Disestablishment of the Environmental Engineering Major Information

Mechanical & Aerospace Engineering UC San Diego Winter/Spring 2019

The following document was created to provide current students in the Environmental Engineering major (EnvE) with information regarding the proposed disestablishment of the major and to help them decide which of the following paths is best for them. If/when the proposal to disestablish the major is approved, current EnvE students will select one of the following options:

Option 1: Continue to follow the EnvE 4-year plan through completion of their degree and receive a degree in Environmental Engineering. All required EnvE courses will continue to be taught as long as there are students in the major.

Option 2: Transfer into the Mechanical Engineering major (ME) or Aerospace Engineering major (AE), complete all ME or AE degree requirements, and receive their degree in Mechanical Engineering or Aerospace Engineering. Depending on the student's current status in the department, the student may opt to take specific electives to earn an additional specialization within ME. More information on specializations is provided below.

Both options will result in certain benefits and certain drawbacks so it is imperative that students consider their options and their specific case carefully. Students who select Option 2 will not have the opportunity to switch back into EnvE once their major change is processed.

Specializations: The MAE Department is currently in the process of proposing specializations within the ME Major. Once the proposal is approved, students who take specific electives will be awarded with a specialization which will show on a student's transcript and diploma. Current EnvE students who are considering switching to ME should note that specializations have not yet been officially approved. Until they are, students who complete all requirements will receive a certificate noting the accomplishment, but the specialization will not show on transcripts or diplomas for students who complete their requirements before the proposal is approved by the Undergraduate Council. Our proposal includes a requested effective term of WI20, but we cannot guarantee that students who complete the requirements by that date will have their specialization noted on their transcript or diploma. Students who receive certificates may still note the accomplishment on their resume/CV, and employers may contact the department if verification is requested. Due to the low number of TE slots in the AE curriculum, specializations will not be an option for AE majors.

Students are encouraged to meet with their college advisor and to read through the following F.A.Q., Curriculum Plans, and Course Schedule when considering their options. Students should also keep in mind that there is limited space in courses, so students should take required courses as soon as they can (especially MAE 156A/B) to avoid delays. If you have any questions, please contact the MAE Department via the Virtual Advising Center or schedule an appointment with an advisor online.

Frequently Asked Questions

Q: When will the major be disestablished?

A: Disestablishment of a major requires a proposal which is reviewed by the UCSD Undergraduate Council. This process can take multiple quarters. We cannot offer a guaranteed timeline, but our proposal requests an effective term of FA20.

Q: Will my GPA be a factor in my application to transfer from EnvE to ME?

A: No. All EnvE students who wish to transfer to ME or AE and who follow the instructions below will be approved.

Q: SP19 is my last quarter but I would like to stay one more year to earn an ME degree with a specialization. How would this work?

A: We cannot stress enough how important it is that students carefully weigh the additional cost and time with the potential benefits of switching majors. Students with job offers may be better off accepting them. Students who do decide to pursue a degree in ME should follow the curriculum plans posted below. The department is still working on defining courses that will lead to the Renewable Energy and Environmental Flows specialization.

Q: Will EnvE classes be offered less often during the academic year as they may be smaller in student size?

A: No. MAE 122, 123, and 126A/B will still be offered every year that there are EnvE majors in the department. We may merge MAE 126A with MAE 171A to balance teaching loads between instructors, but that will not affect students' experience taking the course and/or completing their degree requirements.

Q: Can I switch to ME, without a specialization?

A: Yes, specializations are optional. Until specializations are officially approved by the Undergraduate Council, students won't have to do anything to apply / participate in a specialization. ME students will notify their department advisor that they completed the specialization requirements in order to receive their certificate. We will provide further information when the specializations are approved.

Q: How do I switch to ME?

- A: Students who have carefully considered their options and who wish to switch their major to ME will do so by completing two steps:
 - 1. Submit a request using the Major Change tool in TritonLink.
 - 2. Submit a ME/AE Curriculum Plan for EnvE Students (the form is available on the last page of this document) to mae-ugrad@eng.ucsd.edu.

Students must complete both steps to be considered. All requests that include both a Major Change request and a Curriculum Plan will be approved.

