

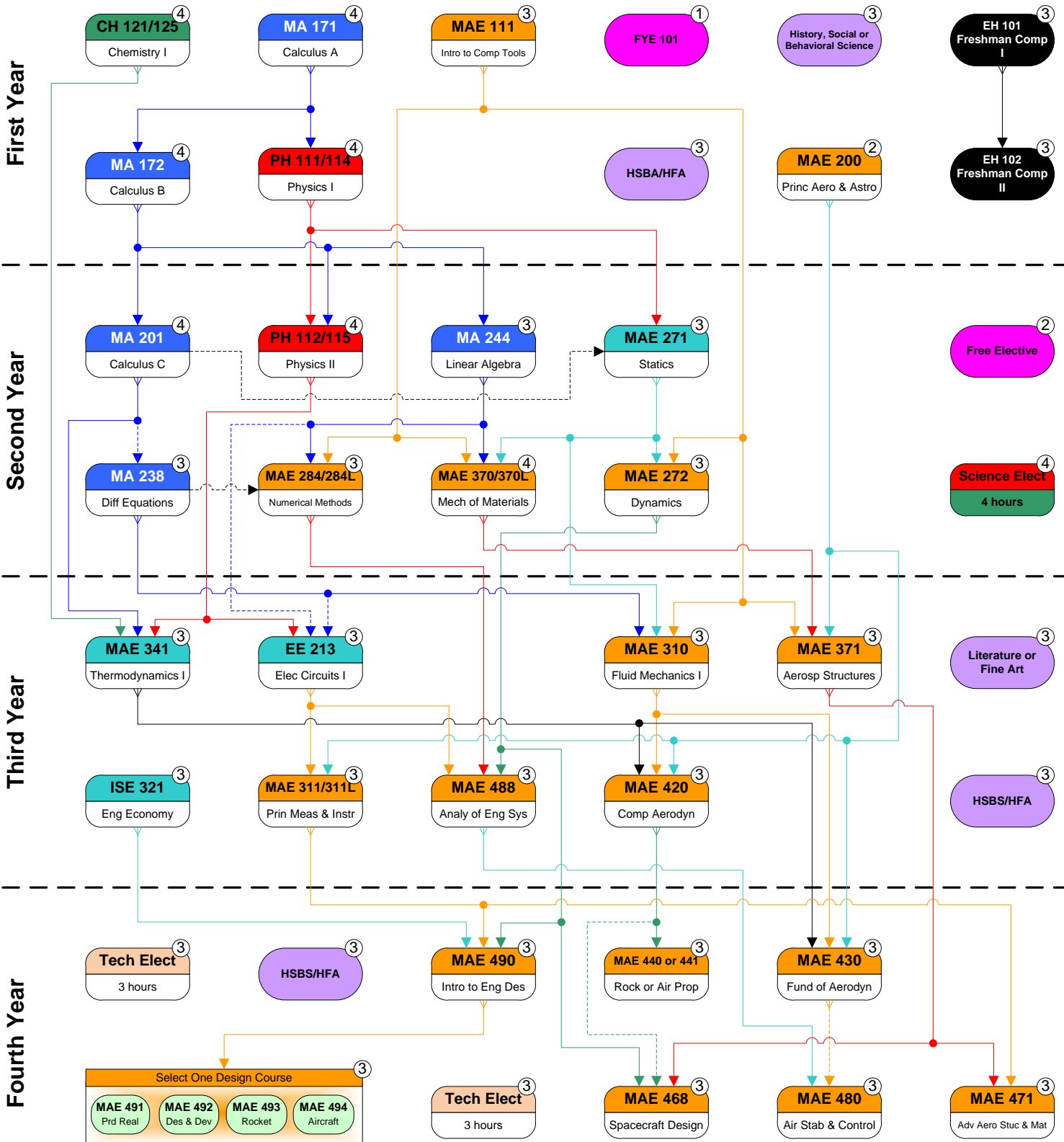
Student A#				Student Name (Last, First MI)			Offered: F=Fall S=Spring M=Summer
Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency		
<b>English - 6 hours</b>							
		EH 101	3	Freshman Composition I	Placement		FSM
		EH 102	3	Freshman Composition II	EH 101		FSM
<b>Mathematics - 18 hours</b>							
		MA 171	4	Calculus A	MA 113 or MA 115 or Level III Placement		FSM
		MA 172	4	Calculus B	MA 171		FSM
		MA 201	4	Calculus C	MA 172		FSM
		MA 238	3	Applied Differential Equations	Prereq w/Con: MA 201		FSM
		MA 244	3	Introduction to Linear Algebra	MA 172		FSM
<b>Chemistry - 4 hours</b>							
		CH 121	3	General Chemistry I	Plcmt or CH 101, MA 113 or 115, Prereq w/Con: MA 171, Coreq: CH 125		FSM
		CH 125	1	General Chemistry Lab I	Coreq: CH 121		FSM
<b>Physics - 8 hours</b>							
		PH 111	3	General Physics w/Calculus I	MA 171		FSM
		PH 114	1	General Physics Lab I	Prereq w/Con: PH 111		FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111		FSM
		PH 115	1	General Physics Lab II	Prereq w/Con: PH 112		FSM
<b>Science Elective - 4 hours</b>							
			3		Choose from CH 123/126 or PH 113/116		FSM
			1				
<b>History, Social &amp; Behavioral Sciences, Humanities &amp; Fine Arts - 15 hours</b>							
			3	HSBS	Choose 3 hours: History, Social or Behavior Science		FSM
			3	HFA	Choose 3 hours: Literature or Fine Art		FSM
			3		Choose 3 hour courses of HSBS/HFA that you have met prerequisites, from ARH, ARS*, CM, EH, ECN*, FL, GS, GY, HY, MU, PHL, PSC, PY, SOC, WS		
			3				
			3				
<b>General Education Electives - 3 hours</b>							
					Choose up to 3 hours of electives (Ex. FYE 101): Any courses that you have met prerequisites, and are not remedial coursework for Engineering curriculum.		
<b>Engineering Core - 12 hours</b>							
		MAE 271	3	Statics	PH 111, Prereq w/Con: MA 201		FSM
		MAE 341	3	Thermodynamics I	MA 201, CH 121, CH 125, PH 112		FSM
