

**EMERGENCY MEDICAL TECHNICIAN (EMT)****Emergency Medical Technician 104  
Emergency Medical Technician**

Unit(s): 10.0 Class Hours: 162 Lecture, 54 Laboratory total.

Corequisite: American Heart Association Basic Life Support (BLS) Healthcare Provider Card and concurrent enrollment in Emergency Medical Technician 105.

Basic course for the Emergency Medical Technician (EMT). Satisfies requirements for County/State Emergency Medical Services (EMS) Authority. Prepares students to take the Orange County Emergency Medical Services (OCEMS)/National Registry certifying exam for state certification. This course provides depth and breadth of foundational knowledge of the National EMS Education Standards derived from the National Scope of Practice Model for entry-level EMTs. CSU

**Emergency Medical Technician 105  
Clinical EMT Skills Laboratory**

Unit(s): 1.0 Class Hours: 54 Laboratory total.

Corequisite: Concurrent enrollment in Emergency Medical Technician 104. In order to pass Emergency Medical Technician 105, the student must pass Emergency Medical Technician 104. A failing grade in Emergency Medical Technician 104 will be given if Emergency Medical Technician 105 is not passed.

Supervised use of skills lab through supplemental learning to assist the student in development of clinical competency and mastery of psychomotor skills as addressed in course Emergency Medical Technician 104. Hours verified by instructor. Grade: Pass/No Pass Only. CSU

**Emergency Medical Technician 111  
Recertification for EMT**

Unit(s): 2.0 Class Hours: 36 Lecture total.

Prerequisite: Valid EMT certificate or equivalent within past two years. Valid CPR card: American Heart Association Health Care Provider Update emergency medical techniques, equipment, and EMSA policies. Meets state requirements for EMT recertification. CSU

**Emergency Medical Technician 198  
Topics**

Unit(s): 0.5 - 3.0 Class Hours: 9-54 Lecture total.

Courses on a variety of contemporary topics will be offered to meet the interests and needs of students in the Emergency Medical Technician area. CSU

**ENGINEERING (ENGR)****Engineering 012  
AEC Print Reading**

Unit(s): 3.0 Class Hours: 54 Lecture total.

Reading and interpreting blueprints for Architecture, Civil Engineering, Construction (AEC). Information in this course provides preparation for more advanced AEC coursework. Recommended for students with no prior course(s) in blueprint reading.

**Engineering 051  
Basic Technical Drawing**

Unit(s): 3.0 Class Hours: 36 Lecture, 72 Laboratory total.

Principles of mechanical drawing including projections, views, dimensions, and conventions, utilizing sketches and computer drafting program. Designed for students with no prior mechanical drawing experience.

**Engineering 100A (C-ID ENGR 110)  
Introduction to Engineering**

Unit(s): 2.0 Class Hours: 36 Lecture total.

Introduction to major fields of engineering (including mechanical, electrical, industrial, biomedical, aerospace, and others), the functions of an engineer, and the industries in which engineers work. Explains the engineering education pathways and explores effective strategies for students to reach their full academic potential. Presents an introduction to the methods and tools of engineering problem solving and design including the interface of the engineer with society and engineering ethics. Develops communication skills pertinent to the engineering profession. CSU/UC

**Engineering 100B  
Introduction to Architecture/Civil Engineering /Construction (AEC)**

Unit(s): 2.0 Class Hours: 36 Lecture total.

Introduction to the Architectural, Civil Engineering, Construction (AEC) fields. Includes an overview of academic programs, career information and preparation requirements, virtual or in person field trips and guest speakers. CSU

**Engineering 103  
Solidworks Basic Solid Modeling**

Unit(s): 3.0 Class Hours: 54 Lecture total.

Introductory course in parametric solid modeling. This course will include a solid modeling overview, solid model construction techniques (extrude, revolve, fillet, chamfer, etc.), including the preparation of individual solid components and basic solid model assemblies. (Same as Manufacturing Technology 103). CSU

**Engineering 104  
Solidworks Intermediate Solid Modeling**

Unit(s): 3.0 Class Hours: 54 Lecture total.

