

ENVIRONMENTAL ENGINEERING Four Year Plan, FA17 Catalog

The Environmental Engineering program within the Department of Mechanical and Aerospace Engineering (MAE) at UCSD is a modern interpretation of this rapidly changing field. Unlike the classical environmental engineering topics (e.g. water sanitation, brownfield remediation) many new environmental engineering and sustainability challenges require strong quantitative skills. Renewable energy technologies require skills in material science and physics, climate change research requires individuals trained in fluid mechanics and environmental transport and sustainable building design requires deep knowledge of heat and mass transfer in complex geometries.

Recommended Sequence of Required Courses: Updated August 2017

| <u>FALL QUARTER</u> | <u>WINTER QUARTER</u> | <u>SPRING QUARTER</u> |
|--------------------------|--------------------------|-------------------------|
| Year 1 | | |
| Math 20A | Math 20B | Math 20C |
| Chem 6A | Phys 2A | Phys 2B |
| GE (General Education) | Chem 6B | Chem 6C |
| GE | GE | GE |
| Year 2 | | |
| Math 20D | Math 18* (formerly 20F) | Math 20E |
| ESYS 101 | MAE 130A | MAE 108 ¹ |
| Phys 2C | MAE 8 | MAE 130B |
| MAE 3 | GE | GE |
| Year 3 | | |
| CENG 100 | MAE 101A* | MAE 101B* |
| MAE 105 | MAE 11* (formerly 110A) | MAE 170 |
| MAE 107 | MAE 119 | TE (Technical Elective) |
| CHEM 171 | GE | GE |
| Year 4 | | |
| MAE 101C* | MAE 126A* | MAE 126B* |
| MAE 122* (formerly 125A) | MAE 123* (formerly 125B) | TE |
| TE | TE | GE |
| GE | GE | GE |

WHEN SCHEDULING CLASSES, **THE MAE DEPARTMENT FOLLOWS THIS CURRICULUM GRID.**
DEVIATION FROM THIS ACADEMIC PLAN COULD DELAY YOUR GRADUATION. IT IS YOUR
RESPONSIBILITY TO BE AWARE OF COURSE PREREQUISITES AND QUARTERLY COURSE OFFERINGS.

1. MAE 108 can be replaced with one of the following courses: **Math 183, ECE 109, or SE 125**. Credit **not** offered for MAE 108 if ECE 109, ECON 120A, MATH 180A, MATH 183, MATH 186, or SE 125 were previously or concurrently taken. Please check with the MAE advisers for more information.
 - All courses required for the major must be taken for a letter grade. The Pass/No Pass grading option is not allowed.
 - Chem 6AH, 6BH and 6CH may be taken in place of Chem 6A, 6B and 6C.
 - In fulfilling the General Education (GE) requirements, students must take at least 24 units in the arts, humanities, and social sciences, not including subjects such as accounting, industrial management, finance, or personnel administration. Twelve GE courses are listed here; individual college requirements may be higher or lower.
 - Four Technical Elective (TE) courses are required to receive a degree in Environmental Engineering: at least 1 must be an upper-division, Scripps Institute of Oceanography (SIO) lecture course. Refer to the list of pre-approved TEs available at the MAE Advising Office and at mae.ucsd.edu.

* **ASTERISK DENOTES A COURSE THAT MUST BE TAKEN BY THAT QUARTER TO GRADUATE IN FOUR YEARS.**