills in a skilled nursing facility/home setting. Students who successfully complete this course along with HOC 019F are eligible to apply for the California Home Health Aide Certificate.

HOC 020  Introduction to Professional Health Care (0.5 Lecture)  0.5 UNITS
This course acquaints incoming vocational nursing and psychiatric technician students with Mission College, available student services, and Health Occupations career track requirements. It covers college orientation and information regarding the Health Occupation Program policies and procedures, career opportunities, stress management, study skills, and self-awareness exercises.

HOC 022  Patient Nursing Care Fundamentals (1.5 Lecture)  1.5 UNITS
This course introduces vocational nursing and psychiatric technician students to the theoretical foundations and basic skills essential to providing safe, patient-centered, quality health care. The basic skills include scopes of practice and other legal and ethics principles and the nursing process as related to therapeutic communication, documentation, cultural sensitivity, body mechanics and mobility, infection prevention and control, hygiene, safety, basic and focused physical and psychosocial assessments, nutritional requirements, elimination needs, respirations and oxygen delivery, wound prevention and care, and administration of medications.

HOC 023A  Beg. Medical-Surgical Nursing Theory (2.5 Lecture)  2.5 UNITS
Prerequisite: Possess current California Nurse Assistant certification (CNA), and Acceptance into Health Occupations Vocational Nursing or Psychiatric Technician career track. Prerequisite: AHL 011 Students must have current Am. Heart Assoc. Healthcare Provider or Am. Red Cross Professional Rescuer CPR/AED certification.; Prerequisite: BIO 022, or BIO 047 and BIO 048; HOC 020; Corequisite: HOC 022; HOC 023B; HOC 023C (For PT students only): HOC 024; HOC 025A (For VN students) or HOC 025B (For PT students); HOC 026A (for VN students) or HOC 026B (for PT students); HOC 027; HOC 028 May be taken as a pre-requisite; PSY 001 (For VN students) or PSY 012 (For PT students); Advisory: ENG 001A, MAT 903 or AHL 914, AHL 001A, AHL 003, HED 002. This course focuses on beginning level nursing care and interventions for clients with diseases or disorders of the musculoskeletal, neurological, neurosensory and reproductive systems.

HOC 023B  Beg. Cognitive Disabilities - Mental Health Theory (1.0 Lecture)  1.0 UNIT
This beginning course is designed to present theoretical principles and current biological, psychosocial and socio-cultural concepts of abnormal and maladaptive behavior to vocational nursing and psychiatric technician students. Assessment, classification and current therapies for mental health disorders are discussed and explored.

HOC 023C  Beg. Cognitive Disabilities - Developmental Disability Theory (1.0 Lecture)  1.0 UNIT
This beginning course is designed to provide the Psychiatric Technician student with an understanding of the principles of providing care to the intellectually and developmentally disabled client, including therapeutic communication, integration of developmental theory, behavioral and functional assessment, behavioral modification intervention, and documentation.

HOC 024  Pharmacology A (1.0 Lecture)  1.0 UNIT
This beginning pharmacology course provides the vocational nursing and psychiatric technician student with the basic principles of pharmacology for safe administration of pharmacological agents to patients with disorders of the musculoskeletal, neurological, neurosensory, and reproductive systems.
This course allows the beginning nursing student the opportunity for applying theoretical concepts and developing clinical competence of basic nursing skills in a controlled laboratory setting. Simulated scenarios reinforce planning and implementing interventions aimed to meet the needs of the medical-surgical and geriatric patients with musculoskeletal, neurological, neurosensory, reproductive and mental health disorders in inpatient and outpatient settings.

**HOC 025B** Fundamentals Skills/Simulation Lab (1.0 Lab) 1.0 UNIT

This course allows the beginning psychiatric technician student the opportunity for applying theoretical concepts and developing clinical competence of basic nursing skills in a controlled laboratory setting. Simulated scenarios reinforce planning and implementing interventions aimed to meet the needs of patients with musculoskeletal, neurological, neurosensory, reproductive, mental health and developmental disability disorders in inpatient and outpatient settings.

**HOC 026A** Beg. Clinical Practicum (5.0 Lab) 5.0 UNITS

This is a foundational clinical experiential course in which beginning vocational nursing students apply theoretical concepts, basic nursing skills, the nursing process and therapeutic communication to delivery of safe, quality healthcare to patients with medical-surgical and mental health problems under direct supervision of the instructor. Pass/No Pass Only.

**HOC 026B** Beg. Clinical Practicum (5.0 Lab) 5.0 UNITS

Advisory: MAT 903 or AHL 914; AHL 003, HED 002, AHL 001A. Prerequisite: Possess current California Nurse Assistant certification (CNA), and acceptance into Health Occupations Psychiatric Technician career track; Prerequisite: BIO 022, or BIO 047 and BIO 048; AHL 011 or must have current Am. Heart Assoc. Healthcare Provider or Am. Red Cross Professional Rescuer CPR/AED certification; Prerequisite: HOC 020; Corequisite: HOC 022; HOC 023A; HOC 023B; HOC 023C; HOC 024; HOC 025A; HOC 025; HOC 027; HOC 025B; PSY 012 (May be taken as a prerequisite). This is a foundational clinical experiential course in which beginning psychiatric technician students apply theoretical concepts, basic nursing skills, the nursing process and therapeutic communication to delivery of safe, quality healthcare to patients with medical-surgical, mental health and developmental disability disorders under direct supervision of the instructor.

**HOC 027** Nursing Process and Communication (2.0 Lecture) 2.0 UNITS

Vocational nursing and psychiatric technician students participate in activities designed to integrate therapeutic communication through each step of the nursing process that facilitates active engagement of the patient and family in health care management while supporting effective, collaborative teamwork among interdisciplinary healthcare members.

**HOC 028** Care of the Geriatric Patient (1.0 Lecture) 1.0 UNIT

This course is designed to give the vocational nursing student an introduction to the care of the older adult client in both an institutional and a community setting. This course is a required course that must be completed prior to students beginning the Health Occupations VN career track second semester. Non-Health Occupations students may enroll in this course as well.

**HOC 032** Care of Obstetrical and Neonatal Patients (2.0 Lecture) 2.0 UNITS

Prerequisite: HOC 022; HOC 023A; HOC 023B; HOC 024; HOC 025A; HOC 026A; HOC 027; HOC 028; PSY 001; Corequisite: HOC 033A; HOC 033B; HOC 034; HOC 035A; HOC 036A; NTR 015 or NTR 040. This course is designed for the student to focus on intermediate concepts in caring for child-bearing families. Concepts include family communications, teaching, the nursing process, critical thinking, legal-ethical issues, and the advocacy role within the VN scope of practice.

**HOC 033A** Int. Medical/Surgical Nursing Theory (2.0 Lecture) 2.0 UNITS

This course focuses on intermediate level nursing care and interventions for clients with diseases or disorders of the cardiac, vascular, respiratory, and urinary systems.

**HOC 033B** Int. Project-Based Medical/Surgical Reasoning (1.5 Lecture) 1.5 UNITS

This course is designed to provide practice for the intermediate level vocational nursing student with principal problem-solving and critical reasoning through a variety of group activities and projects related to patients with cardiac, vascular, respiratory, and genitourinary disorders.

**HOC 033C** Int. Cognitive Disabilities - Mental Health Theory (2.5 Lecture) 2.5 UNITS

This intermediate continuation course is designed to integrate and apply previously learned concepts, present theoretical principles and current biological, psychosocial and socio-cultural concepts of abnormal and maladaptive behavior to psychiatric technician students. Students plan and evaluate therapeutic patient-centered goals and interventions used to establish the group process. Includes two hours of related pharmacology content.

**HOC 033D** Int. Cognitive Disabilities - Devel. Disability Theory (2.5 Lecture) 2.5 UNITS

This intermediate continuation course is designed to present to the Psychiatric Technician student the opportunity to integrate healthcare concepts with the principles of behavioral modification to provide physical, intellectual and behavioral care for developmentally and intellectually disabled individuals.

