### Course Descriptions

#### Anthropology

**ANT 100**  
**Introduction to Anthropology**  
3 units  
Students will be provided with an overview of the discipline, which includes the study of the theory of evolution, the origins of mankind, early human cultures, and cultural systems in cross cultural comparison. Students will gain an appreciation of what it has meant to be human in different places during different historical eras. Students will explore how humans adapt to, interpret, and affect the world in which they live. GE Area D1  
*Pre-requisite: None*

**ANT 125**  
**Human Understanding and Development**  
3 units  
This course examines the human cycle in its socio-cultural, psychological, and biological contexts. It offers a cross cultural perspective on the life cycle, and more generally, on what it means to be human. Successful completion of this course satisfies Area E of the General Education requirements. GE Area E  
*Pre-requisite: None*

**ANT 422**  
**Cultures of Mexico**  
3 units  
The course is a survey and analysis of the major cultures and civilizations of Mesoamerica. Students will learn about the nature and impact of the Spanish Conquest and Colonization, along with a review of contemporary status and issues of indigenous people in Mexico.  
*Pre-requisite: None*

#### Art

**ART 100**  
**Art Appreciation**  
3 units  
This course is designed to provide an introduction to an understanding of the visual arts, including works of various media such as painting, sculpture, and decorative arts (ceramics, metal, textiles, furniture, etc.). Artwork will be viewed with attention to style, meaning, materials, and techniques used by individual artists within the milieu of history and society. Students will learn to recognize aesthetic qualities and to respond to them analytically. GE Area C1  
*Pre-requisite: None*

**ART 238**  
**Visual and Performing Arts**  
3 units  
This course examines a wide range of visual and performing arts, with an emphasis on classroom application and demonstration.  
*Pre-requisite: None*

#### Biology

**BIO 100**  
**General Biology**  
4 units  
BIO 100 is an introductory level general biology course and lab that fulfill the GE life science requirement. Students are introduced to fundamental principles, methods, and concepts in the following areas: (1) molecular biology, cell biology, and human genetics; (2) DNA, evolution, and the diversity of life on earth; (3) structure and function of the human body, and genetic engineering; (4) ecology and environmental science. The course objective is to foster the ability to think critically and independently, regarding biological phenomena. GE Area B2/B3  
(3 units lecture and 1 unit lab).  
*Pre-requisite: None*

#### Business

**BUS 101**  
**Introduction to Business**  
3 units  
This course introduces the student to the how and why of business and management as part of our capitalist system. The structure of business and the functions of business, including management styles, manufacturing, wholesaling, retailing, marketing, finance, risk management, human and labor relations are explored. The course will also examine the role of international business, government and business ethics.  
*Pre-requisite: None*

**BUS 111**  
**Personal and Professional Skills Integration**  
3 units  
Overviews of language, culture, values and personal identity, are examined from the perspective of managerial and strategic success. Concepts of self-organizing theory and interpretive and conversation-based field research are explored as part of class assignments. (Formerly BUS 110)  
*Pre-requisite: None*

**BUS 120**  
**Principles of Microeconomics**  
3 units  
This course introduces the role market systems as a means of solving the problems involved in the production and distribution of good and services in a society. An analysis of the effectiveness of the price system in providing the society with an
equitable distribution of goods, services, and income is featured. It explores microeconomics problems such as consumer and producer decisions through price adjustments under alternative market structures. (Formerly BUS 310)

**Pre-requisite:** None

**BUS 121** 3 units
**Principles of Macroeconomics**
This course deals with the organization of the economics order with emphasis on macroeconomics. It is a brief summary of the development of the study of economics with a description of the private enterprise system. A study of forces affecting the national economy, money and credit, income, employment, prices, and monetary and fiscal theories and policies are explored. (Formerly BUS 311)

**Pre-requisite:** None

**BUS 200** 3 units
**Enterprise Computing Issues**
This course is a study of issues faced by businesses in transforming a set of inputs into a set of outputs (goods or services). Students will learn the benefits of effective business processes and then study the use of SAP R/3 in making those strategic planning, order fulfillment, materials acquisition, new product development, supply chain management: capacity, materials, inventory management forecasting and materials requirement planning. Course will include concepts from SAP 200:

- Business process overview and how SAP R/3 supports these business processes,
- Introduction and navigation through SAP R/3,

**Pre-requisite:** None

**BUS 240** 3 units
**General Accounting Principles**
Introduction to financial accounting: the accounting process, journal entries, adjustments, preparation of financial statements; examination of accounting systems and different forms of business organizations; detailed study of certain asset accounts: cash marketable securities, accounts and notes receivable, inventories.

**Pre-requisite:** MAT 45 or satisfactory score on Math Assessment Test

**BUS 245** 3 units
**Managerial Accounting**
This course is designed to cover the fundamentals of Managerial Accounting. The course content includes the study of the nature and purpose of financial and managerial accounting, cash flow and financial statement analysis, cost behavior and break-even analysis, standard costing and variance analysis, and problem resolution. (Formerly BUS 340)

**Pre-requisites:** BUS 101 and BUS 240

**BUS 250** 3 units
**Legal Environments of Business**
The law applicable to business institutions and their operations; social forces and other effects upon the development of law. Introduction to the UCC, federal and state employment law, torts, contracts, and agency relationships and business proprietorships. (Formerly BUS 350)

**Pre-requisite:** BUS 101

**BUS 260** 3 units
**Business Statistics**
Introduction to the theory and application of probability and statistics for managerial decision-making. Student will learn to collect, analyze, and present data; evaluate explain conclusions draw for analyzing measurements of central tendency dispersion, and probability distributions, and perform hypothesis testing. (Formerly BUS 360)

**Pre-requisites:** BUS 101 and MAT 100

**BUS 325** 3 units
**Business Communication**
Development of skills in oral and written communication. Emphasis on clarity, authenticity, and creativity of language in presentations, ad the role of interpretation as a key to understanding oral and written text. Application of language theory to business communication issues. Class lectures may address specific works drawn from interpretation and communication authors. (Formerly BUS 225)

**Pre-requisites:** ENG 100 and SPC 100

**BUS 331** 3 units
**Small Business Management**
Steps and processes for starting a small business, and managing it from start-up stage into a “gazelle” and beyond. Market Research includes Feasibility Study, Income Potential, Environment Scanning, and SWOT Analysis. Marketing Strategies include the “4P’s” and management operations, taxation, financial forecasting and management. (Formerly BUS 241)

**Pre-requisite:** BUS 101

**BUS 351** 3 units
**Business Ethics**
Ethical problems and conflicts encountered in both the American and International Business scene. Explores the Judeo-Christian ethical system; values and ethics, situation ethics, the link between personal and business ethics; codes of ethics, and ethics and culture in international business. Understanding the relationship between knowing,
doing, and being, and its implications for business in a multicultural world. (Formerly BUS 251)

**Pre-requisite: ENG 100**

**BUS 368** 3 units

**Project Management**
Project management from both the strategic and operations point of view. Quantitative methods also include project planning, budgeting, evaluation, selection, scheduling and control. Qualitative methods include project organization structure, staffing and team building. The role and responsibilities of the project manager and interface with other managers. Students are required to carry out a group project. (Formerly BUS 168)

**Pre-requisite: BUS 101**

**BUS 370** 3 units

**Principle of Marketing**
Marketing principles and policies; Marketing functions, price policies and controls; trade channels, merchandising, market research, government regulations, and competitive practices; integration of Marketing with other activities of the business enterprise. (Formerly BUS 270)

**Pre-requisites: ENG 100 and BUS 101**

**BUS 372** 3 units

**Sales Techniques and Management**
Importance of good salesmanship, personal qualifications and management required for effective selling; psychological principles involved in selling; the sales interview; the salesman as a merchandiser; use of advertising; customer services; sales correspondence and records; conducting a sales meeting.

**Pre-requisite: BUS 370**

**BUS 375** 3 units

**Consumer Behavior**
The course will review the cultural differences that exist among consumers within a Multicultural community. The analysis of cultural identity: its origins, customs, values, beliefs, philosophy, and language-based research methods and will focus on ways to use this knowledge to better understand the consumer issues and challenges stemming from market globalization. (Formerly BUS 332)

**Pre-requisites: BUS 101 and BUS 370**

**BUS 377** 3 units

**Hispanic Marketing**
The study of marketing management, with focus on the Hispanic consumers as significant factor for marketing management considerations in the United States. This course will focus on the traits, circumstances and opportunities of the Latin American consumer market as well as explore the unique attributes and cultural differences that help differentiate this market from other ethnic groups.

**Pre-requisite: BUS 370**

**BUS 381** 3 units

**Management and Organization Behavior**
A multidisciplinary and integrative approach to organizational action based on theories of culture, theory of self-organization (autopoiesis) in social systems, theories of language, and theory of action. Applications for organizational research and organizational development. (Formerly BUS 281)

**Pre-requisite: BUS 101**

**BUS 382** 3 units

**Human Resource Management**
The design of systems of rewards, assessment, and manpower development. The interaction of selection, placement, training, personnel evaluation, and career ladders within the on-going organization. Role of the staff manager. A critical examination of behavioral research versus language-oriented (interpretive) approaches for solving human resource management problems.

