### COURSES

**CAREER EDUCATION**

#### ACCOUNTING (ACC)

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Advisory: MAT 903 or High School Algebra I, or equivalent. This is the study of accounting as an information system, examining why it is important and how it is used by investors, creditors, and others to make decisions. The course covers the accounting information system, including recording and reporting of business transactions with a focus on the accounting cycle, the application of generally accepted accounting principles, the financial statements, and statement analysis. Included are issues relating to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls, and ethics.

This is a step-by-step yet comprehensive introduction to accounting concepts, principles, and procedures. The course is recommended for individuals who are new to accounting, need a review, or who have had difficulty in other accounting courses. This course consists of a foundation module and a completion module that together cover both the theory and procedure elements of the full accounting cycle, for both service and merchandising operations, including financial statement preparation. Cash internal control procedures are included. A supplementary basic math review is also available.

This course is designed as a non-theoretical, practical approach to accounting with special emphasis on accounting for the smaller business establishments including the basic bookkeeping cycle, petty cash, bank reconciliations, and payroll accounting.

The course covers financial forecasting models used in business, while teaching basic and intermediate Excel commands. Students build Excel spreadsheet models to project an income statement and balance sheet, with a cash budget that includes receivables, payables, inventory, capital equipment investment, and financing requirements.

The course covers financial planning and analysis models used in business, while teaching basic and intermediate Excel commands. Students build Excel spreadsheet models for loan amortization, break even analysis, lease versus buy decisions, capital budgeting and project selection, and net present value using the time value of money.

Advisory: MAT 903 or High School Algebra I, or equivalent. This course introduces the major areas of personal financial planning (insurance, investment, tax, retirement, and estate). Income statements, balance sheets and budgets are introduced, and students prepare their own personal budgets and statements of net worth. The time value of money and its importance in the financial planning process is stressed.

The course introduces fundamental investment concepts such as risk, return, diversification, and how financial markets work. The course covers common stock, fixed-income securities, mutual funds and other investments. Students prepare their own personal statement of net worth and use asset allocation to design an investment portfolio.

This course covers calculation of the federal income tax and strategies to help save or defer taxes. Students calculate their own federal income tax liability, then use at least one method to plan a reduction in taxes for next year.

This course covers company pension plans, other company retirement plans, individual retirement plans and social security benefits. Students use a retirement savings worksheet to estimate their own savings needs for retirement using data from their personal budget and personal statement of net worth.

This course offers a thorough study of payroll preparation, payroll taxes, sales and use taxes, and property taxes. Basic payroll procedures used in business are stressed. Various manual and automated methods of payroll preparation are presented.

This is the second course in a sequence of three courses designed for students who want to be a part of the Volunteer Income Tax Assistance (VITA) program at Mission College. This course allows students who have successfully passed ACC 053A to apply their tax knowledge by assisting low-income individuals and families with their tax preparation through the VITA program for the current year. In this course, students learn to research current tax issues, use the TaxWise software to accurately prepare individual federal and state income tax returns within the scope of the VITA program. Students also learn how to work within a cooperative and quality controlled environment and develop their communication skills through taxpayer interviews and explanation of tax return results.

This course covers estate planning techniques and terminology such as wills, probate, trusts, contractual transfers, gift tax and estate tax. Methods of holding title to property, e.g., joint tenancy with right of survivorship, are also discussed.

This course covers federal and California tax theories and laws appropriate for the current tax year. Students apply their knowledge by taking the IRS exams for VITA volunteers. Upon successful completion of the IRS VITA Basic and Intermediate exams, the students are able to assist low-income individuals in preparing their federal and California tax returns.
and families with tax return preparation through the VITA program for the current year.

ACC 053B Volunteer Income Tax Assistance (VITA) II (0.5 Lecture/0.5 Lab) 1.0 UNIT
Prerequisite: ACC 053A Advisory: ACC 051A Advisory: MAT 903 or High School Algebra I, or equivalent. This is the second course in a sequence of three courses designed for students who want to be a part of the Volunteer Income Tax Assistance (VITA) program at Mission College. This course allows students who have successfully completed ACC 053A to apply their tax knowledge by assisting low-income individuals and families with their tax preparation through the VITA program for the current year. In this course, students learn to research current tax issues, use the TaxWise software to accurately prepare individual and federal state and income tax returns within the scope of the VITA program. Students also learn how to work within a cooperative and quality controlled environment and develop their communication skills through taxpayer interviews and explanation of tax return results.

ACC 053C Volunteer Income Tax Assistance (VITA) III (0.5 Lecture/0.5 Lab) 1.0 UNIT
Prerequisite: ACC 053B Advisory: MAT 903 or High School Algebra I, or equivalent. This is the third course in a sequence of three courses designed for students who want to be a part of the Volunteer Income Tax Assistance (VITA) program at Mission College. This course allows students who have successfully completed ACC 053B to work on advanced tax situations and take part in running the tax center for the current year. In this course, students cover advanced tax topics and develop the skills necessary in running a tax center including site organization, quality control procedures, and providing guidance to both taxpayers and tax preparers.

ACC 057A Cost Accounting (4.0 Lecture) 4.0 UNITS
Advisory: ACC 051B Advisory: MAT 903 or High School Algebra I, or equivalent. The course provides a thorough presentation of cost accounting terminology and concepts, and develops a basic facility in cost accounting techniques and systems. Emphasis is placed on the use of cost accounting data rather than data accumulation. The course covers job order costing, process costing, standard costing, activity-based costing, budgeting, flexible budgeting, cost volume profit analysis, incremental and relevant costing, product pricing, the balanced scorecard, capital budgeting, and management accounting ethics.

ACC 058A Intermediate Accounting I (4.0 Lecture) 4.0 UNITS
Prerequisite: ACC 001A. Advisory: MAT 903 or High School Algebra I, or equivalent. This course is a review of fundamental accounting processes, techniques and principles including control and theory of accounting for assets, correction of prior years’ earnings, and measurement and determination of income. Current standards and pronouncements are presented.

ACC 058B Intermediate Accounting II (4.0 Lecture) 4.0 UNITS
Prerequisite: ACC 001A Advisory: ACC 058A Advisory: MAT 903 or High School Algebra I, or equivalent. This course provides a comprehensive study of liabilities, formation and changes in stockholders’ equity, statement of cash flows, pension plans, leases, earnings per share, accounting for income taxes, and accounting changes and corrections. Current standards and pronouncements are presented. Financial statement analysis also is reviewed.

ACC 059A Financial Auditing (4.0 Lecture) 4.0 UNITS
Prerequisite: ACC 001A Advisory: ACC 058A and ACC 058B. The course introduces the student to the audit process and how to render an opinion on published financial statements and related financial reports. The course emphasizes the application of generally accepted auditing standards and procedures, fraud exposure, professional ethics, the legal environment, work paper preparation and report writing.

ACC 060 Computerized Accounting: QuickBooks (3.0 Lecture) 3.0 UNITS
Advisory: ACC 001A Students use QuickBooks accounting software to set up, enter transactions, and produce reports using general ledger, accounts receivable, accounts payable, financial statement analysis, depreciation, inventory and payroll modules. It is recommended that students have either completed, or are concurrently enrolled in, ACC 001A or have practical accounting experience. Students use QuickBooks accounting software to set up, enter transactions, and produce reports using general ledger, accounts receivable, accounts payable, financial statement analysis, depreciation, inventory and payroll modules. It is recommended that students have either completed, or are concurrently enrolled in, ACC 001A or have practical accounting experience.

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
Advisory: ACC 001A This course involves the study of ethical problems which arise within the contexts of accounting and corporate management. Topics include major ethical theories and the professional code of conduct for accountants, auditors, and tax preparers. 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: ACC 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.

ACC 075 Cloud Computing and Analytics in Accounting (4.0 Lecture) 4.0 UNITS
Prerequisite: ACC 001A Students will learn cloud accounting and analytics theory through hands-on exercises using SAP Business ByDesign. SAP (Systems, Applications, & Products in Data Processing) is the number one Enterprise Resource Planning (ERP) software vendor in the world. Its ByDesign system is a cloud-based ERP solution for small-to-medium enterprises. Students will also use Excel and Power BI for data analytics and visualization capabilities. This course is useful as preparation for higher level business, accounting, and/or analytics courses, for careers in accounting and finance, or for work as an analyst, data scientist, 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 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. Interview required. Limited enrollment. Pass/No Pass Option.

**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** Basic Design: Two-Dimensional (2.0 Lecture/1.0 Lab) 3.0 UNITS

Basic introductory course to principles & elements of 2-dimensional design.

**ART 033B** 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 033C** Basic Design: Color (2.0 Lecture/1.0 Lab) 3.0 UNITS

Prerequisite: ART 033A This course is an introduction to the principles and elements of color.

**ART 034A** 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 034B** 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 031A This course is a fundamental study of the human figure as the main subject matter of drawings.

**ART 035B** Life Drawing (2.0 Lecture/1.0 Lab) 3.0 UNITS

Prerequisite ART 035A This course is a low intermediate study of the human form and structure rendered in realistic terms.

**ART 035C** Life Drawing (2.0 Lecture/1.0 Lab) 3.0 UNITS

Prerequisite ART 035B This course is a high 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 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 048C** 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 065A** Ceramics-Handbuilding: Introduction (2.0 Lecture/1.0 Lab) 3.0 UNITS

Introductory course in ceramics emphasizing hand-building techniques.

**ART 065B** Ceramics-Handbuilding: Beginning (2.0 Lecture/1.0 Lab) 3.0 UNITS

Prerequisite: ART 065A ART 065B is an advanced course in ceramics/hand-building techniques, firing kilns, clay body construction, and the creation of projects directed toward individualized self-expression.

**ART 065C** Ceramics-Handbuilding: Intermediate (2.0 Lecture/1.0 Lab) 3.0 UNITS

Prerequisite ART 065B ART 065C focuses on different aspects of ceramics providing students with supervised participatory experience in which artistic skills are enhanced by repetition and practice.
COURSES

ART 065D Ceramics-Handbuilding: Advanced (2.0 Lecture/1.0 Lab) 3.0 UNITS
Prerequisite ART 065C ART 065D focuses on different aspects of ceramics, providing students with supervised participatory experience in which artistic skills are enhanced by repetition and practice.

ART 067A Ceramics-Potter's Wheel: Introduction (2.0 Lecture/1.0 Lab) 3.0 UNITS
Covers basic skills & techniques using potter's wheel. Pass/No Pass Option.

ART 067B Ceramics-Potter's Wheel: Beginning (2.0 Lecture/1.0 Lab) 3.0 UNITS
Prerequisite: ART 067A This is an advanced course on the potter's wheel directed toward refinement of throwing skills and ceramic design.