**HOC 034** Pharmacology B (1.0 Lecture) 1.0 UNIT

This intermediate continuation pharmacology course focuses on safe administration and patient teaching principles for patients with disorders of the cardiac, vascular, respiratory and urinary systems.

**HOC 035A** Int. Nursing Skills/Simulation Lab (1.0 Lab) 1.0 UNIT

This course integrates intermediate nursing skills, theoretical concepts and clinical competence in a controlled laboratory setting using case studies, group care planning, simulation scenarios and class discussions. Simulated scenarios reinforce planning and implementing interventions aimed to meet the needs of the medical-surgical and geriatric patients with respiratory, cardiac, vascular, and urinary disorders, and obstetrical and neonatal patients in inpatient and outpatient settings.

**HOC 035B** Int. Skills/Simulation Lab (1.0 Lab) 1.0 UNIT

This course integrates intermediate psychiatric technician skills, theoretical concepts and clinical competence in a controlled laboratory setting using case studies, group care planning, simulation scenarios and class discussions. Simulated scenarios reinforce planning and implementing interventions aimed to meet the needs of patients with respiratory, cardiac, vascular, urinary, mental health disorders and developmental disabilities in inpatient and outpatient settings.

**HOC 036A** Int. Clinical Practicum (5.0 Lab) 5.0 UNITS

This is a clinical experience course in which intermediate vocational nursing students apply theoretical concepts, basic nursing skills, the nursing process and therapeutic communication to delivery of safe, quality healthcare to medical-surgical, obstetrical and newborn patients in a variety of community healthcare settings under direct supervision of the instructor.

**HOC 036B** Int. Clinical Practicum (5.0 Lab) 5.0 UNITS

This is a continuation clinical experiential course in which intermediate psychiatric technician students apply theoretical concepts, basic nursing skills, the nursing process and therapeutic communication to delivery of safe, quality healthcare to patients with medical-surgical, mental health and developmental disability disorders under direct supervision of the instructor.

**HOC 042** Care of the Pediatric Patient (2.0 Lecture) 2.0 UNITS

This course is designed for the nursing student to focus on advanced concepts in caring for children from infancy through adolescence and their families/care givers. Concepts include communication skills, client teaching, the nursing process, critical thinking, legal-ethical issues, the advocacy role within the VN scope of practice.

**HOC 043A** Adv. Medical/Surgical Theory (2.0 Lecture) 2.0 UNITS

This course focuses on advanced level nursing care and interventions for clients with diseases or disorders of particular body systems. The nursing process is used as a critical thinking tool in understanding
diagnostics, assessing manifestations experienced by the patient, identifying and implementing evidence-based nursing interventions, and evaluating outcomes. Students identify the roles of vocational nurses and psychiatric technicians in collaborating with other health team members and planning therapeutic management of patients with conditions affecting the gastrointestinal, integumentary, endocrine, and hematological systems. Includes six hours of related pharmacology content.

**HOC 043B Advanced Project-Based Medical Surgical Reasoning (1.5 Lecture)** 1.5 UNITS
This course is designed to provide practice for the advanced level vocational nursing student with principal problem-solving and critical reasoning through a variety of group activities and projects related to patients with gastrointestinal, integumentary, endocrine, and hematological disorders.

**HOC 043C Adv. Cognitive Disabilities - Mental Health Theory (2.5 Lecture)** 2.5 UNITS
This is an advanced continuation course designed for psychiatric technician students to focus on previously learned mental health concepts and skills which constitute critical thinking as utilized in clinical practice. Students develop, analyze and evaluate principles of mental health, therapeutic, patient-centered, comprehensive plans of care for vulnerable and diverse populations in community and acute care settings. Includes two hours of related pharmacology content.

**HOC 043D Adv Cognitive Disab - Developmental Disab. Theory (2.5 Lecture)** 2.5 UNITS
This is an advanced course which focuses on integration of previous learning and skills which constitute critical thinking. It is designed to provide the psychiatric technician student with an understanding of the principles needed for the provision of comprehensive care for quality of life enhancement with a focus on self-determination, emotional well-being, social inclusion, rights, personal development, and physical well-being for mental healthcare and health promotion for the developmentally and intellectually disabled client. Students integrate their nursing knowledge with the principles of behavioral therapy and group communication process to plan care to a unique population of individuals with a multitude of physical and intellectual challenges. Includes two hours of related pharmacology content.

**HOC 044 Pharmacology C (1.0 Lecture)** 1.0 UNIT
This is a continuation course in pharmacology designed to assist the psychiatric technician and vocational nursing student with the principles of pharmacology. Emphasis is on defining pharmacological agents, classes, precautions for use, side effects, medication interactions, contraindications, and patient teaching for safe and proper pharmacological agents used for patients with disorders of the endocrine, hematologic, integumentary, and gastrointestinal systems and for pediatric clients.

**HOC 045A Advanced Skills/Simulation Lab (1.0 Lab) 1.0 UNIT**
This course allows the advanced vocational nursing student the opportunity to integrate the concepts of the nursing process, clinical reasoning, nursing theory, and nursing skills in a laboratory setting which simulates the clinical experience. Focus is placed on developing competence in performing basic nursing procedures and skills through practice on manikins, return demonstration of skills and participation in simulated clinical scenarios aimed to meet the needs of the medical-surgical and geriatric patients with gastrointestinal, integumentary, endocrine, and hematological disorders and pediatric patients and their families in inpatient and outpatient settings.

**HOC 045B Advanced Skills/Simulation Lab (1.0 Lab) 1.0 UNIT**
This course integrates advanced psychiatric technician skills, theoretical concepts and clinical competence in a controlled laboratory setting using case studies, group care planning, simulation scenarios and class discussions. Simulated scenarios reinforce planning and implementing interventions aimed to meet the needs of patients with gastrointestinal, integumentary, endocrine, and hematological, mental health and developmental disability disorders in inpatient and outpatient settings.

**HOC 046A Advanced Clinical Practicum (5.0 Lab) 5.0 UNITS**
This is a clinical experience course in which advanced vocational nursing students apply theoretical concepts, basic nursing skills, the nursing process and therapeutic communication to delivery of safe, quality healthcare to medical-surgical and pediatric patients in a variety of community healthcare settings under direct supervision of the instructor. Pass/No Pass Only.

**HOC 046B Advanced Clinical Practicum (5.0 Lab) 5.0 UNITS**
This is a continuation clinical experiential course in which advanced psychiatric technician students apply theoretical concepts, basic nursing skills, the nursing process and therapeutic communication to delivery of safe, quality healthcare to patients with medical-surgical, mental health and developmental disability disorders under direct supervision of the instructor.

**HOC 047 Leadership and Professional Practice (1.5 Lecture)** 1.5 UNITS
This course prepares the advanced vocational nursing and psychiatric students for application for licensure examination, the transition to entry level practice, and the development of leadership skills for advancement in their chosen career tracks. Grade Only.

**HOC 050 Role Transition LVN to RN (2.0 Lecture)** 2.0 UNITS
This course is designed to prepare the licensed vocational nurse for entry into an associate degree nursing (ADN) program. The course content focuses on competencies expected of the graduate ADN (critical thinking skills, review of medical-surgical nursing concepts, role change, research skills, teaching-learning principles, development of the nursing teaching role, pharmacology principles, medication calculation) to prepare the student for success in an ADN program.

**HOC 050A Role Transition Clinical (1.0 Lab) 1.0 UNIT**
This course involves directed clinical experiences in a simulated acute hospital and simulated community healthcare agencies that provide services for perioperative and medical/surgical clients. Through the use of the nursing process, the student provides care, teaching, support and rehabilitation to perioperative and medical/surgical clients. Emphasis is on the role of the registered nurse caring for clients with acute and chronic problems.

**HOC 051 Community Mental Health Nursing (2.0 Lecture)** 2.0 UNITS
This course is designed to present mental health principles to assist the nursing student in developing an increased understanding of human behavior related to a variety of psychiatric and mental health disorders. This course is designed to provide theoretical and clinical approaches in providing nursing care to individuals of varying ages, with complex health care needs in the community setting.