**Pre-requisites: BUS 101 and BUS 381**

**BUS 431** 3 units

**International Business**
A survey of the basic characteristics of international business. The exploration of how differences in religion, culture, and political, social and legal environments affect the way business is conducted internationally and provides a conceptual framework for analyzing international business problems. (Formerly BUS 371)

**Pre-requisite: BUS 101**

**BUS 440** 3 units

**Financial Management**
Introduction to financial management presented in terms of its most important functions: raising funds at minimum cost and risk, and allocating those funds between competing short and long term uses. Key concepts include working capital management, capital budgeting, long-term capital structure, securities evaluation, and divided policy. Techniques of financial analysis are introduced.

**Pre-requisites: BUS 101 and BUS 360**

**BUS 450** 3 units

**Strategic Management**
Integrative study, case analysis, and discussion analyzing the interrelationships of managerial decisions and/or actions with and between the firm and its environment(s). Applies multidisciplinary techniques to diagnose and recommend actions.

**Pre-requisite: Senior Standing**

**BUS 476** 3 units

**International Marketing**
Problems international business people must deal with and the ways they may be resolved and analyzed via case studies. Institutions principles and methods; effect of national differences on business practices; exporting and importing. (Formerly BUS 376)

**Pre-requisite: BUS 370**

**BUS 480** 3 units

**Leadership**

This course emphasizes the development of leadership attributes and skills for promoting managerial effectiveness in problem solving and decision-making within organizations. Focus is on developing abilities and insights for re-examining existing leadership styles and ways of thinking, anticipating change, and communicating a corporate vision clearly. The discussion of topics is guided by theories of self-organization and interpretive approaches to organization development. (Formerly BUS 380)

**Pre-requisite: BUS 101**

**CHE 130** 3 units

**Chemistry**

Fundamentals of elementary chemistry. Includes nature and characterization of matter, chemical changes, formulas, gas laws, concept of the mole, solution and ionic equilibrium reactions, atomic structure and chemical bonding.

**Pre-requisite: High School Chemistry or MAT 100**

**CHE 150A** 5 units

**General Chemistry for Scientists & Engineers I**

This course is the first in the chemistry sequence for majors in biology, chemistry, engineering or other physical sciences. This course covers fundamental chemical principles with emphasis on: atomic structure, bonding, periodicity, nomenclature, reactions, stoichiometry, thermochemistry, physical states of matter, molecular equilibrium, acid-base concepts, and oxidation reductions. Laboratory program complements lecture.

(4 lecture units and 1 lab unit)

**Pre-requisite: Proficiency in High School Chemistry or CHE 130; proficiency in High School Physics or PHY 120; proficiency in High School algebra, geometry, and trigonometry or MAT 100**

**CHE 150B** 4 units

**General Chemistry for Scientists and Engineers II**

This course is the second of a chemistry sequence for majors in biology, chemistry, engineering or other physical sciences. This course covers fundamental chemical principles with emphasis on: organic chemistry, thermodynamics, chemical kinetics, chemical equilibrium, electrochemistry, coordination compounds, and nuclear chemistry. Laboratory program complements lecture.

(3 lecture units and 1 lab unit)

**Pre-requisite: CHE 150A**

**CD 100** 3 units

**Child Growth and Development**

This course focuses on the study of psychological growth and development from the prenatal stages to adolescence. It emphasizes the process through which children move forward physical, mental, social and emotional maturity, and the roles that their culture and natural learning environments play in their continuing development. The impact of cultural/ethnic variations upon the lives of children, families, and society are explored. Individual differences in learning are discussed from within a culturally sensitive framework.

**Pre-requisite: None**

**CD 200** 3 units

**Child Development and Community Relationships**

A study of the relationship between the child, family, community, and educators, including a study of parent education and involvement, family and community lifestyles, child abuse, and current family life issues. Special attention will be given to cultural diversity, social class, gender roles, and
their impact on family behavior, values, morals and attitudes.

Pre-requisite: CD 100

CD 351 3 units
Cultural Dimensions Related to Child Development
This course examines the concept of culture, its components and dimensions, and its implications for the education of students in a diverse society. These concepts will be integrated into instructional strategies and the curriculum. Particular attention will be given to the value and importance of implementing an anti-bias curriculum. Field based instructional activities required.

Pre-requisite: Upper Division Standing

CD 352 3 units
Cognitive and Language Development
Examination of the development of language and its relationship to school learning, cognitive development and social development. Both linguistic and communication competence are included. Specific attention will be given to second language acquisition and principles underlying effective instruction for linguistically diverse children. Students will have practical experience in collecting and analyzing children’s language learning in educational settings.

Pre-requisite: Upper Division Standing

CD 453 3 units
Research in Child Development
The course is an introduction to research methods used to understand child development. Content includes framework and methodology of research, concepts associated with experimental, correlational, ethnographic and qualitative designs, various techniques used to collect data, and basic statistical concepts. Emphasis will be placed on developing skills needed to locate, understand, critique, and report research findings. Students also will conduct and present a research project.

Pre-requisites: Senior Standing

CD 454 3 units
Practicum in Early Childhood Education II
This course combines field experience in various types of early childhood programs with a seminar approach relating theory and research practice. It focuses on developing reflective practitioners who become more aware of their own teaching styles in relation to curriculum planning and children’s group and individual needs. The course will emphasize planning and implementation of activities and physical, social, emotional, and cognitive development of the child.

(1 lecture unit and 2 practicum units)

Pre-requisites: 15 units in Child Development Emphasis and Senior Standing

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**Computer Science/Information Systems**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td>CS 100</td>
<td>Introduction to Computers</td>
<td>3 units</td>
<td>Use of PC with current applications software to solve problems both personal and organizational. Includes introduction and history of computers and their applications, a general overview of how a computer system operates and introduction to the different components of a computer. (2 lecture units and 1 lab unit)</td>
</tr>
<tr>
<td>CS 101</td>
<td>Introduction to Programming</td>
<td>3 units</td>
<td>Creation of software components that interact with and control existing applications such as spreadsheets, word processing, and databases. A broad range of examples, case studies, exercises, and programming projects gives students significant hands-on experience. Students learn a three step process for building an application – creating the user interface, setting properties, and writing the code. (2 lecture units and 1 lab unit)</td>
</tr>
<tr>
<td>CS 103</td>
<td>Advanced Computer Applications</td>
<td>3 units</td>
<td>A study of the use and application of productivity software and the Internet in business and public organizations. The course emphasizes the use of database software and spreadsheet software to plan, analyze, design, develop and test educational and/or business solutions. (2 lecture units and 1 lab unit) Pre-requisite: CS 100 or consent of instructor</td>
</tr>
<tr>
<td>CS 105</td>
<td>Object-Oriented Programming I</td>
<td>3 units</td>
<td>Translation of an informal problem specification into a class design and the implementation of that design in an object oriented programming language. Software topics include maintainability, readability, testing, documentation, and modularization. Topics include writing portable applications, compiling, execution, selection, repetition, parameter passing, and arrays. Students are expected to read, understand and debug existing code as well as develop new classes. (2 lecture units and 1 lab unit) Pre-requisite: CS 101</td>
</tr>
<tr>
<td>CS 106</td>
<td>Object-Oriented Programming II</td>
<td>3 units</td>
<td>Advanced programming techniques, problem solving, algorithms, and structured program design. Develop structured program design, control</td>
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structures, arrays, functions, sorting sequential and random files. (2 lecture units and 1 lab unit)

Pre-requisite: CS 105

CS 107  3 units
Personal Computer Systems
An in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. Through hands-on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. (2 lecture units and 1 lab unit)

Pre-requisite: CS 105

CS 110  3 units
Data Communications and Networking
Introduction to data communications and networking concepts. Principles of LANs and WANs, routers and Internetworking devices. Network architectures, protocols, administration and support will be covered. The use of several common LAN’s products, LAN management security, and LAN comparisons will be discussed. Students will do research and present information on the design and implementation of a LAN project that can solve a significant, complex and hopefully generalized problem, dealing with constraints and trade-offs in the solution.

Pre-requisite: CS 103

CS 130  3 units
Network Operating Systems
An intensive introduction to multi-user, multi-tasking network operating systems. Characteristics of current network operating systems will be discussed. Students will learn the configuration of network services, basic network security, installation procedures, back-up procedures, remote access and troubleshooting. This course covers other fundamental networking basics including LAN and WAN topologies, networking hardware placement and uses, and cabling standards. (2 lecture units and 1 lab unit)

Pre-requisite: CS 107

CS 150  3 units
Elementary Algorithms and Data Structures
Introduction to the concepts and representation of basic data structures, including queues, stacks, trees, arrays, linked lists, strings and graphs. The course will cover data-related algorithms that are common to the design and manipulation of compilers, databases and operating systems. (2 lecture units and 1 lab unit)

Pre-requisite: CS 106

CS 212  3 units

Internet Protocols
Routing protocols used on the Internet, and the real-world implementations of TCP/IP. TCP/IP architecture; Application layer protocols and services; Transport layer protocols; Internet layer protocols; and Internet administration. Concepts of IP addressing. Configuration of hosts and access to internet works using TCP/IP protocols. FTP, TELNET, HTTP, NFS, Gopher, Netscape, WWW and other TCP/IP services are covered.

