Course Descriptions

Anthropology

ANT 100  3 units
Introduction to Anthropology
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, interpret, and affect the world in which they live. GE Area D1
Pre-requisite: None

ANT 125  3 units
Human Understanding and Development
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  3 units
Cultures of Mexico
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  3 units
Art Appreciation
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  3 units
Visual and Performing Arts
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  4 units
General Biology
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  3 units
Introduction to Business
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  3 units
Personal and Professional Skills Integration
Overviews of language, culture, values and personal identity, are examined from the perspective 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  3 units
Principles of Microeconomics
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 20:

• Business process overview and how SAP R/3 supports these business processes,
• Introduction and navigation through SAP R/3,
• Concepts and features of SAP R/3 to analyze, control and perform business tasks, SAP R/3 and the support of effective business processes.


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. Students 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 344 3 units
Personal Financial Management
The course was designed as an introduction to basic theory and application of personal finance principles and is directed toward the undergraduate student with little or no prior finance or accounting knowledge. The
primary goal of this course is to provide the student with a foundation in personal finance in order to allow the student to develop a financial plan that they can use to reach their individual life goals and objectives.

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 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 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

BUS 498 3 units
Supervised Senior Practicum
Coordinated training combining experience in a business field with academic analysis. Principles theory and practice applied to real life situations. Individual study and conferences with instructor. Students must analyze business organizations to determine needs, issues and problems. Major report and presentation required. By arrangement with faculty advisor.

(Formerly BUS 499)

Pre-requisite: BUS 245

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 252 3 units
Practicum in Child Development
This course combines field experience and seminars relating theory and research to practice. It focuses on developing reflective practitioners who will become more aware of their own teaching styles in relation to curriculum planning and children's needs. The course also emphasizes planning and implementation of developmentally appropriate activities for culturally and linguistically diverse children, including children with special needs while addressing the physical, social, emotional, and cognitive developmental domains.

Pre-requisite: Completion of 12 units in Child Development

CD 254 3 units
Adult Supervision: Program and Professional Assessment
This course is an in-depth study of effective application of management and supervision procedures in child development settings. Emphasis is placed on the study of methods and principles of program planning and professional assessment, evaluation, and communication appropriate for individuals who supervise adult teachers and volunteers in child development programs.

Pre-requisite: Completion of 12 units in Child Development

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

Child Development

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
the value and importance of implementing an anti-bias curriculum. Field based instructional activities required. 

*Pre-requisite: Upper Division Standing*

**CD 352**  
**Cognitive and Language Development**  
This course covers theories and research on the stages of child language acquisition, first and second language learning, the relationship between language and cognition, and how they relate to the development of oral and written languages. Emphasis is placed on multicultural language-rich environments that support language and literacy development of monolingual and dual language learners in group care settings and schools. It also critically analyzes current research on brain development in the first five years and its impact on developmentally appropriate practice for children. 

*Pre-requisite: Upper Division Standing*

**CD 453**  
**Research in Child Development**  
This course covers different research methodologies for observing and understanding children’s behavior, and their implications for policy making in the child development field. Contents include critical analysis and evaluation of qualitative and quantitative research in child development and its implications for curriculum in schools and child development programs serving children infancy through middle childhood. Emphasis will be placed in developing skills needed to locate, understand and critique research findings. Students will also design a research project. 

*Pre-requisites: Senior Standing*

**CD 454**  
**Practicum in Child Development II**  
This course combines in-depth field experience in various types of child development programs with seminars as it integrates theory and research into practice. It focuses specifically on the role of the teacher supervising other adults while simultaneously addressing children’s needs and establishing relationships with families. The course also emphasizes planning and implementation of developmentally appropriate activities for culturally and linguistically diverse children while addressing the physical, social, emotional, and cognitive developmental domains. 

