

# UH - Mechanical Engineering: BSME Degree Plan

128 Total Credit Hours. Effective Fall 2022.

Name: \_\_\_\_\_

UHID# \_\_\_\_\_

	Semester #								Semester Credit Hrs.
Fall	1	<i>MATH 2312</i> <b>MATH 2413*</b>	<i>MATH 2312</i> <b>CHEM 1311</b>	<b>CHEM 1111</b> <i>CHEM 1311</i>		<b>ENGI 1100</b> MATH 2413	<b>ENGL 1301</b>	<b>GOVT 2306</b>	15
Spring	2	<i>MATH 2413</i> <b>MATH 2414*</b>	<b>PHYS 2325</b> <i>MATH 2414</i>	<i>CHEM 1311</i> <b>CHEM 1312</b>	<i>CHEM 1111</i> <b>CHEM 1112</b> <i>CHEM 1312</i>	<i>MATH 2413, plus</i> <i>CHEM 1311 or</i> <i>PHYS 2325</i> <b>ENGI 1331</b>	<i>ENGL 1301</i> <b>ENGL 1302</b>		17
Fall	3	<i>MATH 2414</i> <b>MATH 2415*</b>	<i>PHYS 2325</i> <b>PHYS 2326</b> <i>MATH 2415</i>		<i>PHYS 2325</i> <b>MECE 2336 (H) or</b> <b>ENGR 2301</b> <i>ENGI 1331, MATH 2415</i>		<b>GOVT 2305</b>	<b>Language, Phil, Culture Core</b>	16
Spring	4	<i>MATH 2414</i> <b>MATH 3321</b>		<i>PHYS 2326, MATH 2415, CHEM 1312, 1112, ENGI 1331</i> <b>MECE 2334</b>	<i>ENGI 1331, ENGR 2301 or MECE 2336</i> <b>MECE 3336</b> <i>MATH 3321</i>	<i>ENGI 1100</i> <b>MECE 2361</b> <i>ENGI 2304, MECT 3341**</i>	<i>ENGL 1302, ENGI 1100, ENGR 2301</i> <b>ENGI 2304</b>		15
Fall	5	<i>MATH 2415, 3321</i> <b>MATH 3363</b>		<i>MECE 2361, 3336</i> <b>MECE 3338</b>	<i>CHEM 1312, 1112, MECE 2334</i> <b>MECE 3345</b>	<i>MECE 3336</i> <b>MECE 3369</b> <i>MATH 3363</i>	<b>HIST 1301</b>	<b>Social &amp; Behavioral Science Core</b>	18
Spring	6	<i>MECE 3369</i> <b>MECE 3381</b> <i>MATH 3363</i>	<i>MECE 2334, 3336, ENGI 2304</i> <b>MECE 3360</b>	<i>MECE 2334, 3336</i> <b>MECE 3363</b> <i>MATH 3363</i>	<i>MECE 3345, ENGI 2304</i> <b>MECE 3245</b>		<b>HIST 1302</b>	<b>Creative Arts Core</b>	17
Fall	7	<i>Senior standing in ME</i> <b>MECE Elective</b>	<i>MATH 3363</i> <b>MECE 4331</b> <i>MECE 3381</i>	<i>MATH 3363, MECE 3363</i> <b>MECE 4364</b>	<i>MECE 3338, 3345, 3245, 3360, 3381</i> <b>MECE 4340</b> <i>MECE 4331, 4364</i>	<i>MECE 2334</i> <b>MECE 4343</b> <i>MECE 4364</i>			15
Spring	8	<i>Senior standing in ME</i> <b>MECE Elective</b>	<i>MECE 3360, 4364</i> <b>MECE 4371</b> <span style="font-size: 2em; vertical-align: middle;">or</span> <i>MECE 3338, 3360</i> <b>MECE 4372</b>	<i>MECE 4340</i> <b>MECE 4341</b>	<i>Senior standing in ME</i> <b>MECE Elective</b>	<i>Senior standing in ME</i> <b>MECE Elective</b>			15
<b>Total</b>									<b>128</b>