**HOC 052 Intermediate Medical-Surgical Nursing Theory (3.0 Lecture)** 3.0 UNITS
The student learns to synthesize and correlate nursing knowledge and skills in the provision of care to multiple patients who have complex, multi-system illnesses. The focus is on helping students learn to identify and anticipate patient needs and priorities, and evaluate outcomes of care. The nursing care of adult and geriatric clients with acute and chronic illnesses is addressed.

**HOC 053 Introduction to Clinical Judgment (1.0 Lab) 1.0 UNIT**
This course integrates nursing theory and clinical learning experiences through the use of case studies, clinical narratives, participation in clinical simulation scenarios with computerized manikins, and class discussion. This simulated clinical experience enhances the student's nursing theory course classroom learning. The emphasis is on the role of the registered nurse caring for acute medical-surgical and geriatric patients with acute and chronic problems in the nursing simulation lab.

**HOC 054 Intermediate Clinical Practicum (4.0 Lab) 4.0 UNITS**
This course provides the nursing student with directed clinical experiences in acute care hospitals and a variety of community healthcare agencies for adult and geriatric patients/clients who have acute or chronic medical-surgical and mental health/psychiatric illnesses.

**HOC 060 Advanced Maternal-Child Nursing (2.0 Lecture) 2.0 UNITS**
This course is designed for the student to focus on advanced concepts in caring for high risk child-bearing and child-rearing families. Concepts required include family communications, teaching, the nursing process, critical thinking, legal-ethical issues, and advocacy for the RN role and scope of practice.
HOC 061  Advanced Medical-Surgical/Leadership Nursing  
(3.0 Lecture)  3.0 UNITS  
This course focuses on advanced application of the nursing process in the care of critically ill adult and geriatric patients. Content includes leadership theory and application, delegation, priorities, and time management.

HOC 062  Leadership and Ethics  (1.0 Lecture)  1.0 UNIT  
This course prepares the student to take responsibility for managing and coordinating patient care. The registered nurse must have the knowledge and skills necessary to make decisions on setting priorities, delegation, quality improvement, legal parameters of nursing practice, and ethical issues confronting nursing today.

HOC 064  Advanced Clinical Practicum  (5.0 Lab)  5.0 UNITS  
This course provides the nursing student with directed clinical experiences in acute care hospitals and a variety of community healthcare agencies for maternal-child and pediatric patients/clients as well as for adult and geriatric patients/clients who have acute or chronic medical-surgical illnesses.

HOC 095  Math for Health Occupations  (1.0 Lecture)  1.0 UNIT  
Advisory: MAT 903 This course is an introduction to math calculations for health occupations students. It provides the learner with the opportunity to explore the math functions within the health field.

INF 050  Sanitation and Safety  (2.0 Lecture)  2.0 UNITS  

INF 950  Institutional Foods: Serving Large Populations  0.5 UNITS  
This course covers personal cleanliness, sanitary practices, and prevention of food-contaminated illnesses. Basic principles of nutrition in meal planning are examined. Pass/No Pass Option.

KINESIOLOGY (KIN)

KIN 001A  Adapted Weight Training  (1.0 Lab)  1.0 UNIT  
This course is designed for students with verifiable disabilities. A personalized exercise plan (PEP) is developed to meet each student's needs. Focus is on increasing overall muscular strength and endurance based on each individual's ability.

KIN 001B  Adapted Physical Education  (1.0 Lab)  1.0 UNIT  
This course will allow students with verifiable disabilities to focus on individual goals along with developing the five health related fitness components: muscular strength, muscular endurance, flexibility, cardiovascular endurance and body composition.

KIN 001C  Adapted Aerobics  (1.0 Lab)  1.0 UNIT  
This course is designed to introduce skills needed for daily cardiovascular fitness through the use of aerobic activities for students with verifiable disabilities.

KIN 001D  Adapted Tennis  (1.0 Lab)  1.0 UNIT  
This course is designed to introduce the basic fundamentals of tennis to students with verifiable disabilities. Emphasis is placed on basic strokes, footwork and serves.

KIN 001E  Adapted Yoga  (1.0 Lab)  1.0 UNIT  
This class introduces students with verifiable disabilities to basic yoga poses. Emphasis is placed on asana(poses), postural alignment, breath awareness and relaxation in order to develop overall fitness and balance.

KIN 001G  Adapted Badminton  (1.0 Lab)  1.0 UNIT  
This course is designed to introduce the basic fundamentals of badminton to students with verifiable disabilities. Emphasis is placed on basic strokes, footwork and serves.

KIN 001J  Adapted Balance and Stability  (1.0 Lab)  1.0 UNIT  
This course is designed to introduce basic balance activities, and stability exercises for students with verifiable disabilities. Activities focus on enhancing energy levels and increasing confidence to perform daily activities.

KIN 014A  Volleyball - Introduction  (1.0 Lab)  1.0 UNIT  
This course is designed to introduce students to the fundamental skills of volleyball. Players learn to serve, pass, set and employ the basic strategies of the game.

KIN 014B  Volleyball - Beginning  (1.0 Lab)  1.0 UNIT  
Advisory: KIN 014A or demonstrated ability to pass, set and serve. This course is designed to review the fundamental skills of volleyball and add spiking, blocking and the dive to the players' repertoire. Players work on improving the depth and accuracy of their shots while employing the strategies of the game.

KIN 015A  Basketball - Introduction  (1.0 Lab)  1.0 UNIT  
This course is designed to introduce the student to the basic skills and techniques of basketball.

KIN 015B  Basketball - Beginning  (1.0 Lab)  1.0 UNIT  
Advisory: KIN 015A This course is designed to teach the basic skills of basketball. Drills are utilized to increase playing ability while scrummages are used to develop the concept of team play.

KIN 015C  Basketball - Advanced  (1.0 Lab)  1.0 UNIT  
Advisory: KIN 015B This course is designed to teach the advanced skills of basketball. Drills are utilized to increase playing ability while scrummages are used to develop the concept of team play.

KIN 019A  Soccer - Introduction  (1.0 Lab)  1.0 UNIT  
This course is designed to introduce the basic rules, skills, techniques and history of soccer. Drills are utilized to increase playing ability while scrummages are utilized to develop team play concepts.

KIN 019B  Soccer - Beginning  (1.0 Lab)  1.0 UNIT  
Advisory: KIN 019A This course is designed to review the basic rules, skills, and techniques of soccer, as well as develop players' execution of the fundamental strategies of the game. Drills are included to enhance shooting, passing, heading and dribbling. Scrimmages are utilized to develop team play concepts.

KIN 020A  Badminton - Introduction  (1.0 Lab)  1.0 UNIT  
This course introduces the student to the fundamentals, rules, and strategies of the game of badminton.

KIN 020B  Badminton - Beginning  (1.0 Lab)  1.0 UNIT  
This course continues the development of the fundamental skills and strategies of the game of badminton. The main emphasis of this course is to refine the technique and improve the proficiency of the basic skills of the game.

KIN 020C  Badminton - Intermediate  (1.0 Lab)  1.0 UNIT  
This course introduces the student to the more advanced skills and strategies of the game of badminton. The main emphasis of this course is on drills, finesse shots, shot placement, court position, and singles and doubles strategy.

KIN 020D  Badminton - Advanced  (1.0 Lab)  1.0 UNIT  
Advisory: KIN 020C This course introduces the student to the advanced skills and strategies of the game of badminton. The main emphasis of this course is on drills, finesse shots, shot placement, court position, and singles and doubles strategy.

