

**GAINFUL EMPLOYMENT:**

The U.S. Department of Education requires colleges to disclose a variety of information for any financial aid eligible program that “prepares students for gainful employment in a recognized occupation.”

Students who complete this program will have acquired the necessary analytical tools to successfully secure gainful employment in the field of study.

For more information regarding the data provided for this program and what it means to you as a student, please feel free to visit our SWC Gainful Employment website at: [www.swccd.edu/gainfulemployment](http://www.swccd.edu/gainfulemployment).

**PREREQUISITES**

BIOL 190	Human Anatomy and Physiology	4
EMT 113	Emergency Medical Technician—Basic (Theory)	5
EMT 113L	Emergency Medical Technician—Basic (Laboratory)	3
<b>Total units</b>		<b>12</b>

**FIRST SEMESTER**

EMTP 200	Advanced Life Support Paramedic Theory I	12
EMTP 200L	Advanced Life Support Paramedic Laboratory I	3
EMTP 202	EMS Community Experience I	1.5

**SECOND SEMESTER**

EMTP 201	Advanced Life Support Paramedic Theory II	12
EMTP 201L	Advanced Life Support Paramedic Laboratory II	3
EMTP 203	EMS Community Experience II	1.5

**SUMMER SESSION**

EMTP 225	Hospital Clinical Experience for Paramedics	3
EMTP 230	Field Training for Paramedics I	8
EMTP 231	Field Training for Paramedics II	1
<b>Total units</b>		<b>57</b>

# ENGINEERING

## SCHOOL OF MATHEMATICS, SCIENCE, AND ENGINEERING

**DEAN:** Michael Odu, Ph.D., Office 215A, 619-482-6344

**FACULTY:** Lauren Zinola, M.A.

**DEPARTMENT CHAIR:** Jeffrey Veal, Ph.D.

**GENERAL DESCRIPTION**

Engineering focuses on the application of scientific principles and knowledge of mathematics to create solutions for problems involving human, biological, and mechanical systems. Engineering is a broad discipline of related areas of study including civil, mechanical, electrical, computer, and industrial.

**CAREER OPTIONS**

Below is a sample of the career options available for the engineering major. A few of these require an associate degree, most require a bachelor's degree, and some require a graduate-level degree: technician, engineer's assistant, civil engineer, urban planner, biomedical engineer, electronics engineer, computer engineer, software designer, telecommunications specialist, computer architect, test engineer, environmental engineer, soil engineer, aerospace engineer, CADD specialist, product engineer, estimator, technical sales representative, construction manager, and general contractor.

**DEGREE/CERTIFICATE OPTIONS****MAJOR CODE****Associate in Science Degree: Transfer Preparation**

Engineering	01565
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Consult with a counselor to develop a Student Education Plan (SEP), which lists the courses necessary to achieve your academic goal.

### ASSOCIATE IN SCIENCE DEGREE

### ENGINEERING

**ASSOCIATE IN SCIENCE DEGREE****TRANSFER PREPARATION \* (MAJOR CODE: 01565)**

Provides a student the opportunity to complete all of the lower-division courses required for transfer to a university to pursue a degree in engineering. Designed to prepare a student for a professional career in industry, business, or government. The core courses provide the technical knowledge and skills for students who are interested in aerospace, chemical, mechanical, or nuclear engineering.

Students entering the engineering program as freshmen will be building upon their high school mathematics and physical science background. High school preparation should include algebra, geometry and trigonometry, chemistry, physics, and a course in technical drafting.



### Program Student Learning Outcome Statement

- Develop mathematical skills, acquire engineering knowledge, and practice applying these skills and knowledge to engineering problems.

#### FIRST SEMESTER

CHEM 200	General Chemistry I	5
ENGR 110	Engineering Design and Graphics	3
MATH 250	Analytic Geometry and Calculus I	5

#### SECOND SEMESTER

ENGR 120C	Engineering Problem Analysis—C/C++ Language	3
MATH 251	Analytic Geometry and Calculus II	4
PHYS 270	Principles of Physics I	3

#### THIRD SEMESTER

ENGR 250	Engineering Statics	3
MATH 252	Analytic Geometry and Calculus III	4
PHYS 272	Principles of Physics II	3
PHYS 273	Principles of Physics Laboratory II	1

#### FOURTH SEMESTER

ENGR 204	Engineering Dynamics for Electrical Engineers (1.5) OR	1.5–3
ENGR 251	Engineering Dynamics (3)	
ENGR 270	Electrical Circuits	3
PHYS 274	Principles of Physics III	3
PHYS 275	Principles of Physics Laboratory III	1

**Total units** **42.5–44**

**Recommended Elective:** ENGR 101.

To earn an associate degree, additional general education and graduation requirements must be completed. See page 64.

- \* Students planning to transfer to a four-year college or university should complete courses specific to the transfer institution of choice. University requirements vary from institution to institution and are subject to change. Therefore, it is important to verify transfer major preparation and general education requirements through consultation with a counselor in either the Counseling Center or Transfer Center. See catalog TRANSFER COURSES INFORMATION section on page 45 for further information.

The program outlined fulfills the requirements for San Diego State University and the California State University system.

# ENGLISH

## SCHOOL OF LANGUAGE, LITERATURE, AND HUMANITIES

**DEAN:** Joel M. Levine, Ed.D., Office 430F, 619-482-6349

**FACULTY:** Henry Aronson, M.S., M.A.; Joyce Bayles, M.A.; John Randall Beach, M.A.; Francisco Bustos, M.F.A.; Heather Eudy, M.F.A.; Dagmar Fields, M.A.; Sharai Forbes, M.A.; Elisa Hedrick, M.A.; Noreen Maddox, M.A.; Cynthia McDaniel, Ed.D.; Elizabeth Merton, M.A.; Kathy Parrish, M.A.; Lynn Pollock, M.A.; Jessica Posey, M.A.; John Rieder, M.A., C.Phil.; Tracy Schaelen, M.A.; Claire Villalpando-Utgaard, M.A.; Michael Wickert, M.F.A.; Leslie Yoder, M.A., C.Phil.; Susan Yonker, M.A.

**DEPARTMENT CHAIR:** Leslie Yoder, M.A., C.Phil.

### GENERAL DESCRIPTION

The English majors focus on the study of the language and literature of English. Majors explore the grammar and prose of the English language including expository, argumentative, and creative writing, critical and analytical reading, and literary genres (fiction, nonfiction, poetry, drama) and modes (comedy, tragedy, satire, and romance).

### CAREER OPTIONS

Below is a sample of the career options available for the English major. A few of these require an associate in arts degree, most require a bachelor's degree, and some require a graduate-level degree: writer, poet, journalist, literary or film critic, high school or college instructor, film or television scriptwriter, lawyer, public relations person, technical writer, tutor, interpreter, writing consultant, methods analyst, program developer, grant writer, legislative assistant, civil servant, columnist, business administrator, and advertising agent.

### DEGREE/CERTIFICATE OPTIONS

### MAJOR CODE

#### Associate in Arts Degree: Transfer Preparation

English	01405
English (SB 1440)	01406
Literature	A1400

Consult with a counselor to develop a Student Education Plan (SEP), which lists the courses necessary to achieve your academic goal.

