AUTO 94C Automotive Machining and Engine Service 5 Units
Prerequisite: Automotive Technology 94B; approved Automotive Technology Course Sequence Contract.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Ten hours lecture-laboratory (120 hours total per quarter).
Reconditioning engine short block assemblies and components including balancing, assembly and testing.

AUTO 94D Automotive Machining and Engine Service 5 Units
Prerequisite: Automotive Technology 94C; approved Automotive Technology Course Sequence Contract.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Ten hours lecture-laboratory (120 hours total per quarter).
Precision and performance engine preparation with emphasis on improvements in volumetric efficiency. Includes selection and matching of components for maximum efficiency within mandated emissions requirements.

AUTO 94E Automotive Machining and Engine Service 5 Units
(Formerly Automotive Technology 94EA.)
Prerequisite: Automotive Technology 94D.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Ten hours lecture-laboratory (120 hours total per quarter).
Complete automotive machine shop practice including engine repair, assembly, testing, and installation. Researching service and installation procedures and parts and labor estimating.

AUTO 94F Automotive Machining and Engine Service 5 Units
(Formerly Automotive Technology 94EB.)
Prerequisite: Automotive Technology 94E.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Ten hours lecture-laboratory (120 hours total per quarter).
Practice and skill development with emphasis on precision and productivity in rebuilding, servicing, and installing engines. Research and prepare equipment operation and maintenance instructions.

AUTO 99A Automotive Electricity, Battery, and Cranking Systems 6 1/4 Units
Prerequisite: Automotive Technology 50B; approved Automotive Technology Course Sequence Contract.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Twelve and one-half hours lecture-laboratory (150 hours total per quarter).
(May be taken up to three times for credit.)
Automotive electricity including the electron theory, fundamentals of circuit construction and interpretation, principles of magnetism as applied to electric motors, relays and coils. Diagnosis, troubleshooting and servicing of automotive battery and cranking systems including system repair procedures. Developing skills in the use of test equipment including the DVOM and electrical load testing tools for the analysis and diagnosis of these types of electrical systems.

AUTO 99B Automotive Charging, Ignition, and Accessory Systems 6 1/4 Units
Prerequisite: Automotive Technology 99A; approved Automotive Technology Course Sequence Contract.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Twelve and one-half hours lecture-laboratory (150 hours total per quarter).
(May be taken up to three times for credit.)
The fundamentals of automotive electronic devices as they apply to the automotive charging and ignition systems. Emphasis on diagnosis of these systems using test instruments and oscilloscope. Introduction to automotive accessory systems including wiring and repair techniques. Skill development in the understanding of the electrical wiring diagram networks as provided by manufacturers.

AUTO 99C Introduction to Engine Performance 6 1/4 Units
Prerequisite: Automotive Technology 99B; approved Automotive Technology Course Sequence Contract.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Twelve and one-half hours lecture-laboratory (150 hours total per quarter).
(May be taken up to three times for credit.)
Electronically controlled automotive systems. Fundamentals of automotive microprocessors and automotive onboard computers. Testing techniques for system input and output devices. Diagnosis, troubleshooting, and repairing the automotive fuel supply system including carburetion and feedback carburetion. Diagnosis of troubleshooting, and repair techniques for no-start conditions. Procedure development for analyzing and repairing common problems of fuel, ignition, electrical and basic engine mechanical systems which effect engine performance of the automobile.

AUTO 99D Intermediate Engine Performance 6 1/4 Units
Prerequisite: Automotive Technology 99C; approved Automotive Technology Course Sequence Contract.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Twelve and one-half hours lecture-laboratory (150 hours total per quarter).
(May be taken up to three times for credit.)
Electronically controlled engine performance systems. Diagnosis, troubleshooting, and repairing the automotive fuel-injection systems of domestic automobiles. Testing techniques for system input and output devices using automotive scanners and oscilloscopes.

AUTO 99E Basic Engine Performance Diagnostic 6 1/4 Units
Prerequisite: Automotive Technology 99D; approved Automotive Technology Course Sequence Contract.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Twelve and one-half hours lecture-laboratory (150 hours total per quarter).
(May be taken up to three times for credit.)
Automotive technician training program to include each system which aids in increasing fuel economy and in the reduction of emissions and pollutants from the automobile. Diagnosing and troubleshooting the systems controlling automotive performance and drivability.

AUTO 99F Intermediate Engine Performance Diagnostic Procedures 6 1/4 Units
Prerequisite: Automotive Technology 99E; approved Automotive Technology Course Sequence Contract.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Twelve and one-half hours lecture-laboratory (150 hours total per quarter).
(May be taken up to three times for credit.)
Performance tuning of automotive gasoline engines. Emphasis on reference material, dealing with repair procedures, specifications, and efficient tune-up procedures. Intermediate level for usage of computer scanners and oscilloscopes. Diagnosing, troubleshooting, and repairing the systems designed for the control of engine temperature.

Biology

BIOL 5 Biology of Birds 5 Units
(See general education pages for the requirement this course meets)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture, six hours laboratory (84 hours total per quarter).
A general introduction to the biology of birds and the relationships between birds and people around the world. Examines general avian anatomy and physiology with emphasis on diversity and bird identification and the ecology, behavior and conservation of selected bird species.

BIOL 6A Form and Function in the Biological World 6 Units
(See general education pages for the requirement this course meets.)
Prerequisite: A satisfactory score on the Chemistry Placement Exam or a grade of C or better in either Chemistry 1A or 50.
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture, six hours laboratory (120 hours total per quarter).
Introduction to biology and scientific methods for students beginning the biology major series. Study of the structure and physiological processes of living organisms, with an emphasis on plants and animals.

BIOL 6B Cell and Molecular Biology 6 Units
Prerequisite: Biology 6A.
Advisory: English Writing 1A or English as a Second Language 5; Mathematics 114 or equivalent.
Four hours lecture, six hours laboratory (120 hours total per quarter).
Introduction to cellular structure and function, biological molecules, bioenergetics, molecular genetics, and cell proliferation. The laboratory includes extensive hands-on experimentation in molecular biology.

BIOL 6C Ecology and Evolution 6 Units
Prerequisite: Biology 6B.
Advisory: English Writing 1A or English as a Second Language 5; Mathematics 114 or equivalent.
Four hours lecture, six hours laboratory (120 hours total per quarter).
Principles of ecology and evolution. Included is ecology of populations, communities, ecosystems and biomes as well as evolution of populations, and the origin of species and higher taxa. The laboratory portion of the course includes a research project designed, researched and presented by students.

All courses are for unit credit and apply to a De Anza associate degree unless otherwise noted.
BIOL 8 Biology of Women 4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
Described for non-science majors to explore women’s anatomical and physiological characteristics and their management for good health. The emphasis is on the biological processes and principles organizing a “typical” female life progression, with a secondary focus on the structural and functional dimorphism of human body systems. It also aims at recognizing components of the scientific process distorted in the historical view of women and the impact that societal and cultural biases have on behavior and on female health issues.

BIOL 10 Introductory Biology 5 Units
(Not open to students who have completed Biology 6A, 6B, 6C or equivalent.)
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture, three hours laboratory (84 hours total per quarter).
An introduction to biology as a branch of the biological sciences and to its basic unifying principles, with selected application to the scientific method, evolutionary concepts, genetic modification, biotechnology, ecology, ecological crises and human impacts.

BIOL 11 Human Biology 5 Units
(Not open to students who have completed Biology 6A, 6B, 6C or equivalent.)
(See general education pages for the requirement this course meets.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture, three hours laboratory (84 hours total per quarter).
A general introduction to biology and its principles, emphasizing the biology of humans. The course will cover the unifying principles of biology, with emphasis on the basic anatomy and physiology of the human body, as well as on contemporary health issues and their impacts on cultural, ethnic and gender groups.

BIOL 13 Marine Biology 5 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture, four hours laboratory (96 hours total per quarter).
Introduction to physical and chemical oceanography, marine animals, marine plants, and marine ecology with major emphasis on natural history of marine life. Bays, estuaries and open oceans are described as habitats. Marine biology as a branch of the biological sciences, employs the scientific method.

BIOL 15 California Ecology 5 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture, three hours laboratory (84 hours total per quarter).
An introduction to ecology and field biology as a branch of the biological sciences and its relationship to the scientific method. A review of plant and animal adaptations to the natural environment and the impact of pollution, degradation of habitat, and human population on life.

