

**MECHANICAL ENGINEERING UNDERGRADUATE CURRICULUM**  
**For Students Starting in Fall 2016 Graduating in 2020**

**FIRST SEMESTER**

APMA 1110	Single Variable Calculus	(4)___	credits
CHEM 1610	Intro Chem for Engineers	(3)___	
CHEM 1611	Intro Chem Lab for Engineers	(1)___	
ENGR 1620	Introduction to Engineering	(3)___	
ENGR 1621	Introduction to Engineering	(1)___	
STS 1500	Sci, Tech, Contemporary Issues	(3)___	
	Total	(15)	

**SECOND SEMESTER**

APMA 2120	Multivariable Calculus	(4)___	credits
CS 1110	Intro to Programming	(3)___	
PHYS 1425	General Physics 1	(3)___	
PHYS 1429	Gen Phys 1 Workshop	(1)___	
_____	Science 1 Elective <sup>1</sup>	(3)___	
_____	HSS Elective 1 <sup>3</sup>	(3)___	
	Total	(17)	

**THIRD SEMESTER**

MAE 2000	Intro to Mechanical Engineering	(3)___	credits
APMA 3110	Probability & Statistics	(3)___	
MAE 2300	Statics	(3)___	
PHYS 2415	General Physics 2	(3)___	
PHYS 2419	General Physics 2 Workshop	(1)___	
_____	HSS Elective 2 <sup>3</sup>	(3)___	
	Total	(16)	

**FOURTH SEMESTER**

APMA 2130	Ordinary Differ Eqn	(4)___	credits
MAE 2100	Thermodynamics	(3)___	
MAE 2310	Strength of Materials	(3)___	
MAE 2320	Dynamics	(3)___	
STS 2000/3000	Science and Tech	(3)___	
	Total	(16)	

**FIFTH SEMESTER**

MAE 3210	Fluid Mechanics	(3)___	credits
MAE 3310	Aerospace Structures	(3)___	
MAE 3710	Mechanical Systems	(3)___	
MAE 3810	Experimental Methods Lab	(3)___	
_____	Math/Science 2 Elective <sup>1</sup>	(3)___	
_____	Unrestricted Elective 1	(3)___	
	Total	(18)	

**SIXTH SEMESTER**

MAE 3140	Elem Heat&Mass Transfer	(3)___	credits
MAE 3620	Machine Elements	(3)___	
MAE 3840	Mech Engr Lab	(3)___	
MAE 4710	Mechatronics	(4)___	
_____	HSS Elective 3 <sup>3</sup>	(3)___	
	Total	(16)	

**SEVENTH SEMESTER**

MAE 46XX	Design 1 Elective <sup>2</sup>	(3)___	credits
STS 4500	Theories of Tech & Society	(3)___	
_____	Math/Sci/Tech Elective 1 <sup>1</sup>	(3)___	
_____	Math/Sci/Tech Elective 2 <sup>1</sup>	(3)___	
_____	Unrestricted Elective 2	(3)___	
	Total	(15)	

**EIGHTH SEMESTER**

MAE 46XX	Design 2 Elective <sup>2</sup>	(3)___	credits
STS 4600	The Engr, Ethics & Prof	(3)___	
_____	Math/Sci/Tech Elective 3 <sup>1</sup>	(3)___	
_____	Math/Sci/Tech Elective 4 <sup>1</sup>	(3)___	
_____	Unrestricted Elective 3	(3)___	
	Total	(15)	

Total Hours 128

- Curriculum requirements and a list of approved Math/Science/Technical Electives, Science I Electives and Math/Science 2 Electives are available on the MAE web page.
- Approved Design electives: MAE: 4610, 4620, 4630, 4640, 4650, 4680, 4690, 4700
- Approved HSS electives are found on the SEAS web page:

[http://www.seas.virginia.edu/undergrad/orientation/pdfs/electives\\_single.pdf](http://www.seas.virginia.edu/undergrad/orientation/pdfs/electives_single.pdf)

(05/04/2017KT)