KIN 021A  Tennis - Introduction  (1.0 Lab)  1.0 UNIT  
This course is designed to teach the fundamentals of tennis to students. Mastery of these skills enables students to progress to the next level of tennis.
<table>
<thead>
<tr>
<th>COURSES</th>
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</thead>
<tbody>
<tr>
<td>KIN 021B</td>
</tr>
</tbody>
</table>
This course is designed to teach the basic fundamentals of tennis. Mastery of these skills enables the student to progress to the next level of tennis.

| KIN 021C | Tennis - Intermediate (1.0 Lab) | 1.0 UNIT |
This course is designed to develop skill and knowledge of the game of tennis at an intermediate level.

| KIN 021D | Tennis - Advanced (1.0 Lab) | 1.0 UNIT |
This course is designed to develop skill and knowledge of the game of tennis at an advanced level.

| KIN 021E | Tennis - Tournament (2.0 Lab) | 2.0 UNITS |
This course is designed for the student, with advanced skill competency, who has played or desires to play tournament tennis. Advanced skills and strategy are reviewed and practiced to increase mastery for tournament play.

| KIN 021F | Tennis - Doubles Strategies and Play (0.5 Lecture/1.0 Lab) | 1.5 UNITS |
Advisory: KIN 021C. Students are instructed in the basic skills of doubles for the sport of tennis. Rules of play, strategies, and skill development for doubles are emphasized.

| KIN 023A | Archery: Introduction (1.0 Lab) | 1.0 UNIT |
This course introduces the student to the sport of archery. Emphasis will be placed on safety, etiquette and the rules of archery.

| KIN 023B | Archery: Beginning (1.0 Lab) | 1.0 UNIT |
This course is designed to refine the shooting skills of the beginning archery student. Emphasis is placed on shooting technique, form, and concentration. Safety guidelines, etiquette, and rules of archery are reviewed.

| KIN 024A | Bowling - Introduction (1.0 Lecture/0.5 Lab) | 1.5 UNITS |
This class is designed to introduce the student to the basic techniques and theory of Bowling. Emphasis is on approach, delivery, timing, rules, and scoring.

| KIN 030A | Pilates Matwork - Introduction (1.0 Lab) | 1.0 UNIT |
This course is an introduction to Joseph Pilates' Physicalmind Conditioning Method. The matwork provides the ideal physical fitness for the attainment and maintenance of a uniformly developed body and sound mind. The study of Pilates improves flexibility, strength and breathing techniques.

| KIN 030B | Pilates Matwork - Beginning (1.0 Lab) | 1.0 UNIT |
This course is the study and practice of Joseph Pilates' Physicalmind Conditioning Method at a beginning level.

| KIN 030C | Pilates Matwork - Intermediate (1.0 Lab) | 1.0 UNIT |
This course is the study and practice of Joseph Pilates' Physicalmind Conditioning Method at an intermediate level. Through the study of matwork, the student improves physical well-being including flexibility, strength and breathing techniques.

| KIN 030D | Pilates Matwork - Advanced (1.0 Lab) | 1.0 UNIT |
This course is the study and practice of Joseph Pilates' Physicalmind Conditioning Method at an advanced level. Prior Pilates practice is strongly recommended.

| KIN 031A | Step Aerobics - Introduction (1.0 Lab) | 1.0 UNIT |
This course is designed to utilize the step as a means for improving cardiovascular fitness. A thorough warm-up and cool-down is included in each class. Knowledge of proper step technique as well as an understanding of ways to improve all aspects of fitness is also covered in this course.

| KIN 031B | Step Aerobics - Beginning (1.0 Lab) | 1.0 UNIT |
This course is designed to build upon the skills learned in KIN 031A. Proper step technique, body alignment and basic choreography are taught.

| KIN 032A | Aerobics-Introduction (1.0 Lab) | 1.0 UNIT |
This course is designed to satisfy the needs for cardiovascular activity and to develop and maintain cardiovascular fitness through the use of continuous rhythmic movements and general overall exercise.

| KIN 032B | Aerobics- Beginning (1.0 Lab) | 1.0 UNIT |
This is a beginning level course designed to satisfy the needs for cardiovascular activity for individuals who are developing a fitness routine. Students maintain cardiovascular fitness through the use of continuous rhythmic movements, weights, and various forms of stretching to complete their workouts.

| KIN 032C | Aerobics - Intermediate (1.0 Lab) | 1.0 UNIT |
This is an intermediate level course designed to help students maintain cardiovascular fitness through the use of continuous rhythmic movements, weights, and various forms of stretching to complete their workouts.

| KIN 033A | Kickboxing Fitness- Introduction (1.0 Lab) | 1.0 UNIT |
This course is an introduction to kickboxing for aerobic fitness. Cardio-kickboxing uses techniques from various martial arts as way to achieve an aerobic workout. In this course, there is an appropriate warm-up and cool-down.

| KIN 033B | Kickboxing Fitness - Beginning (1.0 Lab) | 1.0 UNIT |
Students build upon the kickboxing movements learned in KIN 033A, with an emphasis on proper body alignment and a more advanced level of cardiovascular fitness. Techniques are from karate, tai chi and boxing as ways to improve overall fitness.

| KIN 035A | Weight Training - Introduction (1.0 Lab) | 1.0 UNIT |
This course is designed to enhance the development of muscular fitness and overall body tone. Information is presented to increase student understanding of various aspects of weight training from safety through proper lifting techniques.

| KIN 035B | Weight Training - Beginning (1.0 Lab) | 1.0 UNIT |
This course is designed to enhance the development of muscular fitness. Information is presented to increase the student's understanding of various aspects of weight training from safety through proper lifting techniques.

| KIN 035C | Weight Training - Intermediate (1.0 Lab) | 1.0 UNIT |
This course is designed for students at the intermediate level. Topics include advance training techniques such as pyramids and super sets.

| KIN 037A | Cardio-Cross Training - Introduction (1.0 Lab) | 1.0 UNIT |
This course is designed to enhance the student's cardiovascular condition by providing a variety of methods of training at an introductory level.

| KIN 037B | Cardio-Cross Training - Beginning (1.0 Lab) | 1.0 UNIT |
This course is designed to enhance the student's cardiovascular condition by providing a variety of methods of training at the beginning level.

| KIN 037C | Cardio-Cross Training - Intermediate (1.0 Lab) | 1.0 UNIT |
This course is designed to enhance the student's cardiovascular condition by providing a variety of methods of training at an intermediate level.

| KIN 037D | Cardio-Cross Training - Advanced (1.0 Lab) | 1.0 UNIT |
This course is designed to enhance the student's cardiovascular condition by providing a variety of methods of training at an advanced level.

| KIN 038A | Lower Body Conditioning Introduction (1.0 Lab) | 1.0 UNIT |
This course is designed to improve middle and lower extremity muscular strength, condition, and shape at the introductory level.

| KIN 038B | Lower Body Conditioning Beginning (1.0 Lab) | 1.0 UNIT |
This course is designed to improve middle and lower extremity muscular strength, condition, and shape for the beginning level of lower body conditioning.
KIN 038C  Lower Body Conditioning - Intermediate (1.0 Lab)  1.0 UNIT
This course is designed to improve middle and lower extremity muscular strength, condition, and shape at the intermediate level.

KIN 038D  Lower Body Conditioning Advanced (1.0 Lab)  1.0 UNIT
This course is designed to improve middle and lower extremity muscular strength, condition, and shape for the advanced level of lower body conditioning.

KIN 038E  Lower Body Conditioning - Endurance Training (1.0 Lab)  1.0 UNIT
This course is designed for the introductory, intercollegiate level of lower body conditioning. Students improve middle and lower extremity training through muscular strength and endurance training and cardio conditioning.

KIN 038F  Lower Body Conditioning - Speed Training (1.0 Lab)  1.0 UNIT
Advisory: KIN 038E This course is designed to improve middle and lower extremity through speed training for the beginning intercollegiate level of lower body conditioning.

KIN 038G  Lower Body Conditioning - Agility Training (1.0 Lab)  1.0 UNIT
Advisory: KIN 038F This course is designed to improve core strength and lower extremity agility for lower body conditioning at the intermediate collegiate level.

KIN 038J  Lower Body Conditioning - Plyometric Training (1.0 Lab)  1.0 UNIT
Advisory: KIN 038G This course is designed to improve core and lower extremity strength through plyometric training and conditioning for the advanced intercollegiate level.

KIN 039A  Fire Agility - Introduction (2.0 Lab)  2.0 UNITS
This course introduces the student to the specific skills required to pass a physical agility firefighting test. The emphasis is on improving both cardiovascular and anaerobic endurance as well as muscle strength and endurance. Intense resistance training, anaerobic and cardiovascular workouts are employed. Non-Fire Technology students are also welcome.