Q: How will this affect my unit cap?

A: All students considering switching to ME or AE should consult with their college advisor before submitting the Major Change request. Students will need to request an exception to exceed the unit cap with their college advisor.

Q: Do I need to take MAE 108 and MAE 130C?

A: No. Effective Fall 2019, students can choose to follow the 2019 ME curriculum plan, which is identical to the current plan except that MAE 108 and MAE 130C will no longer be required courses and whose slots will be converted to TE slots. Therefore you do not need to take MAE 108 and MAE 130C, but you will be required to take 5 TEs.

2019/2020 ME Curriculum Plan

The four-year plan below represents requirements for ME students effective FA19. Students who transfer from EnvE to ME must complete all of the requirements listed below to earn a degree in Mechanical Engineering.

FALL QUARTER	WINTER QUARTER	SPRING QUARTER		
	Year 1			
MATH 20A CHEM 6A GE GE	MATH 20B PHYS 2A GE GE	MATH 20C PHYS 2B MAE 3 GE		
	Year 2			
MATH 20D PHYS 2C MAE 20 GE	MATH 18 (formerly 20F) MAE 8 MAE 30A (formerly 130A) GE	MATH 20E MAE 30B (formerly 130B) MAE 131A GE		
Year 3				
MAE 11 (formerly 110A) MAE 105 MAE 107 MAE 140	MAE 101A MAE 143A MAE 131B or MAE 160 TE	MAE 101B MAE 143B MAE 170 GE		
Year 4				
MAE 101C MAE 150 GE TE	MAE 156A MAE 171A GE TE	MAE 156B GE TE TE		

3rd Year Transition Plans

The following are recommended plans for students who are in their third year (in 2018/19) who plan to switch to ME. The following courses are preapproved to count as technical electives: ESYS 101, MAE 119, 122, 123, and upper division SIO courses (with petition).

Option A (complete requirements in four years, by SP20)

This plan assumes that the student has already completed CHEM 6A, MAE 3, 8, 11, 105, 107, 101A, 130A/B, MATH 18, 20A/B/C/D/E, PHYS 2A/B/C and all GE requirements. This option requires the following petitions:

- 1. Count MAE 130A/B as equivalent to MAE 30A/B; MAE 130C / MAE 130 will be removed from ME course requirements effective FA19.
- 2. Allow enrollment in MAE 143B in spring 2019 by waiving MAE 143A prerequisite.
- 3. Allow CENG 100, CHEM 171 and ESYS 101 as technical electives.

FALL QUARTER	WINTER QUARTER	SPRING QUARTER	
	2018/2019		
		MAE 101B (also summer 2019) MAE 131A (also summer 2019) MAE 143B (with petition) MAE 170	
2019/2020			
MAE 20 (also summer 2019) MAE 101C (also summer 2019) MAE 140 MAE 150 (also summer 2019)	MAE 131B or MAE 160 MAE 143A MAE 156A MAE 171A	MAE 156B GE / TE / DEI GE / TE / DEI GE / TE / DEI	

Option B (complete requirements in 4.5 years, by WI21)

This plan assumes that the student has already completed CENG 100, CHEM 6A, CHEM 171, MAE 3, 11, 8, 101A, 105, 107, 108, 130A, MATH 18, 20A/B/C/D/E, PHYS 2A/B/C, 2CL, and all GE requirements. This option requires the following petitions:

1. Count MAE 130A/B as equivalent to MAE 30A/B; MAE 130C / MAE 130 will be removed from ME course requirements effective FA19.

FALL QUARTER	WINTER QUARTER	SPRING QUARTER			
	2018/2019				
		MAE 101B MAE 131A MAE 170			
	2019/2020				
MAE 20 MAE 101C MAE 140	MAE 131B or MAE 160 MAE 143A GE / TE / DEI	MAE 150 MAE 143B GE / TE / DEI			
2020/2021					
MAE 156A GE / TE / DEI GE / TE / DEI	MAE 156B MAE 171A GE / TE/ DEI				

4th Year Transition Plans

The following are recommended plans for students who are in their fourth year in 2018/19 and who plan to switch to ME. The following courses are preapproved to count as technical electives: CENG 100 (with petition), CHEM 171 (with petition), MAE 108, 119, 122, 123 and upper division SIO courses (with petition).