(2 lecture units and 1 lab unit)

Pre-requisite: CS 110

CS 220  4 units
Networking Basics
This course introduces students to current and emerging networking technologies. It focuses on network terminology and protocols, local-area networks (LANs), wide-area networks (WANs), Open System Interconnection (OSI) models, cabling, cabling tools, routers, router programming, Ethernet, Internet, Protocol (IP) addressing, and network standards. Instruction is also provided in the proper care, maintenance, and use of networking software, tools and equipment. (3 lecture units and 1 lab unit)

Pre-requisite: CS 130, Sophomore Status

CS 221  4 units
IOS Configuration
This course introduces students to current and emerging networking technologies. It focuses on initial router configuration, IOS software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Students will develop skills on how to configure a router, managing IOS software, configuring routing protocol on routers, and set the access lists to control the access to routers. (3 lecture units and 1 lab unit)

Pre-requisite: CS 220, Sophomore Status

CS 222  4 units
Routing and Switching
This course introduces students to current and emerging networking technologies. It focuses on advanced IP addressing techniques (Variable Length Subnet Masking [VLSM]), intermediate routing protocols (RIP v2, single-area OSPF, EIGRP), command-line interface configuration of switches. Ethernet switching, Virtual LANs (VLANs), Spanning Tree Protocol (STP), and VLAN Trunking Protocol (VTP). (3 lecture units and 1 lab unit)

Pre-requisite: CS 221, Sophomore Status

CS 223  4 units
Network Design (WANs)
This course introduces students to current and emerging networking technologies. It focuses on
advanced IP addressing techniques (Network Address Translation [NAT], Port Address Translation [PAT], and DHCP), WAN technology and terminology, PPP, ISDN, DDR, Frame Relay, network management, and introduction to optical networking. (3 lecture units and 1 lab unit)

Pre-requisite: CS 222, Sophomore Status

CS 290 3 units
IT Internship
This course consists of the student having a computer networking technology-related job at a local firm or organization. It will give students the experience of being a computer network professional, which should help I career decisions and preparation for obtaining their first job after graduation.

Pre-requisite: CS 223, Sophomore Status

CS 300 3 units
Introduction to Internet/Telecommunications
This course examines the many features and technologies that make the Internet work. This includes Internet services/tools: WWW, E-mail, Chat rooms, File Transfer Protocol (FTP), Telnet, newsgroups, browsers and search engines; creating a web site: HTML authoring tools; Client/Server architecture; Internet appliances: WebTV, Thin clients, Internet telephony and wireless devices; Internet Infrastructure: segmentation, routing, servers, clients and bandwidth; Web Programming: concepts, protocols, languages and scripting; Databases and Web Hosting: Database Management Systems (DBMS), SQL and hosting services; internet security: intrusions, protection strategies and virtual private networks (VPN). (2 lecture units and 1 lab unit)

Pre-requisite: CS 203 or consent of instructor

CS 300* 3 units
Database Management Systems
Introduction to the basic concepts underlying database systems. Emphasizes the relational model, and discusses the elements of the entity-relationship model, the network model, and the hierarchical model. Various issues concerning physical data organization and query optimization are presented. Crash recovery schemes and control schemes are also covered. Discussion concerning a number of different non-standard database systems. (2 lecture units and 1 lab unit)

Pre-requisites: CS 105 and CS 150

CS 322* 3 units
Server Administration

Pre-requisite: CS 322

CS 340* 3 units
Advanced Networking
Implementation and support of a current Inter networking Operating System (IOS). Real-life issues with case studies and examples to step the student through important IOS functions. Router configuration and administration. LAN and WAN interfacing technologies as they relate to router configurations. Router Internetworking Operations System (IOS) as well as its Command-Line Interface (CLI). Managing and troubleshooting router LAN/WAN interfaces. (2 lecture units and 1 lab unit)

Pre-requisite: CS 332

CS 360 3 units
Object-Oriented Analysis and Design
Information Systems methodologies to solve enterprise-wide managerial and organizational problems. Requirements analysis, specifications, preliminary design, detailed design, code, unit test, integration test and system test. Specifications and a preliminary design are created, reviewed and evaluated using systems analysis and design techniques to develop a multi-user system including database. Apply at least one programming language to solve a problem relevant to the course. (2 lecture units and 1 lab unit)

Pre-requisite: CS 330

CS 380 3 units
Graphical Programming
Study of a current graphical programming language for data acquisition, instrument control software, and analysis software in the context of industrial, scientific, academic, and laboratory
environments. Write programs that solve problems in computers, electronics, physics, and chemistry. Students will have the opportunity to apply and reinforce computer programming concepts previously learned. (2 lecture units and 1 lab unit)

Pre-requisites: CS 101, CS 105 and CS 106

CS 460
Management of Information Systems
This course focuses on the problems and issues faced by managers of Information Systems. Management of computer equipment and personnel, managing teams in programming projects, cost estimating and planning for software development projects, outsourcing of CIS functions, disaster recovery planning, computer security and computer crime, copyright protection for computer software, and legal and ethical issues in Computer Science/Information Systems. (2 lecture units and 1 lab unit)

Pre-requisite: Senior Standing or consent of instructor

CS 490A
Computer Information Systems Internship
Students will have a computer technology-related job at a local firm or organization. It will give students the experience of being computer professionals, which should help in career decisions and preparation for obtaining their first job after graduation. Students already doing computer-related work may substitute this course for an elective with prior approval from the Instructor and the Department Chair.

Pre-requisites: Senior Standing and CS 460

CS 490B
Computer Information Systems Senior Project
Formulation and solution of a selected problem in Computer Information Systems. The project must solve a practical problem within the computer field; should be challenging enough and should require the application of concepts learned in previous CS courses. The student will write a report and present it to the sponsoring professor.

Pre-requisites: Senior Standing and CS 340


DAN 120
1.5 units
Dance
A multidisciplinary exploration of the role of dance in society, focusing on children's physical, emotional and mental development and learning process. Course topics include: (1) generic movement types and activities; (2) dance styles and cultural diversity; (3) major dance forms in the Western world; (4) philosophy of dance; (5) dance pedagogy.

Pre-requisite: None

Early Childhood Education

ECE 101
3 units
Introduction To Early Childhood Education
This course introduces current educational theories and research, historical aspects, and current practices relating to Early Childhood Education. This course includes observations in selected environments.

Pre-requisite: None

ECE 102
3 units
Principles of School-Age Child Care
This course will examine the necessary elements for providing before-and-after school programs serving children ages 5 to 13 (K-8 grades); quality, standards and care issues; teachers' roles and qualifications; and working with families, schools and communities.

Pre-requisite: ECE 101

ECE 103
3 units
Child Growth and Development
This course focuses on the study of growth and development from the prenatal stages to adolescence, addressing physical, cognitive, social and emotional domains. The course emphasizes both the impact of cultural diversity upon the lives of children and individual differences in the study of human development. Includes some fieldwork.

Pre-requisite: ECE 102

ECE 104
3 units
The School-Age Child
This course is a continuation of the study of the principles of human development with emphasis on children from six years through adolescence, including developmental theories and relevant contemporary research in the field. Students will apply knowledge in the physical, cognitive, social and emotional domains to the school-age child care setting. The course emphasizes both the influences of culture and early childhood education on human development. Some fieldwork is required.