BIOL 26 Introductory Microbiology 6 Units
Prerequisite: Biology 40A, 40B and 40C, or equivalent, with a grade of C or better.
Four hours lecture, six hours laboratory (120 hours total per quarter).
Introduction to the physical and chemical oceanography, marine animals, marine plants, and marine ecology with major emphasis on natural history of marine life. Bays, estuaries and open oceans are described as habitats. Marine biology as a branch of the biological sciences, employs the scientific method.

BIOL 40A Human Anatomy and Physiology 5 Units
Prerequisite: Satisfactory score on the Biology 40A Placement Test or Chemistry 1A or Chemistry 50 or Chemistry 30A with a grade of C or better.
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture, three hours laboratory (84 hours total per quarter).
An introduction to the disciplines of anatomy and physiology. Basic principles of human anatomy and physiology as exemplified in the study of cell chemistry, cell biology, histology and the integumentary, skeletal and muscular systems with emphasis on homeostatic mechanisms.

BIOL 40B Human Anatomy and Physiology 5 Units
Prerequisite: Biology 40A with a grade of C or better.
Four hours lecture, three hours laboratory (84 hours total per quarter).
Study of the nervous, circulatory, and respiratory systems.

BIOL 40C Human Anatomy and Physiology 5 Units
Prerequisite: Biology 40B with a grade of C or better.
Four hours lecture, three hours laboratory (84 hours total per quarter).
Study of the endocrine system, lymphatic system, digestive system, metabolism, urinary and reproductive systems, embryological development and classical Mendelian and modern biochemical genetics including genetic engineering.

BIOL 45 Introduction to Human Nutrition 4 Units
Prerequisite: Biology 40C.
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
The chemical classification of nutrients, their functions within the human body, and the effects of nutritional deficiencies and excesses. The relationship of dietary intakes to health and disease.

BIOL 54H Applied Human Anatomy and Physiology: Support, Movement, and Integration 1 1/2 Units
(Not open to students with credit in Biology 6A, 6B or 6C; or 40A, 40B or 40C; or equivalent.)
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263.
One hour lecture, one and one-half hours laboratory (30 hours total per quarter).
Survey of human anatomy and physiology with emphasis on homeostatic limits of the human body. Topics to be discussed include basic introduction and body organization, chemical basis of life, the cell and its metabolism, tissues, and the skin. (Especially designed for students planning careers in medical assisting, Licensed Vocational Nursing, education, speech, home economics, psychology, physical education and/or recreation.)

BIOL 54J Applied Human Anatomy and Physiology: Absorption, Excretion, and Reproduction 1 1/2 Units
(Not open to students with credit in Biology 6A, 6B or 6C; or 40A, 40B or 40C; or equivalent.)
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263.
One hour lecture, one and one-half hours laboratory (30 hours total per quarter).
Survey of human anatomy and physiology with emphasis on homeostatic limits of the human body. Topics to be discussed include the skeletal, muscular and nervous systems including somatic and special senses. (Especially designed for students planning careers in medical assisting, Licensed Vocational Nursing, education, speech, home economics, psychology, physical education and/or recreation.)

BIOL 77 Special Projects in Biology 1 Unit
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture for each unit of credit (36 hours total for each unit of credit per quarter).
(Formerly Biology 49, 49X and 49Y respectively.)
Prerequisite: Consent of instructor and division dean.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of Biology 77, 77X and 77Y may be taken up to six times, not to exceed 18 units, as long as the projects are different each time.)
Individual research in the biological sciences. Specific projects determined on consultation with the instructor. Outside reading and written report required.

Biotechnology
(See Foothill College Catalog.)
BUS 10  
Introduction to Business  
5 Units  
(Formerly Business 20.)  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 222 and 223.  
Five hours lecture (60 hours total per quarter).  
An overview of the business disciplines, including a brief introduction to marketing, accounting, finance, management, human resources, information technology, economics, international business, business planning, and the role of business in society.

BUS 18  
Business Law I  
5 Units  
Advisory: English Writing 1A or English as a Second Language 5; Business 10.  
(Also listed as Paralegal 18. Students may enroll in either department, but not both, for credit.)  
Five hours lecture (60 hours total per quarter).  
The American legal system and laws applicable to business emphasizing contract, sales and agency laws, the impact of the legal system on business, and ethical considerations in the business environment.

BUS 21  
Business and Society  
5 Units  
(See general education pages for the requirement this course meets.)  
Advisory: English Writing 1A or English as a Second Language 5; Economics 2.  
Five hours lecture (60 hours total per quarter).  
An introduction to the study of the interactions and interdependencies between business, government, and society. Course will examine many individual cases of conflict between business and society, both current and historical, and will guide students to explore the lessons these cases hold for all current and future business managers.

BUS 51  
Customer Service  
4 Units  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 227 and 223.  
Four hours lecture (48 hours total per quarter).  
Developing effectiveness in customer service situations and understanding the complex challenges of effective customer service. Adapting customer service techniques to build long term, successful customer relationships in a culturally diverse world.

BUS 52  
Supervision in the Public Sector  
5 Units  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 227 and 223.  
Five hours lecture (60 hours total per quarter).  
A comprehensive study of the vital aspects of Supervision in the Public Sector with a focus on practical advice in how to handle real-life, on the job situations. Effectively performing supervisory duties in a culturally diverse society.

BUS 54  
Business Mathematics  
5 Units  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 227 and 223; Mathematics 210 or equivalent.  
Five hours lecture (60 hours total per quarter).  
Basic mathematical operations and concepts as related to business and personal finance.

BUS 55  
Introduction to Entrepreneurship  
5 Units  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 227 and 223.  
Five hours lecture (60 hours total per quarter).  
A practical study of the operations and essential skills required in small and start-up businesses. Emphasis on the opportunities and problems faced by entrepreneurs in obtaining, managing and financing an independent business. This course will prepare students for developing business plans.

BUS 56  
Human Relations in the Workplace  
5 Units  
Advisory: English Writing 1A or English as a Second Language 5.  
Five hours lecture (60 hours total per quarter).  
Human relations behavior in organizations emphasizing personal and interpersonal relationships. Examination of motivation, communication skills, leadership skills, emotional and physical wellness, diversity, and ethical behavior for promoting effectiveness on the job.

BUS 57  
Human Resource Management  
4 Units  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 227 and 223; Business 10 or 56.  
Four hours lecture (48 hours total per quarter).  
Introductory course designed to teach fundamental components of the Human Resource function. Focus on understanding and applying various roles of Human Resources (recruitment, legal issues, selection, assessment and development, compensation, benefits) provides to employees and the organization to meet individual, organizational diversity and societal objectives.
BUS 67B Advanced Tax Accounting I 4 Units
(Formerly Business 68A.)
Advisory: Accounting 67A or Business 67A.
(Also listed as Accounting 67B. Students may enroll in either department, but not both, for credit.)
Four hours lecture (48 hours total per quarter).
A study of current federal income tax law and California income tax law as it relates to individuals and sole proprietorship taxes.

BUS 69 Investment Fundamentals 4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 210 or equivalent.
Four hours lecture (48 hours total per quarter).
Introduction to investments: securities characteristics and rights; selection and purchase of stock; analysis of financial statements; investment methods; technical market and stock analysis; impact on financial planning.

BUS 70 Principles of E-Business 5 Units
Requisite/Advisory: None.
Five hours lecture (60 hours total per quarter).
Theory and practice of effectively conducting and managing business over the Internet. Insights into e-commerce, strategy, technology, auctions, and marketing. Students are expected to complete computer assignments.

BUS 85 Business Communication 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Applications and Office Systems 84A and 84B.
Three hours lecture (36 hours total per quarter).
Application of writing skills to business communications; public relations functions of business correspondence.

BUS 87 Introduction to Selling 4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 210 or equivalent.
Four hours lecture (48 hours total per quarter).
Application of business and behavioral sciences in a selling environment. Building successful relationships in a culturally diverse world.

BUS 89 Advertising 5 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture (60 hours total per quarter).
Historical, economic, and social aspects of advertising; role of the advertising agency; media alternatives and the development of creative advertising copy; development of advertising budgets; analysis of successful advertising campaigns.

BUS 90 Principles of Marketing 5 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture (60 hours total per quarter).
Fundamentals of marketing: product planning and development; pricing strategies; marketing channels.

BUS 91 Introduction to Personal Finance 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter).
Introduction to a range of personal financial planning fundamentals including spending habits, taxes, saving, investing, and insurance. Planning for major life events such as paying for college, buying a home, and retiring comfortably.

BUS 96A Principles of Management 5 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture (60 hours total per quarter).
Roles, functions, and responsibilities of management; the external environments and their impact on management.

