

EME 203L Paramedic Challenge Skills (Laboratory) (5)*1½ hours laboratory***Prerequisite:** RN, MD, PA or former Paramedic who meets State of California challenge requirements**Corequisite:** EME 203**Note:** Credit/No Credit grading only; may be taken 2 times

Application of skills necessary for challenge course for individuals who qualify for Paramedic Challenge per State of California Code of Regulations, Title 22. Allows the individual to attend the skills portion of Paramedic Training as needed to meet paramedic course content per individual student contract.

EME 206 Introduction to Paramedic Training (Lecture) (4)*4 hours lecture***Prerequisite:** Admission into Paramedic program**Corequisite:** EME 206L**Note:** May be taken 2 times

Introduction to Paramedic training which meets the requirements of the National Standard Curriculum for Paramedic Training.

EME 206L Introduction to Paramedic Training (Laboratory) (1)*3 hours laboratory***Prerequisite:** Admission into Paramedic program**Corequisite:** EME 206**Note:** Credit/No Credit grading only; may be taken 2 times

Application of skills used in the Introduction to Paramedic Training which meets the requirements of the National Standard Curriculum for Paramedic Training.

EME 207 Paramedic Medical Training (Lecture) (10)*10 hours lecture***Prerequisite:** Admission into Paramedic program**Corequisite:** EME 207L and EME 211**Note:** May be taken 2 times

The study of medical diseases for Paramedic training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes ACLS training and certification.

EME 207L Paramedic Medical Skills (Laboratory) (1.5)*4½ hours laboratory***Prerequisite:** Admission into Paramedic program**Corequisite:** EME 207**Note:** Credit/No Credit grading only; may be taken 2 times

Application of skills necessary for the medical portion of Paramedic Training which meets the requirements of the National Standard Curriculum for Paramedic Training.

EME 208 Paramedic Trauma Training (Lecture) (4.5)*4½ hours lecture***Prerequisite:** Admission into Paramedic program**Corequisite:** EME 208L and EME 212**Note:** May be taken 2 times

The study of traumatic emergencies for Paramedic training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes Pre-hospital Trauma Life Support training and certification.

EME 208L Trauma Skills (Laboratory) (5)*1½ hours laboratory***Prerequisite:** Admission into Paramedic program**Corequisite:** EME 208**Note:** Credit/No Credit grading only; may be taken 2 times

Application of skills necessary for trauma class of Paramedic training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes Pre-hospital Trauma Life Support training and certification.

EME 209 Paramedic Obstetrical and Pediatric Training (Lecture) (2.5)*2½ hours lecture***Prerequisite:** Admission into Paramedic program**Corequisite:** EME 209L and EME 212**Note:** May be taken 2 times

The study of Obstetrical and Pediatric emergencies for Paramedic training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes Pediatric Education for Pre-hospital Professionals.

EME 209L Paramedic Obstetrical and Pediatric Skills (Laboratory) (5)*1½ hours laboratory***Prerequisite:** Admission into Paramedic program**Corequisite:** EME 209**Note:** Credit/No Credit grading only; may be taken 2 times

Application of skills necessary for the Obstetrical and Pediatric class for Paramedic Training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes Pediatric Education for Pre-hospital Professionals.

EME 210 Hospital Clinical Experience (4)*12 hours laboratory***Prerequisite:** EME 209 and EME 209L**Note:** May be taken 2 times

Supervised clinical experience in acute care areas of hospitals where knowledge of advanced life support techniques is necessary.

EME 211 Clinical Integration I (1.5)*4½ hours laboratory***Corequisite:** EME 207**Note:** May be taken 2 times; Credit/No Credit grading only

Application of assessment and BLS skills necessary to be successful in Paramedic Training.

EME 212 Clinical Integration II (1.5)*4½ hours laboratory***Corequisite:** EME 208 and EME 209**Note:** Credit/No Credit grading only; may be taken 2 times

Application of assessment and BLS skills necessary to be successful in Paramedic Training.