Pre-requisite: ECE 102
ECE 105  3 units  Observation and Assessment Techniques
This course covers various strategies of classroom and home observation of young children, formal assessment methodologies used to understand children’s developmental needs and age-appropriate curriculum. Course requires observation of children in various settings.  
Pre-requisite: ECE 104

ECE 106  3 units  Child, Family and Community
This course explores the relationship between the child, family, community, and educators, including a study of parent education and involvement, family and community lifestyles, child abuse, and contemporary family life issues. Special attention will be given to cultural diversity, social class, gender roles, and their impact on family dynamics, values, morals and attitudes. Fieldwork required.  
Pre-requisite: ECE 105

ECE 107  2 units  Child Health, Safety and Nutrition
This course is an overview of the philosophy, principles, cultural differences, and evaluation of health, safety, and nutrition in child care settings. Age-appropriate teaching strategies are highlighted with an emphasis on the importance of health, fitness, safety, and nutrition to the individual overall school performance as well as social, emotional and physical well being.  
Pre-requisite: ECE 106

ECE 108  1 unit  The Exceptional Child
This course examines the four largest categories of exceptionality among young children: learning disabilities, speech and language impairments, mental retardation, and emotional disturbance. The course identifies the various handicapping conditions and special needs of young children, including the gifted. This course also explores techniques and strategies for mainstreaming these children within the educational setting. Some fieldwork is required.  
Pre-requisite: ECE 107

ECE 109  1 unit  Child Development in Multicultural Contexts
This course explores the dynamic relationship between culture and child development by highlighting cultural influences on each of four major dimensions of development — the physical, cognitive, emotional, and social — during early childhood. Students will examine their own assumptions and attitudes towards diversity and apply them to non-stereotypical teaching practices through using developmentally age-appropriate and anti-bias activities. Some fieldwork required.  
Pre-requisite: ECE 108

ECE 110  3 units  Early Childhood Curriculum
This course ties curriculum to the understanding of child development by focusing on designing developmentally appropriate practices for early childhood education. It also explores planning and development and of anti-bias-curricula; childhood curriculum goals, objectives, and content standards related to social/emotional, physical, cognitive, and language development, including both theoretical foundations and practical applications. Some fieldwork required.  
Pre-requisite: ECE 109

ECE 111  3.0 units  School-Age Curriculum
This course covers the philosophy of curriculum planning and implementation by exploring both theoretical foundations and practical applications of developmentally appropriate practices for school-age children. It also explores school-age diversity issues related to culture, race, religion, gender, and special needs in light of curriculum development. Fieldwork is required.  
Pre-requisite: ECE 110

ECE 212  1 unit  Creative Experiences for Children
This course presents play as the primary factor in the development of intelligence, personality, competencies, self-awareness, and social awareness. It is designed to prepare students to plan and deliver developmentally appropriate experiences that foster children’s creative expression in the cultural and performing arts (drama, dance, vocal and instrumental music, and studio art).  
Pre-requisite: ECE 112

ECE 213  1 unit  Emergent Literacy in Early Childhood
This course fosters the development of skills and techniques for teaching young children language and literacy through an integrated and individualized curriculum. The course will focus on the development of language and literacy during the first five years of life with an emphasis on ages 2 through 5.  

ECE 214  1 unit  Management and Guidance in Early Childhood Education
Introduction to theory and application of early childhood guidance techniques and classroom management. This course offers an overview of guidance theories that focus on pro-social behavior
by considering the child’s developmental level as well as family and cultural contexts when planning environments and activities for young children.

ECE 215 3 units
Management of Child Care Settings
This course is an overview of the ethical and professional aspects of the early childhood teaching profession, including legal and ethical issues, personnel management, team building, leadership, conflict resolution, stress management, advocacy, professionalism standards, and school and family partnership.

ECE 216 3 units
Infant and Toddler Education
This course combines theory and practice to provide a solid foundation in infant/toddler care and education for both home and center-based settings. The health, safety and nutritional needs of infants and toddlers are also examined. Some fieldwork is required.

Education

EDU 250 3 units
Field Experience in the Classroom
Supervised field experience in Pre-school and K-8. The course emphasizes the development of instructional strategies, curriculum, planning and assessment of teaching effectiveness. Students will do a minimum of 50 hours of field placement in a pre-school or K-8 classroom. This practicum is designed to meet the standards set forth by The National Association for the Education of Young Children for the preparation of Early Childhood Professionals. Required course for all Liberal Studies Majors. Students must enroll in this class in either their sophomore or junior years.

Pre-requisite: CD 100

EDU 290 3 units
Sophomore Seminar
One of the objectives of the course is to prepare student portfolios. Students must attend an orientation seminar on entering the program that explains the portfolio and how students are to document their subject matter information on the courses they will take during the program. The portfolio is an on-going project that must be completed before graduation. Instructors will assess their students according to the subject matter requirements. This course is graded on a P/F basis.

Pre-requisite: None

EDU 300 3 units
Liberal Studies Gateway Experience
Course must be completed by all Liberal Studies Majors during the Junior Year. This course is an introduction to the academic and professional requirements for K-8 teachers. Course will focus on the eight required subject areas (language arts, mathematics, science, history/social studies, child development, visual and performing arts, health, and physical education), linking the Liberal Studies curriculum and the Academic Content Standards and State Curriculum Frameworks for grades K-8. Students will practice some research and technological skills that are required for teachers.

Pre-requisite: Junior Standing

EDU 447 3 units
Theoretical Foundations of Physical Education and Health Education for K-8.
This course introduces K-8 teaching strategies in physical education and health that follow the California State Standards. Students investigate the principles of motor development, biomechanics, and growth, development, and organized games and sports. Teaching methods are included.

Pre-requisite: Upper Division Standing

EDU 490 1 unit
Senior Seminar
One of the objectives of the course is to prepare student portfolios under the guidance of the Field Experience Director. Students must attend an orientation seminar on entering the program that explains the portfolio and how students are to document their subject matter information on the courses they will take during the program. The portfolio is an on-going project that must be completed before graduation. Instructors will assess their students according to the subject matter requirements. This course is graded on a P/F basis.

Pre-requisite: Senior Standing

EDU 508 3 units
Educational Foundations
The course does a systematic analysis of the effect of culture, values, language, economic status, gender and ethnicity on children in the classroom. Issues related to political control of education, English Language Learners, culture, philosophy and history will be addressed. Students develop an understanding of the relationship between schools and society by focusing on recent contemplated changes in the role of the teacher, historical contexts of education and politics, educational responses to an increasingly diverse and multicultural society, the law and its effect on schools, and the organization and financing of schools.

EDU 510 3 units
Latino Culture
Focuses on major historical experiences of the various Latino groups in the United States, covering the pre-Columbian period, the conquest, Colonial period, War of Independence and contemporary life in the United States. Emphasis on cultural commonalities, demographics, immigration, educational patterns and general relationships among Latinos and the majority culture.

**EDU 511  3 units**  
**Educational Sociology**  
Systematic analysis of the effect of culture, values, language, class, sex, and ethnicity on children in the elementary classroom. Issues related to political control of education, philosophy and history, and comparative education.

**EDU 512  3 units**  
**Educational Psychology**  
Systematic analysis of psychological viewpoints, stages of growth and development, learning processes, and evaluation. Emphasis upon developing a consistent teaching theory based upon psychology, age level characteristics, race, ethnicity and social class differences.

**EDU 514  3 units**  
**Effective Teaching and Learning**  
The purpose is to provide the teacher with the tools and strategies to be effective in the management of a classroom. The content of this course includes learning processes, principles of instruction, teaching strategies, principles and techniques of classroom organization and behavior management and parent involvement. The California Standards for the Teaching Profession is introduced during the course.

**EDU 515  3 units**  
**Cultural Diversity in the Classroom**  
This course focuses on the general nature of cultural diversity. Students explore school and community implications such as ethnic, linguistic, socioeconomic, gender and handicapping differences. A focus on theoretical and practical issues of diversity in a classroom setting as it relates to culture, race, gender ethnicity, language and socio-economic levels are included. Group culture patterns and value orientation; research findings in multicultural education; learning experiences and curriculum development is discussed.

**EDU 516  1 unit**  
**Classroom Field Experience and Seminar**  
This course is the companion course to EDU 514, Effective Teaching. It provides an introduction to the K-12 classroom. Students will be required to engage in observations, interviews and interaction with students, teachers, and administrators in a selected school setting as they investigate effective teaching strategies. Findings and observations will be shared in a seminar setting. (This course is best taken with EDU 514 although it is not mandatory.)

**EDU 520  3 units**  
**Second Language Learners**  
This course focuses on theories and factors in first and second language acquisition and English language development, including cognitive, affective, socio-cultural, political, and pedagogical factors that affect first and second language development in a multicultural setting. The course prepares teacher credential candidates to achieve knowledge about language learning issues required for teaching culturally and linguistically diverse learners in California. In addition, students will explore and develop instructional models, strategies, approaches, and assessment for ESL and content based second language teaching in diverse cultural and linguistic settings. Fieldwork observation is included.

**EDU 522  2 units**  
**Methods: Science Curriculum and Instruction**  
This course is designed to provide a comprehensive overview of the State Content Standards and State Framework. It addresses the objectives, skills, concepts, experiments, materials, and methods necessary to teach science to elementary school children. This course focuses on instructional methods, techniques, materials, lesson planning, curriculum development, organization and assessment in science.

**EDU 524  6 units**  
**Secondary Content Methods: Curriculum and Instruction**  
This Curriculum and Instruction Course utilizes observations in public school settings and participation in university classroom activities. Candidates will demonstrate an understanding of their chosen content area and will leave this course with a deep knowledge of the California State Content Standards and Frameworks. Candidates will deliver lessons derived from state standards using a variety of instructional strategies appropriate to the lesson and learner. Pedagogical knowledge, concepts of learning, standards based curricular content, use of materials, including technology, instructional planning, organization, lesson delivery and student assessment will be demonstrated by candidates within and across major subdivisions of the subject.  
**Pre-requisites: Subject Matter Competency**

**EDU 525  3 units**  
**Methods: Math and Science Curriculum and Instruction in Elementary Classroom**
This course covers theory, content and methods of teaching mathematics and science in the elementary classroom for mainstream and SDAIE students. Emphasis is on planning, instruction, assessment, computer-assisted instruction, resource materials, SDAIE and complex instruction. Integrate Math and Science across the curriculum to provide access to all students to the core curriculum.