BUS 98U Internship, Business/Computer Systems 1 Unit
Division

BUS 98V 2 Units
BUS 98W 3 Units
BUS 98X 4 Units
BUS 98Y 5 Units
BUS 98Z 6 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Accounting 98U-Z, Computer Applications and Office Systems 98U-Z, and Computer Information Systems 98U-Z. Students may enroll in only one department for credit.)
Four hours laboratory per unit of supervised internship in an authorized office or agency (48 hours total for each unit of credit per quarter).

(Any combination of Accounting 98U-Z, Business 98U-Z, Computer Applications and Office Systems 98U-Z, and Computer Information Systems 98U-Z may be taken up to six times, not to exceed 18 units, for credit. During each internship, students will be placed at different employer locations, different working environments, and/or given different assignments within the same company or department--thus providing the students with various opportunities to learn different skills. Students may repeat the same internship location and working environment if the student, employer, and instructor believe it would provide the student with increased work experience.)

Off-campus supervised experiential education/internship for Business/Computer Systems Division students in research or business office environments related to student's major. Practical application of knowledge, skills and abilities acquired in student's major. Opportunity for additional hands-on training. Exposure to varied corporate, state and federal protocols, methodologies and practices in a professional environment.

CAD and Digital Imaging

CDI 51 Geometric Dimensioning and Tolerancing 2 Units
(Formerly CAD and Digital Imaging 51C.)
Requisite/Advisory: None.
Four hours lecture-laboratory (48 hours total per quarter).
Geometric dimensioning and tolerancing, utilizing ANSI Y14.5M standards as they apply to engineering and manufacturing drawings and machining.

CDI 56 Special Projects in CAD 1 Unit
2 Units
3 Units
Prerequisite: Consent of instructor and division dean.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of CAD and Digital Imaging 56, 56X and 56Y may be taken up to six times, not to exceed 18 units, as long as the projects are different each time.)
Projects advancing student's knowledge and experience in a selected area of CAD. Student will complete project objectives/requirements as determined in 3, 4, and 5 of the Special Projects Contract.

CDI 57B Simultaneous Product Development 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Product design using 3D CAD software. Application of simultaneous product development and design.

CDI 58B Unigraphics NX (Beginning) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Fundamentals of computer-aided design and drafting using Unigraphics software. Application of Unigraphics in creating manufacturing models.

CDI 59B Unigraphics (Update) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Principles and application changes in the Unigraphics software and system. Designed to upgrade users to the latest version yearly.

CDI 60C SolidWorks (Beginning) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Fundamentals of computer-aided design and drafting using SolidWorks software. Application of SolidWorks in creating manufacturing models.

CDI 60D SolidWorks (Beginning) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Fundamentals of computer-aided design and drafting using SolidWorks software. Application of SolidWorks in creating manufacturing models.

CDI 60E SolidWorks (Beginning) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Fundamentals of computer-aided design and drafting using SolidWorks software. Application of SolidWorks in creating manufacturing models.

CDI 61C SolidWorks (Intermediate) 4 Units
Prerequisite: CAD and Digital Imaging 60C.
Eight hours lecture-laboratory (96 hours total per quarter).
Intermediate-level application of SolidWorks in creating solid models and drawings. Introduction to surface features and basic surfacing techniques.
CDI 61D SolidWorks (Intermediate) 4 Units
Prerequisite: CAD and Digital Imaging 60D.
Eight hours lecture-laboratory (96 hours total per quarter).
Intermediate-level application of SolidWorks in creating solid models and drawings.
Introduction to surface features and basic surfacing techniques.

CDI 61E SolidWorks (Intermediate) 4 Units
Prerequisite: CAD and Digital Imaging 60E.
Eight hours lecture-laboratory (96 hours total per quarter).
Intermediate-level application of SolidWorks in creating solid models and drawings.
Introduction to surface features and basic surfacing techniques.

CDI 61F SolidWorks (Intermediate) 4 Units
Prerequisite: CAD and Digital Imaging 60F.
Eight hours lecture-laboratory (96 hours total per quarter).
Intermediate-level application of SolidWorks in creating solid models and drawings.
Introduction to surface features and basic surfacing techniques.

CDI 62C SolidWorks (Advanced) 4 Units
Prerequisite: CAD and Digital Imaging 61C.
Eight hours lecture-laboratory (96 hours total per quarter).
Advanced CAD modeling techniques using SolidWorks. Emphasis is on surface modeling and “top-down” design.

CDI 62D SolidWorks (Advanced) 4 Units
Prerequisite: CAD and Digital Imaging 61D.
Eight hours lecture-laboratory (96 hours total per quarter).
Advanced CAD modeling techniques using SolidWorks. Emphasis is on surface modeling and “top-down” design.

CDI 62E SolidWorks (Advanced) 4 Units
Prerequisite: CAD and Digital Imaging 61E.
Eight hours lecture-laboratory (96 hours total per quarter).
Advanced CAD modeling techniques using SolidWorks. Emphasis is on surface modeling and “top-down” design.

CDI 63A SolidWorks (SURFACES) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Surface design using SolidWorks software. Application of surfaces in creating product models and molds for industry.

CDI 63D SolidWorks (SURFACES) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Surface design using SolidWorks software. Application of surfaces in creating product models and molds for industry.

CDI 64A SolidWorks (PDWMWorks) 2 Units
Requisite/Advisory: None.
Four hours lecture-laboratory (48 hours total per quarter).
Product data management using PDWMWorks software. Application of PDM for controlling and manipulating design files. PDWMWorks is a CAD data management solution that captures file revision histories. Product design teams use this program to access files, determine project status, and observe modification history of engineering projects.

CDI 64B SolidWorks (PDWMWorks) 2 Units
Requisite/Advisory: None.
Four hours lecture-laboratory (48 hours total per quarter).
Product data management using PDWMWorks software. Application of PDM for controlling and manipulating design files. PDWMWorks is a CAD data management solution that captures file revision histories. Product design teams use this program to access files, determine project status, and observe modification history of engineering projects.

CDI 67D SolidWorks (Simulation) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Application of Simulation to validate and optimize 3D models by measuring stress and displacement distributions of new designs through simulating responses to structural and thermal loads.

CDI 67E SolidWorks (Simulation) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Application of Simulation to validate and optimize 3D models by measuring stress and displacement distributions of new designs through simulating responses to structural and thermal loads.

CDI 69C SolidWorks (Update) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Principles and application changes in the SolidWorks software and system. Designed to upgrade users to the latest version yearly.

CDI 69D SolidWorks (Update) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Principles and application changes in the SolidWorks software and system. Designed to upgrade users to the latest version yearly.

CDI 69E SolidWorks (Update) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Principles and application changes in the SolidWorks software and system. Designed to upgrade users to the latest version yearly.

CDI 70C Pro/ENGINEER Wildfire (Beginning) 4 Units
Prerequisite: CAD and Digital Imaging 70C.
Assembly creation and drawing output using Pro/ENGINEER.

CDI 70D Pro/ENGINEER Wildfire (Beginning) 4 Units
Prerequisite: CAD and Digital Imaging 70D.
Assembly creation and drawing output using Pro/ENGINEER.

CDI 71C Pro/ENGINEER Wildfire (Intermediate) 4 Units
Prerequisite: CAD and Digital Imaging 71C.
Assembly creation and drawing output using Pro/ENGINEER.

CDI 71D Pro/ENGINEER Wildfire (Intermediate) 4 Units
Prerequisite: CAD and Digital Imaging 71D.
Assembly creation and drawing output using Pro/ENGINEER.

CDI 71E Creo Parametric (Intermediate) 4 Units
Prerequisite: CAD and Digital Imaging 71E.
Assembly creation and drawing output using Creo Parametric (formally Pro/ENGINEER).

CDI 72C Pro/ENGINEER Wildfire (Advanced) 4 Units
Prerequisite: CAD and Digital Imaging 72C.
Advanced design and photo-rendering modules and capabilities from Pro/ENGINEER are used to create unique designs and display them in a realistic, lifelike setting.

CDI 72D Pro/ENGINEER Wildfire (Advanced) 4 Units
Prerequisite: CAD and Digital Imaging 72D.
Advanced design and photo-rendering modules and capabilities from Pro/ENGINEER are used to create unique designs and display them in a realistic, lifelike setting.

CDI 72E Creo Parametric (Advanced) 4 Units
Prerequisite: CAD and Digital Imaging 72E.
Advanced design and photo-rendering modules and capabilities from Creo Parametric (formally Pro/ENGINEER) are used to create unique designs and display them in a realistic, lifelike setting.