- Course titles are on the other side of this page. The first digit in a course number indicates level, while the second digit is the number of credit hours. For example, MATH 2433 is a 4 credit hour sophomore-level course in mathematics.
- Prerequisites appear above the main course number, while co-requisites are shown below. Consult an advisor if you don't meet these requirements. Specific senior level MECE Electives may have additional prerequisites.
- \*The traditional three course calculus sequence may be replaced by the accelerated two course sequence (MATH 1450+ MATH 1451).
- \*\*Students must satisfy a drafting requirement by completing MECT 3341 or by petitioning high school drafting or relevant industrial experience.
- For Chemistry, you are required to take CHEM 1311, CHEM 1312, CHEM 1111 and CHEM 1112 (or the legacy numbered UH equivalents CHEM 1331+1332+1111+1112).
- Guidelines for selecting MECE electives are listed on the other side of this page. You must petition any exceptions to these guidelines.
- Courses that include **(H)** are for the Honors College students Only

For advising, your first contact is Cyrena Edwards Bell, (713)743-4500, cedwards4@uh.edu

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First advising contact is: Cyrena Edwards Bell, Advising Assistant  
N207, Engineering Bldg. 1, 713-743-4500, cedwards4@uh.edu

Core	
ENGL 1301	Freshman Composition I (formerly UH's ENGL 1303)
ENGL 1302	Freshman Composition II (formerly UH's ENGL 1304)
HIST 1377	The United States to 1877
HIST 1378	The United States since 1877
GOVT 2306	U.S. and Texas Constitution and Politics (formerly UH POLS 1336)
GOVT 2305	U.S. Government: Congress, President and Courts (formerly UH's POLS 1337)
ENGI 2304	Technical Communications
For the Core requirements for: (i) Language, Philosophy & Culture, (ii) Social & Behavioral Sciences, and (iii) Creative Arts: Students need three courses. See UH Core Curriculum for approved list of courses.	
Natural Science and Mathematics	
CHEM 1311	Fundamentals of Chemistry - I (formerly UH's CHEM 1331)
CHEM 1111	Fundamentals of Chemistry Laboratory - I
CHEM 1312	Fundamentals of Chemistry - II (formerly UH's CHEM 1332)
CHEM 1112	Fundamentals of Chemistry Laboratory - II
MATH 2413	Calculus I (formerly UH's MATH 1431)
MATH 2414	Calculus II (formerly UH's MATH 1432)
MATH 2415	Calculus III (formerly UH's MATH 2433)
MATH 3321	Engineering Mathematics
MATH 3363	Introduction to Partial Differential Equations
PHYS 2325	University Physics I (formerly UH's PHYS 1321)
PHYS 2326	University Physics II (formerly UH's PHYS 1322)
Technology	
MECT 3341	Computer-aided Drafting – required, but does not apply to BSME degree

Engineering	
ENGI 1100	Introduction to Engineering
ENGI 1331	Computing for Engineers
MECE 2334	Thermodynamics
MECE 2336 (H) or ENGR 2301	Mechanics I (Statics) (formerly UH's CIVE 2330)
MECE 2361	Mechanical Design I: Design Analysis and Synthesis
MECE 3245	Materials Science Laboratory
MECE 3336	Mechanics II (Dynamics)
MECE 3338	Dynamics and Control of Mechanical Systems
MECE 3345	Material Science
MECE 3360	Experimental Methods Laboratory
MECE 3363	Introduction to Fluid Mechanics
MECE 3369	Solid Mechanics
MECE 3381	Introduction to Finite Element Methods
MECE 4331	Design of Machine Elements
MECE 4343	Thermal Design
MECE 4340	Mechanical Engineering Capstone I
MECE 4341	Mechanical Engineering Capstone II
MECE 4364	Heat Transfer
MECE 4371	Thermal/Fluids Laboratory
MECE 4372	Mechanics, Controls and Vibrations Laboratory
	Four MECE Electives; see note below

**Of the 4 required electives, only one may be non-MECE course**

**Approved MECE Electives (must have senior standing in ME) are:**

MECE 3399 and MECE 4399 Senior Honors Thesis
MECE 4398: Special Problems (no more than one course)
MECE 53xx or higher
CHEE, CIVE, ECE, ENGI, INDE, PETR, BIO 33xx or higher <b>from an approved list (see advisor)</b>
MATH 43xx (may also be used to apply for a Math Minor) <b>from an approved list (see advisor)</b>

## Key

