

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		
English - 6 hours							
		EH 101	3	Freshman Composition I	Placement		FSM
		EH 102	3	Freshman Composition II	EH 101		FSM
Mathematics - 18 hours							
		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
Chemistry - 4 hours							
		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
Physics - 8 hours							
		PH 111	3	General Physics w/Calculus I	MA 171, Coreq: 114		FSM
		PH 114	1	General Physics Lab I	Coreq: PH 111		FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111, Coreq: 115		FSM
		PH 115	1	General Physics Lab II	Coreq: PH 112		FSM
Science Elective - 4 hours							
			3				FSM
			1		Choose from CH 123/126 or PH 113/116		FSM
History, Social & Behavioral Sciences, Humanities & Fine Arts - 18 hours							
			3	History	HY 103, HY 104, HY 221, or HY 222		FSM
			3	Literature	EH 207 or EH 208		FSM
			3	Fine Art	ARH 100, ARH 101, ARH 103, CM 122, MU 100, or ARS 160		FSM
			3	Social & Behavioral Science	For more information on HSBS/HFA Requirements: http://www.uah.edu/images/colleges/engineering/CUE2%20Files/Forms/HSBS_HFA_Requirements.pdf		FSM
			3	Sequence Course			FSM
			3	HSBS/HFA			FSM
			3				
Engineering Core - 12 hours							
		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 Aerospace Engineering Option - 52 hours						
		MAE 111	3	Intro to Computational Tools	Prereq w/Con: MA 113		FSM
		MAE 200	3	Principles of Aeronautics & Astronautics	PH 111		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	ISE 321, MAE 310, MAE 311, MAE 341, MAE 370, (MAE 364 & MAE 387) or (MAE 200 & MAE 371)		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
Technical Elective - 6 hours							
			3				
			3		300 - level or above Science or Engineering course.		

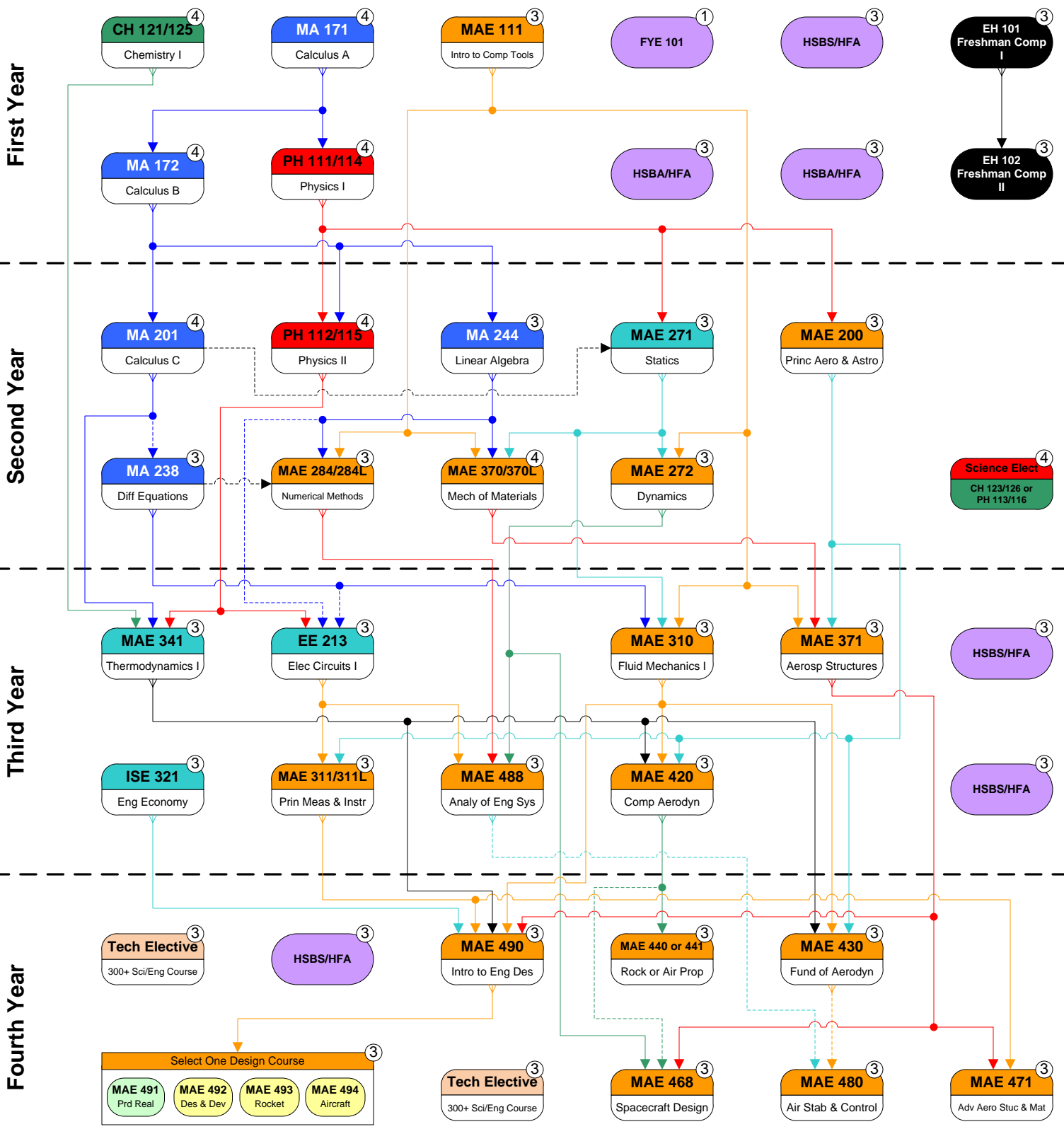
* These courses are offered in alternating summers. Please consult the MAE 5 year plan.
 All prerequisite classes must be completed with a "C-" or higher grade.
 The Catalog is the final authority for all degree requirements.



Academic Flowchart



Aerospace Engineering 2014/2015 (128 Hours)






Legend
Updated: 9/18/14

■ Mathematics	■ Engineering Core	■ Freshman Comp	③ Credit Hours
■ Physics	■ Aerospace Engineering Option	■ History, Social & Behavioral Science Humanity & Fine Art	→ Prerequisite
■ Chemistry / Biology	■ Electives	■ Offered only in semester listed	- - - - - Prereq w/concurrency

Academic Pathways



Aerospace Engineering 2014-2015 Plan

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