EME 215 Field Internship (9)*28 hours laboratory***Prerequisite:** EME 210**Note:** May be taken 2 times

Assignment to a response vehicle with a field preceptor. Includes direct patient care responsibilities in providing advanced life support.

EME 295 Directed Study in Emergency Medical Education (1,2,3)*3, 6, or 9 hours laboratory***Prerequisite:** Approval of project or research by department chairperson/director**Note:** May be taken 4 times

Independent study for students who have demonstrated skills and/or proficiencies in Emergency Medical Education subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Engineering (ENGR)

Contact the Physics and Engineering Department for further information.

(760) 744-1150, ext. 2505

Office: NS-355B

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).

• Engineering

PROGRAM OF STUDY

Engineering

Provides the background to begin upper division coursework and will prepare the student for entry level jobs that require a knowledge of engineering

and engineering related topics. The highly sequential nature of the engineering curriculum necessitates completion of lower division requirements before being admitted into upper division courses.

Engineering students are urged to give priority to the completion of major field requirements over the completion of general education requirements. Engineering lower division requirements are not the same for different universities. These institutions recommend that their particular lower division requirements be completed before transfer. Students should seek early assistance in planning their specific program from the Counseling Department, the Transfer Center, or the Physics/Engineering Department.

A.A. DEGREE MAJOR

Program Requirements (Select a minimum of 11 units)	Units
DT 125/ R DT 125 or AutoCAD Introduction to Computer Aided Drafting DT 128/ R DT 128 SolidWorks Introduction to 3D Design and Presentation	3
ENGR/ ECHT 126 Intro Electric/Computer Engineering	4
ENGR 210 Electrical Network Analysis	3
ENGR 210L Electrical Network Analysis Laboratory	1
ENGR 231 Engineering Measurement Analysis	3
ENGR 235 Engineering Mechanics Statics	3
ENGR 236 Engineering Mechanics Dynamics	3
ENGR 245 Properties of Materials	4
Electives (Select a minimum of 30 units)	
Note that mathematics courses are often prerequisite to engineering and physics courses.	
MATH 140* Calculus/Analytic Geometry, First Course	5
MATH 141 Calculus/Analytic Geometry, Second Course	4
MATH 205 Calculus/Analytic Geometry, Third Course	4
MATH 206 Calculus with Differential Equations	4
PHYS 230* Principles of Physics	5
PHYS 231 Principles of Physics	5
PHYS 232 Principles of Physics	4
CHEM 110* General Chemistry	3
CHEM 115* General Chemistry	3
CHEM 110L* General Chemistry Laboratory	2
CHEM 115L* General Chemistry Laboratory	2
MINIMUM TOTAL UNITS	41

Recommended Elective: ENGR 100

* Courses marked with an asterisk may be used to fulfill General Education requirements.

ENG 100, ENG 202, and BIOL 100 are highly recommended as electives to fulfill General Education requirements.

COURSE OFFERINGS

ENGR 100 Introduction to Engineering <i>1 hour lecture</i> Transfer acceptability: CSU; UC An overview of the engineering profession including not only the different engineering fields but also the specialized demands and rewards of each. It will afford the opportunity for community building among the students, who usually are otherwise isolated in the community college milieu. Group projects in the course will encourage socialization and human relations training in what is often perceived as a dry and dull profession. Academic success strategies will be explained and practiced; ethical concepts will be examined through case histories and practical applications.	(1)
ENGR 126 Introduction to Electrical and Computer Engineering <i>3 hours lecture-3 hours laboratory</i> Prerequisite: MATH 140	(4)

Note: Cross listed as ECHT 126

Transfer acceptability: CSU

Introductory concepts covering a broad range of topics in Electrical and Computer Engineering presented in an integrated approach at a hands-on level. Students work in small teams to analyze, build, and test a small programmable robot for competition at the end of the semester. Provides basic understanding and skills for students to later build their theoretical understanding in more advanced physics and engineering courses.