CDI 73C Pro/ENGINEER Wildfire (Pro/SHEETMETAL) 4 Units
Prerequisite: CAD and Digital Imaging 73C.
Principles of sheet metal design using Pro/ENGINEER Pro/SHEETMETAL.
CDI 73D Pro/ENGINEER Wildfire (Pro/SHEETMETAL) 4 Units
Prerequisite: CAD and Digital Imaging 70D.
Eight hours lecture-laboratory (96 hours total per quarter).
Principles of sheet metal design using Pro/ENGINEER Pro/SHEETMETAL.

CDI 73E Creo Parametric (Sheetmetal) 4 Units
Prerequisite: CAD and Digital Imaging 70E.
Eight hours lecture-laboratory (96 hours total per quarter).
Principles of sheet metal design using Creo Parametric (formerly Pro/ENGINEER).

CDI 74C Pro/ENGINEER Wildfire (Pro/SURFACE) 4 Units
Prerequisite: CAD and Digital Imaging 70C.
Eight hours lecture-laboratory (96 hours total per quarter).
Surface design using Pro/ENGINEER software. Application of surfaces in creating product models for industry.

CDI 74E Creo Parametric (Surfaces) 4 Units
Prerequisite: CAD and Digital Imaging 70E.
Eight hours lecture-laboratory (96 hours total per quarter).
Surface design using Creo Parametric (formerly Pro/ENGINEER) software. Application of surfaces in creating product models for industry.

CDI 75C Pro/ENGINEER Wildfire (Pro/MOLD) 4 Units
Prerequisite: CAD and Digital Imaging 70C.
Eight hours lecture-laboratory (96 hours total per quarter).
Application of Pro/ENGINEER's Pro/MOLD in creating manufacturing models.

CDI 75D Pro/ENGINEER Wildfire (Pro/MOLD) 4 Units
Prerequisite: CAD and Digital Imaging 70D.
Eight hours lecture-laboratory (96 hours total per quarter).
Application of Pro/ENGINEER's Pro/MOLD in creating manufacturing models.

CDI 76C Pro/ENGINEER Wildfire (Pro/CABLE) 4 Units
Prerequisite: CAD and Digital Imaging 70C.
Eight hours lecture-laboratory (96 hours total per quarter).

CDI 76D Pro/ENGINEER Wildfire (Pro/CABLE) 4 Units
Prerequisite: CAD and Digital Imaging 70D.
Eight hours lecture-laboratory (96 hours total per quarter).

CDI 77C Pro/ENGINEER Wildfire (Pro/MECHANICA) 4 Units
Prerequisite: CAD and Digital Imaging 70C.
Eight hours lecture-laboratory (96 hours total per quarter).
Application of Pro/MECHANICA to validate and optimize 3D models by measuring stress and displacement distributions of new designs through simulating responses to structural loads.

CDI 77D Pro/ENGINEER Wildfire (Pro/MECHANICA) 4 Units
Prerequisite: CAD and Digital Imaging 70D.
Eight hours lecture-laboratory (96 hours total per quarter).
Application of Pro/MECHANICA to validate and optimize 3D models by measuring stress and displacement distributions of new designs through simulating responses to structural loads.

CDI 77E Creo Parametric (Mechanica) 4 Units
Prerequisite: CAD and Digital Imaging 70E.
Eight hours lecture-laboratory (96 hours total per quarter).
Application Creo Parametric (Mechanica) (formerly Pro/ENGINEER MECHANICA) to validate and optimize 3D models by measuring stress and displacement distributions of new designs through simulating responses to structural loads.

CDI 78D Pro/ENGINEER (Windchill ProductPoint) 2 Units
Prerequisite/Advisory: None.
Four hours lecture-laboratory (48 hours total per quarter).
Product data management using Pro/ENGINEER (Windchill ProductPoint) software. Application of PDM for controlling and manipulating design files. Pro/ENGINEER (Windchill ProductPoint) is a CAD data management solution that captures file revision histories. Product design teams can access files, determine project status, and observe modification history of engineering designs.

CDI 78E Pro/ENGINEER (Windchill ProductPoint) 2 Units
Prerequisite/Advisory: None.
Four hours lecture-laboratory (48 hours total per quarter).
Product data management using Pro/ENGINEER (Windchill ProductPoint) software. Application of PDM for controlling and manipulating design files. Pro/ENGINEER (Windchill ProductPoint) is a CAD data management solution that captures file revision histories. Product design teams can access files, determine project status, and observe modification history of engineering designs.

CDI 79C Pro/ENGINEER Wildfire (Update) 4 Units
Prerequisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Principles and application changes in the Pro/ENGINEER software and system. Designed to upgrade users to the latest version yearly.

CDI 79D Pro/ENGINEER Wildfire (Update) 4 Units
Prerequisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Principles and application changes in the Pro/ENGINEER software and system. Designed to upgrade users to the latest version yearly.

CDI 80C AutoCAD (Beginning) 4 Units
Prerequisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Principles and applications of computer-aided design and drafting using AutoCAD software. Emphasis on 2D drawings and dimensioning.

CDI 80D AutoCAD (Beginning) 4 Units
Prerequisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Principles and applications of computer-aided design and drafting using AutoCAD software. Emphasis on 2D drawings and dimensioning.

CDI 81C AutoCAD (Intermediate) 4 Units
Prerequisite: CAD and Digital Imaging 80C.
Eight hours lecture-laboratory (96 hours total per quarter).
Intermediate mechanical design using AutoCAD software. Emphasis is on the CAD design process and drawing production. Drawings will be produced in 2-D and 3-D.

CDI 81D AutoCAD (Intermediate) 4 Units
Prerequisite: CAD and Digital Imaging 80D.
Eight hours lecture-laboratory (96 hours total per quarter).
Intermediate mechanical design using AutoCAD software. Emphasis is on the CAD design process and drawing production. Drawings will be produced in 2-D and 3-D.

CDI 82C AutoCAD Civil 3D 4 Units
Prerequisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Application of AutoCAD Civil 3D in creating manufacturing models.

CDI 82D AutoCAD Civil 3D 4 Units
Prerequisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Application of AutoCAD Civil 3D in creating manufacturing models.

CDI 83C AutoDesk REVIT Architecture 4 Units
Prerequisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Application of REVIT Architecture in creating building designs and extracting documents.

CDI 83D AutoDesk REVIT Architecture 4 Units
Prerequisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Application of REVIT Architecture in creating building designs and extracting documents.

CDI 83E AutoDesk REVIT Architecture 4 Units
Prerequisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Application of REVIT Architecture in creating building designs and extracting documents.

CDI 85C AutoDesk Inventor 4 Units
Prerequisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Fundamentals of computer-aided design and drafting using AutoDesk Inventor software. Application of Inventor in creating manufacturing models.

CDI 85D AutoDesk Inventor 4 Units
Prerequisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Fundamentals of computer-aided design and drafting using AutoDesk Inventor software. Application of Inventor in creating manufacturing models.

CDI 88C AutoCAD (Update) 4 Units
Prerequisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Principles and application changes in the AutoCAD software. Designed to upgrade users to the latest version yearly.
CDI 86D AutoCAD (Update) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Principles and application changes in the AutoCAD software. Designed to upgrade users to the latest version yearly.

CDI 89A AutoDesk Inventor (Update) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).
Principles and application changes in the Inventor software and system. Designed to upgrade users to the latest version yearly.

CDI 90 Google SketchUp 3D 2 Units
Requisite/Advisory: None.
Four hours lecture-laboratory (48 hours total per quarter).
Pass-No Pass (P-NP) course.
Fundamentals of SketchUp 3D (Google). Application of software in creating 3D models and drawings using Google SketchUp 3D.

CDI 95A CATIA (Beginning) 4 Units
Requisite/Advisory: None.
Eight hours lecture-laboratory (96 hours total per quarter).

CDI 101 CAD Technology Laboratory (Creo) 1/2 Unit
CDI 101X 1 Unit
CDI 101Y 1 1/2 Units
CDI 101Z 2 Units
Credit course - Does not apply to De Anza Associate degree.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of CAD and Digital Imaging 101, 101X, 101Y and 101Z may be taken up to six times for credit as long as the projects are different each time.)
Pass-No Pass (P-NP) course.
Self-paced projects and computer based training on Creo software. Instruction is in the use of CAD technology using projects from other Creo courses. Learning assistance is provided in a designated De Anza center by an approved De Anza instructor who is trained in Creo software. Students will use the classroom available only CBT (Computer based Training) module available for the CAD system. All projects will be derived from this CBT.

