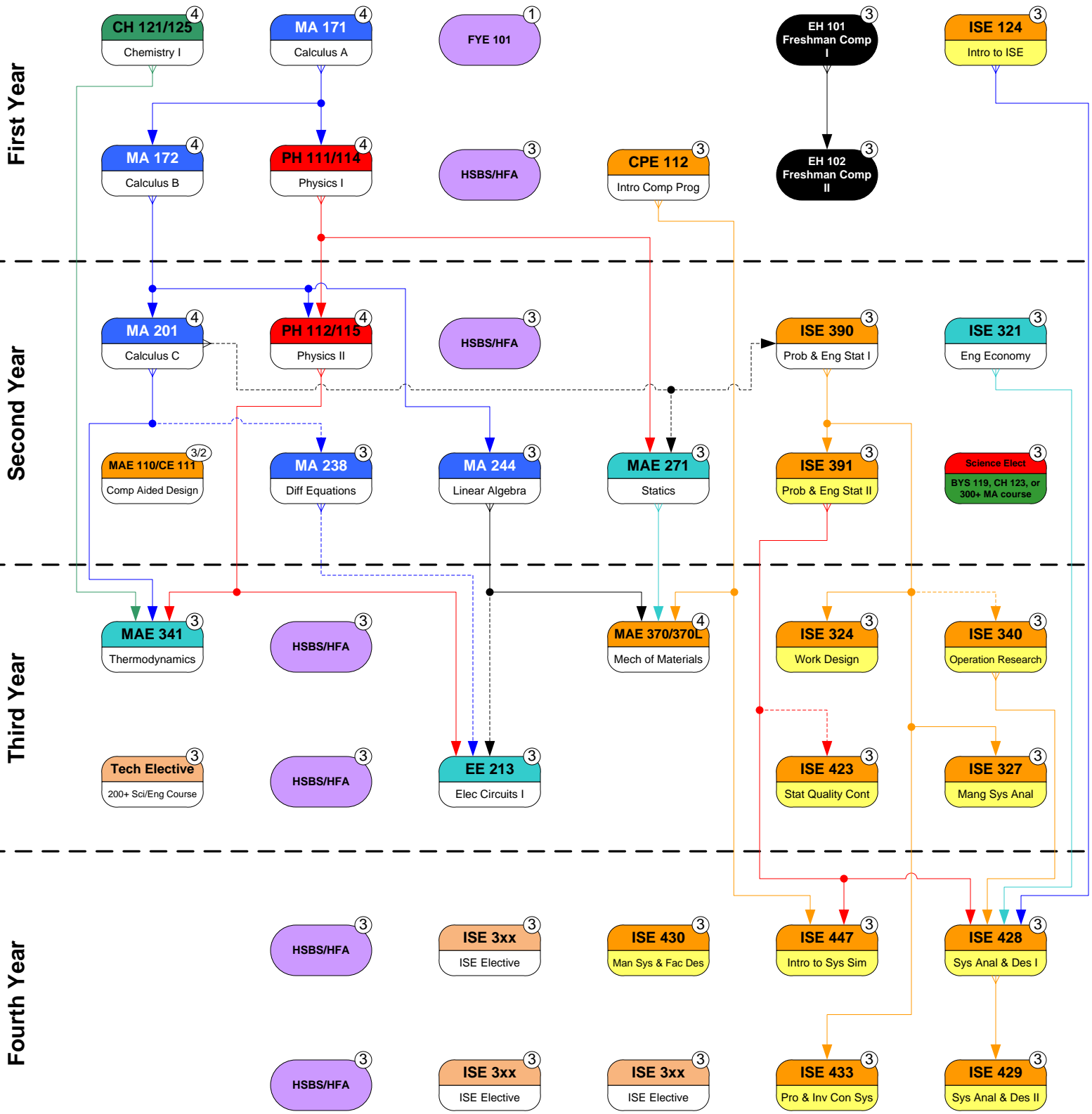


Student A#				Student Name (Last, First MI)		Offered: F=Fall S=Spring M=Summer
Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	
English - 6 hours						
		EH 101	3	Freshman Composition I	Placement	FSM
		EH 102	3	Freshman 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 - 3 hours						
			3		BYS 119 or CH 123 or 300/400 level MA course	
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
Engineering Core - 12 hours						
		MAE 271	3	Statics	PH 111, Prereq w/Con: MA 201	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
		MAE 341	3	Thermodynamics I	MA 201, CH 121, CH 125, PH 112	FSM
**	Class has required lab section			Industrial & System Engineering Option - 46 hours		
**		CPE 112	3	Intro to Computer Programming in Engineering	MA 113, MA 115 or Level III Placement, Coreq: CPE 112L	FSM
Select One		CE 111	2	Civil Engineering Graphics	MA 112 or Level II Placement, Freshman CE Standing	FS
		MAE 111	3	Intro to Computational Tools	Prereq w/Con: MA 113	FSM
		ISE 124	3	Intro to Industrial & Systems Engineering	Prereq w/Con: MA 113	F
		ISE 324	3	Work Design	ISE 390	F
		ISE 327	3	Management Systems Analysis	ISE 390	S
		ISE 340	3	Operations Research	Prereq w/Con: ISE 390	F
**		MAE 370	4	Mechanics of Materials	MAE/CE 271, MA 244 & (MAE 111 or CPE 112), Coreq: MAE 370L	FSM
		ISE 390	3	Probability & Engineering Statistics I	Prereq w/Con: MA 201	FSM
		ISE 391	3	Probability & Engineering Statistics II	ISE 390	S
		ISE 423	3	Statistical Quality Control	Prereq w/Con: ISE 391	S
		ISE 428	3	Systems Analysis & Design I	ISE 124, ISE 321, ISE 340, ISE 391, Senior Standing	F
		ISE 429	3	Systems Analysis & Design II	ISE 428	S
		ISE 430	3	Manufacturing Systems and Facilities Design	Senior Standing	F
		ISE 433	3	Production & Inventory Control Systems	ISE 390	S
		ISE 447	3	Intro to Systems Simulation	CPE 112, ISE 391	F
Industrial & Systems Engineering Electives - 9 hours						
			3	Choose from MA 385, ISE 402, ISE 403, ISE 426, ISE 437, or other upper-level courses approved by the Department.		
			3	May select a maximum of 6 hours from the following: EH 301, ACC 211, MTK 301, MGT 363, or MGT 462.		
Technical Elective - 3 hours						
			3	200-level or above Engineering or Science course		

All prerequisite classes must be completed with a "C-" or higher grade.
The Catalog is the final authority for all degree requirements.

Academic Flowchart



Legend Updated: 8/28/14	Mathematics	Engineering Core	Freshman Comp	Credit Hours
