

## ENVIRONMENTAL ENGINEERING Four Year Plan, FA19 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 June 2019*

<u>FALL QUARTER</u>	<u>WINTER QUARTER</u>	<u>SPRING QUARTER</u>
<b>Year 1</b>		
Math 20A	Math 20B	Math 20C
Chem 6A	Phys 2A	Phys 2B
GE (General Education)	Chem 6B	Chem 6C
GE	GE	GE
<b>Year 2</b>		
Math 20D	Math 18 ( <i>formerly 20F</i> )	Math 20E
ESYS 101	MAE 30A ( <i>formerly 130A</i> )	MAE 108
Phys 2C (+ Phys 2CL <sup>1</sup> )	MAE 8	MAE 30B ( <i>formerly 130B</i> )
MAE 3	GE	GE
<b>Year 3</b>		
CENG 100	MAE 101A*	MAE 101B*
MAE 105	MAE 11* ( <i>formerly 110A</i> )	MAE 170
MAE 107	MAE 119	TE
CHEM 171	GE	GE
<b>Year 4</b>		
MAE 101C*	MAE 126A*	MAE 126B*
MAE 122*	MAE 123*	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.

- All courses required for the major must be taken for a letter grade. The Pass/No Pass grading option is not allowed.
- Students may graduate with one D in a course required for the major.
- 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](http://mae.ucsd.edu).

<sup>1</sup>Phys 2CL is not required for the major but it is a prerequisite for MAE 170 so students are highly encouraged to take the course.

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