ART 067C Ceramics-Potter's Wheel: Intermediate (2.0 Lecture/1.0 Lab) 3.0 UNITS
Prerequisite: ART 067B This course focuses on advanced aspects of working with the potter's wheel.

ART 067D Ceramics-Potter's Wheel: Advanced (2.0 Lecture/1.0 Lab) 3.0 UNITS
Focus on advanced aspects of working with potter's wheel. Pass/No Pass Option.

ART 075A Metallurgy (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 metalsmithing techniques.

ART 075B Metallurgy (2.0 Lecture/1.0 Lab) 3.0 UNITS
Prerequisite: ART 075A This course continues to apply the elements of design to metal and introduces new metalsmithing techniques.

ART 075C Metallurgy (2.0 Lecture/1.0 Lab) 3.0 UNITS
Prerequisite ART 075B 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 075D Metallurgy (2.0 Lecture/1.0 Lab) 3.0 UNITS
Prerequisite ART 075C 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 078A Furniture Design and Woodworking: Introduction (2.0 Lecture/1.0 Lab) 3.0 UNITS
Advisory: ART 033B ART 078A develops basic, introductory technical skills in furniture design, construction, and finishing. The emphasis is on individual design and innovative use of materials in the construction.

ART 078B Furniture Design and Woodworking: Beginning (2.0 Lecture/1.0 Lab) 3.0 UNITS
Prerequisite: ART 078A ART 078B introduces beginning to low-intermediate techniques and design skills in furniture construction. The students develop individual and/or group projects under the direction of the instructor, focusing on special aspects of furniture and woodworking.

ART 078C Furniture Design and Woodworking: Intermediate (2.0 Lecture/1.0 Lab) 3.0 UNITS
Prerequisite: ART 078B ART 078C is an intermediate-to-advanced level course in woodworking and furniture design which involves furniture construction techniques and equipment not covered in previous levels. Topics include advanced cabinetry techniques and complex joinery.

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

ART 085A Sculpture: Introduction (2.0 Lecture/1.0 Lab) 3.0 UNITS
Advisory: ART 031A, ART 033B ART 085A is an introductory course in sculpture emphasizing individual expression. Subtractive, additive and fabrication techniques including modeling, casting and carving are covered. Utilizing clay, wood, plaster and metal in construction are covered as well.

ART 085B Sculpture: Beginning (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.

ART 085C Sculpture: Intermediate (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: Advanced (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: Introduction (2.0 Lecture/1.0 Lab) 3.0 UNITS
Advisory: ART 085A or ART 033B This is a basic course in metal sculpture casting.

ART 088B Metal Sculpture Casting: Beginning (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: Intermediate (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: Advanced (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.

BUSINESS (BUS)

BUS 010 Global Business (3.0 Lecture) 3.0 UNITS
Advisory: MAT 903 or High School Algebra I, or equivalent. This course provides a comprehensive overview of global business including international management, finance, law, global strategy and marketing. Emphasis is on the firm in the global competitive context, decisions to enter markets, how to compete in global markets, and how to develop and implement a global strategy.

BUS 021 Introduction to Business Computing (3.0 Lecture) 3.0 UNITS
This course introduces computer hardware, software and technology applications in business. Information systems and the strategies for managing them change quickly, but the principles that guide both remain timeless. These principles form the backbone of this comprehensive survey of the field, designed for a student's first course in information technology. By presenting the details as well as the big picture, this course puts the lessons of managing information systems into an understandable context. The overall principle is that right information, if it is delivered to the right person, in the right fashion, and at the right time, can improve and ensure organizational effectiveness and efficiency.
BUS 021L  Introduction to Business Computing Laboratory (1.0 Lab)  1.0 UNIT
This course provides hands-on training in business applications.

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 037  Fundamentals of Project Management (3.0 Lecture)  3.0 UNITS
In this course, students will learn the secrets to successful project management: how to create a plan, implement it, monitor progress, correct as necessary and deliver as promised. This course prepares students with the necessary skills required to successfully manage a project and to prepare for the PMP® (Project Management Professional) or CAPM® (Certified Associate in Project Management) certification exams.

BUS 038  Applied Project Management (3.0 Lecture)  3.0 UNITS
In this course, students apply project management skills to real life project situations. Students also learn how to control project schedules, budgets, and scope using a variety of techniques. In-class exercises and case studies lead students to skills they can immediately apply to their own projects.

BUS 040  Professional Selling (3.0 Lecture)  3.0 UNITS
Advisory: COM 001 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 041  Beginning Business Analytics (2.5 Lecture / 0.5 Lab)  3.0 UNITS
Prerequisites: MAT 010 OR MAT 009 BUS 021L OR CAP 063B Advisories: BUS 021 This introductory course focuses on the fast-growing field of Business Analytics. The course will use SAP's Predictive Analysis tools in helping students to become big data literate and proficient in data environments of social media tracking, web analytics, customer and marketing information. Data analytic solutions explored will involve hands-on experience using real-world business case studies. Data Analytics has become a highly sought-after skill in business, engineering, economics, government services, science, health care and other fields.

BUS 051  Introduction to American Business (3.0 Lecture)  3.0 UNITS
In this survey course, students learn about the business landscape, how to evaluate an investment in a business degree program, and to begin career planning. The course helps direct students towards career paths and a major which best reflects their own personal aptitudes, interests, and skills. 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
Advisory: MAT 903 or High School Algebra I, or equivalent. This course provides students with the fundamentals to make sound financial investment decisions. Study involves the investment environment, the risks and returns objectives consistent with an associated with different types of financial investments, and the establishment of investment individual's characteristics, capacities and restrictions. Other topics include the participants in the investment process including organization issuing securities, and the laws and regulations covering their activities. Class projects cover techniques of investment analysis, timing, decision making, investment planning and management.

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 056A  Marketing Principles (3.0 Lecture)  3.0 UNITS
This course gives students an overall understanding of marketing functions and 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 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 064B  Business Math (4.0 Lecture)  4.0 UNITS
Advisory: MAT 903 or High School Algebra I, or equivalent. This course is designed for business majors to review the fundamental mathematical principles through lectures and individual operation of electronic calculators. This course emphasizes methods of problem analysis, interpretation and the solving of common business calculation problems such as percentage, trade and cash discounts, interest, time value of money, compounding, depreciation and discounting notes. This course is recommended for all business majors.

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 078B  Business Communications (3.0 Lecture)  3.0 UNITS
Advisory: ENG 001A or ENG 001AX Advisory: REA 054 This course develops writing and public speaking skills. Business writing style and group communication. Various forms of written communication are covered such as letters, email, employment messages, and reports.

BUS 084  Internet Marketing (3.0 Lecture)  3.0 UNITS
This course introduces students to Internet marketing techniques and tools and examines how advanced technologies affect marketing functions. Consideration is given to the development of an organization's marketing plan and strategies in this dynamic environment. The course provides students with the opportunity to conceptualize and document an Internet marketing plan based on ones' professional goals.

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 104  Project Risk Management (3.0 Lecture)  3.0 UNITS
Advisory: MAT 903 or equivalent. Advisory: ENG 001A or ENG 001AX 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 105  Agile Project Management (2.0 Lecture)  2.0 UNITS
Prerequisites: BUS 037 The Agile Project Management course is designed for business students, project team members, product owners and project leaders looking to understand and apply the Agile approach and practices to new product development, software development and knowledge work projects. This course teaches management of projects using agile methods with a detailed focus on SCRUM and Kanban. Students will explore SCRUM roles, artifacts, events, and processes thereby learning how products can be delivered economically and how customers are brought in the loop of product development. Students will learn Kanban and how this flowed-based
method is used to achieve efficient and smooth work management improving
time-to-market. Even if you are currently using other project management
methodologies, you will discover how Agile methods can make your projects
more successful.

BUS 107 Soft Skills for Project Managers (2.0 Lecture) 2.0 UNITS
This course is designed for students who want to build their soft skills. Soft
skills, sometimes known as “people skills”, can provide an edge to project
managers who have learned to use them well. This course will concentrate on
the three pillars of Soft skills, Leadership, Communication and Collaboration.
In this course we take a deep dive into these critical skills. Topic include,
leading teams, coaching, mentoring, negotiating skills, motivating people,
decision making and influencing, reading body language, team dynamics,
conflict, power, situational and organizational behavior. Since, project managers typically
spend over 80% of their time interfacing with people – these skills are critical
to successful project managers. This course is part of the new certificate for
Project Management. Advisories: Eligibility for ENG 001A or ENG 001AX and REA 054

BUS 108 PMP & CAPM Exam Prep (2.0 Lecture) 2.0 UNITS
Prerequisites: BUS 037 This course will prepare students for the for
CAPM® (Certificate Associate in Project Management) or PMP® (Project
Management Professional) exams. Also, students will receive substantial
Project Management Education (PDU) hours. This course emphasizes
PMBOK Guide® (Project Management Body of Knowledge) and is structured
around the ten knowledge areas, and it is focused on exactly what is necessary
to pass the exam. The Project Management Professional (PMP®) certification
is the profession's most globally recognized and respected certification
credential based on the Project Management Institute (PMI®) well-known
Project Management Body of Knowledge (PMBOK®).

BUS 109 Business Law Entrepreneurs (2.0 Lecture) 2.0 UNITS
This course provides students from variety backgrounds to understand legal
attributes of entrepreneurship. The course materials are a diverse mixture of
different topical areas in law. These areas include commercial law, law of
torts, business structure, employment and contract law, the legal framework
of finance, intellectual property and laws governing the sale of a business.
The students will be able to identify the specific legal issue that an entrepreneur
needs to understand at various stages. Advisory: BUS 054 Eligibility for ENG
001A or ENG 001AX and REA 054

BUS 111 The Entrepreneurial Mindset (3.0 Lecture) 3.0 UNITS
This course is constructed for students to learn about the principles contained
in the entrepreneurial mindset and the unlimited opportunities it can provide.
So, what is an entrepreneurial mindset? An entrepreneurial mindset is
a specific set of beliefs, knowledge, and thought processes that drives
entrepreneurial behavior (The Learning Initiative 2018). This course also takes
the approach that anyone (not just those who want to start businesses) can
benefit from understanding and applying an entrepreneurial mindset to any
situation. Advisory: BUS 054 Eligibility for ENG 001A or ENG 001AX and REA 054

BUS 112 Business Modeling (3.0 Lecture) 3.0 UNITS
This course covers practical business model techniques used by leading
companies in different industries. The business model describes the
foundation used of how companies create, deliver and capture value.
The students will learn about the nine building blocks in creating and
implementing a business model. These blocks include Customer Segments,
Value Propositions, Channels, Customer Relationship, Revenue Streams, Key
Resources, Key Activities, Key Partnerships and Cost Structure. Further the
students shall understand disruptive innovation as a sensation and strategy
in today's business environment. Lastly, students will develop their own
business model and understand the importance of sustainable. Advisory: BUS
054 Eligibility for ENG 001A or ENG 001AX and REA 054

BUS 114 Entrepreneurship Finance (2.0 Lecture) 2.0 UNITS
Prerequisites: CAP 062B or BUS 021L, or Equivalent Advisory: BUS 054
This course introduces financial thinking, tools, and techniques adapted to
the area of entrepreneurship. Students will be introduced to the theories,
knowledge, and financial tools an entrepreneur needs to start, build, and
harvest a profitable venture. Students will learn how and where to obtain
the financing necessary to launch and develop the venture. Discipline financial
management practices are vital to a venture's operation.