CDI 102 CAD Technology Laboratory (SolidWorks) 1/2 Unit
CDI 102X 1 Unit
CDI 102Y 1 1/2 Units
CDI 102Z 2 Units
Credit course - Does not apply to De Anza Associate degree.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of CAD and Digital Imaging 102, 102X, 102Y and 102Z may be taken up to six times for credit as long as the projects are different each time.)
Pass-No Pass (P-NP) course.
Self-paced projects and computer based training on SolidWorks software. Instruction is in the use of CAD technology using projects from other SolidWorks courses. Learning assistance is provided in a designated De Anza center by an approved De Anza instructor who is trained in SolidWorks software. Students will use the classroom available only CBT (Computer based Training) module available for the CAD system. All projects will be derived from this CBT.

CDI 103 CAD Technology Laboratory (AutoDESK) 1/2 Unit
CDI 103X 1 Unit
CDI 103Y 1 1/2 Units
CDI 103Z 2 Units
Credit course - Does not apply to De Anza Associate degree.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of CAD and Digital Imaging 103, 103X, 103Y and 103Z may be taken up to six times for credit as long as the projects are different each time.)
Pass-No Pass (P-NP) course.
Self-paced projects and computer based training on AutoDESK software. Instruction is in the use of CAD technology using projects from other AutoDESK courses. Learning assistance is provided in a designated De Anza center by an approved De Anza instructor who is trained in AutoDESK software. Students will use the classroom available only CBT (Computer based Training) module available for the CAD system. All projects will be derived from this CBT.

CDI 104 CAD Technology Laboratory (Inventor) 1/2 Unit
CDI 104X 1 Unit
CDI 104Y 1 1/2 Units
CDI 104Z 2 Units
Credit course - Does not apply to De Anza Associate degree.
Co-requisite: CAD and Digital Imaging 85A-H or 89A-H.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of CAD and Digital Imaging 104, 104X, 104Y and 104Z may be taken up to six times for credit as long as the projects are different each time.)
Pass-No Pass (P-NP) course.
Self-paced projects and computer based training on Inventor software. Instruction is in the use of CAD technology using projects from other Inventor courses. Learning assistance is provided in a designated De Anza center by an approved De Anza instructor who is trained in Inventor software. Students will use the classroom available only CBT (Computer based Training) module available for the CAD system. All projects will be derived from this CBT.

CDI 105 CAD Technology Laboratory (NX) 1/2 Unit
CDI 105X 1 Unit
CDI 105Y 1 1/2 Units
CDI 105Z 1/2 Unit
Credit course - Does not apply to De Anza Associate degree.
Co-requisite: CAD and Digital Imaging 58A-H or 59A-H.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of CAD and Digital Imaging 105, 105X, 105Y and 105Z may be taken up to six times for credit as long as the projects are different each time.)
Pass-No Pass (P-NP) course.
Self-paced projects and computer based training on NX software. Instruction is in the use of CAD technology using projects from other NX courses. Learning assistance is provided in a designated De Anza center by an approved De Anza instructor who is trained in NX software. Students will use the classroom available only CBT (Computer based Training) module available for the CAD system. All projects will be derived from this CBT.

CDI 106 CAD Technology Laboratory (CATIA) 1/2 Unit
CDI 106X 1 Unit
CDI 106Y 1 1/2 Units
CDI 106Z 2 Units
Credit course - Does not apply to De Anza Associate degree.
Co-requisite: CAD and Digital Imaging 95A-H or 96A-H.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of CAD and Digital Imaging 106, 106X, 106Y and 106Z may be taken up to six times for credit as long as the projects are different each time.)
Pass-No Pass (P-NP) course.
Self-paced projects and computer based training on CATIA software. Instruction is in the use of CAD technology using projects from other CATIA courses. Learning assistance is provided in a designated De Anza center by an approved De Anza instructor who is trained in CATIA software. Students will use the classroom available only CBT (Computer based Training) module available for the CAD system. All projects will be derived from this CBT.

CDI 110A Digital Imaging Software (Photoshop) 4 Units
Credit course - Does not apply to De Anza Associate degree.
Co-requisite: CAD and Digital Imaging 58A-H or 59A-H.
Eight hours lecture-laboratory (96 hours total per quarter).
Pass-No Pass (P-NP) course.
Basic and intermediate principles using digital imaging software to produce graphics for websites, Introduction to digital imaging terminology and software. This course is for the content person to produce Web pages using digital images.

CDI 110B Digital Imaging Software I (Photoshop) 2 Units
Credit course - Does not apply to De Anza Associate degree.
Co-requisite: CAD and Digital Imaging 58A-H or 59A-H.
Eight hours lecture-laboratory (96 hours total per quarter).
Pass-No Pass (P-NP) course.
Basic principles of using digital imaging software to produce graphics for websites, Introduction to digital imaging terminology and software. This course is for the content person to produce Web pages using digital images.
CDI 112Q Digital Imaging Software II (Photoshop) 2 Units
(Students may receive credit for either Computer Applications and Office Systems 112A (or 112I and 112Q); Arts 112A (or 112I and 112Q); or CAD and Digital Imaging 112A (or 112I and 112Q).
Prerequisite: Arts 112I or CAD and Digital Imaging 112I or Computer Applications and Office Systems 112I.
(Also listed as Arts 112Q and Computer Applications and Office Systems 112Q.
Students may enroll in only one department for credit.)
Four hours lecture-laboratory (48 hours total per quarter).
Pass-No Pass (P-NP) course.
Basic and intermediate principles of using digital imaging software to produce graphics for websites. Introduction to digital imaging terminology and software. This course is for the content person to produce Web pages using digital images.

CDI 114A Web Graphics/Animation Software (Flash) 3 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Computer Applications and Office Systems 112A (or 112I and 112Q); or Arts 112A (or 112I and 112Q); or CAD and Digital Imaging 112A (or 112I and 112Q).
(Also listed as Arts 114A and Computer Applications and Office Systems 114A.
Students may enroll in only one department for credit.)
Six hours lecture-laboratory (72 hours total per quarter).
Pass-No Pass (P-NP) course.
Basic and intermediate principles of graphics/animation for the Web. Web graphics/animation terminology and software. This course is for the content person to build a website.

CDI 118A Advanced Web Graphics/Animation Software (Flash) 3 Units
Prerequisite: Computer Applications and Office Systems 114A, or Arts 114A, or CAD and Digital Imaging 114L.
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Computer Applications and Office Systems 900A.
(Also listed as Arts 118A and Computer Applications and Office Systems 118A.
Students may enroll in only one department for credit.)
Six hours lecture-laboratory (72 hours total per quarter).
Pass-No Pass (P-NP) course.
An advanced Flash course that is projects and portfolio based and taught from a designer perspective. Students will be taught how to build a portfolio and animated multimedia presentation. Basic programming skills will be taught along with developing interactive Web-based multimedia presentations using ActionScripts, sound and graphics.

CANT 60A Cantonese - Introductory Conversation 3 Units
(First Quarter)
Prerequisite: None.
Three hours lecture (36 hours total per quarter).
An introduction to the language and cultures of Cantonese-speaking communities. Spoken Cantonese will be introduced with focus on pronunciation and vocabulary, in connection with elements of Chinese and Cantonese culture necessary to understand the language. Intensive drills in the patterns and idioms of daily speech will be supported by sufficient grammar to give flexibility in the spoken language.

CANT 60B Cantonese - Introductory Conversation 3 Units
(Second Quarter)
Prerequisite: Cantonese 60A or equivalent.
Three hours lecture (36 hours total per quarter).
The next course in the introductory conversation Cantonese sequence, following Cantonese 60A. Continues the introduction to the language and culture of Cantonese-speaking communities. The vocabulary and grammatical structures mastered in Cantonese 60A will be consolidated and further developed, in conjunction with elements of Chinese and Cantonese culture. Emphasis will be on practical communication for everyday use, particularly conversational fluency.

CANT 60C Cantonese - Introductory Conversation 3 Units
(Third Quarter)
Prerequisite: Cantonese 60B or equivalent.
Three hours lecture (36 hours total per quarter).
The first course in the intermediate conversation Cantonese sequence, following Cantonese 60C. Continues the introduction to the language and culture of Cantonese-speaking communities in the world. The vocabulary and grammatical structures mastered in Cantonese 60C will be consolidated and further developed, in conjunction with elements of Chinese and Cantonese culture. Elements of Cantonese for business are introduced such as business setting interactions.

CANT 61A Cantonese - Intermediate Conversation 3 Units
(First Quarter)
Prerequisite: Cantonese 60C or equivalent.
Three hours lecture (36 hours total per quarter).
The next course in the intermediate conversation Cantonese sequence, following Cantonese 61A. Continues the introduction to the language and culture of Cantonese-speaking communities in the world. The vocabulary and grammatical structures mastered in Cantonese 61A will be consolidated and further developed, in conjunction with elements of Chinese and Cantonese culture and history to be discussed in class. Elements of Chinese for business are further introduced such as meeting discussions.

