

# AEROSPACE ENGINEERING UNDERGRADUATE CURRICULUM

For Students Starting in Fall 2017, Graduating in 2021

## 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 1620	Introduction to Engineering	(3)
ENGR 1621	Introduction to Engineering Lab	(1)
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 1 Elective <sup>2</sup>	(3)
_____	HSS Elective 1 <sup>3</sup>	(3)
Total		(17)

## THIRD SEMESTER

		credits
APMA 3110	Applied Statistics & Probability	(3)
MAE 2010	Intro to Aerospace Engineering	(3)
MAE 2300	Statics	(3)
PHYS 2415	General Physics II	(3)
PHYS 2419	General Physics II Workshop	(1)
_____	HSS Elective 2 <sup>3</sup>	(3)
Total		(16)

## FOURTH SEMESTER

		credits
APMA 2130	Ordinary Differential Eq.	(4)
MAE 2100	Thermodynamics	(3)
MAE 2310	Strength of Materials	(3)
MAE 2320	Dynamics	(3)
STS 2XXX/3XXX	STS Elective <sup>5</sup>	(3)
Total		(16)

## FIFTH SEMESTER

		credits
APMA 3140	Applied Partial Differential Eq.	(3)
MAE 3210	Fluid Mechanics	(3)
MAE 3310	Aerospace Structures	(3)
MAE 3610	Aerospace Materials	(3)
MAE 3810	Experimental Methods Lab	(3)
_____	Unrestricted Elective 1 <sup>1</sup>	(3)
Total		(18)

## SIXTH SEMESTER

		credits
MAE 3010	Astronautics	(3)
MAE 3220	Aerodynamics	(4)
MAE 3730	Flight Vehicle Dynamics	(3)
MAE 3820	Aerodynamics Lab	(3)
_____	Unrestricted Elective 2 <sup>1</sup>	(3)
Total		(16)

## SEVENTH SEMESTER

		credits
MAE 4XXX	Aerospace Design I <sup>4</sup>	(3)
STS 4500	STS and Engineering Practice	(3)
MAE 4120	Air Breathing Propulsion	(3)
_____	Math-Sci/Tech Elective 1 <sup>2</sup>	(3)
_____	HSS Elective 3 <sup>3</sup>	(3)
Total		(15)

## EIGHTH SEMESTER

		credits
MAE 4XXX	Aerospace Design II <sup>4</sup>	(3)
STS 4600	Engineer, Ethics, Prof. Resp.	(3)
_____	Math-Sci/Tech Elective 2 <sup>2</sup>	(3)
_____	Math-Sci/Tech Elective 3 <sup>2</sup>	(3)
_____	Unrestricted Elective 3 <sup>1</sup>	(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* available on the MAE website.

3. Chosen from the approved Humanities and Social Sciences list in the *SEAS Undergraduate Handbook*.

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

4. Chosen from the sequence MAE 4650-4660, or MAE 4690-4700.

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.