Prerequisite: Engineering 103 or Manufacturing Technology 103 with a minimum grade of C.

Intermediate course for solid modeling, includes a review of the introductory class and changes to the Solidworks interface. Instruction in the use of intermediate Solidworks part modeling skills such as assembly modeling and sub-assemblies is included. (Same as Manufacturing Technology 104). CSU

**Engineering 105  
Solidworks Advanced Solid Modeling**

Unit(s): 3.0 Class Hours: 54 Lecture total.

Prerequisite: Engineering 104 or Manufacturing Technology 104 with a minimum grade of C.

Advanced course for solid modeling includes a review of the intermediate class and changes to the Solidworks interface. Instruction in the use of Solidworks part modeling, assembly modeling, sub-assemblies, advanced photoworks and advanced animator emphasized. (Same as Manufacturing Technology 105). CSU

**Engineering 110  
Advanced CAD Applications**

Unit(s): 0.5 - 4.0 Class Hours: 27-216 Laboratory total.

Individual skill development for advanced students desiring to learn special applications using college licensed computer drafting and design software. Each 0.5 unit of credit requires 24 laboratory hours. Suggested preparation: Engineering 184. Grade: Pass/No Pass Only. Open Entry/Open Exit. CSU

**Engineering 111  
Basic Mechanical Blueprint Reading**

Unit(s): 2.0 Class Hours: 36 Lecture total.

Reading and interpreting blueprints for manufacturing technologies. (Same as Manufacturing Technology 111). CSU

### Engineering 112 Society and the Built Environment

Unit(s): 3.0 Class Hours: 54 Lecture total.

An introductory course that explores the far-reaching impacts of society on the built environment. A multidisciplinary examination of western and non-western society's ethics, economics, culture, ecology, processes, technology and tools on trends and developments. Field Trip may be required. CSU

### Engineering 114 Geometric Dimensioning and Tolerancing

Unit(s): 3.0 Class Hours: 54 Lecture total.

Prerequisite: Engineering 111 or Manufacturing 111 or Engineering 122 or Engineering 125 with a minimum grade of C.

Drawing interpretation utilizing geometric dimensioning and tolerancing (ANSI Y14.5) as applied in engineering, manufacturing, and inspection. (Same as Manufacturing Technology 114). CSU

### Engineering 115 Cooperative Work Experience Education-Occupational

Unit(s): 1.0 - 4.0 Class Hours: 60-300 Lecture total.

This work experience course of supervised employment is designed to assist students to acquire desirable work habits, attitudes and skills in a field related to the students' major so as to enable them to become productive employees. This course also provides students with career awareness for jobs. 75 hours of paid work or 60 hours of un-paid work equals one unit of course credit. Student repetition is allowed per Title 5, Section 55253. Grade: Pass/No Pass Only. CSU

### Engineering 118 (C-ID ENGR 180) Surveying

Formerly: Engineering 118, Plane Surveying

Unit(s): 4.0 Class Hours: 54 Lecture, 54 Laboratory total.

Prerequisite: Mathematics 162 or Mathematics 170 with a minimum grade of C or prerequisite may be satisfied by High School or College Trigonometry (C-ID MATH 851) or Precalculus (C-ID MATH 155) or High School transcribed Trigonometry or Precalculus with a minimum grade of C.

The course applies theory and principles of plane surveying: office computations and design; operation of surveying field equipment; and production of engineering plans/maps. Topics include distances, angles, and directions; differential leveling; traversing; property/boundary surveys; topographic surveys/mapping; volume/earthwork; horizontal and vertical curves; land description techniques; and GPS. Extensive field work using tapes, levels, transits, theodolites, total stations, and GPS. Assists in passing the land surveyor-in-training exam. Completion of Mathematics 160 recommended. CSU/UC

### Engineering 119 Advanced Plane Surveying

Unit(s): 4.0 Class Hours: 54 Lecture, 54 Laboratory total.