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.

COMPUTER APPLICATIONS (CAP)

CAP 010A Learning the Keyboard (1.0 Lab) 1.0 UNIT
Advisory: Eligibility for ENG 001A and REA 054. 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.

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 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 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 045A Introductory Microsoft Project (1.0 Lecture) 1.0 UNIT
Students learn the basic features of Microsoft Project in order to plan and
manage the tasks, resources, scope, and time for a project. Eligibility for ENG
001A and READ 054 Advisory CAP 070

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.
<table>
<thead>
<tr>
<th>COURSES</th>
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</thead>
<tbody>
<tr>
<td>CAP 046E Intermediate Microsoft Powerpoint (1.0 Lecture)</td>
</tr>
<tr>
<td>Advisory: CAP 010A and CAP 046D This course covers advanced features of PowerPoint. Students integrate PowerPoint with MS Word, Excel, and web pages. They learn to customize a slide show and other advanced features.</td>
</tr>
<tr>
<td>CAP 047 Visio for Visionaries (2.0 Lecture)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>CAP 062B An Introduction to Microsoft Excel (1.0 Lecture)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>CAP 070 Using MS Windows (1.0 Lecture)</td>
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<tr>
<td>This course introduces students to the current version of the Windows operating system and helps students acquire fundamental computer skills including file management, Internet connectivity &amp;security, network file sharing, hardware management, troubleshooting and customizing/personalizing Windows settings. Eligibility for ENG 001A and REA 054</td>
</tr>
<tr>
<td>CAP 071E Microsoft Outlook (1.0 Lecture)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>CAP 081B Introduction to Microsoft Access (1.0 Lecture)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>CAP 084 Oracle: Check It Out!</td>
</tr>
<tr>
<td>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.</td>
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<tr>
<td>CAP 088B Intermediate Javascript for the Web (2.0 Lecture)</td>
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<tr>
<td>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.</td>
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<tr>
<td>CAP 092A Fundamentals of Web 2.0 &amp; Cloud Technologies (2.0 Lecture)</td>
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<tr>
<td>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.</td>
</tr>
<tr>
<td>CAP 092B Google Apps for Personal Productivity (2.0 Lecture)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>CAP 097A Creating Web Pages - Course 1 (1.0 Lecture)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>CAP 098B Web Pages Using XML - Course 2</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>CAP 100 Learning the Keyboard</td>
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<tr>
<td>This non credit course is designed for anyone who wants to learn the &quot;touch&quot; system of keyboarding on the computer. Proper techniques of keyboarding are emphasized to develop speed and accuracy.</td>
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<tr>
<td>CAP 101 Computers Simplified for Beginning Learners</td>
</tr>
<tr>
<td>This noncredit course takes students through the basics of using a computer to perform essential tasks for workforce and academic survival. Highlights of the course include: operating system basics, applications software, e-mail basics, computer peripherals, and Internet basics.</td>
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**CHILD DEVELOPMENT (CHD)**

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<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td>CHD 001 Child Growth and Development</td>
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<tr>
<td>3.0 UNITS</td>
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<tr>
<td>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. This course fulfills requirements as a core course for Title 22 licensing and the Child Development Permit Matrix.</td>
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<tr>
<td>CHD 002 Child, Family, and Community</td>
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<tr>
<td>3.0 UNITS</td>
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<tr>
<td>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.</td>
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<tr>
<td>CHD 003 Language and Literacy for the Young Child</td>
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<tr>
<td>3.0 UNITS</td>
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<tr>
<td>This course explores the development of language in young children and how to apply that understanding in developmentally, linguistically and culturally appropriate ways in the early childhood classroom. Students learn how to promote language development and literate behaviors among emerging multilingual children through a variety of materials and experiences.</td>
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<tr>
<td>CHD 004 Cognitive Experiences for Children</td>
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<td>3.0 UNITS</td>
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<tr>
<td>Will examine theories of cognitive development through research review and observation. Students will use information to plan curriculum.</td>
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<tr>
<td>CHD 005 Music and Movement</td>
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<tr>
<td>3.0 UNITS</td>
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<tr>
<td>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 ENG 001A and REA 054</td>
</tr>
<tr>
<td>CHD 006 Supervision and Administration</td>
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<tr>
<td>3.0 UNITS</td>
</tr>
<tr>
<td>Prerequisite:CHD 001, CHD 002, and CHD 010. This course is an introduction to the administration procedures in early care and education programs. Topics include licensing requirements, administrative structures</td>
</tr>
</tbody>
</table>

**Mission College Pathways**

7
and governance, budgeting, program operation, and quality improvement techniques. This course fulfills the State of California licensing requirements and partially fulfills requirements for Program Director or Site Supervisor Permits.

**CHD 007 Management Issues in Child Development Programs (3.0 Lecture) 3.0 UNITS**
Prerequisite CHD 006 This course is an in-depth study of effective application of personnel management and leadership procedures in early childhood programs. Topics include the unique goals, roles and responsibilities of the director or supervisor of the children's center. The course includes staff-administrator relationships, staff development and in-service training, and it focuses on effective problem solving techniques, decision making models, meetings, performance appraisals, and assessment of individual leadership styles. This course fulfills requirements for the State of California licensing policies and procedures from Title 22. This course also fulfills the requirements for the Site Supervisor and Program Director Child Development Permit.

**CHD 008A Practicum A (1.5 Lecture/2.0 Lab) 3.5 UNITS**
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 010 Principles and Practices in Education (3.0 Lecture) 3.0 UNITS**
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) 3.0 UNITS**
Prerequisite CHD 001 and CHD 002 This course is an examination of the development of social identities and the theoretical and practical implications of oppression and privilege as they apply to young children, families, programs, classrooms and teaching. Various classroom strategies are explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. This course includes self-examination and reflection on issues to social identity, stereotypes and bias, social and educational access, media and schooling.

**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**
Prerequisite: CHD 001 Prerequisite: CHD 002 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.

**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 prenatal through the early childhood years. This course is an extension of CHD 001, Child Growth and Development, in the exploration of the development of the very young child. This course 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 or certificate in special education or who desire to work with children with special needs and their families. The course introduces atypical 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 skill in the child's play and play environment. This course fulfills the requirements for the Site Supervisor or Program Director Permit requirements.

**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 Prerequisite: MAT 000C or MAT 00CM or High School Algebra II, or equivalent. 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**
Prerequisite: CHM 002 or High School Chemistry with a "B" or better AND Prerequisite: MAT 000C or MAT 00CM or High School Algebra II or equivalent Chemistry 001AH is the honors version of the first of a two-
semester sequence in general inorganic chemistry designed for science majors and those seeking entry to medicine and other professional programs in the health sciences. Topics include atomic structure, theories of chemical bonding, nomenclature, stoichiometry, thermochemistry, gas laws, and the properties of solids, liquids, gases, and solutions. Students cannot get credit for both CHEM 001A and CHEM 001AH. Enrollment in the Honors Transfer Project is required.

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
Prerequisite: CHM 001A or Prerequisite: CHM 001AH 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 High School Algebra II, or equivalent. This is a preprofessional chemistry course designed for students planning a career in science-related fields and to prepare students for CHM 001A.

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

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
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. Students cannot get credit for both CHEM 012A and CHEM 012AH. Enrollment in the Honors Transfer Project is required.

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
Prerequisite: CHM 012A or CHM 012AH 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 CHEM 012B and CHEM 012BH. Enrollment in the Honors Transfer Project is required.

CHM 030A Fundamentals of Chemistry (3.0 Lecture/1.0 Lab) 4.0 UNITS
Prerequisite: MAT 903 or High School Algebra I, or equivalent 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 060 Survey of General, Organic, and Biological Chemistry (3.0 Lecture/1.0 Lab) 4.0 UNITS
Prerequisite: MAT 903 or High School Algebra I, or equivalent. OR Prerequisite: MAT 903M or any higher math. CHM 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 001 Introduction to Computer Science and Technology (3.0 Lecture/1.0 Lab) 4.0 UNITS
This course is an introduction to the concepts of computer science and information technology. It covers computer architecture, the Internet and networking, and basic programming and data manipulation. Students develop a practical, realistic understanding of computer science and information technology. This course is recommended for students in any major who want to learn about computers and programming.

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 and Assembly Language (3.0 Lecture/1.0 Lab) 4.0 UNITS
Advisory: CIS 037 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 Intro 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 (3.0 Lecture/1.0 Lab)** 4.0 UNITS
This is an introductory course in the Linux operating system. Students learn the basics of Linux commands and utilities, including files, editors and scripting. This course covers the Unix Bash language scripting including variables, expressions, control structure, files, subroutines, and the "awk" and "sed" commands.

**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 (3.0 Lecture/1.0 Lab)** 4.0 UNITS
Advisory: CIS 045 This is a 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. It covers file systems, file sharing, mail server, LDAP, DNS, fire wall, web server and network security.

**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, fire wall, web server and network security.

**CIS 051 Introduction to Data Analysis (3.0 Lecture/1.0 Lab)** 4.0 UNITS
Advisory: CIS 007 This is an introductory course on data analysis. It provides a foundation for understanding data analysis principles, tools and applications. Topics include data loading and storage, data manipulation, data cleaning and preparation, data wrangling, plotting, visualization and analysis. Students will use Python programming language and Python libraries such as NumPy, Pandas, Matplotlib in the course.

**CIS 055 Database Management Systems I (2.5 Lecture/0.5 Lab)** 3.0 UNITS
Advisory: CIS 001 This course is the first of two courses that covers the current, classical database systems, database design, and architecture. Entity-relationship and enhanced entity models. Relational model, normalization techniques, emerging standard of SQL query language, XML, embedded, and dynamic SQL. Introduces students to widely used database systems such as Oracle, Microsoft SQL server and MySQL. Students will work in groups to implement and design a commercial database application project.