(1 lecture unit and 2 practicum units) 

*Pre-requisites: Upper division standing*

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**Chemistry**

**CHE 130**  
**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**  
**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, binding, 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**  
**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*

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**Computer Science/Information Systems**

*Note: Not accepting new students into the CS Program, as it is currently under review.*

**CS 100**  
**Introduction to Computers**  
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) 

*Pre-requisite: None*

**CS 101**  
**Introduction to Programming**  
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)

Pre-requisite: CS 103

CS 103 3 units
Advanced Computer Applications
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

CS 105 3 units
Object-Oriented Programming I
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

CS 106 3 units
Object-Oriented Programming II
Advanced programming techniques, problem solving, algorithms, and structured program design. Develop structured program design, control 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 103

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 103 or consent of instructor*

**CS 322** 3 units
**Client Administration**
Installation and configuration of a network workstation using current Network Operating System software. Formatting and partitioning of disks, creation of file-sharing and print-sharing services. Creation and removal of user accounts, booting and shutting down systems safely, creating and managing local system resources. Create system backups, and manage security access services provided by the NOS software. Key network protocols and standards. (2 lecture units and 1 lab unit)

*Pre-requisites: CS 212*

**CS 330** 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 103 and CS 150*

**CS 332** 3 units
**Server Administration**

*Pre-requisite: CS 322*
CS 340
Advanced Networking
3 units
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
Object-Oriented Analysis and Design
3 units
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
Graphical Programming
3 units
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
3 units
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
3 units
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
3 units
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
* These courses can be substituted for upper division courses
offered in 4-year institutions such as Database Management
Systems, Database Design, Networked Databases, Web
Design & Programming, Middleware, Multimedia, IT
Security, e-Commerce, Computer Graphics and Visualization,
High-Performance Computer Architecture, Artificial
Intelligence, Applied Logic, Relational Database Systems,
Information Resource Management and Data Administration,
Database Design and Administration, Visual Programming,
Macroeconomics, Business Statistics, and other topics of
interest with prior approval from the Department Chair.

Dance

DAN 120
Dance
1.5 units
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
Introduction To Early Childhood Education
3 units
This course introduces current educational theories and
research, historical aspects, and current practices
relating to Child Development. 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 101*

**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 Child Development on human development. Some fieldwork is required.
*Pre-requisite: ECE 101, ECE 102, ECE 103*

**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 101, ECE 102, ECE 103, and 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 101*

**ECE 107** 3 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 101*

**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 101, ECE 103, and ECE 105*

**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 101 and ECE 103*

**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 Child Development. 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 101 and ECE 103*

**ECE 111** 3 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 102, ECE 104

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 101, ECE 103

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.
Pre-requisite: ECE 101, ECE 103

ECE 214  3 units
Behavior 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.
Pre-requisite: ECE 101, ECE 103

ECE 215  3 units
Management of Child Care Centers
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.
Pre-requisite: ECE 101, ECE 103

ECE 216  3 units
Infant-Toddler Care and 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.
Pre-requisite: ECE 101

ECE 217  1 unit
Administering a Family Child Care
This course will provide ideas and information to family day care providers to assist them in the successful operation of a family day care home. Information on licensing regulations, developing policies and contracts, maintaining financial and other records, marketing strategies, child neglect and abuse report requirements and community resources will be provided. The integration of family day care and home life will also be explored.
Pre-requisite: None

ECE 218  1 unit
Early Childhood Environments
This course explores research-based concepts in creating and implementing routines as well as indoor and outdoor early childhood environments that meet the developmental needs and interests of culturally and linguistically diverse children, and those with special needs. Some fieldwork is required.
Pre-requisite: None

ECE 219  2 units
Inclusive Practices for Children
This course examines inclusive practices for children from birth to the age of five and specifically addresses ways to promote and support success in children within relationship-based child care. Students will work on strategies for meeting the needs of individual children including making adaptations and modifications in the environment and on the curriculum.
Pre-requisite: None

Education

EDU 100  3 units
Technology Essentials for Educators
This course is designed to provide students with the level of computer literacy needed to function in today’s early childhood educational settings. This course provides interactive computer activities to learn about the role of computers in education and is designed to introduce students to computers and to teach appropriate uses for young children. Students will explore online and Internet resources, learn word processing applications, and become familiar with a number of educational software packages used in education.
Pre-requisite: none

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 portfolios 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 the end of their sophomore year. Instructors will assist 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: none

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 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,
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

**Methods: 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.

*Pre-requisites: Subject Matter Competency for multiple subject candidates*

**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 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 3 units
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.

