

MECHANICAL ENGINEERING UNDERGRADUATE CURRICULUM

FIRST SEMESTER			SECOND SEMESTER		
		Credits			Credits
APMA 1090	Single Variable Calculus I	3	APMA 1110	Single Variable Calculus II	4
CHEM 1410	Intro to College Chemistry	3	CS 111X	Intro to Programming	3
CHEM 1411	Intro to College Chem Lab	1	PHYS 1425	Intro Physics I for Engineers	3
ENGR 1010	Engineering Foundations I	4	PHYS 1429	Intro Physics I Workshop	1
-----	HSS Elective 1 ³	3	-----	Math-Science Elective ²	3
			ENGR 1020	Engineering Foundations II	3
	Total	14			17

THIRD SEMESTER			FOURTH SEMESTER		
		Credits			Credits
APMA 2120	Multivariable Calculus III	4	APMA 2130	Ordinary Differential Eq.	4
MAE 2020	Intro to Mechanical Engr	2	MAE 2100	Thermodynamics	3
MAE 2040	Computer Aided Design	1	MAE 2310	Strengths of Materials	3
MAE 2300	Statics	3	MAE 2320	Dynamics	3
PHYS 2415	Intro Physics II for Engineers	3	MAE 2330	Mechanics Laboratory	2
PHYS 2419	Intro Physics II Workshop	1	-----	Unrestricted Elective I ⁴	3
STS 2600	Engineering Ethics	3			
	Total	17			18

FIFTH SEMESTER			SIXTH SEMESTER		
		Credits			Credits
APMA 3140	Applied Partial Diff. Eq.	3	MAE 3140	Elem Heat & Mass Transfer	3
MAE 3210	Fluid Mechanics	3	MAE 3420	Computational Methods	3
MAE 3230	Thermal Fluids Laboratory	2	MAE 3620	Machine Elem & Fatigue	3
MAE 3310	Aerospace Structures	3	MAE 3840	Mechanical Engineering Lab	2
MAE 3710	Mechanical Systems	3	MAE 4710	Mechatronics	4
-----	Unrestricted Elective 2 ⁴	3	APMA 3110	Applied Prob. and Statistics	3
	Total	17			18

SEVENTH SEMESTER			EIGHTH SEMESTER		
		Credits			Credits
MAE 4610	Mechanical Engineering Design I ⁶	3	MAE 4620	Mechanical Engineering Design II ⁶	3
STS 4500	STS and Engineering Practice	3	STS 4600	Engineer, Ethics, Prof. Resp.	3
-----	Math-Science/Tech Elective 1 ⁷	3	-----	Math-Science/Tech Elective 3 ⁶	3
-----	Math-Science/Tech Elective 2 ⁷	3	-----	HSS Elective 3	3
-----	HSS Elective 2	3	-----	Unrestricted Elective 3 ⁴	3
	Total	15			15

1. Chosen from the approved Humanities and Social Science list available in A122 Thornton Hall and in the SEAS Undergraduate Handbook
2. 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.

3. Transfer students can replace ENG 1020 with 3 other credits, generally in the form of communication or ethics. Students seeking this exception must appeal to the Office of the Associate Dean for Undergraduate Affairs for the School of Engineering.
4. Unrestricted electives may be chosen from any graded course in the University except mathematics courses below MAT 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.
5. Capstone sequence chosen from 4610/4620 or 4690/4700.
6. Chosen from Mechanical and Aerospace Engineering Approved Math-Science/Technical Electives list (see website).