**EDU 527** 2 units
Methods: Mathematics Curriculum and Instruction
This course covers the theory, content and methods of teaching mathematics in the elementary classroom for mainstream and English Language Learners. Emphasis is on the planning, instruction, assessment, computer assisted instruction, and resource materials.

**EDU 529** 3 units
Methods: History Social Science Curriculum and Instruction
This course will cover the methods of implementing History-Social Science and the Visual and Performing Arts framework and standards in the classroom. This course is designed to introduce prospective elementary school teachers to the theoretical concepts, instructional methods and materials for use in social studies education and curriculum integration. Research indicates that when teachers use a variety of teaching methods that are integrated into the content of the course, learners become more effectively engaged in learning. Therefore, the broad emphasis of this course will focus on issues of planning, organization and assessment that involve the learner in higher-level thinking through cognitive and affective involvement.

**EDU 530** 6 units
MS Language Arts and Reading Curriculum and Instruction
The course will include theory, content and methods for teaching reading and promoting literacy in the classroom. Each teaching candidate will participate in intensive instruction in reading, literacy development, and language methods grounded in sound research. The course includes exposure to a substantive, research-based program that provides a balanced, comprehensive program of instruction in reading, writing, listening, and oral language. The course includes explicit instruction in reading skills and comprehension strategies for all students regardless of reading level or language background. EDU 530 presents, analyzes and critically explores research and practice related to the development of literacy. In addition, the course is standards-based and linked to the state framework and content standards.

**EDU 531** 2 units
Computer Technology for Teaching and Learning I
This course addresses the use of personal computers with applications to the classroom. It includes the use of collaborative computer tools, selection and evaluation of computer software and resources, development of computer based lessons targeting different learning styles, and knowledge of copyright, privacy and security issues. *Pre-requisites: CS100 or equivalent*

**EDU 537** 2 units
EDL/SDAIE Methods
This course is designed for beginning teachers to learn effective methods and classroom strategies that foster English Language Development in their lesson planning, adaptation, and delivery. Methodologies of especially designed academic instruction (SDAIE) and techniques for instruction are covered throughout the course.

**EDU 550** 2 units
Teaching Health Education
This course is designed to raise teacher awareness and examine the current health issues confronting today’s educators. The course will introduce educators to resource links within the community as well as within the public school system. Participants will reflect on how this information connects to their own practice within their own classrooms and schools. Topics include chemical dependency, nutrition, fitness, HIV/AIDS, conflict resolution / mental health and maintaining a healthy school environment.
EDU 551  
Inclusive Education Practices
This course is designed to provide the basic knowledge, skills and strategies for teaching special populations including student with disabilities, students on behavior plans, and gifted and talented students in the general education classroom. The course will examine the philosophical, legal, and educational foundations of inclusive education and its implications for the classroom teacher. Practical ideas for adapting standard instruction to provide the least restrictive environment consistent with classroom strategies are discussed. Includes integration of learning handicapped, physically handicapped, severely handicapped, gifted and culturally diverse students.

Pre-requisite: Preliminary Credential

EDU 552  
Curriculum Materials and Technology
This course covers more advanced use of personal computers with applications to the classroom. It includes the use of collaborative computer tools for communication purposes, development and understanding of assessment practices, use of software and programs for teaching purposes, and development of lesson plans using computer-based activities and use online software for web design strategies.

Pre-requisite: Preliminary Credential

EDU 555  
Student Teaching
Supervised field experience, systematic field experiences, portfolio assessment of personal growth and development, problem solving and documentation of Teacher Performance Expectation (TPE) will be completed during this course. University supervisors meet with the students to discuss issues and concerns, conduct on-site conferences with the candidates and cooperating teacher to ensure that satisfactory progress is being made towards proficiency in the TPEs.

Pre-requisites: Subject Matter Competency

EDU 560  
Creating a Healthy Classroom
The health education course for teachers explores modern concepts of health and health education in schools. Emphasis is placed on current health issues (including HIV/ AIDS), common health problems of children and adolescents, good nutritional health habits and the effects of substance abuse. The course meets California State requirements for the 2042 Clear Credential.

Pre-requisite: Preliminary Credential

EDU 567  
Advanced Teaching for English Language Learners
Builds on knowledge and skills acquired during preliminary preparation programs for delivery of comprehensive, specialized instruction for ELLs. Candidates critically examine schools’ organizational structures and resources designed to meet ELL students’ needs and further develop skills in planning and delivering instruction and assessment in English language development, academic language comprehension and production, and Specially Designed Academic instruction in English (SDAIE).

Pre-requisite: Preliminary Credential

Engineering

EGR 100  
Introduction to Engineering
Introduction to engineering through hand-on design projects, case studies, and problem-solving using computers. Students learn about the various aspects of the engineering profession and acquire non-technical skills, such as communication skills, teamwork skills, and the ability to deal with ethical dilemmas. In addition, the course supports students in their efforts to succeed in engineering through personal and professional development. (2 lecture units and 1 lab unit)

Pre-requisite: Proficiency in High School algebra, geometry, and trigonometry or equivalent

EGR 200  
Engineering Mechanics – Statics
Study of particles and rigid bodies in equilibrium. Applications to particles, two-dimensional and three-dimensional structural systems using ordinary and vector algebra. Topics include free body diagrams, centroids and center of gravity, shear and bending moment diagrams, concentrated and distributed loads, moments of inertia and friction.
**EGR 225**  
Introduction to Materials  
Study of atomic and crystal structures; imperfections and atom movement; phase equilibria and transformations; boundaries; heat treatment of metals; mechanical, physical and chemical properties of engineering materials. (2 lecture units and 1 lab unit)  
Pre-requisites: CHE150A, PHY 150A, MAT 121, Sophomore Status

**EGR 250**  
Introduction to Circuit Analysis  
Circuit laws and nomenclature, resistive circuits with DC sources, ideal operational amplifier, controlled sources, natural and complete response of simple circuits, steady state sinusoidal analysis and power calculations. Basic instruments and experimental techniques in electrical engineering. Oscilloscopes, function generators, frequency counters and multiple-use meters. Measurements of voltage, current frequency response, transient response and computer simulation of circuits. (3 lecture units and 1 lab unit)  
Pre-requisite: PHY 150B, MAT 220 (may be taken concurrently), Sophomore Status

**English**

**ENG 40**  
English Grammar and Reading-Based Writing  
The course emphasizes writing at the sentence and paragraph levels. English 40 is designed to facilitate students’ transition into the academic writing process through paragraph development, reading-based writing, and the study of various types of coherent and well-developed paragraphs.

**ENG 45**  
English Grammar and Reading Comprehension  
Designed to improve reading rate and comprehension, includes English grammar and vocabulary. This course carries no credit towards any degree and is graded on a CR/NC basis.  
Pre-requisite: English Placement Test

**ENG 100**  
English Composition and Reading  
This course emphasizes reading-based academic writing in a multicultural milieu. The student will critically respond to a variety of writers on various topics and themes. In addition, English 100 will cover the rhetorical modes, culminating in an argumentative research paper. GE Area A2  
Pre-requisite: English placement Test or ENG 45

**ENG 201**  
3 units
elements of literature will be discussed as a tool for literary criticism and analysis.

*Pre-requisite: ENG 100*

**ENG 303  3 units**  
**American Literature II (1865-Present)**  
Study of selected works of American authors from 1865 to present. Includes poetry, drama, essay, short story and novel. Literary criticism and analysis. The authors represent human diversity and variety of philosophies and styles.  
*Pre-requisite: ENG 302*

**ENG 401  3 units**  
**Multi-ethnic Children’s Literature**  
This course focuses on various genres for young people. Includes picture books, classics, personified machine heroes, and realistic books. Includes enrichment ideas, which teachers can use with young children.  
*Pre-requisite: Upper Division Standing*

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**English as a Second Language**

**ESL 26  3 units**  
**Beginning Level**  
ESL 26 offers the beginning student the opportunity for intensive study of basic grammar concepts. All major verb tenses will be discussed. The students will learn basic parts of speech and how to facilitate their knowledge of English syntax by practicing oral and written communication.  
*Pre-requisite: None*

**ESL 27  3 units**  
**Intermediate Level I**  
ESL 27 is a course continuation of grammar concepts introduced in ESL 26. Practical applications of basic grammar concepts will be implemented in ESL 27. Students will also be introduced to basic composition practice in English. Assignments in writing will be required to test the students’ ability to write in English.  
*Pre-requisite: None*

**ESL 28  6 units**  
**Intermediate Level II**  
Course continuation review of concepts introduced in ESL 26 and ESL 27. Intensive study of vocabulary and pronunciation to meet advanced language requirements.  
*Pre-requisite: None*

