



ENGINEERING PROGRAM

Associate of Science Degree

PURPOSE

The Engineering program prepares students to transfer to four-year college and university programs. The course work will present a foundation of engineering and scientific knowledge necessary for the transfer student. The student should consult closely with the engineering staff to ensure that required transfer courses are completed for the specific college that the student selects.

MAJOR COURSES

- Engineering Design and Graphics
- Calculus: First Course
- Calculus: Second Course
- Calculus: Third Course
- Properties of Materials
- Engineering Mechanics-Statics
- Introduction to Circuit Analysis
- General Physics
- Introduction to Engineering & Architecture
- Introduction to Surveying and Technology
- Introduction to Linear Algebra & Ordinary Differential Equations
- General Chemistry 1
- General Chemistry 2

CAREER OPPORTUNITIES

- Aerospace Engineer
- Agricultural Engineer
- Biomedical Engineer
- Chemical Engineer
- Civil Engineer
- Computer Hardware Engineer
- Electrical Engineer
- Electronic Engineer
- Environmental Engineer
- Geological Engineer
- Health and Safety Engineer
- Industrial Engineer
- Marine Engineer
- Mechanical Engineer
- Nuclear Engineer
- Petroleum Engineer

FACULTY ADVISORS

- Jeremy Wilson, P.E.
Instructor of Engineering
wilsonj@mjc.edu
(209) 575-6929
- Dr. Laura Maki
Professor of Chemistry
makil@mjc.edu
(209) 575-6171
- Sarah Curl
Professor of Mathematics
curls@mjc.edu
(209) 575-6139
- Ken Meidl
Professor of Physics
meidl@mjc.edu
(209) 575-6288

CAREER PROFILE

Engineer

OVERVIEW

Engineers may research, develop, design, manufacture, or test products and systems. Details of their work vary with engineering specialty. Engineering specialties include: aerospace, agricultural, biomedical, chemical, civil, computer hardware, electrical, electronic, environmental, geological, health and safety, industrial, marine, mechanical, nuclear, and petroleum.

FUTURE OUTLOOK

Engineers have traditionally been concentrated in slow-growing manufacturing industries, in which they will continue to be needed to design, build, test, and improve manufactured products. However, increasing employment of engineers in faster growing service industries should generate most of the employment growth. Overall job opportunities in engineering are expected to be favorable. However, job outlook varies by specialty.

SALARY OPPORTUNITIES

	LOW	MEDIAN	HIGH
U.S.	\$45,000	\$66,000	\$100,500
Modesto	\$40,082	\$70,366	\$85,530

Sources:

U.S. Bureau of Labor Statistics <http://www.bls.gov>

Occupational Outlook Handbook <http://www.bls.gov/oco/>

California Labor Market Information Office <http://www.calmis.cahwnet.gov>