Prerequisite: Engineering 118 with a minimum grade of C; Instructor may waive if student can show proof of industry experience in surveying equal to or greater than Engineering 118.

Course emphasis is on: coordinate geometry calculations; route surveying with horizontal and vertical curves; topographic surveying and mapping; construction surveying; introduction to geospatial technologies, boundary surveying and surveys of public lands; and field surveying projects. Assists student in passing the state LSIT exam. CSU/UC

### Engineering 122 Engineering Drawing

Unit(s): 3.0 Class Hours: 36 Lecture, 72 Laboratory total.

Principles of engineering drawing: projections, views, sections, dimensions, tolerancing, assemblies, manufacturing processes, engineering drafting practices. Utilizing sketches and computer drafting program. CSU/UC

### Engineering 124 Advanced Drawing

Unit(s): 3.0 Class Hours: 36 Lecture, 72 Laboratory total.

Recommended Preparation: Engineering 122 or Engineering 125 with a minimum grade of C.

Advanced topics in engineering drawing and design - working drawings, fasteners, cams, gears, auxiliary views, advanced sectioning, dimensioning, tolerancing. Utilizing sketches and computer drafting program. CSU/UC

### Engineering 125 (C-ID ENGR 150) Engineering Graphics

Unit(s): 3.0 Class Hours: 36 Lecture, 72 Laboratory total.

Prerequisite: Mathematics 162 with a minimum grade of C. May be satisfied by equivalent High School trigonometry class with minimum grade of C.

Recommended Preparation: Engineering 051 and Engineering 183 (may be taken concurrently).

Includes principles of engineering drawings in visually communicating engineering designs in sketches, and an introduction to computer-aided design (CAD). Includes orthographic projections, dimensioning, tolerancing, section, design and graphical mathematics, utilizing sketches, introduction to 2D and 3D computer drafting program and the engineering design process. Assignments develop sketching and 2-D and 3-D CAD skill. The use of CAD software is an integral part of the course. Suggested preparation: Engineering 051 and Engineering 183 (may be taken concurrently). CSU/UC

### Engineering 130A CATIA Beginning Solid Modeling

Unit(s): 3.0 Class Hours: 54 Lecture total.

Introductory course in parametric solid modeling CAD using CATIA software. Topics include: CAD overview, sketching, basic solid model creation (base features, pads, pockets, grooves, shafts, etc.) sketch constraints, reference elements, hole features, feature editing, assembly and drawing creation. (Same as Manufacturing Technology 130A). CSU

### Engineering 130B CATIA Intermediate Solid Modeling

Unit(s): 3.0 Class Hours: 54 Lecture total.

Recommended Preparation: Engineering 130A or Manufacturing Technology 130A with a minimum grade of C.

Intermediate course in parametric solid modeling CAD using CATIA software. Topics: intermediate/ advanced level sketching and modeling (sweeps, ribs, slots), feature editing and transformation, assemblies, drafting workbench, surface modeling, and other CATIA modules. (Same as Manufacturing Technology 130B). CSU

### Engineering 131 Engineering Mechatronics Technology Survey

Unit(s): 0.5 Class Hours: 9 Lecture total.

Course provides hands-on exposure to modern techniques in rapid prototyping, including: 3D printing, laser cutting, 3D scanning, and other processes used in mechatronics and engineering. Course provides a good introduction to the Engineering Mechatronics Technology program. CSU

### Engineering 132 Introduction to Robotics

Unit(s): 2.5 Class Hours: 36 Lecture, 27 Laboratory total.

Introductory course in robotics. Topics include history of robotics, role of robotics in modern engineering, industrial automation, emerging technologies, basic design, sensors, circuitry, actuators, mechanics, programming, and a hands-on robot design and construction project. CSU

**Engineering 133****Basic Mechatronics Engineering Technology**

Unit(s): 3.0 Class Hours: 45 Lecture, 27 Laboratory total.

Recommended Preparation: Engineering 103 and Mathematics 084 with a minimum grade of C.