EDU 552 3 units
Computer Technology for Teaching/Learning II
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.

EDU 555 4 units
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 3 units
Creating Healthy Classrooms
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 561 2 units
Creating Inclusive Classrooms
The purpose of this course is to discuss ways in which the diverse learner can be accommodated in the general education setting. The course will begin by reviewing strategies that can be implemented at the classroom level and then focus on some special needs students and how to individually tailor lessons to meet their particular needs. Students in this course will become familiar with general characteristics and needs that many exceptional learners share and will learn strategies that can help accommodate these needs. At the end of this course, students will have several modified instructional units that they can begin implement in their own classrooms.

Pre-requisite: Preliminary Credential

EDU 567 3 units
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 3 units
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 2 units
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. 

Pre-requisite: MAT 121, Sophomore Status

EGR 225 3 units
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 4 units
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 3 units
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.

Pre-requisite: none

ENG 45 3 units
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: none

ENG 100 3 units
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
Critical Thinking, Reading, and Writing Across the Curriculum
This course explores the skills of critical reasoning, reading, and writing across the academic disciplines. Students will examine and analyze the structure of formal and informal arguments and ways people use language to persuade. Course includes formal logic, critical essays, and research strategies. GE Area A3

Pre-requisite: ENG 100

ENG 250 3 units
Contemporary Multicultural Literature
This course will focus on the literatures of all peoples in American society since the beginning of the 20th Century. The course will emphasize literature from African American, Asian American, Latino American, and Native American writers, covering the broad themes and deep concerns of those communities represented. GE Area C2

Pre-requisite: ENG 100

ENG 300 3 units
Advanced Writing Skills
Extended writing assignments. Includes rhetorical modes, narrative, process-analysis, cause and effect, and argumentation and persuasion. Introduces writing formats of summary, synthesis and critique. Students demonstrate competency in content development, sentence mechanics and editing techniques. Upper Division GE Area I

Pre-requisite: ENG 201, Must pass the Junior Writing Proficiency Exam or pass ENG399 with a grade of “C” or better.

ENG 301 3 units
Introduction to World Literature
A survey of world literature representing the various cultures of Africa, Asia, Central and South America, Europe, the Island Nations, the Middle East, and North America. Works include major literary genres: poetry, plays, essays, short stories, and novels. Analysis includes comparison and contrast of different forms and themes, literary criticism, and historical and cultural analysis. The authors represent human diversity and varieties of philosophies and styles. Upper Division GE Area II

Pre-requisite: ENG 100, Junior Status
ENG 302  3 units  
American Literature I (1600-1865)  
A study of selected works of American authors from 1600 to 1865. The course introduces various genres of early American writing including essays, letters, short stories, poetry and novel. The assigned readings will represent diverse authors presenting a variety of philosophies and styles. Students will be required to reflect on the relationship between the themes presented and the development of American culture and to develop their active and responsive reading skills. The 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 399  3 units  
The Craft of Academic Writing  
This course features the various genres of academic writing, emphasizing the rhetorical and stylistic features that each genre entails. The course is designed as an alternative to the university’s Junior Writing Proficiency Test. During ENG 399, students will demonstrate their academic writing ability by completing a rigorous and varied array of writing assignments, including extensive practice in expository and argumentative writing. A grade of “C” or better in ENG 399 satisfies NHU’s upper-division written English proficiency requirement.  
Pre-requisite: Two “no pass” scores on the Junior Writing Proficiency Test

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

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

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 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 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 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

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**  
**Principles of 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*

**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).  
*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).  
*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**  
**3 units**  
**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

MAT 50  3 units
Geometry
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.
Pre-requisite: MAT 45

MAT 100  3 units
College Algebra
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
Pre-requisite: MAT 45 or satisfactory score on Math Assessment Test

MAT 108  3 units
Number Systems
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. Pre-requisite: 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)

MAT 115  3 units
Trigonometry and Analytic Geometry
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.
Pre-requisite: Satisfactory score on Math Assessment Test, 2 years of high school algebra, and 1 year high school geometry; or MAT 100

MAT 120  4 units
Calculus and Analytic Geometry I
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.
Pre-requisite: Satisfactory score on Math Assessment Test, 2 years of high school algebra, 1 year high school geometry, and 1 high school trigonometry; or MAT 115

MAT 121  4 units
Calculus and Analytic Geometry II
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.
Pre-requisite: MAT 120

MAT 122  4 units
Calculus and Analytic Geometry III
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.