CANT 61B Cantonese - Intermediate Conversation 3 Units
(Second Quarter)
Prerequisite: Cantonese 61B or equivalent.
Three hours lecture (36 hours total per quarter).
The high intermediate level of conversation, following Cantonese 61B. Continues the introduction to the language and culture of Cantonese-speaking communities in the world. The vocabulary and grammatical structures mastered in Cantonese 61B will be consolidated and further developed, in conjunction with elements of Chinese and Cantonese culture and history. Current events from newspaper/media will be discussed and elements of Chinese for business are further introduced such as every day commercial transactions.

Career Life Planning

CLP 70 Self-Assessment 4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Students may enroll in either Career Life Planning 70 or 75, but not both, for credit.)
Four hours lecture (48 hours total per quarter).
Examines the decision-making process by exploring theories in career development and other factors such as familial, social, and cultural issues that influence career and lifestyle choices. Utilize self-assessment inventories to identify individual interests, values, skills, and personality types as they relate to career/collge major options. Become familiar with career development software, related technology and develop skills to enhance the job search process.
Chemistry

CHEM 1A General Chemistry 5 Units
(See general education pages for the requirements this course meets.)
Prerequisite: Chemistry 50 or satisfactory score on Chemistry Placement Test; Mathematics 114 or equivalent.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours lecture, six hours laboratory (108 hours total per quarter).
An introduction to the structure and reactivity of matter at the molecular level. Application of critical reasoning to modern chemical theory and structured numerical problem solving. Development of molecular structure from rudimentary quantum mechanics, including an introduction to ionic and covalent bonding. Chemical problem solving involving both formula and reaction stoichiometry employing the unit analysis method. Application of Kinetic Molecular Theory to the study of classical gas laws and an introduction to thermochemistry.

CHEM 1B General Chemistry 5 Units
Prerequisite: Chemistry 1A with a grade of C or better.
Three hours lecture, six hours laboratory (108 hours total per quarter).
Continuation of an introduction to the principles of chemistry. Investigation of reversible reactions from the standpoint of kinetics, thermodynamics, and equilibrium. Application of equilibrium to the reactions of acids and bases.

CHEM 1C General Chemistry and Qualitative Analysis 5 Units
Prerequisite: Chemistry 1B with a grade of C or better.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours lecture, six hours laboratory (108 hours total per quarter).
Introduction to electrochemistry, the chemistry of transition metals, and the chemistry of organic compounds. Identification of ions using qualitative analysis methods.

CHEM 10 Introductory Chemistry 5 Units
(See general education pages for the requirement this course meets.)
Prerequisite: Chemistry 1B with a grade of C or better.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Four hours lecture, three hours laboratory (84 hours total per quarter).
An introduction to the discipline of chemistry, including chemical laboratory techniques and methods and a survey of important chemical principles. The course emphasizes chemistry as a subject of scientific inquiry and is designed to give the student a general appreciation for chemistry as a science.

CHEM 12A Organic Chemistry 5 Units
Prerequisite: Chemistry 1C with a grade of C or better.
Advisory: English Writing 1A or English as a Second Language 5.
Three hours lecture, six hours laboratory (108 hours total per quarter).
An introduction to the physical properties and chemical behavior of important classes of organic compounds, focusing on hydrocarbons and haloalkanes. Emphasis on retrosynthesis, spectroscopic structure determination, and reaction mechanism. Laboratory experiments involving the synthesis of simple compounds and the characterization of those compounds using gas chromatography (GC) and infrared (IR) spectroscopy. For chemistry majors or those in closely allied fields such as biochemistry and chemical engineering.

CHEM 12B Organic Chemistry 5 Units
Prerequisite: Chemistry 12A with a grade of C or better.
Advisory: English Writing 1A or English as a Second Language 5.
Three hours lecture, six hours laboratory (108 hours total per quarter).
An exploration of the physical properties and chemical behavior of important classes of organic compounds, focusing on: polyenes; aromatic compounds; alcohols, thols, and ethers; and aldehydes and ketones and their derivatives. Emphasis on synthetic resonance, spectroscopic structure determination, and reaction mechanism. Laboratory experiments involving the synthesis of simple compounds and the characterization of those compounds using chromatography and infrared (IR) spectroscopy, ultraviolet-visible (UV-Vis), and nuclear magnetic resonance (NMR) spectroscopy. For chemistry majors or those in closely allied fields such as biochemistry and chemical engineering.

CHEM 12C Organic Chemistry 5 Units
Prerequisite: Chemistry 12B with a grade of C or better.
Advisory: English Writing 1A or English as a Second Language 5.
Three hours lecture, six hours laboratory (108 hours total per quarter).
An exploration of the physical properties and chemical behavior of important classes of organic compounds, focusing on amines, carboxylic acids, and carboxylic acid derivatives, with an introduction to the chemistry of terpenes, lipids, carbohydrates, and proteins. Emphasis on retrosynthesis, spectroscopic structure determination, and reaction mechanism. Laboratory experiments involving the identification and synthesis of simple compounds and the characterization of those compounds using chromatography and infrared (IR) and nuclear magnetic resonance (NMR) spectroscopy. For chemistry majors or those in closely allied fields such as biochemistry and chemical engineering.

CHEM 30A Survey of Chemistry 5 Units
Prerequisite: Mathematics 114 or equivalent.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture, three hours laboratory (84 hours total per quarter).
An introduction to fundamental topics in general and inorganic chemistry as preparation for the biological and health sciences.

CHEM 30B Survey of Chemistry 5 Units
Prerequisite: Chemistry 30A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture, three hours laboratory (84 hours total per quarter).
An introduction to fundamental topics in general and organic chemistry as preparation for the biological and health sciences.

CHEM 50 Preparation Course for General Chemistry 5 Units
Prerequisite: Mathematics 114 or equivalent.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture, three hours laboratory (84 hours total per quarter).
An introduction to the core theory and problem-solving techniques of chemistry as preparation for Chemistry 1A and other science related fields. An introduction to gravimetric and volumetric analysis, rudimentary laboratory equipment and operations, and the preparation and maintenance of a laboratory notebook.

CHEM 77 Special Projects in Chemistry 1 Unit
(Any combination of Chemistry 77, 77X and 77Y may be taken up to six times, not to exceed 18 units, as long as the projects are different each time.)
Pass-No Pass (P-NP) course.
Individual special reading, writing, or study projects in chemistry as determined in consultation with the instructor.

Child Development

C D 10G Child Development (The Early Years) 4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Psychology 10G. Students may enroll in either department, but not both, for credit.)
Four hours lecture (48 hours total per quarter).
An examination of human growth and development from conception to middle childhood with particular attention given to current theoretical and research perspectives within a diverse society. Observational study of children with analysis of factors influencing development including conditions that put children at risk. (This course meets NAEYC Standards 1 and 3; NBPTS Standards 1 and 4; and CEC Standards 1, 2 and 3.)

C D 10H Child Development (Middle Childhood and Adolescence) 4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Psychology 10H. Students may enroll in either department, but not both, for credit.)
Four hours lecture (48 hours total per quarter).
An examination of human growth and development both typical and atypical from school age through adolescence with particular attention given to current theoretical and research perspectives within a diverse society. (This course meets NAEYC Standards 1 and 3; NBPTS Standards 1 and 4; and CEC Standards 1, 2 and 3.)

All courses are for unit credit and apply to a De Anza associate degree unless otherwise noted.
C D 12 Child, Family and Community Interrelationships 4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Four hours lecture (48 hours total per quarter).
An introduction to the study of the developing person in a societal context including
the interrelationship of family, schools and community.
(Applicable standards to this course: NAEYC Standards; Standard 2 Building
Family and Community Relationship; NBPTS Early Childhood Generalist Standards;
Standard 2 Equity, Fairness and Diversity; Standard 7 Family, Community
Partnerships; Standard 9 Reflective Practice; CEC/DEC Standards; Standard 9
Professional and Ethical Practice; Standard 10 Collaboration)

C D 50 Principles and Practices of Teaching Young Children 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter).
The underlying theoretical principles of developmentally appropriate practices
applied to programs, environments, and teaching strategies.
(Applicable standards for this course: NAEYC Standard 4 Teaching and Learning;
4a Connecting with children and families; 4b Using developmentally effective
approaches; Standard 5 Becoming a Professional 5a-5e; NBPTS Standard IV
promoting Child Development and Learning; Standard IX Reflective Practice; CEC/
DEC Standard 3 Individual learning differences; Standard 5 Learning environments and
social interactions; Standard 9 Professional and ethical practice)

C D 51 Student Teaching Practicum 5 Units
Prerequisite: Child Development 10G, 54, and two other Child Development
curriculum courses (Child Development 53, 55, 61 or 63).
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Ten hours lecture-laboratory (120 hours total per quarter).
(May be taken up to three times for credit as long as experience is different each time.)
Laboratory experience with guided supervision working with children from
infancy through the school age years. Emphasis will be on making connections
between theory and practice, using observation and interactions to understand
children's development, implementing developmentally appropriate, child centered
approaches to teaching and learning and developing professional behaviors and
attitudes.
(This course meets the NAEYC Standards 1, 2, 3, 4, and 5; and NBPTS Standards
1 through 9.)

