

College of Engineering and Computer Science

Aerospace Engineering

Fall 2020

Name _____

SUID _____

pr= prerequisite, co=corequisite

Minor/Second Major (if any): _____

	CREDIT GRADE	FIRST-YEAR SOPHOMORE		JUNIOR		SENIOR		VAR +/-	
		F	S	F	S	F	S		
MATHEMATICS (15)									
MAT295 Calculus 1	(4)_____	4							
MAT296 Calculus 2 (pr: MAT 295 min C-)	(4)_____		4						
MAT397 Calculus 3 (pr: MAT 296 min C-)	(4)_____			4					
MAT485 Diff Eqn & Matrix Algebra for Engrs (pr: MAT 397)	(3)_____				3				
SCIENCES (12)									
CHE106 General Chem Lecture I (co: CHE 107)	(3)_____	3							
CHE107 General Chem Lab I (co: CHE 106)	(1)_____	1							
PHY211 General Physics 1 (co: PHY 221, MAT 295)	(3)_____		3						
PHY221 General Physics Lab 1 (co: PHY 211)	(1)_____		1						
PHY212 General Physics 2 (pr: PHY 211, 221, co: PHY 222, MAT 296)	(3)_____			3					
PHY222 General Physics Lab 2 (co: PHY 212, MAT296)	(1)_____			1					
WRITING SKILLS/SOCIAL SCIENCE/HUMANITIES (15)									
WRT105 Studio 1: Practices of Academic Writing	(3)_____	3							
WRT205 Studio 2: Critical Research and Writing (pr: WRT 105)	(3)_____		3						
SSH Elective _____	(3)_____	3							
SSH Elective _____	(3)_____		3						
SSH Elective _____	(3)_____			3					
PROGRAM CUSTOMIZATION (15)									
Course1 _____	(3)_____				3				
Course2 _____	(3)_____					3			
Course3 _____	(3)_____						3		
Course4 _____	(3)_____							3	
Course5 _____	(3)_____								3
ENGINEERING (23)									
ECS101 Intro. to Engr. & Comp. Sci.	(3)_____	3							
ECS104 Engr. Comp Tools (co: MAT 295)	(3)_____		3						
ECS221 Statics (pr: PHY 211, co: MAT 296)	(3)_____			3					
ECS222 Dynamics (pr: ECS 221, MAT 296)	(3)_____				3				
ECS325 Mechanics of Solids (pr: ECS 221, co: MAT 397)	(4)_____				4				
ECS326 Engr. Materials, Prop. & Proc.	(3)_____			3					
ELE231 Elec. Engr. Fundamentals 1 (pr: MAT 295)	(3)_____					3			
ELE291 Elec. Engr. Laboratory 1 (co: ELE 231)	(1)_____					1			
AEROSPACE ENGINEERING (48)									
AEE342 Aerodynamics (pr: MAE 341)	(4)_____						4		
AEE343 Compressible Flow (pr: MAE 251, MAE 341)	(3)_____						3		
AEE427 Aircraft Performance & Dynamics (pr: MAE 341)	(4)_____							4	
AEE446 Propulsion (pr: AEE 343)	(3)_____							3	
AEE471 Des. & Anal. of Aero. Struct. (pr: ECS 325)	(4)_____						4		
AEE472 Syn. of Aerospace Systems (pr: AEE 427)	(4)_____								4
AEE577 Space Flight (pr: ECS 222)	(3)_____							3	
MAE251 Thermodynamics (pr: PHY 211)	(4)_____				4				
MAE284 Intro to CAD (pr: ECS 101)	(3)_____				3				
MAE312 Engineering Analysis (pr: ECS 104, MAT 485)	(3)_____					3			
MAE315 Mech/Aero Lab I (pr: ECS 325, co: MAE 341)	(3)_____					3			
MAE321 Dynamics of Mech. Systems (pr: ECS 325, ECS 222, MAT 485)	(3)_____						3		
MAE322 Control Systems for MAE (pr: MAT414 or 485, co: MAE321)	(3)_____								3
MAE341 Fluid Mechanics (pr: ECS 221, MAT 397, PHY 211)	(4)_____					4			
TOTAL CREDITS	128	17	17	17	17	17	17	13	13

*See reverse side for all notes

AEROSPACE ENGINEERING
Curriculum Notes
2020-2021

1. There are a total of 24 elective credits in the B.S. AEE program. These credits may be distributed in one of the following two ways:

Option 1: A student may complete any University minor or second major that requires at least 12 credit hours beyond the core AEE curriculum. In addition to, or as part of, this minor or second major, at least 9 credit hours must be taken from the social sciences or humanities (SS/H). Excluding those courses that count towards the minor or second major, a maximum of 6 credit hours that are neither SS/H nor technical electives may be taken as part of the 24 elective credits.

Option 2: A student who does not complete a University minor or second major must take at least 9 credits from the social sciences or humanities (SS/H), at least 6 credits of technical electives, and a maximum of 6 credit hours that are neither SS/H nor technical electives.

2. Technical electives consist of all 300 level and above courses offered by any department within the college of engineering and computer science or by the math or physics departments, except for ECS 391, ECS 392 and any course numbered 300, 400 or 500 that is offered outside of the MAE department. However, in some instances, these courses may be approved by petition. In addition, no more than 3 credit hours of technical electives may be taken outside of the MAE department.
3. Many technical electives in the MAE Department are scheduled on a 2-year rotation, so students should make themselves aware of technical elective offerings starting in their third year.
4. Social science or humanities (SS/H) courses are to be selected from the "Humanities List", the "Social Sciences List", or any foreign language course, as published in the SU Course Catalog.
5. Only courses taken (1) for a letter grade, (2) at the 300-level or greater, or (3) offered by the physical education department may be used to satisfy the requirements for the elective credits that are neither SS/H nor technical electives.