Introductory course in mechatronics engineering technology with an emphasis on hands-on fabrication and testing. Topics include: basic design using CAD software and mechanics principles; introductory fabrication and testing of mechanical systems (mechanical elements, materials, fabrication processes, frames, fasteners, fluid systems, 3D printing, laser cutting, rapid prototyping, and other processes), and electronics systems (basic circuit analysis, construction, and measurement). CSU

**Engineering 134****Intermediate Mechatronics Engineering Technology**

Unit(s): 3.0 Class Hours: 45 Lecture, 27 Laboratory total.

Recommended Preparation: Engineering 133 and Engineering 103 and Engineering 158

Intermediate course in mechatronics engineering technology with an emphasis on hands-on fabrication and testing. Topics include: design using CAD software and mechanics principles; intermediate level fabrication and testing of mechanical systems (machine elements, fabrication processes, rapid prototyping, assembly, measurement and inspection, and other processes), and electronics systems (circuit analysis, op amps, AC circuits, LEDs, soldering, circuit construction, use of DMM and oscilloscope). CSU

**Engineering 135****Advanced Mechatronics Engineering Technology**

Unit(s): 3.0 Class Hours: 45 Lecture, 27 Laboratory total.

Recommended Preparation: Engineering 103 and Engineering 134 and Engineering 158

Advanced course in mechatronics engineering technology with an emphasis on hands-on fabrication and testing. Topics include: design using CAD software and mechanics principles; advanced level fabrication and testing of mechanical systems (drive systems, gears, linear motion elements, rapid prototyping systems, motor control, actuation, and other processes), and electrical systems (solid state devices, op amps, AC circuits, transducers, micro-controllers, circuit measurement devices). CSU

**Engineering 142****Architecture/Civil Engineering/Construction (AEC) Drawing**

Unit(s): 4.0 Class Hours: 54 Lecture, 72 Laboratory total.

Recommended Preparation: Engineering 012 and Engineering 183

An introduction to conventional and computer aided drafting techniques in the relation of drawings for construction. Interpretation of details in construction drawings/blueprints and reference materials. Laboratory: Drafting plans for a residential building using the techniques introduced in the course. Includes ecological terms and concepts, BIM basics, and abbreviations. CSU

**Engineering 143****Fundamentals of Construction Engineering/Construction (AEC) Drafting Standards**

Unit(s): 3.0 Class Hours: 54 Lecture total.

Overview of residential, commercial, institutional, industrial, and heavy civil construction and associated codes, standards, and ethical boundaries. Areas of focus to include type of foundations, materials, contract documents, working drawings and vocabulary. Includes an introduction to LEED/Green Construction. Field Trip may be required. CSU

**Engineering 154****AEC BIM with Revit /Construction (AEC) Parametric and BIM Applications**

Unit(s): 5.0 Class Hours: 54 Lecture, 108 Laboratory total.

Recommended Preparation: Engineering 142 and Engineering 186 with a minimum grade of C. Prior knowledge of 3D CAD and prior knowledge of AEC basics is recommended. Students who do not have that prior experience will need to plan to work longer hours and use optional course materials to ensure success. Engineering 142 and Engineering 186 or equivalent are recommended. Familiarity with 3D CAD environments is recommended. Students without that foundation knowledge will need to plan to work longer hours to ensure success. Engineering 142 and Engineering 186 or equivalent industry experience are recommended.

This course covers AEC 3D Parametric applications for architectural, civil engineering, and construction drawings/documents. Includes BIM concepts, sustainable design, organization of projects, visualization and printing. Suggested preparation: Engineering 142 and Engineering 186. CSU

**Engineering 158****Basic Machining Concepts and Operations**

Unit(s): 3.0 Class Hours: 18 Lecture, 126 Laboratory total.

Fundamental operations on lathes, milling machines, grinders, and drill presses, including precision measurements and layout. Equips students with skills and theory necessary to enter or upgrade within the machinist trade. (Same as Manufacturing Technology 158). CSU

**Engineering 165****Introduction to Energy**

Unit(s): 3.0 Class Hours: 54 Lecture total.