**CIS 056 Database Management Systems II (2.5 Lecture/0.5 Lab)** 3.0 UNITS
Advisory: CIS 055 This course is the second of two courses that covers database management and SQL programing, stored procedures, functions, packages, and database triggers, relational database systems, object-oriented data model, database trends, web database topics, architectures, introduction to interface languages. Students will work in groups to implement a commercial database application project.

**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 082 Ruby and Ruby on Rails (3.0 Lecture/1.0 Lab)** 4.0 UNITS
This is 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 or High School Algebra I, or equivalent. 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 the CompTIA A+ certification. It also provides a learning pathway to Cisco CCNA. Hands-on lab activities are an essential element of the course. The Virtual Laptop and Virtual Desktop are stand-alone tools designed to supplement classroom learning and provide an interactive "hands-on" experience in learning environments with limited physical equipment. The use of Packet Tracer supports alignment with the new CompTIA A+ certification objectives.

**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 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.

### ECONOMICS (ECN)

**ECN 001A** Principles of Macroeconomics (3.0 Lecture/1.0 Lab) 4.0 UNITS
Prerequisite: MAT 903 or High School Algebra I, or equivalent. Advisory: MAT 000C or High School Algebra II, or equivalent. 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 001B** Principles of Microeconomics (3.0 Lecture/1.0 Lab) 4.0 UNITS
Advisory: MAT 000C or High School Algebra II, or equivalent. Prerequisite: MAT 903 or High School Algebra I, or equivalent. 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 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.

### 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: students should have basic arithmetic skills.

**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 Prerequisite: FDR 055 Prerequisite: FDR 058 Prerequisite: FDR 075 Prerequisite: INF 050 Corequisite: FDR 052S Advisory: FDR 059 Students engage in and plan an actual cafeteria style lunch operation. Action station 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 Canvas and retrieving the posted information prior to the first day of class.

**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 Prerequisite: 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
This course covers the scope of food and beverage control systems used in small and large food and beverage operation. Pre-cost control, inventory systems, cost analysis, food and beverage cost percentages and profit and loss statement are covered. Also included is the cycle of product handling; federal, state and local laws and requirements and licensing as they apply to the Hospitality Industry. Advisory: FDR 051 Advisory: students should have basic arithmetic skills.

**FDR 059** Hospitality Supervision and Leadership (4.0 Lecture) 4.0 UNITS
This course approaches hospitality supervision from two different perspectives. The first is the overall theory of management including an industry overview, traditional management theories and general systems
thinking; and the second is from the perspective of managing operational control functions. Advisory: students should have basic arithmetic skills.

FDR 060A Food Service Facilities Planning (3.0 Lecture) 3.0 UNITS
Course designed to familiarize student with complexities of planning, designing and equiping 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 catering 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
This course covers the principles of menu planning for commercial, institutional, and industrial food service operations. Since the menu is the controlling document that affects every area of operation in the food service facility, all aspects of planning and execution are visited. This is a certificate course sponsored by the National Restaurant Association Educational Foundation. Advisory: students should have basic arithmetic skills.

FDR 076 Sales and Marketing in the Hospitality Industry (3.0 Lecture) 3.0 UNITS
This course provides students with the knowledge and practical experiences to understand and develop short term and strategic operating marketing plans for food and lodging segments of the industry. Marketing is emphasized as a management philosophy that guides the design and delivery of guest services. Advisory: students should have basic arithmetic skills.

FDR 078 Advanced Baking and Pastry (1.0 Lecture/1.0 Lab) 2.0 UNITS
Advisory: FDR 073, FDR 074. This is class 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 bacoaking 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
This course provides an in-depth look at the professional caterer, from prospecting and initial client contact to executing the event and follow-up. Students learn about the physical and mental challenges of managing a full service catering operation. A lab fee and uniform requirements apply. Advisory: students should have basic arithmetic skills.

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 or High School Algebra I, or equivalent. This course provides a general introduction to the field of Fire Protection, including: career opportunities; philosophy and history of fire protection; the organization and function of fire protection services; and a basic introduction to the chemistry and physics of fire and fire control techniques, with an introduction to fireground hazards, strategy, and tactics.

FPT 052 Fire Behavior and Combustion (3.0 Lecture) 3.0 UNITS
Advisory: MAT 903 or High School Algebra I, or equivalent. Advisory: FPT 051 This course focuses on the theory and fundamentals of how and why fires start and spread, including an in-depth study of fire chemistry, fire behavior and physics, and fundamentals of fire control methods, including fire characteristics of materials and compounds and the use of extinguishing agents and fire control techniques.

FPT 053 Fire Protection Systems (3.0 Lecture) 3.0 UNITS
Advisory: FPT 051 or FPT 052 This course focuses on fire protection systems including: utilization of portable fire extinguishing equipment including inspection and maintenance procedures; fundamentals of design and operation of various types of sprinkler systems; fundamentals of design and operation of special hazard protection systems and associated fire detection and signaling systems; water supply requirements for standpipe, sprinkler and other fire protection systems.

FPT 054 Building Construction for Fire Protection (3.0 Lecture) 3.0 UNITS
Advisory: MAT 903 or High School Algebra I, or equivalent. Advisory: FPT 051 This course provides instruction regarding the 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; and fire protection requirements for buildings, special occupancy areas and open areas.

**FPT 055** Fire Prevention Technology (3.0 Lecture) 3.0 UNITS
Advisory: FPT 051 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 051 and FPT 052 Advisory: MAT 903 or High School Algebra I, or equivalent This course provides an in-depth study of materials presenting special problems in firefighting operations, including the identification of hazardous materials and the handling procedures utilized for emergencies, and enables first responders to recognize a hazardous materials incident and implement actions to protect themselves, the public, the environment and nearby property while responding in a defensive fashion. Students may obtain a First Responder Operations Certification from California Specialized Training Institute (CSTI) or State Fire Training. Additional costs will be assessed for certification.

**FPT 057** Rescue Practices (2.0 Lecture/1.0 Lab) 3.0 UNITS
Advisory: FPT 051 This course is designed to prepare the student to evaluate basic rescue situations and establish a plan of action to safely eliminate the hazard and/or remove the victim(s) taking proper precautions for possible injuries.

**FPT 060** Wildland Fire Suppression (1.5 Lecture/1.5 Lab) 3.0 UNITS
Advisory: FPT 051 This course focuses on the organizational skills necessary for Wildland Fire Suppression. The course is designed to provide the Student with the basic knowledge and skills needed prior to emergency response and preparation for the 2019 Firefighter 1 Requirement for Wildland Fire Suppression. Certifications to be announced and optional are: S190 Intro to Wildland Fire Behavior, and S130 Firefighter Training; additional costs will be assessed for certifications. The minimum safety equipment required for the field evolutions consists of an OSHA-approved helmet with chin strap # 44 impact goggles and leather gloves.

**FPT 061** Fundamentals of Fire Suppression (1.5 Lecture/1.5 Lab) 3.0 UNITS
Advisory: FPT 051 This course provides instruction in: manipulative skill and technical training in the identification and operation of fire service tools and equipment; the tying and employment of fire service knots and hitches; identification, actuation and employment of portable fire service extinguishers; donning and testing of protective breathing apparatus; basic hose evolutions; laying of multiple lines; operating hose lines above and below street level; fire service ladder evolutions; and basic salvage and overhaul techniques.

**FPT 065** Emergency Medical Technician Theory (6.0 Lecture) 6.0 UNITS
Co-Requisite: FPT 065C and FPT 065L Prerequisite: HOC 002 or American Heart Association BLS for the Healthcare Provider or equivalent. This EMT training program is designed to prepare individuals to render pre-hospital basic life support at the scene of an emergency, during transport of the sick and injured, or during inter-facility transfer within an organized EMS system. This course meets all the theory requirements for certification as an Emergency Medical Technician as specified in the regulations approved by the State of California Emergency Medical Services Authority in July 2017. Students must also successfully complete FPT 065L and FPT 065C concurrently with FPT 065 to be eligible for certification.

**FPT 065C** Emergency Medical Technician Clinical Experience (0.5 Lab) 0.5 UNITS
Co-Requisite: FPT 065 and FPT 065L Prerequisite: HOC 002 or American Heart Association BLS for the Healthcare Provider or equivalent. The purpose of this EMT training course is to prepare individuals to render pre-hospital basic life support at the scene of an emergency, during transport of the sick and injured, or during inter-facility transfer within an organized EMS system. This course meets all the clinical requirements for certification as an Emergency Medical Technician as specified in the regulations approved by the State of California Emergency Medical Services Authority in July 2017. This course allows the student to experience "hands-on" skills while caring for patients under the supervision of a preceptor. The student needs to show proof of a current Tuberculosis (TB) skin test.

**FPT 065L** Emergency Medical Technician Laboratory (1.5 Lab) 1.5 UNITS
Co-Requisite: FPT 065 and FPT 065C Prerequisite: HOC 002 or American Heart Association BLS for the Healthcare Provider or equivalent. Advisory: MAT 903 or High School Algebra I, or equivalent. The purpose of this EM training course is to prepare individuals to render pre-hospital basic life support at the scene of an emergency, during transport of the sick and injured, or during inter-facility transfer within an organized EMS system. This course meets all the skills-laboratory requirements at the mandated instructor: student ratio of 1:10 for certification as an Emergency Medical Technician as specified in the regulations approved by the State of California Emergency Medical Services Authority in July 2017. 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.

**FPT 111** Fire Fighter I Academy (2.5 Lecture/7.0 Lab) 9.5 UNITS
Prerequisite: Students must be part of the South Bay Regional Public Safety Training Consortium ; Prerequisite: AHL 011 or Current CPR card (either American Heart Association/BLS Healthcare Provider level or American Red Cross/Professional Rescuer medical Clearance Form or Current Medical Responder card (preferred) and Prerequisite: AHO 004 or current First Aid or Medic First Aid card. This academy includes instruction on basic firefighting skills, laws and regulations affecting the fire service. The course provides the student with knowledge and skills to safely perform, under minimal supervision, essential and advanced fire ground tasks, basic rescue, basic fire prevention and fire investigation task and to use, inspect, and maintain firefighting and rescue equipment.

**FPT 112** Fire Continued Professional Training (2.5 Lab) 2.5 UNITS
Prerequisite: Students must be part of the South Bay Regional Public Safety Training Consortium, and Prerequisite: FPT 110 or Proof of graduation from a California State Fire Academy. This course provides training recommended by the California State Fire Marshall to keep students current with new equipment, policies, laws and skills needed to be prepared in the line of duty. It also provides the student with command awareness and the control techniques required to effectively manage a fire fighter emergency event should the situation occur.