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**Ethnic Studies**

**ETH 134  3 units**  
**Chicano/Latino Culture**  
A historical overview of the Chicano/Latino community in the United States, focusing on race, class, and gender relations. Students will analyze the educational, economic, socio-cultural, and political issues facing the U.S. Chicano/Latino community. GE Area E  
*Pre-requisite: None*

**ETH 265  3 units**  
**Minorities in the United States**  
Examine the historical traditions and cultural differences that exist among the major ethnic groups in the United States. Students will learn important concepts and theories that are vital to the study of race and ethnicity. This course will focus on Native Americans, Latinos, African Americans, Asian Americans, and European Americans in the context of their acculturation, assimilation, and cultural amalgam in the United States, and critically analyze inter-racial relations.  
*Pre-requisite: None*

**ETH 301  3 units**  
**Chicano/Latino Literature**  
The course explores Chicano/Latino literature from a Chicano/Latino Studies perspective. Students will analyze how Chicano/Latino authors have utilized various genres to portray their complex and diverse communities over time. There will be a comparison and contrast of the themes and issues impacting the U.S. Latino community such as the immigrant and refugee experience, poverty and racial isolation, racial and gender discrimination, and the dilemmas of bilingualism and biculturalism.  
*Pre-requisite: ENG 201 or PHL 200*

**ETH 350  3 units**  
**Chicano History**  
This course focuses on the Mexican experience in the United States. Students will analyze the Spanish and Mexican settlements in the southwest, the causes and results of the Mexican American War, early 20th Century mass migration, adaptation and resistance, and the current leading issues confronting the nation’s largest ethnic minority.  
*Pre-requisite: None*

**ETH 351  3 units**  
**Mexican History**  
Students will analyze Pre-Colombian societies, the Spanish Conquest and Colonization, Mexican Independence and the struggle for Reform, the Porfiriato, the Mexican Revolution, the post-revolutionary era, and the contemporary period.

**ETH 317  3 units**  
**African American Studies**  
A study of the genesis and development of African American culture and history in the United States approached through selected art forms, historical themes, and current intellectual debates with special focus on the study of race as a social
construct. The emphasis is on exploring how various forms of African American cultural production have both reflected and inspired the historical changes in the US.

Pre-requisite: Upper Division Standing

**ETH 318** 3 units

**Asian American Studies**

This course introduces major themes in Asian American Studies from the beginning of Asian immigration to the United States in the mid-nineteenth century to the present. Topics include an analysis of the Asian American Perspective; cultural roots; immigration and settlement patterns; labor, legal, political, and social history.

Pre-requisite: Upper Division Standing

**ETH 319** 3 units

**Native American Studies**

Native American Studies is a survey of the historical, social, political, economic, and cultural development of Native communities in the United States. Emphasis is on the contributions Native communities have made to the United States and how they have shaped society.

Pre-requisite: Upper Division Standing

**ETH 321** 3 units

**Chicana/Latina Women in the U.S.**

Examines the historical and contemporary experiences of Chicana/Latina women in relation to family, work, community, sexuality, and individual and collective activism as well as the development of Chicana/Latina feminist thought. Particular attention will be paid to the interplay between race, class, and gender in American society.

Pre-requisite: Upper Division Standing

**ETH 322** 3 units

**Latin American Families in the U.S.**

A study of Latin American people in the United States with emphasis on historical origins, cultural values and practices, social organization, political adaptations, occupational distribution and contemporary social conditions.

Pre-requisite: Upper Division Standing

**ETH 400** 3 units

**Gender, Race, and Culture in American Society**

Examines the multiple intersections of race, gender, and class relations in American Society, focusing on multiculturalism, relations of power, and cultural production and representation. Includes historical perspective, lived experiences, theoretical constructs of race, class, and gender, and a major research project comparing two or more disciplines. (Formerly ETH 122)

Pre-requisite: Upper Division Standing

**ETH 432** 3 units

**Advanced Multicultural Relations**

A capstone research seminar for senior Liberal Studies majors with an emphasis on cross cultural studies. Takes a critical and comparative analysis of historical and contemporary issues affecting Mexican American/Latino, Native American, Asian American, European American, and African American communities in the United States.

Pre-requisite: Upper Division Standing

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**Geography**

**GEO 100** 3 units

**Introduction to Earth Science**

Introduction to the composition, structure and evolution of the Earth and the impact of man on the environment. The interactions of the lithosphere, hydrosphere and atmosphere. Relations of geological systems, hazards, and resources to the human environment and future. GE Area B1

Pre-requisite: None

**GEO 200** 3 units

**Physical Geography**

The purpose of this class is to provide an introductory framework for understanding the geography of our atmospheric, geological, and biological environments. GE Area B1

Pre-requisite: None

**GEO 300** 3 units

**Cultural Geography**

Introduction to the interrelationships of world cultural groups and their environments. Includes map analysis, climates, and settlement patterns on the varieties of human, social, business and political development.

Pre-requisite: Sophomore Standing

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**History**

**HIS 100** 3 units

**U.S. History I**

This course is a survey of the political and social development of the United States through the Civil War. Multicultural and gender perspectives and issues are incorporated throughout the course. (This course, when combined with credit for History 201, satisfies the requirement in U.S. History, U.S. Constitution, California State and Local Government). GE Area D2

Pre-requisite: None

**HIS 201** 3 units

**U.S. History II**

This course is a survey of the political and social development of the United States from
Reconstruction to the present. Multicultural and gender perspectives and issues are incorporated throughout the course. (This course, when combined with credit for History 100, satisfies the Area F requirement in U.S. History, U.S. Constitution, and California State and Local Government). GE Area D3
Pre-requisite: None

HIS 313  3 units
California History
The political, social, and intellectual growth of California from Spanish colonial era to the present, with emphasis on the themes and movement identified in the California State Framework.
Pre-requisite: Upper Division Standing

HIS 314  3 units
World History I
Themes in the institutional, political, socio-business and cultural development of modern society and socio-political changes. Includes the themes, movements, and geography identified in the California State Framework. The growth of civilizations and the interrelationships of peoples of Europe, Asia, Africa, and America to 1650.
Upper Division GE Area III
Pre-requisite: Upper Division Standing

HIS 414  3 units
World History II
Themes in the institutional, political, socio-business and cultural development of modern society and socio-political changes. Includes the themes, movements, and geography identified in the California State Framework. The growth of civilizations and the interrelationships of peoples of Europe, Asia, Africa and America from 1650 to the present.
Pre-requisite: Upper Division Standing

Information Competency

INF 100  1 unit
Information Literacy
Information literacy prepares the student for college level research. Students will learn to develop a search strategy, locate and evaluate material from a variety of sources and in a range of formats, and compile a bibliography and footnotes.
Pre-requisite: None

Linguistics

LIN 406  3 units
Comparative Linguistics
Compare and contrast language systems - phonology, morphology, structure and syntax - with English. Includes major languages spoken in California schools.
Pre-requisite: Upper Division Standing

Liberal Studies

LS 200  3 units
Service Learning
Students will engage in public service within agencies or organizations in the local area. They will reflect on the purposes of their service as well as the policies, structure and operation of those agencies. Students will prepare written reports and deliver oral presentations on their public service experiences. Students will perform sixty hours of service.
Pre-requisite: None

LS 300
Liberal Studies Gateway Experience General Option
Students will explore how the liberal arts are structured into disciplines and study their internal organization. They will learn how to apply and integrate disciplinary knowledge in an interdisciplinary fashion. They will engage in interdisciplinary practice through their research assignments. (Pre-requisite: English 300, Advanced Writing Skills.)
Pre-requisite: ENG 300

Mathematics

MAT 40  3 units
Pre-Algebra Math Review
This course is designed for students who need a solid review of basic mathematics and pre-algebra prior to taking an elementary algebra course. Topics include whole numbers, fractions, decimals, percents, ratios, and proportions, integers, the metric system, elementary geometry, data and statistics, and problem solving. This course carries no credit toward any degree and is graded on a CR/NC basis.
Pre-requisite: Satisfactory score on the Math Assessment Test