Students will gain a broad understanding of energy concepts, efficiencies, conservation, distribution, careers and cost-benefit analysis of energy resource use. The study of both renewable and non-renewable energy will be included. CSU/UC

**Engineering 175****Introduction to Energy Analysis**

Unit(s): 3.0 Class Hours: 54 Lecture total.

This course is focused on energy analysis with respect to energy conservation, energy auditing, and CA Title 24 requirements. Calculations will be performed manually and with the assistance of software applications. Career tracks in energy analysis will be explored. Energy concepts, heat loss calculations, basic solar concepts, site selection, design improvements, appliances, and utility systems will be covered within this course. CSU

**Engineering 177****Green HVAC**

Unit(s): 3.0 Class Hours: 54 Lecture total.

In this course students learn the basic principles of heating, ventilation, and air conditioning (HVAC) systems in commercial buildings, with an emphasis on energy efficiency and renewable energy. Topics include heat loss calculations, fuels and combustion, waste heat recovery, and maintenance considerations for these systems. CSU

**Engineering 183****CAD I - Computer Aided Drafting**

Unit(s): 3.0 Class Hours: 36 Lecture, 72 Laboratory total.

A first course in computer drafting focused on AutoDesk software, with AutoCAD as a base. Topics include display and file management, units, entities, object selection, advanced editing, layers, dimensions, text, graphic exchange, and phone apps. CSU/UC

**Engineering 184****CAD II - Computer Aided Drafting**

Unit(s): 3.0 Class Hours: 36 Lecture, 72 Laboratory total.

Recommended Preparation: Engineering 183 or industry CAD experience.

Intermediate course focused on Autodesk software, especially AutoCAD. Topics include including a variety of intermediate apps, blocks, hatches, attributes, inquiry, and 3-D introduction, plus smart phone use. CSU

**Engineering 186****AutoCAD 3-Dimensional Drawing**

Unit(s): 3.5 Class Hours: 36 Lecture, 81 Laboratory total.

Recommended Preparation: Engineering 184 with a minimum grade of C. Equivalent industry experience/proficiency with AutoCAD drawing environment, setup, views, and commands would be comparable to Engineering 184 knowledge and skills.

Use of AutoCAD's 3-dimensional software. Includes 3-D models, extruding to 3-D, coordinate space, filter, dynamic viewing, basics for rendering & images. CSU

**Engineering 187****3D CAD With Civil 3D**

Unit(s): 3.5 Class Hours: 36 Lecture, 81 Laboratory total.

Recommended Preparation: Engineering 186

Advanced use of 3-Dimensional software for Civil Engineering applications. Includes: merging of models, advanced modeling, calculations, 3-dimensional rendering and presentation. CSU

**Engineering 195****Renewable Energy**

Unit(s): 3.0 Class Hours: 54 Lecture total.

Students will be able to cite sustainable methods for improving the operational performance of offices, schools, hospitals, and other residential and commercial buildings. In this course, students learn the principles, methods, and equipment associated with renewable energy systems. Topics include solar, wind, biomass and biofuels, fuel cells, hydropower, oceanic energy, geothermal, and energy storage. Nonrenewable energy sources, climate change, and the economics and politics of energy are also discussed. CSU/UC

**Engineering 201****Residential and Light Commercial Construction Practices and Estimating**

Unit(s): 4.0 Class Hours: 54 Lecture, 72 Laboratory total.

Recommended Preparation: Engineering 100B, Engineering 112, and Engineering 142.

Course provides practical knowledge, ecological terms and concepts, for planning, design, and construction of residential and light commercial buildings including materials, equipment, construction/assembly methods, quantity take-off, and building codes/standards. CSU

**Engineering 203****Sustainable Construction and Facilities Management**

Unit(s): 3.0 Class Hours: 54 Lecture total.