		EE 213	3	Electrical Circuit Analysis I	PH 112, Prereq w/Con: MA 238 & (MA 244 or CHE 244)		FSM
		ISE 321	3	Engineering Economy	Sophomore Standing		FSM
**	Class has required lab section			<b>Aerospace Engineering Option - 52 hours</b>			
		MAE 111	3	Intro to Computational Tools	Prereq w/Con: MA 113 or Level II Placement		FSM
		MAE 200	3	Principles of Aeronautics & Astronautics	Prereq w/Con: MA 113 or Level II Placement		FS
		MAE 272	3	Dynamics	MAE/CE 271 & (MAE 111 or CPE 112)		FSM
**		MAE 284	3	Numerical Methods	MA 244 & (MAE 111 or CPE 112); Prereq w/Con: MA 238 & Coreq: MAE 284L		FSM
**		MAE 310	3	Fluid Mechanics I	MA 238, MAE/CE 271 & (MAE 111 or CPE 112 or CHE 198)		FSM
**		MAE 311	3	Principles of Measurement & Instrumentation	EE 213 & (MAE 100 or 200), Coreq: MAE 311L		FSM
**		MAE 370	4	Mechanics of Materials	MAE/CE 271, MA 244 & (MAE 111 or CPE 112), Coreq: MAE 370L		FSM
		MAE 371	3	Aerospace Structures	MAE 111, MAE 200, MAE/CE 370		FS
		MAE 420	3	Compressible Aerodynamics	MAE 200, MAE 310, MAE 341		SM
		MAE 430	3	Fundamentals of Aerodynamics	MAE 200, MAE 310, MAE 341		FM
Select One		MAE 440	3	Rocket Propulsion I	MAE 420		FM*
		MAE 441	3	Airbreathing Propulsion	MAE 420		FM*
		MAE 468	3	Elements of Spacecraft Design	MAE/CE 272, MAE 371, Prereq w/Con: MAE 420		FS
		MAE 471	3	Advanced Aero Structure & Materials	MAE 311, MAE 371		FS
		MAE 480	3	Aircraft Stability & Control	Prereq w/Con: MAE 430 & MAE 488		FS
		MAE 488	3	Analysis of Engineering Systems	EE 213, MAE/CE 272, MAE 284		FSM
		MAE 490	3	Intro to Engineering Design	MAE/CE 272, MAE 311, ISE 321		FSM
Select One		MAE 491	3	Product Realization	MAE 490 & Senior Standing		FS
		MAE 492	3	Mission Design & Development	MAE 490 & Senior Standing		S
		MAE 493	3	Rocket Design	MAE 490 & Senior Standing		S
		MAE 494	3	Aircraft Design	MAE 490 & Senior Standing		S
<b>Technical Elective - 6 hours</b>							
			3		300 - level or above Science or Engineering course.		
			3				