*Pre-requisite: MAT 121*

**MAT 200** 3 units  
**Conceptual Geometry**  
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.

*Pre-requisite: MAT 121*

**MAT 220** 4 units  
**Differential Equations**  
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.

*Pre-requisite: MAT 122*

**MAT 312** 3 units  
**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. GE Area A.3

*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, sociocultural, 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. GE Area B.1

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

Political Science

POL 101  3 units
Introduction to American Government
This course examines the structure, development and dynamics of American political institutions and processes. It will address major topics such as the U.S. Constitution, Federalism, the Presidency, Congress, and the Judiciary. The course includes a study of California state and local government, including the California Constitution.
Pre-requisite: None

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
This course covers issues related to children with special needs and the impact on families. It examines the four largest categories of exceptionality among young children: learning disabilities, speech and language impairments, mental retardation, and emotional disturbance. Teaching practices and philosophies of inclusion in child development programs and schools are discussed and adaptations and intervention methods are highlighted.
Pre-requisite: Upper Division Standing

Science

SCI 100  3 units
Computer Applications for Scientists & Engineers
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

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-requisites: 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-requisites: PHY 150C, MAT 121 (may be taken concurrently)
present a technical project proposal. (2 lecture units and 1 lab unit)
Pre-requisite: None

Social Science

SOC 101 3 units
Introduction to Sociology
This course is an introduction to the field of sociology. Students will learn fundamental concepts and the major approaches in the analysis of social behavior. The course addresses major topics such as race and ethnic relations, social class and mobility, role and status, and social institutions
Pre-requisite: None

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

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-requisites: 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 501** 3 units  
**Behavior Management and Intervention**  
This course looks at strategies for constructing collaborative learning environments that promote positive behavior and active learner participation. Behavior management approaches and classroom design discussed within the context of this course will focus on developing dynamic learning environments that accommodate diverse educational needs and that are centered on positive and proactive learner supports. Students will gain knowledge of components of positive behavior support plans and intervention strategies. Individual, small group and large group supports for success will be addressed. Discussions on the legal aspects of behavioral support, aspects of challenging communication, self-advocacy, systems change, and school violence are included.

**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, on-going 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 and Interpretation**

**T&I 205** 3 units  
**Syntax and Discourse Analysis I**  
This course covers syntax, sentence structure, organization of a work, and interrelationship to meaning and discourse, within a critical hermeneutic perspective, and discusses applications for reading-comprehension and writing-composition. Course examines key aspects of the structural linguistics of Saussure, speech acts theories of Austin and Searle, communication model of Jakobson, and Ricoeur’s theories on discourse, as they relate to translation and interpretation.

**T&I 305** 3 units  
**Translation Theory & Technique I**  
This course covers introductory interpretive hermeneutics theory as framework for doing work in text translation; uses discourse-based approaches for editing and comprehending source text; and discusses translation as a process of intermediation between explanation (text) and understanding (reading comprehension) in the intra-language phase, and between understanding and explaining (rendering via writing) in the inter-language phase of translation.

**T&I 306** 3 units  
**Interpretation Theory & Technique I**  
This course covers introductory interpretive hermeneutics theory as framework for doing work in text translation; uses discourse-based approaches for editing and comprehending source text; and discusses translation as a process of intermediation between explanation (text) and understanding (reading comprehension) in the intra-language phase, and between understanding and explaining (rendering via writing) in the inter-language phase of translation.

**T&I 314** 3 units  
**Translation: 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  
**Translation: 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*

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**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*

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**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*

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**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*

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**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*

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**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*