This course provides students the means to apply core sustainable principles to each step within the facilities planning, design, and management process. It examines best practices for site and building: energy, conservation, reclamation, recycle-ability, air, water, waste, sound, ecological literacy, and management tools. CSU

**Engineering 204****Building Automation & Controls**

Unit(s): 3.0 Class Hours: 54 Lecture total.

In this course, students learn the basic principles of building automation and controls for energy management. Topics include control devices, signals, logic, and applications for various systems, such as electrical, lighting, HVAC, plumbing, fire protection, security, access control, voice-data-video, and elevator systems. CSU

**Engineering 205****Engineering Programming and Problem- Solving**

Unit(s): 3.0 Class Hours: 36 Lecture, 72 Laboratory total.

Prerequisite: Engineering 183 with a minimum grade of C.

This course includes fundamental studies of data handling and processing in engineering. It utilizes the MATLAB environment to provide students with a working knowledge of computer-based problem-solving methods relevant to science and engineering. It introduces the fundamentals of procedural and object-oriented programming, numerical analysis, and data structures. Examples and assignments in the course are drawn from practical applications in engineering, physics, and mathematics. CSU

**Engineering 228****Descriptive Geometry**

Unit(s): 3.0 Class Hours: 36 Lecture, 72 Laboratory total.

Application of the concepts of orthographic projection to the solution of three-dimensional problems arising in the various branches of engineering. Introductory computer aided drafting/design concepts or applications. Suggested preparation: Engineering 122 or Engineering 125. CSU/UC

**Engineering 235****Statics**

Unit(s): 3.0 Class Hours: 54 Lecture total.

Prerequisite: Physics 217 and Mathematic 185 with a minimum grade of C (Both classes can be taken concurrently).

A first course in engineering mechanics: properties of forces, moments couples and resultants; two- and three-dimensional force systems acting on engineering structures in equilibrium; analysis of trusses, and beams; distributed forces, shear and bending moment diagrams, center of gravity, centroids, friction, and area and mass moments of inertia. Utilizes SI metrics. CSU/UC

**Engineering 240 (C-ID ENGR 230)****Dynamics**

Unit(s): 3.0 Class Hours: 54 Lecture total.

Prerequisite: Engineering 235 with a minimum grade of C.

Fundamentals of kinematics and kinetics of particles and rigid bodies. Topics include kinematics of particle motion; Newton's second law, work-energy and momentum methods; kinematics of planar motions of rigid bodies; work-energy and momentum principles for rigid body motion; Introduction to mechanical vibrations. CSU/UC

**Engineering 250****Electric Circuits**

Unit(s): 3.0 Class Hours: 54 Lecture total.

Prerequisite: Mathematics 280 and Physics 227 with a minimum grade of C (Both may be taken concurrently).

An introduction to the analysis of electrical circuits. Use of analytical techniques based on the application of circuit laws and network theorems. Analysis of DC and AC circuits containing resistors, capacitors, inductors, dependent sources, operational amplifiers, and/or switches. Natural and forced responses of first and second order RLC circuits; the use of phasors; AC power calculations; power transfer; and energy concepts. CSU/UC

**Engineering 250L****Electric Circuits Laboratory**

Unit(s): 1.0 Class Hours: 54 Laboratory total.

Corequisite: Engineering 250 with a minimum grade of C.

An introduction to the construction and measurement of electrical circuits, including resistive, RL, RC, RLC, and operational amplifier circuits. Basic use of electrical test and measurement instruments including multimeters, oscilloscopes, power supplies, and function generators. Interpretation of measured data under DC, transient, and sinusoidal steady-state (AC) conditions. CSU/UC

**Engineering 281****Properties of Engineering Materials**

Unit(s): 3.0 Class Hours: 54 Lecture total.

Prerequisite: Chemistry 209 and Physics 217 with a minimum grade of C.