**FPT 180** Emergency Medical Technician-I Refresher Course (2.0 Lecture) 2.0 UNITS
Prerequisite: HOC 002 or American Heart Association BLS for the Healthcare Provider or equivalent. Advisory: MAT 903 or High School Algebra I, or equivalent. The purpose of this EMT Refresher Course is to review topics to prepare individuals to render prehospital basic life support at the scene of an emergency, during transport of the sick and injured, or during inter-facility transfer within an organized EMS system. This course meets all the refresher course requirements for recertification as an Emergency Medical Technician as specified in the regulations approved by the State of California Emergency Medical Services Authority in July 2017.

**GRAPHIC DESIGN (GDS)**

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<td>GDS 011 The History of Modern Design (3.0 Lecture)</td>
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develop an understanding of the evolution and role of the Modern Movement and how it affects society. The students will also learn about the evaluation criteria of two-dimensional and three dimensional design while examining examples of architecture, industrial, graphic, fashion and interior design. The students will be introduced to influential Twentieth Century design figures and their work.

**GDS 012  History of Photography (3.0 Lecture)  3.0 UNITS**
This course surveys the history of photography from its origins to the present. Students examine the practice of photography as an art form and as a form of visual communication in historical, socio-political and cultural contexts.

**GDS 015  Photo-Media and Social Change (3.0 Lecture)  3.0 UNITS**
This course examines the impact of a wide range of new photographic genres on global social change. This includes analysis of the historical and social context of photojournalism, art photography, and internet multi-media and their influence on culture.

**GDS 035  Graphic Design I (2.0 Lecture/1.0 Lab)  3.0 UNITS**
In this introductory course, students learn about the practical, artistic, and technical sides of Graphic Design. Students also begin to gain the necessary critical thinking and technical skills required across the various professional careers within Graphic Design. Students are evaluated through a series of hands-on projects. Multiple software packages within Adobe Creative Cloud (CC) are explored.

**GDS 039A  3D Animation and Modeling (2.0 Lecture/1.0 Lab)  3.0 UNITS**
Advisory: GDS 064 This is an introductory course in learning to create 3D animation. Students learn creative techniques using 3D modeling and animation software, including modeling, rigging, texture mapping, lighting effects and animation. Students produce 3D animation projects. Students also analyze the historical and contemporary trends in computer animation films.

**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 and Development 1 (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 continuation 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 ENG 001A and REA 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  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 060  Page Layout (2.0 Lecture / 1.0 Lab)  3.0 UNITS**
Advisory: GDS 035 This introductory level course in page layout and design uses Adobe InDesign software. Students assemble a variety of 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 062  Digital Illustration with Adobe Illustrator (2.0 Lecture/1.0 Lab)  3.0 UNITS**
This is a beginning digital illustration course for graphic designers, illustrators and artists. Students learn how to create original illustrations and designs using Adobe Illustrator. Basic art principles are explored.

**GDS 063  Typography (2.0 Lecture/1.0 Lab)  3.0 UNITS**
Advisory: GDS 035 and GDS 060 This is a course for graphic designers on the study and demonstration of letterforms and typography. Practical design projects examine the interaction of form and message, with emphasis on fundamental theory, i.e., elements, principles, and attributes of typographical design. Students may create work for inclusion in a portfolio. This course requires both non-digital attention to hands-on craftsmanship and basic knowledge of Adobe CC software.

**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 Graphic Design II (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: GDS 035, GDS 060, GDS 063 This mid-level design course will develop the students’ confidence and competence in form and concept for visual communication. Projects emphasize the creation of professional level pieces using industry standard techniques and best practices. This course assumes competency in Adobe Photoshop, Illustrator, and InDesign.

GDS 068 Portfolio Production Studio (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: GDS 062 and GDS 064 In this course students create original portfolio content necessary for graduation and for procuring employment. Students develop and showcase their individual design/illustration approach, demonstrated via intermediate to advanced-level creative projects. Visual communication principles, processes and methodology are explored in lecture and in lab. Previous experience with Adobe Photoshop and Adobe Illustrator is advised.

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, as well as UX planning documents such as wireframes and personas. Students learn many of the principles, processes, and techniques used to develop effective user interfaces.

GDS 071 Intermediate Multimedia Design  3.0 UNITS
Advisory: ART 033A or ART 034A, and GDES 046, GDES 074, or GDES 075. This is an intermediate level course focusing on developing creative design skills that are required to conceptualize and model an interactive experience. The course will cover intermediate level principles of organizing information effectively and creating visually compelling interfaces. Principles involved in the production of interactive DVD’s and CD-ROM’s, video, web sites, and other media will be addressed. Pass/No Pass Option.

GDS 073 Digital Photography (2.0 Lecture/1.0 Lab)  3.0 UNITS
This introductory course focuses on photography as a creative medium. Emphasis is placed on aesthetics, composition, content and the technical and creative design skills required to create effective digital images using digital cameras and a variety of software packages. Students also critically evaluate photographic images according to the principles of photographic theory. A basic understanding of Adobe Photoshop and computer system operation is required. Students must have access to a digital camera.

GDS 074 Digital Video Production With Final Cut Pro (2.0 Lecture/1.0 Lab)  3.0 UNITS
This introductory course focuses on video production and related hardware and software. The students develop an understanding of video production and post-production in a series of hands on exercises. Camera operation, video editing and audio production techniques, special effects, the basic principles 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 are required.

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 085 Professional Portfolio and Design Career Preparation (2.0 Lecture/1.0 Lab)  2.0 UNITS
Advisory: ENG 001A Advisory: GDS 035, GDS 055A This capstone course focuses on assembling a professional portfolio, as well as preparing for work as a freelance designer. The course includes portfolio development using projects created in prior art and design classes, self-promotional and interviewing techniques, and the process of working as an independent contractor. The students also interact with professionals in the field of design across multiple disciplines.

GDS 089 Javascript 1 (2.0 Lecture/1.0 Lab)  3.0 UNITS
Advisory: GDS 045 This is an introductory course on using 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.

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 001A Health Occupations Bootcamp (2.0 Lecture)  2.0 UNITS
Advisory: Basic arithmetic skills This course is designed to prepare the potential Health Occupations student for entry into and successful completion of a Health Occupations program. The course content focuses on competencies expected upon entry, study skills, test-taking strategies, stress management, mathematics for dosage calculation, critical thinking, critical reasoning, and introduction to the nursing process.

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
The course is designed to assist allied health workers in assessing and developing plans for emergency and disaster situations in the home, community agency or clinical setting. Note: The student must purchase and read the textbook prior to the start of the class.

**HOC 004** First Aid and CPR (0.5 Lecture) 0.5 UNITS
The American Heart Association (HeartSavers) CPR/AED and First Aid course is a training program to prepare individuals to respond to life-threatening emergencies and to injuries and sudden illness that may arise in the workplace and in the community. This course covers CPR for adults, children and infants and the use of AEDs (automated external defibrillators), and has scenarios to facilitate discussion of appropriate care in first aid emergencies. Successful participants receive an American Heart Association Adult/Child/Infant CPR, AED and First-Aid certificate.

**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** Community Health Problems (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. Advisory: student should have basic arithmetic skills.

**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** 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 012** Community Health Worker Internship (1.0 Lecture / 2.0 Arranged Lab) 3.0 UNITS
Prerequisite: HOC 005 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.

**HOC 019A** Nursing Assistant Fundamentals (3.5 Lecture/0.5 Lab) 4.0 UNITS
Co-Requisite: HOC 019B Advisory: HOC 004 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.

**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
Advisory: Students should have basic arithmetic skills. 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
Advisory: HOC 001, HOC 001A, HOC 905 or Advisory: HOC 001, HOC 001A, MAT 903. This course helps acquaint incoming vocational nursing and psychiatric technician students with Mission College, available student services, and the Health Occupations career tracks. It covers college orientation and information regarding Health Occupations policies and procedures, study skills, assignments, time management, and career opportunities.

**HOC 022** Patient Nursing Care Fundamentals (1.5 Lecture) 1.5 UNITS
Advisory: HOC 001, HOC 001A, ENG 001A, HOC 003, HOC 905, MAT 903 or High School Algebra I or equivalent. Corequisite: HOC 020, HOC 023A, HOC 023B, HOC 023C, HOC 024, HOC 025A, HOC 025B, HOC 026A, HOC 026B. Prerequisite: BIO 022, BIO 047, BIO 048, HOC 002. This is a foundation course in which beginning Health Occupations students gain knowledge of fundamental principles and techniques necessary to provide basic nursing care to patients. Ethical and legal responsibilities of the vocational nurse and psychiatric technician are explored. Students utilize the nursing process and therapeutic communication while gaining competence in performing basic nursing procedures and skills, including administration of medications and enemas; performing physical assessments of body systems; collecting and ensuring integrity of diagnostic specimens; insertion of nasogastric tube; enteral feedings; airway suctioning; tracheostomy care; wound assessment and care, including application of dressings; as well as documentation of assessment findings, care provided and patient's responses.

**HOC 023A** Beg. Medical-Surgical Nursing Theory (2.5 Lecture) 2.5 UNITS
Corequisite: HOC 022, HOC 023B, HOC 023C, HOC 024, HOC 025A, HOC 025B, HOC 026A, HOC 026B, HOC 027, HOC 028, PSY 001 or PSY 001H, PSY 012. This course focuses on beginning level nursing care and interventions for patients 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 musculoskeletal, neurological, neurosensory and reproductive systems. Includes six hours of related pharmacology content.

**HOC 023B** Beg. Cognitive Disabilities - Mental Health Theory (1.0 Lecture) 1.0 UNIT
Advisory: AHL 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I or equivalent. Corequisite: HOC 022, HOC 023A, HOC 023C, HOC 024, HOC 025A, HOC 025B, HOC 026A, HOC 026B, HOC 027, PSY 001 or PSY 001H, PSY 012. This
beginning course is designed to present theoretical concepts of mental health disorders, legal and ethical principles, and approaches to assist the vocational nursing and psychiatric technician students to identify and understand therapeutic communication skills, psycho-pharmacological concepts and assessment skills in caring for persons with psychiatric disorders. Among these skills are objective and subjective observations and data collection through assessment of strengths and abnormalities in function and behavior across the lifespan. Includes two hours of related pharmacology content.

**HOC 023C**  
Beg. Cognitive Disabilities - - Developmental Disability Theory (1.0 Lecture)  
1.0 UNIT  
Advisory: AHL 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I, or equivalent. Corequisite: HOC 022, HOC 023A, HOC 023B, HOC 024, HOC 025B, HOC 026B, HOC 027, PSY 012. This is a beginning course in which the causes of intellectual and development disorders are explored. Psychiatric Technician students learn to perform focused behavioral and functional assessments and plan behavioral modification interventions for enhancing quality of life within areas of interpersonal relations, social inclusion, physical well-being and personal development for clients with intelligence and developmental disorders. Includes two hours of related pharmacology content.

