

Core Mechanical Engineering Courses

Lower Division

ENGR 54: Principles of Materials Science and Engineering
ENGRMAE 10: Introduction to Engineering Computations
ENGRMAE 30: Statics
ENGRMAE 52: Computer-Aided Design
ENGRMAE 60: Electric Circuits
ENGRMAE 80: Dynamics
ENGRMAE 91: Introduction to Thermodynamics

Upper Division

ENGRMAE 106: Mechanical Systems Lab
ENGRMAE 107: Fluid Thermal Mechanics Lab
ENGRMAE 115: Applied Engineering Thermodynamics
ENGRMAE 120: Heat and Mass Transfer
ENGRMAE 130A: Introduction to Fluid Mechanics
ENGRMAE 130B: Introduction to Viscous and Compressible Flows
ENGRMAE 145: Theory of Mechanics and Mechanisms
ENGRMAE 147: Vibrations
ENGRMAE 150: Mechanics of Structures
ENGRMAE150L: Mechanics of Structures Lab
ENGRMAE 151: Mechanical Engineering Design
ENGRMAE 156: Mechanical Behavior and Design
ENGRMAE 170: Introductions to Control Systems
ENGRMAE 189: Senior Design Project
ENGR 190W: Communications in the Professional World

Students must complete, with the approval of a faculty advisor, a minimum of sixteen units of technical electives. These are courses not used for the ME degree from an approved list.

For more details on major requirements go to:
<http://catalogue.uci.edu/>

Potential Careers

Mechanical Design Engineer
Manufacturing Engineer
Medical Devices
Sustainable Energy
Pilots or Crew Members of Spacecraft
Machinery Manufacturing

Student Involvement Opportunities

Engineering Campus Resources

CAMP: California Alliance of Minority Participation

- <https://camp.uci.edu/>
- Mentorship Program
- Scholarship Opportunities

OAI: Office of Access and inclusion

- <http://tech.uci.edu/access/index.php>
- Free Engineering Course Tutoring
- Mentorship Program

Engineering Student Organizations

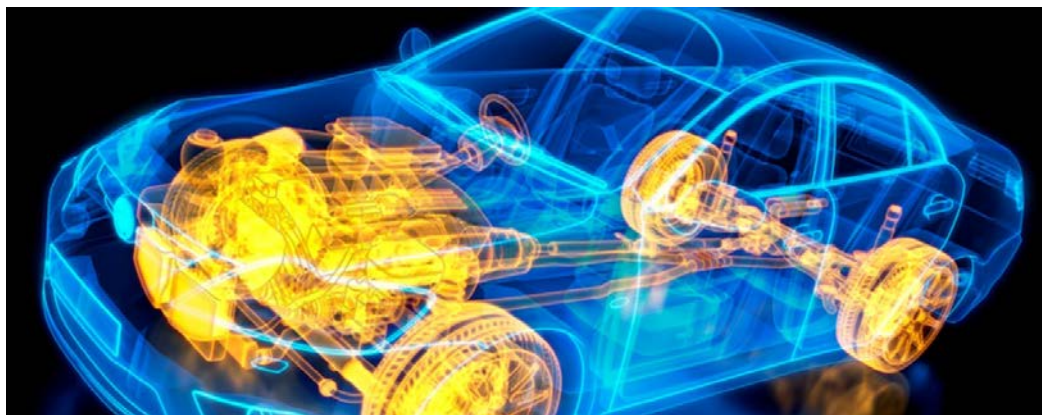
ESC: Engineering Student Council

- <http://esc.ukulele.eng.uci.edu/>

For more info on Engineering Clubs and Orgs visit:

- <http://engineering.uci.edu/current/undergraduate/clubs-and-organizations>

MECHANICAL ENGINEERING



The Mechanical Engineering program at UCI delivers an educational program of study that prepares its graduates to become intellectual leaders in industry, government, and academia. Graduates of our programs are grounded in scientific, mathematical, and technical knowledge through coursework that keeps pace with current relevant technologies; they have developed the ability to analyze, synthesize, and design engineering systems through their immersion in the problem-based activities of this research university; and, by means of general education courses, they have enhanced their ability to communicate and have acquired an understanding and appreciation for other areas of human intellectual achievement.

Sample Program of Study

Freshmen Year		
Fall	Winter	Spring
MATH 2A	MATH 2B	MATH 2D
ENGR 1A	CHEM 1LE	BASIC SCIENCE
ENGRMAE 10	PHYSICS 7C+7LC	PHYSICS 7D+7LD
ENGR 7A*	ENGR 7B*	GENERAL ED

Junior Year		
Fall	Winter	Spring
ENGRMAE 130A	ENGRMAE 130B	ENGRMAE 106
ENGRMAE 150	ENGRMAE 147	ENGRMAE 120
ENGRMAE 150L	ENGRMAE 156	ENGRMAE 145
ENGRMAE 115	GENERAL ED	GENERAL ED

Engr 7A & 7B optional courses can count towards 1 Technical Elective.

Sophomore Year		
Fall	Winter	Spring
MATH 3A	MATH 3D	MATH 2E
PHYSICS 7E	ENGR 54	ENGRMAE 52
PHYSICS 52A	ENGRMAE 60	ENGRMAE 91
ENGRMAE 30	ENGRMAE 80	ECON 23

Senior Year		
Fall	Winter	Spring
ENGRMAE 107	ENGRMAE 151	GENERAL ED
ENGRMAE 170	TECH ELECTIVE	TECH ELECTIVE
ENGR 190W	TECH ELECTIVE	TECH ELECTIVE
ENGRMAE 189	ENGRMAE 189	ENGRMAE 189

Note: Course offerings subject to change.
Courses subject to prerequisite requirements.

Undergraduate Research Opportunities

- Independent Study (199 course)
- Student Project Examples
 - Formula SAE Electric Racecar
 - HyperXite
 - Rocket Project
 - UAV
 - Fuel Cell Battery
- Additional student projects can be found on projects.eng.uci.edu
- Undergraduate Research Opportunities Program (UROP)

Potential Research Areas

- Propulsion & Dynamics
- Combustion & Thermo-physics
- Energy Systems and Environmental Engineering
- Fuel Cell Technologies
- Fluid Mechanics & Turbulence
- Micro/Nano Electro Mechanical Systems (MEMS/NEMS)
- Machine Design
- Robotics
- Structures & Solid Mechanics

Connect with Industry

- Handshake: Job & Internship Search Tool: career.uci.edu/students/zotlink.html
- Find Employers based on major: career.uci.edu/students/undergraduate/find-an-internship/buzzfile-company-search-tool/
- Career Fairs: career.uci.edu/students/career-fairs.html
- Fall STEM Career Fair
- Fall Career Fair
- Winter Internship & Career Fair
- Winter E-Week EngiTECH Career Fair
- Spring Career Fair

Additional Major Info