KIN 039B  Fire Agility - Beginning (2.0 Lab)  2.0 UNITS
This course allows the student to build on the specific skills required to pass a physical agility firefighting test. Resistance training, plyometrics and cardiovascular workouts are employed. Non-Fire Technology students are also welcome.

KIN 039C  Fire Agility - Intermediate (2.0 Lab)  2.0 UNITS
This course allows the student to build on the specific skills required to successfully pass the CPAT and other physical agility firefighting test. Emphasis is on intermediate fitness training techniques. Non-Fire Technology students are also welcome.

KIN 039D  Fire Agility: Advanced (2.0 Lab)  2.0 UNITS
This course covers the advanced skills and techniques designed to enhance the overall fitness level of the Fire Technology student in order to prepare them to successfully complete the CPAT and other fire agencies physical agility tests. Building upon the skills learned in KIN 039A, 039B and KIN 039C, the emphasis is on advanced training methodologies. Advanced resistance training techniques, plyometric speed and agility training and cardiovascular workouts are utilized. Non-Fire Technology students are also welcome.

KIN 040A  Modern Dance - Introduction (1.0 Lab)  1.0 UNIT
This course is an introduction to the varied theories, styles, and techniques of the modern dance idiom.

KIN 040B  Modern Dance - Beginning (1.0 Lab)  1.0 UNIT
This course is the study and practice of the varied theories, styles, and techniques of the modern dance idiom at a beginning level.

KIN 040C  Modern Dance - Intermediate (1.0 Lab)  1.0 UNIT
This course is the study and practice of the varied theories, styles, and techniques of the modern dance idiom at an intermediate level.

KIN 041A  Ballet - Introduction (1.0 Lab)  1.0 UNIT
This course is designed to introduce the student to the discipline, aesthetics, traditions, and historical background of classical ballet.

KIN 041B  Ballet - Beginning (1.0 Lab)  1.0 UNIT
This course is designed for beginning level dancers to practice the discipline of ballet including improving technique and performance skills. Historical background, traditions and etiquette are also covered.

KIN 041C  Ballet - Intermediate (1.0 Lab)  1.0 UNIT
This course is designed for intermediate level dancers to practice the discipline of ballet including improving technique, building strength, and developing higher level performance skills.

KIN 041D  Ballet - Advanced (1.0 Lab)  1.0 UNIT
This course is designed for advanced level dancers to practice the discipline of ballet including perfecting technique and developing advanced level performance skills.

KIN 042A  Jazz Dance - Introduction (1.0 Lab)  1.0 UNIT
This course is designed to introduce the student to the varied theories, styles and techniques of the jazz dance idiom.

KIN 042B  Jazz Dance - Beginning (1.0 Lab)  1.0 UNIT
This course is designed for the beginning level student. Emphasis is placed on the varied theories, styles and techniques of the jazz dance idiom. Practice and performance opportunities are available at a beginning level.

KIN 042C  Jazz Dance - Intermediate (1.0 Lab)  1.0 UNIT
Advisory: KIN 042B This course is designed for the intermediate level student. Emphasis is placed on the varied theories, styles and techniques of the jazz dance idiom. Practice and performance opportunities are available at an intermediate level.

KIN 046A  Ballroom Dancing - Introduction (1.0 Lab)  1.0 UNIT
This course introduces students to various ballroom dances. Alignment and posture, etiquette, and spontaneous leading and following are emphasized.

KIN 046B  Ballroom Dancing - Beginning (1.0 Lab)  1.0 UNIT
This course covers the foundations of ballroom dance, including beginning level steps, positions of the body, and basics of styling for the various dances.

KIN 046C  Ballroom Dancing - Intermediate (1.0 Lab)  1.0 UNIT
This intermediate ballroom dance course covers various ballroom dances with an emphasis on technique, styling and performance skills that are specific to each dance.

KIN 046D  Ballroom Dancing - Advanced (1.0 Lab)  1.0 UNIT
This is an advanced level course covering various ballroom dances. Advanced techniques for styling and performance are emphasized.

KIN 047A  Hip Hop - Introduction (1.0 Lab)  1.0 UNIT
This course introduces students to the fundamentals of hip hop. Students will learn general patterns as well as the basics of creating their own style and routines. Information is presented describing the history and cultural development of hip hop as a dance form.

KIN 047B  Hip Hop - Beginning (1.0 Lab)  1.0 UNIT
This course is the study and practice of hip hop at a beginning level. Students learn general patterns as well as the basics of creating their own style and routines. Information is presented describing the history and cultural development of hip hop as a dance form.

KIN 047C  Hip Hop - Intermediate (1.0 Lab)  1.0 UNIT
This course is the study and practice of hip hop at an intermediate level. Students learn choreography as well as create their own style and routines.

KIN 047D  Hip Hop - Advanced (1.0 Lab)  1.0 UNIT
This course is the study and practice of hip hop at an advanced level. Students learn choreography as well as create their own style and routines.
KIN 048B Latin Dance/Salsa - Beginning (1.0 Lab) 1.0 UNIT
This is a beginning level course designed to practice selected Latin and rhythm
dances. There is an emphasis on alignment and posture, etiquette, and
leading and following.

KIN 050A Tai Chi - Introduction (1.0 Lab) 1.0 UNIT
This course introduces the student to the fundamentals and health enhancing
aspects of Tai Chi. Instruction covers the history and philosophy and
emphasizes Tai Chi body movements and forms utilizing energy flow and
stress reducing elements that are generated in the process.

KIN 050B Tai Chi - Beginning (1.0 Lab) 1.0 UNIT
This course reviews the fundamentals and health enhancing aspects of Tai
Chi. There is an introduction to Pushing Hands exercises and various Qi Gong
exercises are included.

KIN 051A Aikido - Introduction (1.0 Lab) 1.0 UNIT
This course introduces the student to the philosophy, principles and physical
techniques of Aikido. Aikido is a non-violent martial art that emphasizes
harmony and natural movements to resolve conflicts.

KIN 051B Aikido - Beginning (1.0 Lab) 1.0 UNIT
This course reviews the philosophy, principles, and physical techniques of
Aikido. The course emphasizes harmony and natural movements to resolve
conflicts and integrate mind-body awareness. The principles of contraction
and expansion and circular movement are explored in more detail.

KIN 051C Aikido - Intermediate (1.0 Lab) 1.0 UNIT
This course reviews the philosophy, principles and physical techniques of
Aikido.

KIN 053A Karate - Introduction (1.0 Lab) 1.0 UNIT
This course introduces students to the Okinawan/Japanese martial art of Wado
Ki Kai Karate. Emphasis is on blocks, strikes, kicking movements, traditional
forms from the Taikyokyo and Pinan series, and self-defense.

KIN 053B Karate - Beginning (1.0 Lab) 1.0 UNIT
This course reviews the fundamentals of the Okinawan/Japanese martial art of
Wado Ki Kai Karate. Emphasis is on refinement of the student's blocks, strikes,
kicking movements, the traditional forms from the Taikyokyo and Pinan series,
and self-defense.

KIN 053C Karate - Intermediate (1.0 Lab) 1.0 UNIT
This course reviews the fundamentals of the Okinawan/Japanese martial art of
Wado Ki Kai Karate. Emphasis is on the refinement of the student's skills and
the combining of techniques at an intermediate level.

KIN 055A Self-Defense - Introduction (1.0 Lab) 1.0 UNIT
This course is designed to introduce the student to the fundamental skills,
strategy, and tactics of self-defense which may help the individual to
recognize, avoid, and respond to dangerous situations.

KIN 055B Self Defense - Beginning (1.0 Lab) 1.0 UNIT
This course reviews the fundamental skills, strategy, and tactics of self-
defense. Emphasis is on refinement of skills and incorporates additional take
downs and ground fighting tactics.

KIN 061A Hatha Yoga - Introduction (1.0 Lab) 1.0 UNIT
This class provided the student with an introduction to basic Hatha yoga
poses with an emphasis on form and body alignment. Strength, flexibility and
balance is improved through the practice of the yoga poses. Relaxation and
meditation techniques are also introduced.