**HOC 024**  
Pharmacology A (1.0 Lecture)  
1.0 UNIT  
Advisory: AHL 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I, or equivalent. Corequisite: HOC 022, HOC 023A, HOC 023B, HOC 023C, HOC 025A, HOC 025B, HOC 026A, HOC 026B, HOC 027, PSY 001 or PSY 001H, PSY 012. This beginning course in pharmacology presents the vocational nursing and psychiatric technician student with the basic principles of pharmacology. The emphasis is on defining pharmacological agents, the use of reference books, and the nursing implications in pharmacological therapy. The course covers the uses of pharmacological agents, precautions for use, side effects, medication interactions, contraindications, and patient teaching for safe and proper pharmacological agent use for patients with disorders of the musculoskeletal, neurological, neurosensory, and reproductive systems.

**HOC 025A**  
Fundamentals Skills/Simulation Lab (1.0 Lab)  
1.0 UNIT  
Advisory: AHL 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I, or equivalent. Corequisite: HOC 022, HOC 023A, HOC 023B, HOC 023C, HOC 024, HOC 027, PSY 001 or PSY 001H. This course allows the beginning 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 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  
Advisory: AHL 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I, or equivalent. Corequisite: HOC 022, HOC 023A, HOC 023B, HOC 023C, HOC 024, HOC 026B, HOC 027. This course allows the beginning psychiatric technician 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 musculoskeletal, neurological, neurosensory, reproductive and mental health disorders in inpatient and outpatient settings.

**HOC 026A**  
Beg. Clinical Practicum (5.0 Lab)  
5.0 UNITS  
Advisory: AHL 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I, or equivalent. Corequisite: HOC 022, HOC 023A, HOC 023B, HOC 024, HOC 025A, HOC 025B, PSY 001 or PSY 001H. This is a foundation course which provides the Vocational Nursing student clinical experiences during which they integrate standards of professional practice, theoretical principles of nursing, therapeutic communication, nursing process and basic nursing skills during supervised care to patients with acute or chronic medical-surgical concerns and mental illnesses. Students spend approximately seventeen hours each week in community agencies.

**HOC 026B**  
Beg. Clinical Practicum (5.0 Lab)  
5.0 UNITS  
Advisory: AHL 001A, HOC 002, HOC 905, MAT 903 or High School Algebra I, or equivalent. Corequisite: HOC 022, HOC 023A; HOC 023B, HOC 023C, HOC 024, HOC 025B, HOC 027, PSY 012. This is a foundation course which provides the beginning psychiatric technician student clinical experiences during which they integrate research-based standards of professional practice, theoretic principles of nursing science, therapeutic communication, nursing process and basic nursing skills during supervised care to patients/clients with acute or chronic medical-surgical concerns, intellectual, developmental and mental health disabilities and disorders throughout the lifespan. Students spend approximately seventeen hours each week in community health care agencies.

**HOC 027**  
Nursing Process and Communication (2.0 Lecture)  
2.0 UNITS  
Advisory: AHL 001A, HOC 001, HOC 905, MAT 903 or High School Algebra I, or equivalent. Co-requisite: HOC 022, HOC 023A, HOC 023B, HOC 023C, HOC 024, HOC 025A, HOC 025B, HOC 026A, HOC 026B, PSY 001 or PSY 001H. This course is designed to provide the beginning health care practitioner with an introduction to the framework of nursing process and basic communication concepts. Both are essential to development of problem-solving and critical thinking abilities as well as the formation of trusting interpersonal relationships necessary to meet individualized needs of the client, family, and community. 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. Grade Only. (CSU)

**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. Grade Only. (CSU)

**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. Grade Only. (CSU)

**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. Grade Only. (CSU)

**HOC 033C**  
Int. Cognitive Disabilities - Mental Health Theory (2.5 Lecture)  
2.5 UNITS  
This intermediate continuity 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. Grade Only. (CSU)

**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
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<th>COURSES</th>
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<tr>
<td><strong>HOC 034</strong> Pharmacology B (1.0 Lecture)</td>
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<tr>
<td>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. Grade Only. (CSU)</td>
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| **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, mental health disorders and developmental disabilities 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, and 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 patients with medical-surgical, mental health disorders in inpatient and outpatient settings. |

| **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 disorders in inpatient and outpatient settings. |

| **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. Grade Only. (CSU) |

| **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. Grade Only. (CSU) |

| **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. Grade Only. (CSU) |

| **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. Grade Only. (CSU) |

| **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. Grade Only. (CSU) |

| **HOC 045A** Advanced Skills/Simulation Lab (1.0 Lab) | 1.0 UNIT |
| Co-requisite: HOC 042, HOC 043A, HOC 043B, HOC 044, HOC 047, PSY 012 |
| 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 health, 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. |

| **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. (CSU) |

| **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
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
Prerequisite: HOC 050A Corequisite: HOC 052 Students must pass with 75% or better. Corequisite: HOC 054 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
Prerequisite: HOC 050A Corequisite: HOC 051 Students must pass with 75% or better. Corequisite: HOC 053 Students must pass with 75% or better. Corequisite: HOC 054 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
Co-Requisite: HOC 051, HOC 052, HOC 054 Prerequisite: HOC 050, HOC 050A 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
Prerequisite: HOC 050 Students must pass with 75% or better. Prerequisite: HOC 050A Corequisite: HOC 051 Students must pass with 75% or better. Corequisite: HOC 052 Students must pass with 75% or better. Corequisite: HOC 053 Students must pass with 75% or better. 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
Prerequisite: HOC 050 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Prerequisite: HOC 050A Students must pass the course with a grade of 75% or higher to continue on to the next semester. Corequisite: HOC 051 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Corequisite: HOC 052 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Corequisite: HOC 053 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Corequisite: HOC 054 Students must pass the course with a grade of 75% or higher to continue on to the next semester.

HOC 061  Advanced Medical-Surgical/Leadership Nursing (3.0 Lecture)  3.0 UNITS
Prerequisite: HOC 050 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Prerequisite: HOC 050A Students must pass the course with a grade of 75% or higher to continue on to the next semester. Corequisite: HOC 051 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Corequisite: HOC 052 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Corequisite: HOC 053 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Corequisite: HOC 054 Students must pass the course with a grade of 75% or higher to continue on to the next semester.

HOC 062  Leadership and Ethics (1.0 Lecture)  1.0 UNIT
Prerequisite: HOC 050 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Prerequisite: HOC 050A Students must pass the course with a grade of 75% or higher to continue on to the next semester. Prerequisite: HOC 051 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Prerequisite: HOC 052 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Prerequisite: HOC 053 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Prerequisite: HOC 054 Students must pass the course with a grade of 75% or higher to continue on to the next semester.

HOC 064  Advanced Clinical Practicum (5.0 Lab)  5.0 UNITS
Prerequisite: HOC 050 Students must pass the course with a grade of 75% or higher. Prerequisite: HOC 050A Prerequisite: HOC 051 Students must pass with a grade of 75% or higher. Prerequisite: HOC 052 Prerequisite: HOC 053 Prerequisite: HOC 054 Prerequisite: HOC 053 Students must pass the course with a grade of 75% or higher. Corequisite: HOC 060 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Corequisite: HOC 061 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Corequisite: HOC 062 Students must pass the course with a grade of 75% or higher to continue on to the next semester. Corequisite: HOC 063 Students must pass the course with a grade of 75% or higher to continue on to the next semester.

HOC 090  Math for Health Occupations (1.0 Lecture)  1.0 UNIT
Advisory: MAT 903 or High School Algebra, or equivalent. 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. Students become competent with performing accurate calculations for the delivery of medications.

INSTITUTIONAL FOODS (INF)

INF 050  Sanitation and Safety (2.0 Lecture)  2.0 UNITS
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 This course is designed to review the fundamental skills of volleyball and add hitting, blocking and tipping to the players' repertoire. Players work on improving the depth and accuracy of their shots while employing the strategies of the game.

KIN 014C  Volleyball - Intermediate (1.0 Lab)  1.0 UNIT
Advisory: KIN 014B This course is designed to enhance the fundamental skills of volleyball and add jump-serving hitting, swing-blocking, jump-setting and tipping techniques to the players' repertoire. Players work on fine tuning the depth and accuracy of their skills while employing specific, advanced strategies of the game.

KIN 014D  Volleyball - Advanced (1.0 Lab)  1.0 UNIT
Advisory: KIN 014C This course is designed to enhance the fundamental skills of volleyball and add jump-serving hitting, swing-blocking, jump-setting and tipping techniques to the players' repertoire. Players work on fine tuning the depth and accuracy of their skills while employing specific, advanced 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 scrimmages are used to develop the concept of team play.

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

KIN 015D  Basketball - Advanced (1.0 Lab)  1.0 UNIT
Advisory: KIN 015C This course is designed to teach the advanced skills of basketball. Drills are utilized to increase playing ability while scrimmages 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 included to introduce the student to shooting, passing, trapping, and dribbling. Scrimmages 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 and strategies of the game of badminton. The main emphasis of this course is on basic skills, drills and the rules of badminton.

KIN 020B  Badminton: Beginning (1.0 Lab)  1.0 UNIT
Advisory: KIN 020A 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
Advisory: KIN 020B This course introduces the student to the intermediate 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.

KIN 021B  Tennis - Beginning (1.0 Lab)  1.0 UNIT
Advisory: KIN 021A This course is designed to improve the basic fundamentals of tennis. Repetition of these skills will enable the student to improve and progress to the next level. Singles and doubles strategies will become more evident as the player becomes more consistent.

KIN 021C  Tennis - Intermediate (1.0 Lab)  1.0 UNIT
Advisory: KIN 021B This course is designed to develop skill and knowledge of the game of tennis at an intermediate level. Students will develop the use of spin and shot placement. Singles and doubles play are encouraged.

KIN 021D  Tennis - Advanced (1.0 Lab)  1.0 UNIT
Advisory: KIN 021C This course provides the student with the opportunity for further mastery of specific tennis skills and strategies at an advanced level.

