

MECHANICAL ENGINEERING UNDERGRADUATE CURRICULUM

For Students Starting in Fall 2018, Graduating in 2022

FIRST SEMESTER

		credits
APMA 1110	Single Variable Calculus II	(4)
CHEM 1610	Intro Chem for Engineers	(3)
CHEM 1611	Intro Chem Lab for Engineers	(1)
ENGR 1624	Introduction to Engineering	(4)
STS 1500	Sci, Tech, Contemporary Issues	(3)
Total		(15)

SECOND SEMESTER

		credits
APMA 2120	Multivariable Calculus	(4)
CS 111X	Intro to Programming	(3)
PHYS 1425	General Physics I	(3)
PHYS 1429	General Physics I Workshop	(1)
_____	Math - Science Elective ³	(3)
_____	HSS Elective 1 ⁴	(3)
Total		(17)

THIRD SEMESTER

		credits
APMA 2130	Ordinary Differential Eq.	(4)
MAE 2000	Intro to Mechanical Engineering	(3)
MAE 2300	Statics	(3)
PHYS 2415	General Physics II	(3)
PHYS 2419	General Physics II Workshop	(1)
STS 2XXX/3XXX	STS Elective ⁵	(3)
Total		(17)

FOURTH SEMESTER

		credits
APMA 3140	Applied Partial Differential Eq.	(3)
MAE 2100	Thermodynamics	(3)
MAE 2310	Strength of Materials	(3)
MAE 2320	Dynamics	(3)
MAE 2330	Mechanics Laboratory	(2)
_____	Unrestricted Elective 1 ¹	(3)
Total		(17)

FIFTH SEMESTER

		credits
APMA 3110	Applied Statistics & Prob	(3)
MAE 3210	Fluid Mechanics	(3)
MAE 3230	Thermal Fluids Laboratory	(2)
MAE 3310	Aerospace Structures	(3)
MAE 3710	Mechanical Systems	(3)
_____	Unrestricted Elective 2 ¹	(3)
Total		(17)

SIXTH SEMESTER

		credits
MAE 3140	Elem Heat & Mass Transfer	(3)
MAE 3420	Computational Methods	(3)
MAE 3620	Machine Elem and Fatigue	(3)
MAE 3820	Mechanical Engineering Lab	(2)
MAE 4710	Mechatronics	(4)
Total		(15)

SEVENTH SEMESTER

		credits
MAE 4XXX	Machine Design I ⁶	(3)
STS 4500	STS and Engineering Practice	(3)
_____	Math-Science/Tech Elective 1 ²	(3)
_____	Math-Science/Tech Elective 2 ²	(3)
_____	HSS Elective 2 ⁴	(3)
Total		(15)

EIGHTH SEMESTER

		credits
MAE 4XXX	Machine Design II ⁶	(3)
STS 4600	Engineer, Ethics, Prof. Resp.	(3)
_____	Math-Science/Tech Elective 3 ²	(3)
_____	HSS Elective 3 ⁴	(3)
_____	Unrestricted Elective 3 ¹	(3)
Total		(15)

1. Unrestricted electives may be chosen from any graded course in the University except mathematics courses below MATH 1310 and courses that substantially duplicate any other offered for the degree, including PHYS 1010, 1020, 2010, 2020; CS 1010; or any introductory programming courses. Students in doubt as to what is acceptable to satisfy degree requirements should get the approval of their advisor and the Dean's Office located in A122 Thornton Hall.

2. Chosen from Mechanical and Aerospace Engineering Approved Math-Science/Technical Electives list (see website).

3. Chosen from: BIOL 2100, 2200; CHEM 1620; MSE 2090; PHYS 2620; and any APMA course 2000 or higher not already required by a student's major and does not duplicate material from another APMA course.

4. Chosen from the approved Humanities and Social Science list available in A122 Thornton Hall and in the SEAS Undergraduate Handbook.

NOTE: STS 1500 and HSS Elective 1 may be taken in any order in Semesters 1 and 2.

5. Any course which meets the Second Writing Requirement as specified in the College of Arts & Science (CLAS) may be substituted for STS 2XXX/3XXX.

6. Chosen from: 4610, 4620, 4630, 4640, 4670, 4680, 4690, 4700.