

MATERIALS SCIENCE & ENGINEERING, B.S.

UNIVERSITY OF CALIFORNIA
MERCED
SCHOOL OF
ENGINEERING



WHY APPLY TO MATERIALS SCIENCE & ENGINEERING PROGRAM, B.S.?

“From atom to appliance”

MSE applies fundamental principles of physics, chemistry and biology to the design and production of materials with desired combinations of mechanical, optical, electrical, magnetic, electrochemical, biocompatible and other properties.

MSE encompasses the methods by which particular atomic and molecular arrangements are achieved, the overall cost of the ingredients and processes used to produce particular materials, the effects of the environment on materials, the effects of materials and materials processing on the environment, and characterization of materials structure and properties.

Future technological and infrastructure progress, of any kind, will always be driven and limited by the availability of the right materials.

Apply today at admissions.ucmerced.edu/apply



**NO. 1 AMONG
PUBLIC UNIVERSITIES**
in outperforming expected
graduation rates

*(US News & World Report Best
Colleges Rankings, 2021)*



#13 IN THE NATION
for best undergraduate
teaching among public
universities

*(U.S. News & World Report Best
Colleges Rankings, 2020)*

MATERIALS SCIENCE & ENGINEERING, B.S.



WHERE CAN I WORK?

- ▶ MSE graduates are in demand in a great variety of fields, including manufacturing, energy, biomedical materials, utilities, patent law, the financial sector, construction, transportation, aerospace, computer industries, sports, consulting, public policy, education and research.

A TYPICAL FIRST-YEAR STUDENT'S SCHEDULE:

FALL*:

- ▶ Math 021: Calc I
- ▶ Spark 001: Spark Seminar
- ▶ PHYS 008 & Lab: Intro Physics I
- ▶ Science Course

SPRING:

- ▶ Math 022: Calc II
- ▶ PHYS 009 & Lab: Intro Physics II
- ▶ Chem 002: Chem I
- ▶ WRI 010: College Reading & Composition

***NOTE:** Depending on your placement exam results, you may need to start in Math 005 (Precalculus), Chem 001 (Preparatory Chemistry), and/or Writing 001 (Academic Writing).

RESEARCH AREAS

- ▶ Computational Materials Science and Engineering
- ▶ Renewable energy
- ▶ Soft Active Materials
- ▶ Efficient energy conversion and storage
- ▶ Structural Organic Electronic Materials
- ▶ Nanoparticles and Air Pollution
- ▶ Tissue Engineering
- ▶ New materials inspired by nature

RESEARCH AREAS

- ▶ Sustainability
- ▶ Nanotechnology
- ▶ Materials in Biomedicine



of undergraduate classes have fewer than 30 students

FOUR (4) ONLINE PLACEMENT EXAMS:

- ▶ Take the 4 placement exams: Math, Chemistry, Computer Science & Engineering (CSE), Writing Readiness Review
 - Math, Chem, and CSE placement exams are available starting March 29, 2022
 - Deadline for Math, Chem, CSE: Wed. May 18, 2022
 - Writing Readiness Review is available starting May 1, 2022
 - Deadline for Writing Readiness Review: Tues. May 31, 2022
- ▶ All placement exams are free, one-time only, and available in spring only. There is no disadvantage to taking the placement exams.
- ▶ If you take a placement exam and later receive AP or IB scores that place you into a more advanced class, you will be able to take the more advanced class.
- ▶ This is also true if you complete a transferable college course during the summer and submit the official transcript to UC Merced before August 15.

Main phone: (209) 291-9739

General email: bac@ucmerced.edu

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The Bobcat Advising Center (BAC)
is the academic advising home for
all first year students.

For more information, visit:
bobcat-advising-center.ucmerced.edu