ENGR 197 Engineering Topics **(.5-5)**

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times

Transfer acceptability: CSU

Topics in Engineering. See Class Schedule for specific topic offered. Course title will designate subject covered.

ENGR 210 Electrical Network Analysis **(3)**

3 hours lecture

Prerequisite: Completion of, or concurrent enrollment in, both ENGR 210L and PHYS 231

Transfer acceptability: CSU; UC; CAN ENGR 12

Circuit analysis by reduction methods, source transformations, loop and nodal analysis, OPAMP model for networks, transient analysis, alternating current circuits, impedance, power and phasor diagrams.

ENGR 210L Electrical Network Analysis Laboratory **(1)**

3 hours laboratory

Prerequisite: Completion of, or concurrent enrollment in, ENGR 210

Transfer acceptability: CSU; UC

Laboratory exercises of circuit analysis by reduction methods, source transformations, loop and nodal analysis, OPAMP model for networks, transient analysis, alternating current circuits, impedance, power and phasor diagrams.

ENGR 231 Engineering Measurement Analysis **(3)**

2 hours lecture-3 hours laboratory

Prerequisite: MATH 140

Transfer acceptability: CSU; UC

Analysis and treatment of engineering data. Probability, statistics, error theory, correlation and regression analysis, dimensional analysis, data processing, and preparation of technical reports. Laboratory experiments in hydraulic flow, surveying, heat transfer, and static and dynamic test systems.

ENGR 235 Engineering Mechanics – Statics **(3)**

3 hours lecture

Prerequisite: PHYS 230 and MATH 140

Transfer acceptability: CSU; UC; CAN ENGR 8

Force systems and equilibrium conditions. Engineering problems covering structures, machines, distributed forces, and friction. Graphical and algebraic solutions, and vectorial analysis.

ENGR 236 Engineering Mechanics – Dynamics **(3)**

3 hours lecture

Prerequisite: ENGR 235

Transfer acceptability: CSU; UC

Fundamental principles of bodies in motion; kinetics and kinematics of particles; system of particles; central force; work and energy; linear and angular momentum; moments and products of inertia; vibrations and time response; engineering applications.

ENGR 245 Properties of Materials **(4)**

3 hours lecture-3 hours laboratory

Prerequisite: CHEM 110 and 110L

Transfer acceptability: CSU; UC; CAN ENGR 4

Physical properties of engineering materials. Atomic, molecular, and crystal lattice characteristics. Relations between these and mechanical, thermal, electrical, corrosion, and radiation properties. Metallic, ceramic, polymer, and agglomerate materials. Selection, treatment, and use of materials.

ENGR 295 Directed Study in Engineering (1,2,3)

3, 6, or 9 hours laboratory

Prerequisite: Approval of project or research by department chairperson**Note:** May be taken 4 times**Transfer acceptability:** CSU

Designed for the student who has demonstrated a proficiency in engineering subjects and the initiative to work independently on a particular sustained project which does not fit into the context of regularly scheduled classes.

English (ENG)

Contact the English Department for further information.

(760) 744-1150, ext. 2392

Office: P-2

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).

• English

PROGRAM OF STUDY**English**

Focuses on the English language and literatures in English. Provides the background for students to succeed in diverse fields, such as advertising and marketing, teaching, journalism and telecommunications, law, technical writing, and business administration. Prepares students for upper division course work in English. For specific transfer requirements, the student should consult an academic counselor or the catalog for the school to which he or she wishes to transfer.

AA DEGREE MAJOR**Program Requirements**

	Units
ENG 205 and Introduction to Literature	3
ENG 202 or Critical Thinking /Composition	
ENG 203 Critical Thinking/Composition Through Literature	4

Literature Surveys (Select 9 Units) Of these nine units, students must take either a two-semester survey of British literature or a semester each of British and United States literature.