KIN 061B Hatha Yoga - Beginning (1.0 Lab) 1.0 UNIT
This class provides instruction and practice of yoga poses with an emphasis on
form and body alignment. Strength, flexibility and balance are emphasized.
Relaxation and meditation techniques are also incorporated into the practice
of poses.

KIN 061C Hatha Yoga - Intermediate (1.0 Lab) 1.0 UNIT
This class provides instruction in the physical practice of yoga at an
intermediate level. Strength, flexibility and balance are emphasized within
the physical practice. Breath control and meditation techniques are also
incorporated.

KIN 061D Hatha Yoga - Advanced (1.0 Lab) 1.0 UNIT
This class emphasizes the physical practice of yoga at an advanced level.
A prior yoga practice is strongly encouraged. Relaxation and meditation
techniques are also incorporated
KIN 075 Body Alignment and Stretching Techniques (0.5 Lecture/1.0 Lab) 1.5 UNITS
Advisory: KIN 074 This course is designed for the fitness specialist or enthusiast. Topics covered in class include correct posture and alignment, postural deviations, stretching techniques, and routines for various sports and activities.

KIN 076 Weight Training Principles and Routines (0.5 Lecture/1.0 Lab) 1.5 UNITS
Advisory: KIN 074 This course is designed specifically for the fitness specialist or enthusiast who wants a more detailed and complete understanding of all aspects of weight training and how to develop specific programs to enhance muscle strength, endurance and definition.

KIN 077 Exercise Physiology (1.5 Lecture) 1.5 UNITS
Advisory: KIN 074 This course is designed for the fitness specialist or enthusiast who wants a more complete understanding of how the body responds and adapts physiologically to exercise.

KIN 078 Introduction to Kinesiology (3.0 Lecture) 3.0 UNITS
This course is an introduction to the interdisciplinary approach to the study of human movement. An overview of the importance of the sub-disciplines in kinesiology will be discussed along with career opportunities in the areas of teaching, coaching, allied health, and fitness professions.

KIN 080 Dance Appreciation (3.0 Lecture) 3.0 UNITS
This course is a study of the function of dance as art and ritual, social activity, spectacle, and entertainment through a survey of major dance works and artists from 19th century to present. It includes cultural contexts as well as styles and forms used in dance such as folk, ethnic, social, square, tap, jazz, modern and ballet.

KIN 083 Volleyball - Intercollegiate Training (2.0 Lab) 2.0 UNITS
Advisory: Basic knowledge and practice of volleyball is strongly encouraged. Advisory: KIN 014A. This course is designed to develop a highly conditioned body for strength, flexibility, and endurance for the competing Women's varsity volleyball player.

KIN 084 Intercollegiate Volleyball (3.0 Lab) 3.0 UNITS
This course is intercollegiate volleyball competition for women. Team strategies and skill development are emphasized. Demonstrated subject/skill proficiency and consent of the coach is required.

KIN 085 Intercollegiate Badminton (3.0 Lab) 3.0 UNITS
Advisory: KIN 098 This course is designed to provide an opportunity for students with advanced badminton skills to participate in and learn an activity geared to their level of ability.

KIN 086 Intercollegiate Basketball (3.0 Lab) 3.0 UNITS
This course is designed to allow the student the opportunity to play intercollegiate basketball. Aspects covered include skill development, teamwork, and team strategies. Skill and ability should be commensurate with this level of competition.

KIN 087 Intercollegiate Soccer (3.0 Lab) 2.0 UNITS
This course is intercollegiate soccer competition for women. Team strategies and skill development are emphasized. This course requires demonstrated subject/skill proficiency and consent of the coach.

KIN 088 Intercollegiate Softball (3.0 Lab) 3.0 UNITS
This course is intercollegiate softball competition for women. Team strategies and skill development are emphasized. This course requires demonstrated subject/skill proficiency and consent of the coach.

KIN 089 Intercollegiate Tennis - Women (3.0 Lab) 3.0 UNITS
This course is designed for students interested in intercollegiate tennis competition. Practice consists of both mental and physical training.

KIN 090 Intercollegiate Baseball (3.0 Lab) 3.0 UNITS
This course is intercollegiate baseball competition for men. Team strategies and skill development are emphasized. Demonstrated subject/skill proficiency and consent of the coach is required.

KIN 091 Intercollegiate Soccer (2.0 Lab) 2.0 UNITS
This course is intercollegiate soccer competition for men. Team strategies and skill development are emphasized. Demonstrated subject/skill proficiency and consent of the coach is required.

KIN 092 Intercollegiate Tennis-Men (3.0 Lab) 3.0 UNITS
Advisory: KIN 094 This course is designed for male students interested in competing for an intercollegiate tennis team.

KIN 093 Softball - Intercollegiate Training (2.0 Lab) 2.0 UNITS
Advisory: Recommended High School or travel softball experience. This course provides the student with the opportunity to master the specific individual skills, team techniques and strategies of softball.

KIN 094 Tennis - Intercollegiate Training (1.0 Lab) 1.0 UNIT
Advisory: Recommended High School or Tournament experience. This course is designed to develop a highly conditioned body for strength, flexibility, and endurance for the competing varsity tennis player.

KIN 095 Soccer - Intercollegiate Training (2.0 Lab) 2.0 UNITS
This course is designed to enhance the skills and abilities of students involved competitively in the game of soccer. Extensive soccer conditioning is stressed including strength training and speed conditioning. Skill development is covered in class.

KIN 096 Basketball - Intercollegiate Training (2.0 Lab) 2.0 UNITS
Advisory Recommended High School or travel ball experience. This class is designed for experienced basketball players who wish to learn advanced strategies of the game. Techniques such as full court press, press breakers, fast break, defensive schemes, and player to player and zone offenses are covered.

KIN 097 Baseball - Intercollegiate Training (2.0 Lab) 2.0 UNITS
This course is designed to provide an opportunity for men with advanced baseball skills to participate in and learn an activity geared to their level of ability.

KIN 098 Badminton - Intercollegiate Training (2.0 Lab) 2.0 UNITS
This course introduces the student to the more advanced skills and strategies of the game of badminton. The main emphasis of this course is on drills, finesse shots, shot placement, court position, and singles and doubles strategy.

KIN 099 Athletic Training (1.0 Lab) 1.0 UNIT
This course is designed to develop a highly conditioned body for strength, flexibility, and endurance for the competing varsity athlete.

MATH (MAT)

MAT 000B Plane Geometry 4.0 UNITS
Prerequisite: MAT 903 or satisfactory score on an appropriate Mathematics Placement Exam. Basic concepts of plane geometry for lines, planes, triangles and spheres and an introduction to deductive reasoning. Pass/No Pass Option.

MAT 000C Intermediate Algebra (5.0 Lecture) 5.0 UNITS
Prerequisite MAT 903 or placement into the course by the Mission College Mathematics Placement Exam. and Prerequisite MAT 903MX or placement into the course by the Mission College Mathematics Placement Exam. The student will study fundamental laws of exponents and radicals, quadratic equations, graphical representations, complex numbers, functions and inverses, logarithmic and exponential functions, conic sections, sequences and series, linear systems and inequalities, and applied problems.
### COURSES