Study of atomic, microscopic, and macroscopic structure of metals; properties' enhancement by alloying and heat treatment; effects of temperature and corrosion on metals; fatigue; and other materials (wood, plastic, and concrete). CSU/UC

**ENGLISH (ENGL)**

You have the right to take an English 101 class at Santa Ana College even if a pre-transfer level English class has been recommended to you and regardless of your grade in a previous English class. Additionally, starting in the fall of 2019, the Santa Ana College English Department will offer a choice between English 101 or English 101 with a support lab. If you have questions about this, we encourage you to meet with a counselor or English instructor and check out the SAC English Guide Self-Placement so that you can make an informed decision.

**English N50****Introduction to Written Communication**

Unit(s): 3.0 Class Hours: 54 Lecture total.

Prerequisite: Qualifying profile from English placement process.

Introduction to written communication including autobiographical, journal and summary writing, and responding to essays. Basic grammar and punctuation. Not applicable to associate degree. Students may be referred to the Learning Center.

**English N60****Basics of Effective Writing**

Unit(s): 4.0 Class Hours: 72 Lecture total.

Prerequisite: English N50 with a minimum grade of C or qualifying profile from English placement process.

Sentence structure and paragraph writing including reading-based modeling and integrated study skills. Not applicable to associate degree.

**English 061****Introduction to Composition**

Unit(s): 4.0 Class Hours: 72 Lecture total.

Prerequisite: English N60 with a minimum grade of C or qualifying profile from English placement process and Reading proficiency as assessed by the Reading assessment process.

Expository paragraph writing emphasizing various methods including argumentation. Practice in refining sentence skills and grammar.

**English 061X****Accelerated Introductory Composition Skills**

Unit(s): 5.0 Class Hours: 90 Lecture total.

Recommended Preparation: Reading 101X is recommended to be taken concurrently.

An accelerated alternative to the English course sequence designed to prepare students for English 101, Freshman Composition, emphasizing sentence structure, paragraph writing, essay writing, and argumentation using reading-based modeling.

**English 066****Route to Writing Success: Freshman Composition Laboratory**

Unit(s): 1.0 Class Hours: 54 Laboratory total.

Corequisite: English 101 must be taken concurrently.

Laboratory exercises are designed to explore and understand the reading process, the writing process, grammar and punctuation rules in order to successfully complete English 101. This class must be taken concurrently with an English 101 course. Grade: Pass/No Pass Only.

**English 098****Topics in English**

Unit(s): 0.5 - 3.0 Class Hours: 9-54 Lecture total.

Specialized short course on topics related to needs of students. Not applicable to associate degree.

**English 101 (C-ID ENGL 100)****Freshman Composition**

Unit(s): 4.0 Class Hours: 72 Lecture total.

Prerequisite: English 061, English 061X, or English For Multilingual Students 112 with a minimum grade of C or qualifying profile from English placement process.

Expository and argumentative essays and the research paper. Special interest sections described in schedule of classes. CSU/UC

**English 101H (C-ID ENGL 100)****Honors Freshman Composition**

Unit(s): 4.0 Class Hours: 72 Lecture total.

Prerequisite: English 061, English 061X or English For Multilingual Students 112 with a minimum grade of C or qualifying profile from English placement process AND a high school or college GPA of 3.0 or above.

An enriched exposure to expository and argumentative essays and the research paper, requiring in-depth analysis of issues and substantive treatment of student-selected topics. CSU/UC

**English 102****(C-ID ENGL 105) (C-ID ENGL 110) (C-ID ENGL 120)****Literature and Composition**

Unit(s): 4.0 Class Hours: 72 Lecture total.

Prerequisite: English 101 or English 101H with a minimum grade of C.

A second semester course in composition and literature that uses literature to develop critical thinking skills with extensive readings selected from the four major genres. CSU/UC

**English 102H****(C-ID ENGL 105) (C-ID ENGL 110) (C-ID ENGL 120)****Honors Literature and Composition**

Unit(s): 4.0 Class Hours: 72 Lecture total.

Prerequisite: English 101 or English 101H with a minimum grade of C and a high school or college GPA of 3.0 or above.

An enriched approach designed for honors students. A second semester course in composition and literature that uses literature to develop critical thinking skills with extensive readings selected from the four major genres. CSU/UC