C D 52 Observation and Assessment of the Young Child 3 Units
Prerequisite: Child Development 10G and 50.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter).
Observation strategies and formal assessment methodologies used to understand
children's development, age-appropriate curriculum and the classroom setting.
(This course meets NAEYC Standards 3a-3d; NBPTS Standards 3 and 4; and
DEC Standard 8 Assessment.)

C D 53 Creative Art for the Young Child 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter).
Overview of creative activities for children from infancy through the school years.
Emphasis is on design, presentation and assessment of developmentally appropriate
activities that use sensory, child centered materials to enhance imagination,
creative thinking, problem solving, divergent thinking and self-expression in young
children. Special attention is given to creating a climate that supports creative
exploration and the role of the teacher in promoting growth and development of
creativity in each child.
(This course meets NAEYC Standards 1a, 1b, 1c, 4a, 4b, 4d; NBPTS Standards
I, II, IV, VI; and CDE/DEC Standards CC1- K10,CC4-S2; EC4-S1;CC7; S10,
S11,S13; EC7-S2.)

C D 54 Curriculum for Early Childhood Programs 3 Units
Prerequisite: Child Development 10G (may be taken concurrently).
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter).
Curriculum development with emphasis on planning curriculum that is emergent,
developmentally and individually appropriate and inclusive.
(This course meets NAEYC Standards 1 and 4; and NBPTS Standards 4, 5 and 6.)

C D 55 Literacy Development and Activities for the Young Child 3 Units
Advisory: Child Development 10G and/or Child Development 50.
Three hours lecture (36 hours total per quarter).
Theories of language acquisition and the process of language development in
monolingual and bilingual language learners. Introduction to methods and
materials that enhance emerging language and literacy for infants through school-
aged children in a culturally diverse society.
(This course meets NAEYC Standards 1a,1b,1c; 3a,3b,3c; 4b,4c,4d.)

C D 56 Understanding and Working with English Language Learners 3 Units
Advisory: Child Development 10G and 55.
(Also listed as Education 56. Students may enroll in either department, but not
both, for credit.)
Three hours lecture (36 hours total per quarter).
Developmental and cultural examination of the bilingual child in early childhood
programs. Theories and developmental sequence of bilingual language acquisition.
Role of teacher and methods for supporting the bilingual child.

C D 57 Self-Assessment for Teachers of Young Children: Field Experience 3 Units
Prerequisite: Child Development 10G.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Two hours lecture, three hours laboratory (60 hours total per quarter).
Use of self-assessment techniques for individualized teacher preparation with
emphasis on understanding the development of the child, teaching, guidance
techniques, and assessment of personal effectiveness in the classroom. Student
will use field placement to practice and develop skills.

C D 58 Infant/Toddler Development 4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Four hours lecture (48 hours total per quarter).
Development of physical, cognitive, social and emotional development from
infancy to age three with emphasis on cultural diversity and family partnerships.
Program planning based on observation of individual infants and communication
with parents. Evaluation of assessment tools and methods for infants and toddlers,
including administration, and interpretation. Development of needs and service
plans for individual infants.
(This course meets NAEYC Standards 1-5; NBPTS Standards 4 and 5; and DEC
Standard 5 Family Based Practices.)

C D 59G Supervision and Administration of Child Programs (Management Systems) 4 Units
Prerequisite: A minimum of 12 units of Child Development coursework, which
includes Child Development 10G.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Four hours lecture (48 hours total per quarter).
A study of the development of management systems for the supervision and
administration of various kinds of early childhood programs in the context of a
diverse society. Emphasis is on program planning, organizational structure, program
operation, program evaluation, budgeting, and personnel management.

C D 59H Supervision and Administration of Child Development Programs (Leadership Skills) 4 Units
Prerequisite: A minimum of 12 units of Child Development course work, which
includes Child Development 10G.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Four hours lecture (48 hours total per quarter).
A study of the methods and principles of leadership as they apply to administration
of programs in early childhood settings. Emphasis is on personnel management,
leadership styles and skills, interpersonal communication, ethical and professional
standards and an awareness of the sociopolitical context of early childhood programs.

C D 60 Exceptional Children 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter).
Characteristics and causes of exceptionality and the inclusion of children with
disabilities in childhood settings (infant - adolescence), includes discussion of
developmental disabilities, family, and community involvement. Implementation
of State and Federal law, as well as the examination of attitudes and feelings
about exceptionality.
(This course meets NAEYC Standards 1,2,2a,2c,3a; CEC/DEC Standards CC2-K1-
7,CC5-K1,CC5-K4,CC8-K1-5; and NBPTS Standards 2,3,8.)
C D 61 Music and Movement (Developmental Foundations) 3 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter).
A developmental introduction to music and movement experiences. Students will have opportunities to engage in and to reflect on how music and movement fosters healthy development in children and adults. Students will also have opportunities to see how music and movement defines and is linked to cultural experience and to who we are as individuals.

C D 63 Math and Science Activities for the Young Child 3 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263.
Three hours lecture (36 hours total per quarter). Design and assess developmentally appropriate activities and environments that foster curiosity and problem solving in young children. Emphasis on constructivist theories of cognitive development as a foundation for planning and implementing math and science curriculum for each child.
(This course meets NAEYC Standards 1a, 1b, 1c, 4b, 4c, 5a, 5b, 5c; NBPTS Standards I-VI; CEC/DEC Standards CC4-S2, EC4-S1, CC7-K1, CC7-S1, CC7-S10, CC7-S11, CC7-S13, EC7-S4.)

C D 64 Health, Safety, and Nutrition for the Young Child 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter). Health, safety, and nutritional practices needed for the protection and improvement of the health of preschool children. Includes infant, child, and adult first aid. CPR can be taken in the community through the Red Cross, American Heart Association or at De Anza College (Health 57E).
(This course meets the California State requirements for health, safety, and nutrition.)

C D 65 Programs for School-Age Child Care 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter). Before and after school programs for children in kindergarten through sixth grade with emphasis on developmental characteristics, program philosophy, licensing requirements, program content, and criteria for evaluation.
(This course meets NAEYC Standards 1 and 4 and NBPTS 4.5 and 6 standards.)

C D 66 Montessori Methods and Materials 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Child Development 10G.
Three hours lecture (36 hours total per quarter). Philosophical foundations and the environmental components of the Montessori Method in early childhood education.

C D 67 Supervision and Administration of Child Development Programs (Adult Supervision) 3 Units
Prerequisite: Child Development 10G, 12 and 54.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter). A study of methods and principles of supervising student teachers, assistant teachers, parents and volunteers in early childhood classrooms. Emphasis is on the role of teachers supervising other adults while simultaneously addressing the classroom needs of children, parents and the program.

C D 68 Teaching in a Diverse Society 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter). Examination of the development of social identities in diverse societies including theoretical and practical implications of oppression and privilege as they apply to young children, families, programs, classrooms and teaching. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society.
(This course meets NAEYC Standards 1a, 1b, 1c, 2a, 2b, 2c, 4a, 4b, 5b, 5c; NBPTS Standards II, VII; CEC/DEC Standards CC2-K3, CC3-K4, EC2-K4, CC3-K3, CC5-K4, CC5-K9, CC5-K10, CC6-K1, CC6-K2, CC6-K3, CC9-K1, CC9-S6, CC10-S3)

C D 69 Early Childhood Education Principles and Practices (Cross-Cultural Emphasis) 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Anthropology 69. Students may enroll in either department, but not both, for credit.)
Three hours lecture (36 hours total per quarter). The underlying principles of early education, in which national, state, and local practices will be examined in contrast to options presented through ethnographic data of diverse cultures.

