

# ENVIRONMENTAL ENGINEERING

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The newly founded 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 Course Sequence of Required Courses: Updated Oct 2013*

<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*
HSS	Chem 6B*	Chem 6C* and 7L
HSS	HSS	HSS
<b>Year 2</b>		
Math 20D*	Math 20F*	Math 20E*
ESYS 101	ESYS 102	Chem 140A
Phys. 2C and 2CL	MAE 8	MAE 108
MAE 3	HSS	MAE 124
<b>Year 3</b>		
CENG 100	MAE 101A*	MAE 101B*
MAE 105	MAE 119 ( <i>Formally 118B</i> )	MAE 170
MAE 107	HSS	TE
MAE 110A	HSS	HSS
<b>Year 4</b>		
MAE 101C*	MAE 126A*	MAE 126B
MAE 122 ( <i>Formally 125A</i> )	MAE 123 ( <i>Formally 125B</i> )	TE
TE	TE	TE
HSS	HSS	HSS

WHEN SCHEDULING CLASSES, **THE MAE DEPARTMENT FOLLOWS THIS CURRICULUM GRID.** IF YOU CHOOSE TO DEVIATE FROM IT, YOU WILL EXTEND YOUR TIME TO GRADUATION.

**MAE 8 is a required course for all MAE students and has replaced MAE 9 in the curriculum. MAE 9 is only accepted for those who have already taken the course or who are transferring an equivalent course from their previous community college or University. Starting Fall 2013, all students, including transfer students, will be required to take MAE 8 or an approved equivalent.**

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, Math. 183 or SE 125 were previously or concurrently taken. Please check with the academic advisers for more information.
- Chem 6AH, 6BH and 6CH may be taken in place of Chem 6A, 6B and 6C
- In fulfilling the Humanities and Social Science (HSS) 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. Eleven HSS courses are listed here; individual college requirements may be higher or lower.
- Five Technical Elective (TE) courses are required to receive a degree in Environmental Engineering: at least 1 must be upper division courses selected from the MAE Department and at least 2 must be courses selected from outside the MAE Department. See the MAE Student Affairs Office for a complete list of approved Technical Electives.

**\*COURSES MARKED WITH AN ASTERISK ARE PREREQUISITES TO COURSES IN THE IMMEDIATELY SUCCEEDING OR CONCURRENT QUARTER.**