ENG 210 Survey of British Literature I	3
ENG 211 Survey of British Literature II	3
ENG 220 Survey of World Literature I	3
ENG 221 Survey of World Literature II	3
ENG 225 Literature of the United States I	3
ENG 226 Literature of the United States II	3

Elective Courses (Select 2 courses) Any of the above courses not previously taken or pick from the following:

ENG 135 Introduction to Creative Writing	4
ENG 136 Intermediate Creative Writing	4
ENG 137 The Literary Magazine: History/Production	4
ENG 215 Introduction to the British Novel	3
ENG 230 Introduction to the American Novel	3
ENG 240 Introduction to Classical Mythology	3
ENG 245 Survey of Biblical Literature	3
ENG 250 Introduction to Shakespeare	3
ENG 260 Literature Through Film	3
ENG 265 Science Fiction	3
ENG 270 Popular Literature	3
ENG 280 Women and Literature	3

TOTAL UNITS**22 - 24****COURSE OFFERINGS**

Any student wishing to earn an A.A. degree must complete ENG 100 with a grade of 'C' or better. The student must participate in the English placement process before enrolling in any English or English as a Second Language composition class except ENG 10 and 150. The eligibility will indicate whether the student may enroll in ENG 50 or ENG 100. Students whose first language is not English may find,

however, that ESL instruction meets their needs better than immediate enrollment in ENG 10 or 50. Such students may take one or more ESL classes (ESL 101, 102, 103) instead; then by again participating in the English placement process, they may qualify for ENG 50 or ENG 100. Non resident international students may be required to take one or more classes of English as a Second Language. Students should sign up for English assessment as soon as possible because some students may take three or more semesters to finish the competence in English. Please contact the Counseling Department for the English assessment schedule.

Courses numbered under 50 are non-degree courses.

Courses numbered under 100 are not intended for transfer credit.

ENG 10 English Essentials (4)

4 hours lecture

Note: A grade of 'C' or better is required for eligibility for ENG 50

Offers basic instruction in grammar, usage, mechanics, sentence structure, and paragraph and essay development.

ENG 50 Introductory Composition (4)

4 hours lecture

Prerequisite: A minimum grade of 'C' in ENG 10 or eligibility determined through the English placement process**Note:** A grade of 'C' or better is required for eligibility for ENG 100

A writing course for the student who wants to develop fundamental essay writing skills, acquire an A.A. degree, or enter a transfer program, but who needs further preparation in composition skills.

ENG 97 English Topics (.5-4)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times

Topics in English. See class schedule for specific topic covered. Course title will designate subject covered.

ENG 100 English Composition (4)

4 hours lecture

Prerequisite: A minimum grade of 'C' in ENG 50 or eligibility determined through the English placement process**Note:** May not be taken for Credit/No Credit grading**Transfer acceptability:** CSU; UC; CAN ENGL 2

Practice in expository and argumentative writing based on analytical reading and critical thinking. Topics include methods of invention, organization and development, principles of basic research, and the elements of style.

ENG 135 Introduction to Creative Writing (4)

4 hours lecture

Prerequisite: Eligibility for ENG 100**Transfer acceptability:** CSU; UC

Provides practice, instruction, and analytical research in writing fiction and poetry. Students submit both creative and analytical writing which will be presented for workshop discussion and critique. Lectures present a variety of prose and verse forms.

ENG 136 Intermediate Creative Writing (4)

4 hours lecture

Prerequisite: Eligibility for ENG 100**Transfer acceptability:** CSU; UC

Provides practice, instruction, and analytical research in writing fiction and poetry. Students submit both creative and analytical writing which will be presented for workshop discussion and critique. Lectures present a variety of prose and verse forms.

ENG 137 The Literary Magazine: History and Production (4)

8 hours lecture/laboratory

Recommended preparation: Eligibility for ENG 100**Note:** May be taken 4 times**Transfer acceptability:** CSU