KIN 021E  Tennis - Tournament (2.0 Lab)  2.0 UNITS
Advisory: KIN 021D This course is designed for the student 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.
<table>
<thead>
<tr>
<th>COURSES</th>
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</thead>
<tbody>
<tr>
<td><strong>KIN 023A</strong> Archery: Introduction (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>This course is designed to introduce students to the sport of archery. Students learn about safety guidelines, choosing proper equipment, target shooting, scoring, etiquette, and the rules of archery.</td>
</tr>
<tr>
<td><strong>KIN 023B</strong> Archery: Beginning (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>Advisory: KIN 023A 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.</td>
</tr>
<tr>
<td><strong>KIN 024A</strong> Bowling - Introduction (1.0 Lab) 1.5 UNITS</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>KIN 030A</strong> Pilates Matwork - Introduction (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>KIN 030B</strong> Pilates Matwork - Beginning (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>Advisory: KIN 030A This course is the study and practice of Joseph Pilates’ Physicalmind Conditioning Method at a beginning level. Through the study of matwork, the student improves physical well-being including flexibility, strength and breathing techniques.</td>
</tr>
<tr>
<td><strong>KIN 030C</strong> Pilates Matwork - Intermediate (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>KIN 030D</strong> Pilates Matwork - Advanced (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>This course is the study and practice of Joseph Pilates’ Physicalmind Conditioning Method at an advanced level. Prior Pilates practice is strongly recommended.</td>
</tr>
<tr>
<td><strong>KIN 031A</strong> Step Aerobics - Introduction (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>KIN 031B</strong> Step Aerobics - Beginning (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>This course is designed to build upon the skills learned in KIN 031A. Proper step technique, body alignment and basic choreography are taught.</td>
</tr>
<tr>
<td><strong>KIN 032A</strong> Aerobics-Introduction (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>KIN 032B</strong> Aerobics- Beginning (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>KIN 032C</strong> Aerobics - Intermediate (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>KIN 033A</strong> Kickboxing Fitness - Introduction (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>This course introduces the student to kickboxing for aerobic fitness. Basic punches, kicks, and stances are taught. Techniques are taken from karate, tai chi and boxing as ways to improve cardiovascular fitness.</td>
</tr>
<tr>
<td><strong>KIN 033B</strong> Kickboxing Fitness - Beginning (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>Advisory: KIN 033A 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.</td>
</tr>
<tr>
<td><strong>KIN 033C</strong> Kickboxing Fitness-Intermediate (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>This course advances students’ kickboxing skills for aerobic fitness. Basic punches, kicks and stances are taught. Techniques are taken from karate, tai chi and boxing as ways to improve cardiovascular fitness.</td>
</tr>
<tr>
<td><strong>KIN 035A</strong> Weight Training - Introduction (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>KIN 035B</strong> Weight Training - Beginning (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>KIN 035C</strong> Weight Training - Intermediate (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>This course is designed for students at the intermediate level. Topics include advance training techniques such as pyramids and super sets.</td>
</tr>
<tr>
<td><strong>KIN 037A</strong> Cardio-Cross Training - Introduction (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>This course is designed to enhance the student’s cardiovascular condition by providing a variety of methods of training at an introductory level.</td>
</tr>
<tr>
<td><strong>KIN 037B</strong> Cardio-Cross Training - Beginning (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>This course is designed to enhance the student’s cardiovascular condition by providing a variety of methods of training at the beginning level.</td>
</tr>
<tr>
<td><strong>KIN 037C</strong> Cardio-Cross Training - Intermediate (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>This course is designed to enhance the student’s cardiovascular condition by providing a variety of methods of training at an intermediate level.</td>
</tr>
<tr>
<td><strong>KIN 037D</strong> Cardio-Cross Training - Advanced (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>This course is designed to enhance the student’s cardiovascular condition by providing a variety of methods of training at an advanced level.</td>
</tr>
<tr>
<td><strong>KIN 038A</strong> Lower Body Conditioning Introduction (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>This course is designed to improve middle and lower extremity muscular strength, condition, and shape at the introductory level.</td>
</tr>
<tr>
<td><strong>KIN 038B</strong> Lower Body Conditioning Beginning (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>This course is designed to improve middle and lower extremity muscular strength, condition, and shape for the beginning level of lower body conditioning.</td>
</tr>
<tr>
<td><strong>KIN 038C</strong> Lower Body Conditioning - Intermediate (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>This course is designed to improve middle and lower extremity muscular strength, condition, and shape at the intermediate level.</td>
</tr>
<tr>
<td><strong>KIN 038D</strong> Lower Body Conditioning Advanced (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>This course is designed to improve middle and lower extremity muscular strength, condition, and shape for the advanced level of lower body conditioning.</td>
</tr>
<tr>
<td><strong>KIN 038E</strong> Lower Body Conditioning - Endurance Training (1.0 Lab) 1.0 UNIT</td>
</tr>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>
This course is designed to improve middle and lower extremity through speed training for the beginning intercollegiate level of lower body conditioning.

Advisory: KIN 038E 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 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 048A Latin Dance/Salsa - Introduction (1.0 Lab) 1.0 UNIT
This course is designed to introduce the student to selected Latin and rhythm dances. There is an emphasis on alignment and posture, etiquette, and leading and following.

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.
<table>
<thead>
<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td>KIN 050B Tai Chi - Beginning (1.0 Lab)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>KIN 051A Aikido - Introduction (1.0 Lab)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>KIN 051B Aikido - Beginning (1.0 Lab)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>KIN 051C Aikido - Intermediate (1.0 Lab)</td>
</tr>
<tr>
<td>This course reviews the philosophy, principles and physical techniques of Aikido.</td>
</tr>
<tr>
<td>KIN 053A Karate - Introduction (1.0 Lab)</td>
</tr>
<tr>
<td>This class introduces students to the Okinawan/Japanese martial art of Wado Ki Kai Karate. Emphasis is on blocks, strikes, kicking movements, traditional forms from the Taikyoko and Pinan series, and self-defense.</td>
</tr>
<tr>
<td>KIN 053B Karate - Beginning (1.0 Lab)</td>
</tr>
<tr>
<td>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 Taikyoko and Pinan series, and self-defense.</td>
</tr>
<tr>
<td>KIN 053C Karate - Intermediate (1.0 Lab)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>KIN 055A Self-Defense - Introduction (1.0 Lab)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>KIN 055B Self-Defense - Beginning (1.0 Lab)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>KIN 061A Hatha Yoga - Introduction (1.0 Lab)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>KIN 061B Hatha Yoga - Beginning (1.0 Lab)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>KIN 061C Hatha Yoga - Intermediate (1.0 Lab)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>KIN 061D Hatha Yoga - Advanced (1.0 Lab)</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>KIN 063A Hiking - Introduction (1.0 Lab)</td>
</tr>
<tr>
<td>This course introduces the student to basic hiking techniques as well as various hiking facilities in the local community. Every session includes a warm-up as well as a cool-down after a vigorous hike.</td>
</tr>
<tr>
<td>KIN 063B Hiking - Beginning (1.0 Lab)</td>
</tr>
<tr>
<td>This course reviews basic hiking techniques and safety precautions, and introduces students to the challenges of moderate level hiking facilities in the local community. Proper warm-up and cool-down specifically related to hiking are covered.</td>
</tr>
<tr>
<td>KIN 063C Walk / Jog for Fitness - Introduction (1.0 Lab)</td>
</tr>
<tr>
<td>This course introduces the student to elementary walking and jogging. Students improve aerobic and muscular fitness. Proper warm-up, stretching, and cool down are introduced. Fitness goals are established and monitored throughout the course.</td>
</tr>
<tr>
<td>KIN 063D Walking / Jogging for Fitness - Beginner (1.0 Lab)</td>
</tr>
<tr>
<td>This course introduces the student to beginning walking and jogging. Students improve aerobic and muscular fitness.</td>
</tr>
<tr>
<td>KIN 069 Stress Management through Exercise (1.0 Lecture/1.0 Lab)</td>
</tr>
<tr>
<td>Students learn to understand and identify the stress process and how it relates to personal health and exercise. The relationship between stress reduction and exercise is discussed. Exercise routines and intervention strategies and techniques are developed and practiced during this course to help students effectively deal with stress.</td>
</tr>
<tr>
<td>KIN 070 Weight Training Practicum I (1.0 Lab)</td>
</tr>
<tr>
<td>This course is one of the requirements for the fitness specialist certificate program and provides students with an opportunity to serve as an intern in a weight training class presently offered at the college. Each intern serves as an aide to the instructor of the class to acquire the skills and confidence needed to be a personal trainer.</td>
</tr>
<tr>
<td>KIN 071 Sports Injuries (1.5 Lecture)</td>
</tr>
<tr>
<td>This course is designed specifically for the fitness specialist or enthusiast who wants a basic understanding of the prevention and care of athletic injuries. Emphasis is on fitness related injuries as well as preventative steps recommended to avoid injuries. Basic awareness of the needs of special populations is also discussed.</td>
</tr>
<tr>
<td>KIN 072 Sports Nutrition (1.5 Lecture)</td>
</tr>
<tr>
<td>Advisory: KIN 072 This course is designed specifically for the fitness specialist or enthusiast and covers how to administer fitness tests to evaluate a person's physical fitness.</td>
</tr>
<tr>
<td>KIN 073 Fitness Testing (0.5 Lecture/1.0 Lab)</td>
</tr>
<tr>
<td>Advisory: KIN 073 This course is designed specifically for the fitness specialist or enthusiast and covers how to administer fitness tests to evaluate a person's physical fitness.</td>
</tr>
<tr>
<td>KIN 074 Anatomy and Kinesiology (1.5 Lecture)</td>
</tr>
<tr>
<td>This course is designed for the fitness specialist or enthusiast who wants to learn about the major muscles of the body and their movements. Students are taught how to analyze any activity and identify movement patterns, as well as the muscle groups responsible for those movements.</td>
</tr>
<tr>
<td>KIN 075 Body Alignment and Stretching Techniques (0.5 Lecture/1.0 Lab)</td>
</tr>
<tr>
<td>Advisory: KIN 075 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.</td>
</tr>
<tr>
<td>KIN 076 Weight Training Principles and Routines (0.5 Lecture/1.0 Lab)</td>
</tr>
<tr>
<td>Advisory: KIN 076 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.</td>
</tr>
<tr>
<td>KIN 077 Exercise Physiology (1.5 Lecture)</td>
</tr>
<tr>
<td>Advisory: KIN 077 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.</td>
</tr>
</tbody>
</table>

Mission College Pathways 23
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 subdisciplines in physical education and kinesiology (motor learning/control, motor development, biomechanics, exercise physiology, social psychological foundations, and sport nutrition) will be discussed along with career opportunities in the areas of teaching, coaching, allied health, and fitness professions. This course is approved for Distance Education.

KIN 079  Lifetime Fitness (3.0 Lecture)  3.0 UNITS
This course serves as an introduction to fitness, wellness and lifestyle management. Topics covered include: theories of health and fitness, nutrition, weight management, and behavioral changes that promote a healthy lifestyle. Students participate in activities consisting of a variety of fitness tests and measurements to evaluate their fitness level and set goals related to their own personal development.

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 (2.0 Lab)  2.0 UNITS
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: MATH 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: Completion of the Mission College Placement Assistance Tool prior to registration. 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.