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<tr>
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<td>Mathematics for the Associate Degree Student (3.0 Lecture)</td>
<td>3.0 UNITS</td>
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<tr>
<td>MAT 003A</td>
<td>Analytic Geometry and Calculus I (5.0 Lecture)</td>
<td>5.0 UNITS</td>
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<tr>
<td>MAT 003AH</td>
<td>Analytic Geometry and Calculus I - Honors (5.0 Lecture)</td>
<td>5.0 UNITS</td>
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<tr>
<td>MAT 003B</td>
<td>Analytic Geometry and Calculus II (5.0 Lecture)</td>
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<tr>
<td>MAT 004A</td>
<td>Multivariable Calculus (4.0 Lecture)</td>
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<tr>
<td>MAT 004B</td>
<td>Differential Equations (4.0 Lecture)</td>
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<tr>
<td>MAT 004C</td>
<td>Linear Algebra (4.0 Lecture)</td>
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<tr>
<td>MAT 005</td>
<td>Programming and Problem-Solving in MATLAB (2.0 Lecture/1.0 Lab)</td>
<td>3.0 UNITS</td>
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<tr>
<td>MAT 008</td>
<td>Finite Mathematics (3.0 Lecture)</td>
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<tr>
<td>MAT 009</td>
<td>Integrated Statistics II (5.0 Lecture)</td>
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<tr>
<td>MAT 00CM</td>
<td>Intermediate Algebra (MAPS) (5.0 Lecture)</td>
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<tr>
<td>MAT 00CMX</td>
<td>Intermediate Algebra MAPS Extra (3.0 Lecture)</td>
<td>3.0 UNITS</td>
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<tr>
<td>MAT 000D</td>
<td>Trigonometry (3.0 Lecture)</td>
<td>3.0 UNITS</td>
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<tr>
<td>MAT 000G</td>
<td>Mathematics for the Liberal Arts Student (4.0 Lecture)</td>
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<tr>
<td>MAT 001</td>
<td>College Algebra (4.0 Lecture)</td>
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<tr>
<td>MAT 002</td>
<td>Precalculus and Trigonometry (6.0 Lecture)</td>
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<tr>
<td>MAT 003A</td>
<td>Analytic Geometry and Calculus I (5.0 Lecture)</td>
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<tr>
<td>MAT 008</td>
<td>Finite Mathematics (3.0 Lecture)</td>
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**MAT 000C**
- **Prerequisite**: Placement into Math CG or higher by the Mission College Mathematics Placement Exam; or Prerequisite MATH 903 or Prerequisite MATH 903M.
- This course is a math survey course that uses creative thinking and problem solving as tools to connect the development of various areas of mathematics. Topics may include number systems, geometric and algebraic patterns, and a variety of real-world applications. This is an associate degree level course but does not substitute for Math C.

**MAT 003A**
- **Prerequisite**: MAT 002 or placement into the course by the Mission College Mathematics Placement Exam; or Prerequisite MATH 000D or higher or satisfactory score on an appropriate Mathematics Placement Exam. and Prerequisite MAT 001 or placement into the course by the Mission College Mathematics Placement Exam. This is the first part of the three-semester calculus sequence. Topics include functions, limits, continuity, differentiation and integration, and applications for polynomial and transcendental functions.

**MAT 003AH**
- **Prerequisite**: MAT 003A or Prerequisite MAT 003AH. This is the second part of the three-semester calculus sequence. Topics include infinite series, vectors in the plane, parametric equations, conic sections, polar coordinates and integration techniques with applications.

**MAT 004A**
- **Prerequisite**: MAT 003A or Prerequisite MAT 003AH. This is the second part of the three-semester calculus sequence. Topics include vector-valued functions, calculus of functions of more than one variable, partial derivatives, multiple integration, Green's Theorem, Stokes' Theorem, and the divergence theorem.

**MAT 004B**
- **Prerequisite**: MAT 003A or Prerequisite MAT 003AH. This is the second part of the three-semester calculus sequence. Topics include ordinary differential equations, with emphasis on linear equations, and partial differential equations. Methods include Laplace Transforms, power series, Fourier series, numerical solutions and applications.

**MAT 004C**
- **Prerequisite**: MAT 003A or Prerequisite MAT 003AH. This is the second part of the three-semester calculus sequence. Topics include linear algebra including systems of linear equations, Gaussian elimination, determinants, matrices, vector spaces, transformations, eigenvalues, and eigenvectors.

**MAT 005**
- **Prerequisite**: MAT 003A or Prerequisite MAT 003AH. This is the second part of the three-semester calculus sequence. Topics include linear algebra including systems of linear equations, Gaussian elimination, determinants, matrices, vector spaces, transformations, eigenvalues, and eigenvectors.

**MAT 008**
- **Prerequisite**: MAT 000C or placement into Math 8 or higher by the Mission College Placement Exam; or Prerequisite MAT 000CM or placement into Math 8 or higher by the Mission College Placement Exam. and Prerequisite MAT 000CMX or placement into Math 8 or higher by the Mission College Placement Exam. and Prerequisite MAT 000CMX or placement into Math 8 or higher by the Mission College Placement Exam. and Prerequisite MAT 008.

**MAT 009**
- **Prerequisite**: MAT 009. This is the second of two courses in the Statway sequence. Students study probability, descriptive and inferential statistics including probability distribution, hypothesis testing, linear regression and applications. Current statistical technology packages are used. This sequence is recommended for students with majors that require no mathematics beyond freshman-level statistics. Successful completion of both Math 009 and Math 009 is required to satisfy CSU and UC transferability.
MAT 001 Prep Trig/Bus Math 2.0 UNITS
Prerequisite: MATH 000C or satisfactory score on an appropriate Mathematics Placement Exam. This is an accelerated review of all the material from Intermediate Algebra. The course will concentrate on those areas of Intermediate Algebra which require additional work. Pass/No Pass Only.

MAT 010 Elementary Statistics (4.0 Lecture) 4.0 UNITS
Prerequisite MAT 000C or Prerequisite MAT 000CM or successful placement into the course based on the Mission College Mathematics Placement Exam; or Prerequisite Completion of, or placement into, any higher-level math. Students study probability, descriptive and inferential statistics including probability distribution, hypothesis testing, linear regression and applications. Current statistical computer packages are used.

MAT 010H Elementary Statistics - Honors (4.0 Lecture) 4.0 UNITS
This course is the honors version of Elementary Statistics. This course provides students with a comprehensive introduction to statistical methods and research. Current statistical computer packages are used. Students may not receive credit for both MATH 010 and MATH 010H. This section requires enrollment in the Honors Transfer Project. More information and the online application can be found at http://honors.missioncollege.edu.

MAT 012 Calculus for Business (4.0 Lecture) 4.0 UNITS
Prerequisite MAT 000C or placement into MAT 12 or higher by the Mission College Mathematics Placement Exam.; or Prerequisite or placement into MAT 12 or higher by the Mission College Mathematics Placement Exam. Course topics include the intuitive concept of a limit, and simple techniques of differential and integral calculus and their most common applications in business. This course is not equivalent to MAT 003A.

MAT 014 Math for Elementary School Teachers (Number Systems) 3.0 UNITS
Prerequisite: MATH 000C or MATH 000CM or successful placement into the course based on the Mission College Mathematics Placement Exam. Advisory: MATH 000B. This course covers systems of numbers, emphasizes patterns and relationships, presents mathematical models and real-word applications, and provides algorithms for estimating and finding exact answers when doing calculations. Appropriate problem solving, critical thinking, and communication are included. The course is designed for students who intend to become elementary school teachers. Pass/No Pass Option.

MAT 019 Discrete Mathematics (4.0 Lecture) 4.0 UNITS
Prerequisite MAT 001 or successful placement into the course based on the Mission College Mathematics Placement Exam, or Prerequisite MAT 002 This course covers discrete mathematics appropriate for computer applications. Topics may include graphs, sets, logic, mathematical induction, functions and relations, sequences and series, matrices, combinatorics, Boolean algebra, algebraic structures, and computer implementation.

MAT 081H Honors Seminar in Mathematics (1.0 Lecture) 1.0 UNIT
This course is an honors course involving discussion and analysis of various mathematical topics. There is an emphasis on in-depth understanding of mathematical theorems, general problem-solving techniques, and how to communicate mathematics. This section requires enrollment in the Honors Transfer Project. More information and the online application can be found at http://honors.missioncollege.edu.

MAT 900 Arithmetic Functions (3.0 Lecture) 3.0 UNITS
This course covers fundamental arithmetic skills including whole numbers, fractions and decimals, ratio, proportion and percent, simple equations, problem analysis, and practical applications.

MAT 901 Arithmetic Review 1.5 UNITS
Review topics include fundamental arithmetic skills including signed numbers, fractions and decimals, and applications of ratio, proportion and percent to practical problems. Pass/No Pass Option.

MAT 902 Pre-Algebra (4.0 Lecture) 4.0 UNITS
This course is designed for those students who have a solid foundation in arithmetic skills but need to develop those skills further before taking Algebra.

