MAJOR IN MECHANICAL ENGINEERING, AEROSPACE ENGINEERING CONCENTRATION

TO DECLARE MAJOR: Competitive entry controls required and capped enrollment in place. Incoming students please see the Office of Admissions to declare. Current CSU students please see your assigned advisor for information about the waitlist.

TO PREPARE FOR FIRST SEMESTER: The curriculum for this major assumes students enter college prepared to take calculus.

Major Completion Map

Distinctive Requirements for Degree Program:

Freshman					
Semester 1		**Critical**	**Recommended**	**AUCC**	**Credits**
CHEM 111	General Chemistry I (GT-SC2)	X		3A	4
CHEM 112	General Chemistry Lab I (GT-SC1)	X		3A	1
CO 150	College Composition (GT-CO2)		X	1A	3
MATH 160	Calculus for Physical Scientists I (GT-MA1)	X		1B	4
MECH 103	Introduction to Mechanical Engineering	X			3
	Total Credits				**15**
Semester 2		**Critical**	**Recommended**	**AUCC**	**Credits**
MATH 161	Calculus for Physical Scientists II (GT-MA1)	X		1B	4
MECH 105	Mechanical Engineering Problem Solving	X			3
PH 141	Physics for Scientists and Engineers I (GT-SC1)	X		3A	5
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			X	3B	3
Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion)				1C	3
CO 150 must be completed by the end of Semester 2.		X			
	Total Credits				**18**
Sophomore					
Semester 3		**Critical**	**Recommended**	**AUCC**	**Credits**
CIVE 260	Engineering Mechanics-Statics	X			3
MATH 261	Calculus for Physical Scientists III	X			4
Select one group from the following:					3
Group A:					
MECH 200	Introduction to Manufacturing Processes	X			
Group B:					
MECH 200A	Introduction to Manufacturing Processes: Lecture				
MECH 200B	Introduction to Manufacturing Processes : Laboratory				
MECH 201	Engineering Design I	X			2
PH 142	Physics for Scientists and Engineers II (GT-SC1)	X		3A	5
	Total Credits				**17**
Semester 4		**Critical**	**Recommended**	**AUCC**	**Credits**
CIVE 261	Engineering Mechanics-Dynamics	X			3
ECE 204	Introduction to Electrical Engineering	X			3
MATH 340	Intro to Ordinary Differential Equations	X			4
MECH 202	Engineering Design II	X			3
MECH 231	Engineering Experimentation	X			3
	Total Credits				**16**
Junior					
Semester 5		**Critical**	**Recommended**	**AUCC**	**Credits**
CIVE 360	Mechanics of Solids	X			3

MECH 307	Mechatronics and Measurement Systems	X			4
MECH 324	Dynamics of Machines	X			4
MECH 337	Thermodynamics		X		4
MECH 342	Fluid Mechanics for Mechanical Engineers	X			3
	Total Credits				**18**
Semester 6		**Critical**	**Recommended**	**AUCC**	**Credits**
MECH 301A	Engineering Design III: Finite Element Analysis				1
MECH 301B	Engineering Design III: Computational Fluid Dynamics				1
MECH 325	Machine Design	X			3
Select one group from the following:					4
Group A					
MECH 331	Introduction to Engineering Materials	X			
Group B					
MECH 331A	Introduction to Engineering Materials: Lecture				
MECH 331B	Introduction to Engineering Materials : Lab				
MECH 338	Thermal/Fluid Sciences Laboratory	X			1
MECH 344	Heat and Mass Transfer	X		4B	3
Advanced Writing (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#advanced-writing)			X	2	3
	Total Credits				**16**
Senior					
Semester 7		**Critical**	**Recommended**	**AUCC**	**Credits**
Select one course from the following:					4
MECH 486A	Engineering Design Practicum: I	X		4A,4C	
MECH 498A	Engineering Research Practicum: I	X		4A,4C	
Aerospace Engineering Electives (See List on Requirements Tab)					6
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			X	3B	3
Social and Behavioral Sciences (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences)			X	3C	3
	Total Credits				**16**
Semester 8		**Critical**	**Recommended**	**AUCC**	**Credits**
Select one course from the following:					4
MECH 486B	Engineering Design Practicum: II	X		4C	
MECH 498B	Engineering Research Practicum: II	X		4C	
Aerospace Engineering Electives (See List on Requirements Tab)		X			6
Historical Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)		X		3D	3
The benchmark courses for the 8th semester are the remaining courses in the entire program of study.		X			
	Total Credits				**13**
	Program Total Credits:				**129**