	Physics	Industrial & Systems Engineering Option	History, Social & Behavioral Science Humanity & Fine Art	Prerequisite
	Chemistry / Biology	Electives	Offered only in semester listed	Prereq w/concurrency

Academic Pathways



Industrial & Systems Engineering 2014-2015 Plan

Curriculum Pathway	Research Pathway	Internship Pathway	Co-op Pathway	Required
				Recommended
Milestone Year-1				
<input type="checkbox"/> 32 hours completed including: MA 171, CH 121/125, FYE 101, EH 101, ISE 124, HSBS/HFA		<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		
MA 172, PH 111/114, CPE 112, EH 102, HSBS/HFA				
Milestone Year-2				
<input type="checkbox"/> 64 hours completed including: MA 201, PH 112/115, ISE 390, ISE 321, Sci Elec		<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)		
MA 238, MAE 271, ISE 391, MA 244, MAE/CE 111				
SELECT ONE PATHWAY OPTION				
 Research Pathway		 Internship Pathway	 Co-op Pathway	
Milestone Year-3				
Research Pathway <input type="checkbox"/> 95 hours completed including: MAE 341, ISE 340, ISE 324, MAE 370, HSBS/HFA EE 213, ISE 423, ISE 327, HSBS/HFA, Tech Elec <input type="checkbox"/> Undergraduate Research <input type="checkbox"/> Attend JUMP Information Session		Internship Pathway <input type="checkbox"/> 95 hours completed from Curriculum Pathway <input type="checkbox"/> Summer Internship	Co-op Pathway <input type="checkbox"/> Obtain Faculty Mentor <input type="checkbox"/> 91 hours completed including: Work Semester (Summer) ISE 340, ISE 324, ISE Elec, HSBS/HFA Work Semester (Spring) EE 213, MAE 341, MAE 370, HSBS/HFA <input type="checkbox"/> 2 Semesters of Co-op	
Milestone Year-4				
Research Pathway <input type="checkbox"/> 127 hours completed including: ISE 430, ISE 447, ISE 428, ISE Elec, HSBS/HFA ISE 429, ISE 433, ISE Elec, ISE Elec, HSBS/HFA <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		Internship Pathway <input type="checkbox"/> 127 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	Co-op Pathway <input type="checkbox"/> 103 hours completed including: Work Semester (Fall) ISE 423, ISE 327, Tech Elec, HSBS/HFA Work Semester (Summer) <input type="checkbox"/> Experiential Learning complete <input type="checkbox"/> Decision on Industry or Graduate School	
Milestone Year-5				
			Co-op Pathway <input type="checkbox"/> 127 hours completed including: ISE 447, ISE 428, ISE 430, HSBS/HFA ISE 429, ISE 433, ISE Elec, ISE Elec <input type="checkbox"/> Senior Design Complete <input type="checkbox"/> Degree Complete <input type="checkbox"/> Begin Career or Graduate School	