MAT 903 Elementary Algebra (5.0 Lecture) 5.0 UNITS
Prerequisite MAT 902 or placement into the course by the Mission College Mathematics Placement Exam. Course topics include operations with real numbers; properties of real numbers and signed exponents; solving and graphing linear equations; solving linear inequalities; functions; factoring polynomials; solving quadratic equations by factoring; simplifying rational expressions; solving rational equations; applications of linear, quadratic, and rational equations; and working with scientific notation.

MAT 903M Elementary Algebra (MAPS) (5.0 Lecture) 5.0 UNITS
Prerequisite MAT 902 or successful placement into the course based on the Mission College Mathematics Placement Exam and an interview with the MAPS counselor. Corequisite MAT 903MX MAT 903MX must be taken concurrently with MAT 903M. The MAPS program offers students a team approach to succeed in elementary and intermediate algebra. This program is designed for students who have had difficulty in their math course in the past. Students study operations of signed numbers, exponents, polynomials and rational expressions; properties of real numbers, equations and exponents; solving and graphing linear equations; applications of linear equations; and factoring of polynomials. Pass/No Pass Option. Concurrent enrollment in MAT 903MX is mandatory.

MAT 909 Integrated Statistics I (5.0 Lecture) 5.0 UNITS
Prerequisite MAT 902 or higher or satisfactory score on an appropriate Mathematics Placement Test This is the first of two courses in the Statway sequence. Students study probability, descriptive statistics, linear regression and applications. Current statistical technology packages are used. This sequence is recommended for students with majors that require no mathematics beyond freshman-level statistics. Successful completion of both MAT 909 and MAT 009 is required to satisfy CSU and UC transferability.

MAT 910 Problem Solving in Mathematics (1.0 Lecture) 1.0 UNIT
This course introduces the student to various problem solving techniques, and develops mathematical and critical thinking skills.

NUTRITIONAL SCIENCE (NTR)

NTR 015 Human Nutrition (3.0 Lecture) 3.0 UNITS
Basic scientific principles of human nutrition in maintaining health & preventing disease are discussed. Biochemical functions & interrelationships of nutrients are examined. Designed for the student with no science background.

NTR 040 Nutrition and Disease (3.0 Lecture) 3.0 UNITS
This course covers basic scientific principles of human nutrition as they relate to disease. This course is designed for individuals entering the health care field or for those with an interest in diet and disease. Eligibility for ENG 001A and REA 054

NTR 052 Nutrition for Children (3.0 Lecture) 3.0 UNITS
Students examine scientific principles as they relate to human nutrition from infancy through adolescence. Nutrients and their affect on a child's physical and mental development are discussed. This course is designed for general education and child development programs.

PSYCHOLOGY (PSY)

PSY 001 General Psychology (3.0 Lecture) 3.0 UNITS
Advisory: Eligibility for ENG 908 and REA 054. This course introduces major concepts, problems and methods that psychologists use to investigate and understand the human mind. Pass/No Pass Option.
PSY 001H General Psychology - Honors (3.0 Lecture) 3.0 UNITS
Advisory: Eligibility for ENG 908 and REA 054. This honors course introduces major concepts, problems and methods that psychologists use to investigate and understand the human mind. Students cannot get credit for both PSY 001 and PSY 001H. This section requires enrollment in the Honors Transfer Project. More information and the online application can be found at http://honors.missioncollege.edu.

PSY 007 Biological Psychology (3.0 Lecture) 3.0 UNITS
Prerequisite: PSY 001 This course is an introduction to the physiological substrates of behavior.

PSY 010 Social Psychology (3.0 Lecture) 3.0 UNITS
This course studies psychological and sociological influences on an individual while functioning in social contexts. Pass/No Pass Option.

PSY 012 Human Growth and Development (3.0 Lecture) 3.0 UNITS
Advisory: PSY 001, Eligibility for ENG 908 and REA 054. The comprehensive coverage of the growth and development of humans from conception to death is examined. Pass/No Pass Option.

PSY 015 Introduction to Research Methods (3.0 Lecture) 3.0 UNITS
Prerequisite: MAT 010 Prerequisite PSY 001 This course surveys various psychological research methods and designs.

PSY 015H Introduction to Research Methods - Honors (3.0 Lecture) 3.0 UNITS
Advisory: Eligibility for ENG 001A and REA 054, MAT 010. Prerequisite: PSY 001 This course reviews psychological quantitative research methods and the software statistical application SPSS. This section requires enrollment in the Honors Transfer Project. More information and the online application can be found at http://honors.missioncollege.edu.

PSY 025 Introduction to Abnormal Psychology (3.0 Lecture) 3.0 UNITS
Prerequisite: PSY 001 or Prerequisite PSY 010H The classification and treatment of human maladaptive and maladjusted behavior are studied.

PSY 030 Psychology of Addiction and Substance Abuse (3.0 Lecture) 3.0 UNITS
Advisory: Eligibility for ENG 001A and REA 053. The study of the physiological and psychological processes of addiction and substance abuse. Pass/No Pass Option.

PSY 045 Introduction to Human Sexuality (3.0 Lecture) 3.0 UNITS
Advisory: Eligibility for ENG 001A and REA 054 This course is an introduction to human sexuality, including basic health issues, attitudes, and behavior in western society. Pass/No Pass Option.

PSY 081H Honors Seminar in General Psychology (1.0 Lecture) 1.0 UNIT
Advisory Eligibility for ENGL 001A and READ 054. This honors course offers students the opportunity to investigate, in-depth, a comprehensive range of theories and perspectives of psychology, biological foundations of behavior, research methodology, memory, cognition and intelligence, personality, stress and health, abnormal psychology and therapeutic approaches, life span development, and social psychology. Honors coursework challenges students to be more systematic through expanded assignments, applied applications, and enriched opportunities. This section requires enrollment in the Honors Transfer Project. More information and the online application can be found at http://honors.missioncollege.edu.

WORK EXPERIENCE (WRK)

WRK 300CD Occupational Work Experience for Child Development (3.0 units of Work Experience) 3.0 UNITS
The student is required to attend an orientation at the beginning of the course. Students earn 1.0 unit of credit for every 60 hours of unpaid work or 75 hours of paid work. Students may earn a maximum of 16 units of occupational work experience during their community college attendance. Note: Students must be working in a job or volunteer position the early childhood special education. Eligibility for ENGL 001A and READ 054

WRK 300HM 1.0 UNIT
The student is required to attend an orientation at the beginning of the course and complete a minimum of 75 hours for paid work or a minimum of 60 hours for unpaid work for each unit earned per semester. Only one Work Experience course may be taken per semester. Students can earn a maximum of 8 units of Work Experience per term. Students may earn a maximum of 16 units of occupational work experience during their community college attendance. Only one Work Experience course may be taken per semester. Note: Students must be working in a job or volunteer position in the hospitality, food service and restaurant industries.

WRK 300PP Work Experience (9.0 Lecture) 4.0 UNITS
Work experience for plumbing and pipefitting technology apprenticeship.

WRK 300TN Work Experience for Transportation Industry 0.0 UNITS
Work experience for transportation industry apprenticeship. The number of units varies by certificate.

WRK 300VP Work Experience (9.0 Lecture) 4.0 UNITS
Work experience for refrigeration and air conditioning technology (HVC) apprenticeship.

WRK 301 Work Experience Occupational 1.0 UNIT
Students establish measurable goals and learning objectives obtained on the job in accordance with a training plan developed cooperatively between the employer, college and student.

WRK 302 Work Experience Occupational 2.0 UNITS
Students establish measurable goals and learning objectives obtained on the job in accordance with a training plan developed cooperatively between the employer, college and student.

WRK 303 Work Experience Occupational 3.0 UNITS
Students establish measurable goals and learning objectives obtained on the job in accordance with a training plan developed cooperatively between the employer, college and student.

WRK 304 Work Experience Occupational 4.0 UNITS
Students establish measurable goals and learning objectives obtained on the job in accordance with a training plan developed cooperatively between the employer, college and student.