MAT 000CM  Intermediate Algebra (MAPS) (5.0 Lecture)  5.0 UNITS
Prerequisite: Completion of the Mission College Placement Assistance Tool prior to registration. Co-Requisite: MAT 00CMX 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 and is the second course in the MAPS sequence. The students 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. Concurrent enrollment in MAT 00CMX is mandatory. Pass/No Pass Option.
Prerequisite: MAT 000C or High School Algebra II, or equivalent OR Prerequisite: MAT 000CM or High School Algebra II, or equivalent OR Prerequisite: MAT 00CMX or High School Algebra II, or equivalent. This course fulfills the graduation competency requirement for Associate degree and the general education requirement in mathematics for the CSU system. It introduces critical thinking techniques in areas of mathematics that include, but not limited to sequences and series, probability and statistics, countable and uncountable sets, cryptography and number theory, history of mathematics, mathematics in art and nature, the Pythagorean Theorem, and methods of proof, and game theory. There is an emphasis on general problem solving techniques as the class explores mathematics that may well be unfamiliar to most students, and communicate mathematics through class activities and write-ups.

MAT 001 College Algebra (4.0 Lecture) 4.0 UNITS
Prerequisite: MAT 000C or Prerequisite: MAT 000CM or Prerequisite: MAT 00CMX or High School Algebra II, or equivalent. This is a college-level course in preparation for the Calculus sequence. Its contents include real and complex number systems, polynomials, algebraic fractions, exponents and radicals, linear and quadratic equations, simultaneous equations, inequalities, functions, theory of equations, exponential and logarithmic equations, sequence and series, induction and the binomial theorem.

MAT 002 Precalculus and Trigonometry (6.0 Lecture) 6.0 UNITS
Prerequisite: MAT 000C or Prerequisite: MAT 000CM or Prerequisite: MAT 00CMX or High School Algebra II, or equivalent. This is an intensive course covering those topics traditionally found in the separate courses of college algebra (MATH 0001) and trigonometry (MATH 000D). This course is designed for the highly motivated and very well-prepared student who desires to fulfill the requirements of MATH 000D and MATH 001 in one semester. It prepares the student for the Calculus 003A/B sequence.

MAT 003A Analytic Geometry and Calculus I (5.0 Lecture) 5.0 UNITS
Prerequisite: MAT 002 or placement into the course by the Mission College Mathematics Placement Exam. ; or Prerequisite: MAT 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 Analytic Geometry and Calculus I - Honors (5.0 Lecture) 5.0 UNITS
Prerequisite: MAT 002 or placement into the course by the Mission College Mathematics Placement Exam. ; or Prerequisite: MAT 000D or placement into the course by the Mission College Mathematics Placement Exam. and Prerequisite: MAT 001 or placement into the course by the Mission College Mathematics Placement Exam. This course is the honors version of the Calculus I course and is the first part of the three-semester calculus sequence for math, physics and engineering majors. Course topics include functions, limits, continuity, differentiation and integration, maxima, minima, and other applications, and the relationship between calculus and analytic geometry for polynomial and transcendental functions. Students may not receive credit for both MATH 003A and MATH 003AH. Enrollment in the Honors Transfer Project is required.

MAT 003B Analytic Geometry and Calculus II (5.0 Lecture) 5.0 UNITS
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 Multivariable Calculus (4.0 Lecture) 4.0 UNITS
Prerequisite: MAT 003B This course covers 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 Differential Equations (4.0 Lecture) 4.0 UNITS
Prerequisite: MAT 003B 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 Linear Algebra (4.0 Lecture) 4.0 UNITS
Advisory: MAT 004A Prerequisite: MAT 003B This course covers basic linear algebra including systems of linear equations, Gaussian elimination, determinants, matrices, vector spaces, transformations, eigenvalues, and eigenvectors.

MAT 005 Programming and Problem-Solving in MATLAB (2.0 Lecture/1.0 Lab) 3.0 UNITS
Prerequisite: MAT 003A or Prerequisite: MAT 003AH or higher. This course utilizes the MATLAB environment to provide students with a working knowledge of computer-based problem-solving methods relevant to mathematics, science and engineering. Topics include procedural and object-oriented programming, two- and three-dimensional graphing, data import and export, curve fitting, recursion and applications in engineering, physics, and mathematics.

MAT 009 Integrated Statistics II (5.0 Lecture) 5.0 UNITS
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 00CMX Intermediate Algebra MAPS Extra (3.0 Lecture) 3.0 UNITS
Prerequisite: Completion of the Mission College Placement Assistance Tool prior to registration. Co-Requisite: MAT 000CM This lecture course is a corequisite for MAT 000CM. It is part of the MAPS program and provides additional time to help students succeed by participating in enhanced and innovative learning strategies and activities.
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-world 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 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 900DX** Math Skills for Success in Trigonometry (2.0 Lecture) 2.0 UNITS
Prerequisite: MAT 000C or MAT 000CM/00CMX, or appropriate placement by Multiple Measures. Corequisite: MAT 000D Math Skills for Success in Trigonometry is for students concurrently enrolled in MAT 000D. In this course students will review algebraic and basic geometric topics that underlie Trigonometry concepts and practice reading skills and other study skills that promote success in MAT 000D. Concurrent enrollment in MAT 000D is required.

**MAT 901X** Math Skills for Success in College Algebra (2.0 Lecture) 2.0 UNITS
Prerequisite: MAT 000C or MAT 000CM/00CMX, or appropriate placement by Multiple Measures. Corequisite: MAT 001 Math Skills for Success in College Algebra is for students concurrently enrolled in MAT 001. In this course students will review algebraic and basic geometric topics that underlie College Algebra concepts and practice reading skills and other study skills that promote success in MAT 001. Concurrent enrollment in MAT 001 is required.

**MAT 902** Pre-Algebra (4.0 Lecture) 4.0 UNITS
Prerequisite: Completion of the Mission College Placement Assistance Tool prior to registration. 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: Appropriate placement by Multiple Measures. 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: Completion of the Mission College Placement Assistance Tool prior to registration. Co-Requisite: MAT 903MX 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 903MX** Elementary Algebra MAPS Extra (3.0 Lecture) 3.0 UNITS
Prerequisite: Completion of the Mission College Placement Assistance Tool prior to registration. Co-Requisite: MAT 903M This lecture course is a co-requisite for MAT 903MX. It is part of the MAPS program and provides additional time to help students succeed by participating in enhanced and innovative learning strategies and activities.

**MAT 909** Integrated Statistics I (5.0 Lecture) 5.0 UNITS
Prerequisite: completion of Mission College Placement Assistance Tool prior to registration. 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 910X** Math Skills for Success in Statistics (2.0 Lecture) 2.0 UNITS
Co-Requisite: MAT 010 Math Skills for Success in Statistics is for students concurrently enrolled in MAT 010. In this course students will review arithmetic and algebraic topics that underlie statistical procedures and concepts, do hands-on activities that promote a deeper understanding of statistical ideas, and practice reading skills and other study skills that promote success in MAT 010. Concurrent enrollment in MAT 010 is required.

**MAT 912X** Math Skills for Success in Calculus for Business (2.0 Lecture) 2.0 UNITS
Prerequisite: Appropriate Placement; or Prerequisite: MAT 000C; or MAT 000CM and MAT 000MX Math Skills for Success in Calculus for Business is for students concurrently enrolled in MAT 012. In this course students will review algebraic and basic geometric topics that underlie Calculus for Business concepts and practice reading skills and other study skills that promote success in MAT 012. Concurrent enrollment in MAT 012 is required.

**MAT 970** 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)**

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<th>COURSE</th>
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<tr>
<td>NTR 015 Human Nutrition (3.0 Lecture)</td>
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</table>
This course is designed to teach basic scientific principles as they apply to human nutrition in maintaining health and preventing disease. Biochemical functions and interrelationships between nutrients in the body are examined. Current nutritional controversies are evaluated. Students develop and increase their analytical and evaluative skills by completing a nutritional self-study during the course. Advisory: Students should have basic arithmetic skills.

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<tr>
<td>NTR 040 Nutrition and Disease (3.0 Lecture)</td>
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</tbody>
</table>
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

**PSYCHOLOGY (PSY)**

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<tr>
<th>COURSE</th>
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<tr>
<td>PSY 001 General Psychology (3.0 Lecture)</td>
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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.

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<th>COURSE</th>
<th>UNITS</th>
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<tr>
<td>PSY 001H General Psychology - Honors (3.0 Lecture)</td>
<td>3.0</td>
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</table>
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.
### 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 300TN** Occupational Work Experience for the Transportation Industry (1.0-8.0 Units) 1.0 UNIT

The student is required to attend an orientation at the beginning of the course. Students must be working in a job or volunteer position in the mass transit industry. Eligibility for ENGL 001A and READ 054

**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.

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**PSY 007** Biological Psychology (3.0 Lecture) 3.0 UNITS

Prerequisite: PSY 001 or PSY 001H This course is an introduction to the physiological substrates of behavior. Among the areas covered are neurophysiology, the functional nervous system, senses, emotion, motivation, and learning. The course has value for behavioral science, paramedical, and pre-medical majors.

**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 READ 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, PSY 001 or Prerequisite: MAT 010H, PSY 001 or Prerequisite: MAT 009, PSY 001 or Prerequisite: SOC 016, PSY 001 or Prerequisite: MAT 010, PSY 001H or Prerequisite: MAT 010H, PSY 001H or Prerequisite: MAT 009, PSY 001H or Prerequisite: SOC 016, PSY 001H This course surveys various psychological research methods with an emphasis on research design, experimental procedures, descriptive methods, instrumentation, and the collection, analysis, interpretation, and reporting of research data. Research design and methodology are examined through a review of research in a variety of sub-disciplines of psychology.

**PSY 015H** Introduction to Research Methods - Honors (3.0 Lecture) 3.0 UNITS

Prerequisite: MAT 010, PSY 001 or Prerequisite: MAT 010H, PSY 001 or Prerequisite: MAT 009, PSY 001 or Prerequisite: SOC 016, PSY 001 or Prerequisite: MAT 010, PSY 001H or Prerequisite: MAT 010H, PSY 001H or Prerequisite: MAT 009, PSY 001H or Prerequisite: SOC 016, PSY 001H This honors course surveys various psychological research methods with an emphasis on research design, experimental procedures, descriptive methods, instrumentation, and the collection, analysis, interpretation, and reporting of research data. Research design and methodology are examined through a review of research in a variety of sub-disciplines of psychology. Students cannot get credit for both PSY015 and PSY015H. Enrollment in the Honors Program is required.

**PSY 025** Introduction to Abnormal Psychology (3.0 Lecture) 3.0 UNITS

Prerequisite: PSY 001 or Prerequisite: PSY 001H 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 READ 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 READ 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.