MAT 45  3 units
Elementary Algebra and Geometry
Fundamentals of Algebra and Geometry. Includes integers, rational numbers, laws of exponents, scientific notation, linear functions, polynomials, algebraic fractions, quadratic equations. Plane geometry, geometric figures, area, formulas, volume of solids, and deductive reasoning. This course carries no credit towards any degree and is graded on a CR/NC basis.
Pre-requisite: Satisfactory score on the Math Assessment Test
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Title</th>
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<tbody>
<tr>
<td>MAT 50</td>
<td>3</td>
<td>Geometry</td>
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<td>This course involves the study of Euclidean (plane), Non-Euclidean, and higher dimensional geometric figures and relationships. Considerable attention is devoted to deductive reasoning (proofs). The approach is both logical and intuitive, leading to the ability to apply formulas and to visualize in two and three dimensions. This course is highly recommended for students who have not had high school geometry. This course carries no credit toward any degree and is graded on a CR/NC basis. <strong>Pre-requisite:</strong> MAT 45, satisfactory score on the Math Assessment Test</td>
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<tr>
<td>MAT 100</td>
<td>3</td>
<td>College Algebra</td>
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<td>This course is designed to prepare the student for courses requiring a solid algebraic background. The course content includes the study of fundamental algebraic concepts and contains the following topics: equations and inequalities, functions and graphs, polynomial functions, rational functions, systems of equations and inequalities, exponential and logarithmic functions; conic sections and sequences and series may also be included. GE Area B4 <strong>Pre-requisite:</strong> MAT 45 or satisfactory score on Math Assessment Test</td>
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<tr>
<td>MAT 108</td>
<td>3</td>
<td>Number Systems</td>
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<td>This course is designed for students preparing for a career in elementary school teaching. The course content includes the study of the real number system, numeration systems, elementary number theory, statistics, and problem-solving techniques required for elementary mathematical applications. <strong>Pre-requisite:</strong> Satisfactory score on Math Assessment Test or MAT 40, or 2 years of high school college preparatory algebra and one year of high school geometry (all with a C- or better)</td>
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<tr>
<td>MAT 115</td>
<td>3</td>
<td>Trigonometry and Analytic Geometry</td>
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<td>This course in numerical and analytical trigonometry is designed to prepare the student for the level of trigonometry and advanced algebraic concepts necessary for calculus. Study will be made of trigonometry functions, trigonometric graphing, trigonometric identities, trigonometric equations and laws, vectors and complex numbers, conic sections, sequences and series, and mathematical induction and the binomial theorem. <strong>Pre-requisite:</strong> Satisfactory score on Math Assessment Test, 2 years of high school algebra, and 1 year high school geometry; or MAT 100</td>
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<tr>
<td>MAT 120</td>
<td>4</td>
<td>Calculus and Analytic Geometry I</td>
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<td>This is the first course in calculus and analytic geometry for students majoring in mathematics, physical science, computer science or engineering. It includes functions and graphs, topics in analytic geometry, the analysis of algebraic and trigonometric functions, limits, derivatives, integrals, and applications. <strong>Pre-requisite:</strong> Satisfactory score on Math Assessment Test, 2 years of high school algebra, 1 year high school geometry, and 1 semester high school trigonometry; or MAT 115</td>
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<tr>
<td>MAT 121</td>
<td>4</td>
<td>Calculus and Analytic Geometry II</td>
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<td>This is the second course in calculus and analytic geometry for students majoring in mathematics, physical science, computer science or engineering. It includes logarithmic and exponential functions, inverse trigonometric functions, topics in analytic geometry, techniques of integration, polar coordinates, infinite sequences and series, further applications of integration, and an introduction to differential equations. <strong>Pre-requisite:</strong> MAT 120</td>
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<tr>
<td>MAT 122</td>
<td>4</td>
<td>Calculus and Analytic Geometry III</td>
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<td>This is the third and last course in calculus and analytic geometry for students majoring in mathematics, physical science, computer science or engineering. In this course the concepts of calculus are extended to functions of more than one variable. The content includes three-dimensional analytic geometry and vectors, partial derivatives, multiple integrals and vector calculus. <strong>Pre-requisite:</strong> MAT 121</td>
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<tr>
<td>MAT 200</td>
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<td>Conceptual Geometry</td>
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<td>Introduction to geometry, various forms of measurement, inductive and deductive process and reasoning. Introductory exercises in transformations and strategies designed to identify and enact problem-solving techniques. Technology integrated throughout the course. <strong>Pre-requisite:</strong> MAT 100</td>
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<tr>
<td>MAT 220</td>
<td>4</td>
<td>Differential Equations</td>
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<td>This course is the study of ordinary differential equations and their applications to problems in engineering and science. Methods are developed for solving equations of order one, linear equations of arbitrary order, and linear systems. Students are introduced to series methods, Laplace transforms and numerical methods. <strong>Pre-requisite:</strong> MAT 122</td>
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<tr>
<td>MAT 312</td>
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Educational Statistics
Descriptive Statistics: histogram, measures of central tendency and variability, sampling distributions. Estimation and hypothesis tests for means, proportion, variances. Linear regression and correlation, non-parametric methods. Examples and data taken from education.
Pre-requisite: MAT 100

Music

MUS 121 1.5 units
Music
Survey of great works of music. Practical experience in use of simple instruments: percussion and tonal instruments, flutophone, song flute and recorder.
Pre-requisite: None

Philosophy

PHL 100 3 units
Introduction to Philosophy
This course provides students with an analytic study of some of the core areas of philosophy, including metaphysics, epistemology, ethics, logic, and social/political philosophy. These fields will be addressed by studying some of the major philosophical topics, such as those concerning the nature of reality, the existence of God, the soul, free will, the nature of knowledge, what determines how we should live, and what kind of creature is a human being. By discussing the diversity of cultures and genders that have shaped our philosophical ideas, this course offers an analysis of the history of philosophy. GE Area C2
Pre-requisite: None

PHL 200 3 units
Introduction to Logic
Beginning study of formal and informal logical argumentation, including fallacies, inductive and deductive reasoning. Students will utilize concepts and methods for understanding and analyzing arguments, and know how to evaluate factual claims and hidden or unstated assumptions. Logical methods will be utilized to understand issues in race, class, and gender.
Pre-requisite: None

PHL 300 3 units
Personal, Professional, and Social Ethics
This course introduces a systematic framework for thinking about ethical dilemmas that arise in personal, professional and civic life. It will review theoretical, biological, and social cultural conceptions of moral obligation, as well as relevant socio-historical, socio-cultural, and scientific contexts. This course will enhance students’ ability to recognize the complex interplay between moral concepts and lived experience and to resolve moral dilemmas. Upper Division GE Area II
Pre-requisites: PHL 100, ENG 100, SPC 100

Physics

PHY 120 3 units
Physics
Emphasizes classical mechanics, electricity and magnetism, quantum mechanics, relativity and nuclear physics. The course traces the historical development and philosophical significance of scientific knowledge. It contrasts the methods of science with those of other disciplines. It assesses the role science and technology can play in solving some of society’s problems. It aims to provide students with tools for becoming scientifically literate.
Pre-requisite: None

PHY 150A 4 units
General Physics I (Mechanics)
This course is the first in the physics sequence for majors in physics, chemistry, engineering or other physical sciences. The general principles of mechanics are introduced at a calculus based level. Specific topics include kinematics, Newton’s laws of motion, work and energy momentum, rotation, and simple harmonic motion. A problem solving approach is used emphasizing both conceptual understanding and basic mathematical techniques. Laboratory program complements lecture. (3 lecture units and 1 lab unit)
Pre-requisite: Proficiency in High School Physics or PHY 120; MAT 120 (can be taken concurrently) or equivalents

PHY 150B 4 units
General Physics II (Electricity and Magnetism)
This course is the second in the physics sequence for majors in physics, chemistry, engineering or other physical sciences. The general principles of electricity and magnetism are introduced at a calculus-based level. Specific topics include the electric field, Gauss’ Law, electric potential, DC circuits, Maxwell’s equations, and electromagnetic waves. A problem solving approach is used emphasizing both conceptual understanding and basic mathematical techniques. Laboratory program complements lecture. (3 lecture units and 1 lab unit)
Pre-requisites: PHY 150A, MAT 121 (may be taken concurrently)

PHY 150C 4 units
General Physics III (Heat and Light)
This course is the third in the physics sequence for majors in physics, chemistry, engineering or other physical sciences. The general principles of optics, thermodynamics and modern physics are introduced at a calculus-based level. Specific topics include waves, geometric optics, wave optics, (including interference, diffraction, and polarization), heat, thermal properties of matter, thermodynamics. A problem solving approach is used emphasizing both conceptual understanding and basic mathematical techniques. Laboratory program complements lecture. (3 lecture units and 1 lab unit)

**Pre-requisite:** PHY 150B, MAT 121 (may be taken concurrently)

**PHY 150D**  
4 units  
**General Physics IV (Atomic Physics)**  
This course is the fourth in the physics sequence for majors in physics, chemistry, engineering or other physical sciences. Introduction to quantum physics emphasizing electronic structure of atoms and solids, radiation and relativity at a calculus-based level. A problem solving approach is used emphasizing both conceptual understanding and basic mathematical techniques. Laboratory programs complements lecture. (3 lecture units and 1 lab unit)

**Pre-requisite:** PHY 150C, MAT 121 (may be taken concurrently)

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**Psychology**

**PSY 100**  
3 units  
**Introduction to Psychology**  
This course provides students with a broad overview of the different fields of psychology including biological psychology, sensation and perception, learning and memory, language, thought and intelligence, motivation and emotion, human development, personality, abnormal and therapy, human sexuality, social and applied psychology. GE Area D1

**Pre-requisite:** None

**PSY 325**  
3 units  
**The Exceptional Child**  
Introduction to the social, psychological and educational problems of exceptional persons. Includes persons with mental, emotional, sensory, motor, multiple handicaps and gifted children.