\* These courses are offered in alternating summers. Please consult the MAE 5 year plan.

All prerequisite classes must be completed with a "C" or higher grade.

The Catalog is the final authority for all degree requirements.

# Aerospace Engineering Program 2013/2014 (129 Hours)



**Legend**

- Freshman Comp
- Mathematics
- Chemistry / Biology
- Physics
- Engineering Core
- History, Social, Behavior Science/Humanity & Fine Art
- Free Elective
- Aerospace Eng. Option
- Electives
- 3 Credit Hours
- Prerequisite
- Prereq w/concurrency



Department <b>Mechanical &amp; Aerospace</b>	Prepared by <b>Jacob Kerstiens</b>	Date <b>8/8/13</b>
Program <b>Aerospace Engineering</b>	Approved by	Date

# College of Engineering Pathways

## Aerospace Engineering 2013-2014 Plan

	Curriculum Pathway	Research Pathway	Internship Pathway	Co-op Pathway			
<b>Milestone Year-1</b>							
<input type="checkbox"/>	35 hours completed including: MA 171, CH 121/125, MAE 111, HSBS/HFA, FYE 101, EH 101		<input type="checkbox"/>	Meet with Faculty to discuss pathway choices			
	MA 172, PH 111/114, MAE 200, HSBS/HFA, EH 102		<input type="checkbox"/>	Meet with Career Development			
			<input type="checkbox"/>	Attend Career Services Workshop on Resume			
			<input type="checkbox"/>	Outline Resume			
			<input type="checkbox"/>	Participate in Career Fair			
<b>Milestone Year-2</b>							
<input type="checkbox"/>	68 hours completed including: MA 201, PH 112/115, MA 244, MAE 271, Free Elec		<input type="checkbox"/>	Meet with Faculty for Undergraduate research opportunities			
	MA 238, MAE 284, Sci Elec, MAE 272, MAE 370		<input type="checkbox"/>	Attend Career Services Workshop on Interviews			
			<input type="checkbox"/>	Professional Resume			
			<input type="checkbox"/>	Attend Career Fair			
			<input type="checkbox"/>	Co-op/Internship Offer (Summer Start)			
<b>Milestone Year-3</b>							
	<b>Research Pathway</b>		<b>Internship Pathway</b>		<b>Co-op Pathway</b>		
<input type="checkbox"/>	98 hours completed including: MAE 341, EE 213, MAE 371, MAE 310, HSBS/HFA		<input type="checkbox"/>	98 hours completed from Curriculum Pathway	<input type="checkbox"/>	Obtain Faculty Mentor	
	MAE 420, MAE 311, MAE 488, ISE 321, HSBS/HFA		<input type="checkbox"/>	Summer Internship	<input type="checkbox"/>	65 hours completed including: Work Semester (Summer)	
	<input type="checkbox"/>					MAE 341, EE 213, MAE 310, MAE 371, HSBS/HFA (Fall)	
	<input type="checkbox"/>					Work Semester (Spring)	
						EE 420, MAE 311, ISE 321, HSBS/HFA (Summer)	
						<input type="checkbox"/>	2 Semesters of Co-op
<b>Milestone Year-4</b>							
	<b>Research Pathway</b>		<b>Internship Pathway</b>		<b>Co-op Pathway</b>		
<input type="checkbox"/>	128 hours completed including: MAE 490, MAE 430, MAE 440, MAE 441, Tech Elec, HSBS/HFA		<input type="checkbox"/>	128 hours completed from Curriculum Pathway	<input type="checkbox"/>	89 hours completed including: Work Semester (Fall)	
	MAE 49x, MAE 471, MAE 468, MAE 480, Tech Elec		<input type="checkbox"/>	Summer Internship		MAE 490, MAE 471, MAE 468, Tech Elec (Spring)	
	<input type="checkbox"/>		<input type="checkbox"/>	Senior Design Complete		MAE 488, MAE 430, MAE 440 MAE 441, HSBS/HFA (Summer)	
	<input type="checkbox"/>		<input type="checkbox"/>	Degree Complete		<input type="checkbox"/>	Experiential Learning complete
	<input type="checkbox"/>		<input type="checkbox"/>	Begin Career or Graduate School		<input type="checkbox"/>	Decision on Industry or Graduate School
<b>Milestone Year-5</b>							
					<b>Co-op Pathway</b>		
					<input type="checkbox"/>	128 hours completed including: MAE 49x, Tech Elec, MAE 480 (Fall)	
					<input type="checkbox"/>	Senior Design Complete	
					<input type="checkbox"/>	Degree Complete	
					<input type="checkbox"/>	Begin Career or Graduate School	

Required	
Recommended	