C D 70 Seminar in Parenting the Preschool Child 1 Unit
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
One hour lecture (12 hours total per quarter).
(May be taken up to six times for credit as long as the topics are different each time.)
Pass-No Pass (P-NP) course.
A seminar for parents, teachers and other adults interested in the parenting of children, primarily (but not exclusively) two to five years old. Students will explore and examine the ways to strengthen families. Students will also learn about optimal environments to support the healthy growth and development of children and parents.
(This course meets the NAEYC Standard 2; NBPTS Standard 7; and DEC/CEC Standard 3.)

C D 71 Constructive Guidance and Positive Discipline in Early Childhood 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter). Explores the principals and techniques that promote high self-esteem and positive behaviors in young children.
(This course meets NAEYC Standards 1a, 1c, 2b, 4a, 4b; DEC/CEC Standards CC3-K3, EC3-S1, CC6-K3; and NBPTS Standard 2.)

C D 72 Partnerships with Families in Early Childhood Education 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Education 73. Students may enroll in either department, but not both, for credit.)
Three hours lecture (36 hours total per quarter). An examination of the key principles and effective approaches in family support practices: strategies to communicate and involve families in early childhood education.
(This course meets NAEYC Standard 2, Building Families and Community Relationships; NBPTS Generalist Standard VII, Family and Community Partnerships; and DEC/CEC Standard 10, Collaboration.)

C D 73 Early Childhood Mental Health 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Education 74. Students may enroll in either department, but not both, for credit.)
Two hours lecture, three hours laboratory (60 hours total per quarter). Provides an overview of different approaches to early intervention with children and their families and will help students develop basic support skills for use in dealing with high risk families, including those with exceptional emotional, social or physical needs.

C D 74 Early Childhood Mental Health Seminar and Fieldwork 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Education 74. Students may enroll in either department, but not both, for credit.)
Three hours lecture (36 hours total per quarter). Examination of child development and mental health theory. Assessment and screening of young children for mental health challenges. Implementation of mental health interventions and strategies. An exploration of how violence impacts the physical and psychological well-being of adults and children.

C D 75 Social Emotional Development in Early Childhood 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter). Social emotional development and how peer, family, gender, teachers and society influence this development. The impact of variations in development on learning and life outcomes.
(This course meets NAEYC Standards 1a, 1b, 1c, 2b, 4a; CEC/DEC Standards CC2-K1; and NBPTS Standards 1 and 4.)

C D 77 Special Projects in Child Development 1/2 Unit
C D 77W 1 Unit
C D 77X 2 Units
C D 77Y 3 Units
Prerequisite: Consent of instructor and division dean.
Advisory: English Writing 1A or English as a Second Language 1A.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).
(Any combination of Child Development 77W, 77X, 77Y may be taken up to six times, not to exceed 18 units, as long as the projects are different each time.)
Designed for students with a Child Development Permit at the Master Teacher level or above. Offers students the opportunity to research a topic of interest to the student. Research may include a review of the literature, interviews and other fieldwork.
All courses are for unit credit and apply to a De Anza associate degree unless otherwise noted.
such as exploring community resources or investigating a common teaching practice for effectiveness.

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C D 80 Design, Program Development, and Daily Operation of Family Child Care 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273. Three hours lecture (36 hours total per quarter).
An overview of family childcare as a business and as a program for children. Starting your own childcare business, budget and contracts, licensing and safety requirements will be addressed. Relevant program issues such as designing indoor/outdoor environments, daily schedule, curriculum, child guidance, accommodations for all children and parent partnerships will be presented.

C D 90 Facilitating Inclusion in Early Childhood Programs: Intervention Strategies 3 Units
Prerequisite: Child Development 10G and 60. 
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273. Three hours lecture (36 hours total per quarter).
Expands upon a student’s ability to work effectively with all children in early childhood programs and more specifically with infants, toddlers and preschoolers with disabilities and other special needs in inclusive environments. Focus will include theories, research, and practical applications of best practices from both the fields of Early Childhood Education and Early Intervention/Early Childhood Special Education. Students will learn to design practical and effective intervention strategies for individual children with special needs within the context of natural environments and will learn to work in collaboration with IFSP/IEP teams. (This course meets NAEYC Standards 1a, 1c, 2b, 3a, 3b, 3d, 4b; CEC/DEC Standards CC3-K4, CCK-5, CC4-S1-8, EC4-S1-3, CC5-K3, CC5-S1-5; and NBPTS Standards 2 and 4.)

C D 101W Current Issues in Child Development 1 Unit
C D 101X 2 Units
C D 101Y 3 Units
C D 101Z 4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273. One hour lecture for each unit of credit (12 hours total for each unit of credit per quarter). (Any combination of Child Development 101W, 101X, 101Y and 101Z may be taken up to six times, not to exceed 18 units, as long as the topics/projects are different each time.)
In-service workshop for teachers, aides, and parent volunteers to increase awareness of contemporary professional issues in Child Development.

C D 102W Curriculum for Child Development Personnel 1 Unit
C D 102X 2 Units
C D 102Y 3 Units
C D 102Z 4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273. One hour lecture for each unit of credit (12 hours total for each unit of credit per quarter). (Any combination of Child Development 102W, 102X, 102Y and 102Z may be taken up to six times, not to exceed 18 units, as long as the topics/projects are different each time.)
In-service workshop for teachers, aides, and parent volunteers to improve skills and knowledge in the area of curriculum for Child Development personnel.

C D 103W Topics in Preschool Program Administration 1 Unit
C D 103X 2 Units
C D 103Y 3 Units
C D 103Z 4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273. One hour lecture for each unit of credit (12 hours total for each unit of credit per quarter). (Any combination of Child Development 103W, 103X, 103Y and 103Z may be taken up to six times, not to exceed 18 units, as long as the topics are different each time.)
In-service workshop for program directors, site supervisors, head teachers, or others with administrative or supervisory responsibility to improve skills and knowledge in the area of Child Development program administration.

Computer Applications and Office Systems

CAOS 70AA Elementary Keyboarding I 1 1/2 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263. Three hours lecture-laboratory (36 hours total per quarter). (Any combination of Computer Applications and Office Systems 70A, 70AA and 70AB may be taken up to six times, not to exceed 18 units, for credit for the family of courses.)
Pass-No Pass (P-NP) course. Basic keyboarding skills and techniques.

CAOS 81H 10-key and Electronic Calculator 1 Unit
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263. Two hours lecture-laboratory (24 hours total per quarter).
Pass-No Pass (P-NP) course. Basic 10-key skills and techniques in the use of the electronic calculator.

CAOS 84A Business English I 2 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272-273; Mathematics 114 or equivalent. Four hours lecture-laboratory (48 hours total per quarter).
Pass-No Pass (P-NP) course. Review of English grammar, punctuation, usage, and writing skills and applications of these skills to basic business communications.

CAOS 90G Computer Literacy (PC) 4 Units
(Students may take either Computer Applications and Office Systems 90G or, 90GA and 90GB, but not both for credit.)
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263. Eight hours lecture-laboratory (96 hours total per quarter).
Pass-No Pass (P-NP) course. Introduction to a computer - hardware and software. Theory and hands-on activities using word processing, spreadsheet, presentation graphics, database, e-mail, operating systems, and Internet applications.

CAOS 90GA Computer Literacy I (PC) 2 Units
(Students may take either Computer Applications and Office Systems 90G or, 90GA and 90GB, but not both for credit.)
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263. Four hours lecture-laboratory (48 hours total per quarter).
Pass-No Pass (P-NP) course. Introduction to a computer - hardware and software. Theory and interactive learning activities using word processing, spreadsheet, presentation graphics, database, e-mail, operating systems, and Internet applications.

CAOS 90GB Computer Literacy II (PC) 2 Units
(Students may take either Computer Applications and Office Systems 90G or, 90GA and 90GB, but not both for credit.)
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263. Four hours lecture-laboratory (48 hours total per quarter).
Pass-No Pass (P-NP) course. Concepts and applications using a word processing computer software program.

CAOS 91AL Word Processing I (Word XP/2002) 2 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263. Four hours lecture-laboratory (48 hours total per quarter).
Pass-No Pass (P-NP) course. Concepts and applications using a word processing computer software program.

CAOS 91AM Word Processing I (Word 2007) 2 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263. Four hours lecture-laboratory (48 hours total per quarter).
Pass-No Pass (P-NP) course. Concepts and applications using a word processing computer software program.

CAOS 91AN Word Processing I (Word 2010) 2 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263. Four hours lecture-laboratory (48 hours total per quarter).
Pass-No Pass (P-NP) course. Concepts and applications using a word processing computer software program.