Option A (complete requirements by WI20)

This plan assumes that the student has already completed CHEM 6A, MAE 3, 8, 11, 101A/B/C, 105, 107, 130A/B, 170, 126A, MATH 18, 20A/B/C/D/E, PHYS 2A/B/C, and all GE and TE requirements. This option requires the following petitions:

- 1. Count 126A as equivalent to MAE 171A.
- Count MAE 130A/B as equivalent to MAE 30A/B (MAE 130C / MAE 130 will be removed from ME course requirements effective FA19).
- 3. Allow enrollment in MAE 143B in spring by waiving MAE 143A prerequisite.

FALL QUARTER	WINTER QUARTER	SPRING QUARTER
	2018/2019	
		MAE 131A (also summer 2019) MAE 143B (with petition) MAE 150 (also summer 2019) GE / TE / DEI
	2019/2020	
MAE 20 (also summer 2019) MAE 143A MAE 156A MAE 160	MAE 140 MAE 156B GE / DEI / TE GE / DEI / TE	

Option B (complete requirements by SP20)

This plan assumes that the student has already completed CHEM 6A, MAE 3, 8, 11, 101A/B/C, 105, 107, 130A/B, 170, 126A, MATH 18, 20A/B/C/D/E, PHYS 2A/B/C, and all GE and TE requirements. This option requires the following petitions:

1. Count MAE 130A/B as equivalent to MAE 30A/B (MAE 130C / MAE 130 will be removed from ME course requirements effective FA19).

FALL QUARTER	WINTER QUARTER	SPRING QUARTER		
	2018/2019			
		MAE 130B MAE 131A (SP19 or FA19) MAE 143B (with petition) GE / TE / DEI		
2019/2020				
MAE 20 MAE 131A (SP19 or FA19) MAE 140 GE / DEI / TE	MAE 131B or MAE 160 MAE 143A MAE 156A GE / DEI / TE	MAE 156B GE / TE / DEI GE / TE / DEI GE / TE / DEI		

2019/2020 Proposed Course Offerings
Green boxes identify quarters that each course will be offered.
This list is subject to change without notice.

	SUMMER SESSION 1	SUMMER SESSION 2	FALL	WINTER	SPRING
MAE 2					
MAE 3					
MAE 5					
MAE 7					
MAE 8					
MAE 11					
MAE 20					
MAE 21					
MAE 92A					
MAE 93					
MAE 101A					
MAE 101B					
MAE 101C					
MAE 101D					
MAE 104					
MAE 105					
MAE 107					
MAE 108					
MAE 110					
MAE 113					
MAE 119					
MAE 120					
MAE 122					
MAE 123					
MAE 124		7			

MAE 126A			
MAE 126B			
MAE 130A / 30A			
MAE 130B / 30B			
MAE 130C / 130			
MAE 131A			
MAE 131B			
MAE 133			
MAE 140			
MAE 142			
MAE 143A			
MAE 143B			
MAE 144			
MAE 145			
MAE 148			
MAE 150			
MAE 154			
MAE 155A			
MAE 155B			
MAE 156A			
MAE 156B			
MAE 160			
MAE 170			
MAE 171A			
MAE 175A			
MAE 180A			
MAE 181			
MAE 190			

ME/AE Curriculum Plan for EnvE Students

Current EnvE students who wish to switch to ME must complete this curriculum plan with the courses they have already taken and the courses they plan to take and submit it to MAE Undergrad Advising (mae-ugrad@eng.ucsd.edu). Students must submit a curriculum plan and a Major Change request for consideration.

NAME:			PID:	
FALL QUARTER	WINTER QUARTER	SPRING QUARTER	SUMMER SESSION 1	SUMMER SESSION 2
		Year 1		
- <u></u>				
		Year 2		
		Year 3		

FALL QUARTER	WINTER QUARTER	SPRING QUARTER	SUMMER SESSION 1	SUMMER SESSION 2
		Year 4		
		Year 5		