**Pre-requisite:** Upper Division Standing

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**Science**

**SCI 100**  
3 units  
**Computer Applications for Scientists & Engineers**

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Use of computer applications components of a technical project proposal. Introduction to problem-solving methods and practices. Research and data collection using the Internet and other sources. The course emphasizes the use of word processing, presentation, spreadsheet and web-based software to develop and present a technical project proposal. (2 lecture units and 1 lab unit)

**Pre-requisite:** None

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**Spanish**

**SPA 100**  
3 units  
**Elementary Spanish I**  
Fundamentals of Spanish. Includes listening, speaking, grammar, reading and writing. Emphasis placed on classroom vocabulary and development of communication skills in cultural context.

**Pre-requisite:** None

**SPA 110**  
3 units  
**Elementary Spanish II**  
Fundamentals of Spanish. Continuation of Spanish 100. Includes listening, speaking, grammar, reading and writing. Emphasis placed on classroom vocabulary and development of communication skills in cultural context.

**Pre-requisite:** SPA 100 or consent of instructor

**SPA 230**  
3 units  
**Spanish for the Spanish Speaker I**  
Fundamentals of grammar and composition especially structured for native speakers. Emphasis on use of correct language structure. Content based on literary works.

**Pre-requisite:** Consent of instructor

**SPA 231**  
3 units  
**Spanish for the Spanish Speaker II**  
Fundamentals of grammar and composition especially structured for native speakers or specific needs of bilingual students of Hispanic background and others with equivalent language skills. Content based on selected literature. Emphasis placed on composition.

**Pre-requisite:** SPA 230 or consent of instructor

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**Special Topics**

**SPT 299; 399; 599**  
1-3 units  
**Special Topics**  
Students who wish to research an area of study that is not included in the curriculum may petition for a special project within their respective department. Students will complete the Special Topics form and meet with an instructor to plan the content. The
Chair of their Department must sign the form.
Students may not register for more than two (2) special projects per academic career.
Pre-requisite: Consent of instructor

Speech

SPC 100  
3 units
Public Speaking
This course is designed to explain the theory and practice of oral communication. Emphasis will be placed on organization, presentation, and evaluation of various types of speeches. Students will be able to express their own ideas and experience the diverse perspectives of their fellow classmates through exercises, discussions, and formal speeches. Students will engage in critical listening, analyze audiences, and adapt presentations to the audience. They will understand the ethical responsibilities of a public speaker. GE Area A1
Pre-requisite: None

SPC 300  
3 units
Argumentation and Advocacy of World Issues
This course investigates and applies principles of argumentation to understanding theoretical models of argument and critical thinking, as well as being able to apply communication contexts. Inquiry and advocacy in public issues for intelligent participation and analysis in discussion and debate will result from student learning. The role rhetoric plays in contemporary culture and world issues will include topics such as: political advocacy, science, technology mass persuasion and contemporary social issues. Upper Division GE Area III
Pre-requisite: SPC 100, PHL 200 or ENG 201

Teacher Education Special Education

SPED 500  
2 units
Assessment and Instructional Planning
The purpose of this course is to expose students to a variety of assessment techniques appropriate for individuals with exceptionalities. Emphasis will be on those instruments and assessment methods which provide direction for instruction as well as diagnosis, including, but not restricted to: traditional psychometric instruments, curriculum-based assessment, clinical observation, interviews, dynamic assessment, criterion-referenced assessment, and other alternative assessment techniques. The course also focuses on methods for assessing, instructing, and modifying curriculum so that students with disabilities, language, and other learning differences are able to reach their full potential.

SPED 502  
3 units
Curriculum and Instruction Adaptations
This special education methods course is designed to present information on the instruction of students with disabilities. A focus on diversity is inherent in the design of the course and information of teaching culturally and linguistically diverse students is infused throughout. Students will learn adaptations in curriculum and instruction for students with disabilities in language development, reading, language arts including: informal assessment, formulation of long and short term instructional objectives, design and delivery of instruction including lesson development, ongoing assessment, and modification of instruction based on student progress.

SPED 503  
3 units
Teaching Mild to Moderate Students
This course is designed to provide an overview of special education disabilities and programs for the education of children, youth, and young adults with mild/moderate disabilities. SPED 503 focuses on creating responsive environments, planning and organizing instruction, and various educational approaches including technology for diverse learners with mild/moderate disabilities. Research in the field is reviewed with emphasis on current trends. It provides a knowledge base and introduces skills necessary for the teacher in contemporary educational environments to assess, plan for, instruct, and evaluate students with mild/moderate disabilities.

Translation & Interpretation

T&I 201  
3 units
Intensive Grammar for T&I
This course is an intensive review of the structure and function of the elements of Spanish and English grammar, from a translation/interpretation perspective. The course studies articles, nouns and pronouns adjectives, adverbs, verbs tenses, prepositions and conjunctions from a Spanish/English comparative standpoint and context unique to the translator/interpreter, rules for forming new words, and of ortografía (spelling, punctuation, and accents; and basic sentence structure).
Pre-requisite: Consent of coordinator

T&I 301  
3 units
Socio-Cultural Foundation of Language in Translation
An examination of the link between linguistic ad cultural factors, and its importance to the interpretation and translation talk. Course will cover: (a) cultural issues in translation (compromise and compensation); (b) formal properties of texts: Phonic/graphic and prosodic; grammatical and lexical; sentential, inter-
sentential and intertextual; (c) literal and connotative meaning; and (d) social and tonal registers.

**Pre-requisite: T&I 201 or consent of coordinator**

**T&I 302**  
3 units  
Theory and Techniques in Translation and Interpretation  
An exploration of translation and interpretation theories and basic techniques available to the translator and interpreter. Course will cover principles of fidelity. Comprehension models of interpretation and translation, sequential model of translation, knowledge acquisition, efforts model, techniques to cope with simultaneous interpretation and conference interpreting.

**Pre-requisite: T&I 301 or consent of coordinator**

**T&I 314**  
3 units  
Technical Translation/Terminology: Banking, Commerce and Finance  
Develops skills in two-language translation in vocabulary used in banking, commerce and finance. Emphasis given to Spanish to English and English to Spanish with specialized terminology.

**Pre-requisite: 6 units of T&I foundation courses or consent of instructor or T&I coordinator**

**T&I 315**  
3 units  
Technical Translation/Terminology: Political, Government & International Relations  
Study of text materials used by international organizations and governmental agencies. Translation and interpretation exercises increase bilingual terminology in political debates, conference meetings, memoranda, contract forms, minutes, press releases and records.

**Pre-requisite: 6 units of T&I foundation courses or consent of instructor or T&I coordinator**

**T&I 316**  
3 units  
Spanish Medical Terminology: Anatomy and Physiology  
This course covers Spanish medical terminology for the human body, its nature and system. The student will gain skills in translating/interpreting medical documents used in general medical practice, such as medical office correspondence, informational brochures, office and hospital intake questionnaires, and other documents. Translation and interpretation skills will be reinforced through class activities.

**Pre-requisite: 6 units of T&I foundation courses or consent of instructor or T&I coordinator**

**T&I 318**  
3 units  
Spanish Medical Terminology: Diseases and Treatment  
This course will cover Spanish medical terminology for general diseases, first aid in emergencies and common injuries. The student will also learn how to interpret laboratory tests, medical history questionnaires, medical disability reports and other documents. Translation and interpretation skills will be reinforced through class activities.

**Pre-requisite: 6 units of T&I foundation courses or consent of instructor or T&I coordinator**

**T&I 410**  
3 units  
Computers and Technology in Translation  
Designed for pre-professional and professional translators who perceive technology as translation strategy. Examination of current issues in computer technology and other high-tech resources to assist translators. Translation of technical texts and manuals will be analyzed.

**Pre-requisites: Computer skills and consent of instructor**

**T&I 413**  
3 units  
Legal Translation  
Emphasizes written translation of legal text, sight translation exercises (English and Spanish), analysis of legal translation samples for terminology acquisition. Methodologies for adding to personal terminology bank.

**Pre-requisite: 6 units of T&I foundation courses or consent of instructor or T&I coordinator**

**T&I 414**  
3 units  
Legal Interpretation  
Emphasizes legal terminology and interpretation skills used in law offices, administrative hearings, court proceedings, work compensations, immigration, and government and public offices. Exercises to improve sight translation; consecutive and simultaneous interpretation modes are enhanced.

**Pre-requisite: 6 units of T&I foundation courses or consent of instructor or T&I coordinator**

**University**

**UNI 100**  
3 units  
First-Year Seminar  
This course will promote student success at the university by assisting students to develop the skills, behaviors, and attitudes conducive to the achievement of their educational, personal, and career goals. New students will engage intellectually, socially, emotionally, and physically in the college experience.

GE, Area E  
**Pre-requisite: None**