

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 - 15 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
Chemistry - 18 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
		CH 123	3	General Chemistry II	CH 121, Prereq w/Con: CH 126		FSM
		CH 126	1	General Chemistry Lab II	Coreq: CH 123		FSM
		CH 331	3	Organic Chemistry I	CH 123, CH 126		FSM
		CH 335	1	Organic Chemistry Lab I	Prereq w/Con: CH 331		FSM
		CH 332	3	Organic Chemistry II	CH 331		FSM
		CH 341	3	Physical Chemistry I	CH 123, MA 201, PH 112		F
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
Biology - 3 hours							
		BYS 311	3	Intro to Molecular Biological Systems	CH 331		S
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							
		CHE 244	3	Intro to Chemical Engineering Systems	CH 123, PH 111, Prereq w/Con: CHE 198		S
		CHE 294	3	Nature & Properties of Materials	CH 121, PH 111		FM
		EE 213	3	Electrical Circuit Analysis I	PH 112, Prereq w/Con: MA 238 & (MA 244 or CHE 244)		FSM
		MAE 271	3	Statics	PH 111, Prereq w/Con: MA 201		FSM
Chemical Engineering Option - 40 hours							
		CHE 197	2	Intro to Chemical Engineering Processes	Level II Math Placement or Coreq: MA 112		F
		CHE 198	2	Computational Tools for Chemical Engineers	CHE 197, Prereq w/Con: MA 113		S
		CHE 295	1	Nature & Properties of Materials Lab	Prereq w/Con: CHE 294		FM
		CHE 342	3	Transport Phenomena	CHE 244, Prereq w/Con: MAE 310		S
		CHE 344	3	Chemical Engineering Thermodynamics	CHE 244, CH 341		S
		MAE 310	3	Fluid Mechanics I	MA 238, MAE/CE 271 & (MAE 111 or CPE 112 or CHE 198)		FSM
		CHE 347	3	Quantitative Modeling for Chemical Engrs	CHE 198, CHE 244, MA 238		FM
		CHE 439	3	Unit Operations Lab I	CHE 295, Prereq w/Con: CHE 441, CHE 446		F
		CHE 440	2	Unit Operations Lab II	CHE 439, CHE 441, CHE 443		S
		CHE 441	3	Chemical Kinetics & Reactor Design	CHE 344, CHE 347		F
		CHE 443	3	Mass Transfer Operations	CHE 342, CHE 344, MAE 310		F
		CHE 445	3	Chemical Process Control	CHE 441		S
		CHE 446	3	Analysis & Design of Transport Equipment	CHE 342, Prereq w/Con: CHE 443		F
		CHE 448	3	Chemical Engineering Design	CHE 441, CHE 443, CHE 446, Prereq w/Con: CHE 445		S
		CHE 485	3	Process Safety and Toxicology	Prereq w/Con: CHE 448		S
Chemical Engineering Electives - 9 hours							
		CH 361	3	General Biochemistry I	BYS 311, CH 332, CH 335		FSM
		CHE 460	3	Introduction to Bioprocess Engineering	CH 361		F
		CHE 461	3	Bioseparations	CHE 460		S
		CH 440	3	Polymer Synthesis & Characterization	CH 331		F
		CHE 494	3	Applied Materials Engineering	CHE 294, CHE 344		S
		CHE 495	3	Polymer Engineering	CH 341, CH 440		F

Select One Concentration
Biotechnology
Materials Engineering

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

Academic Flowchart

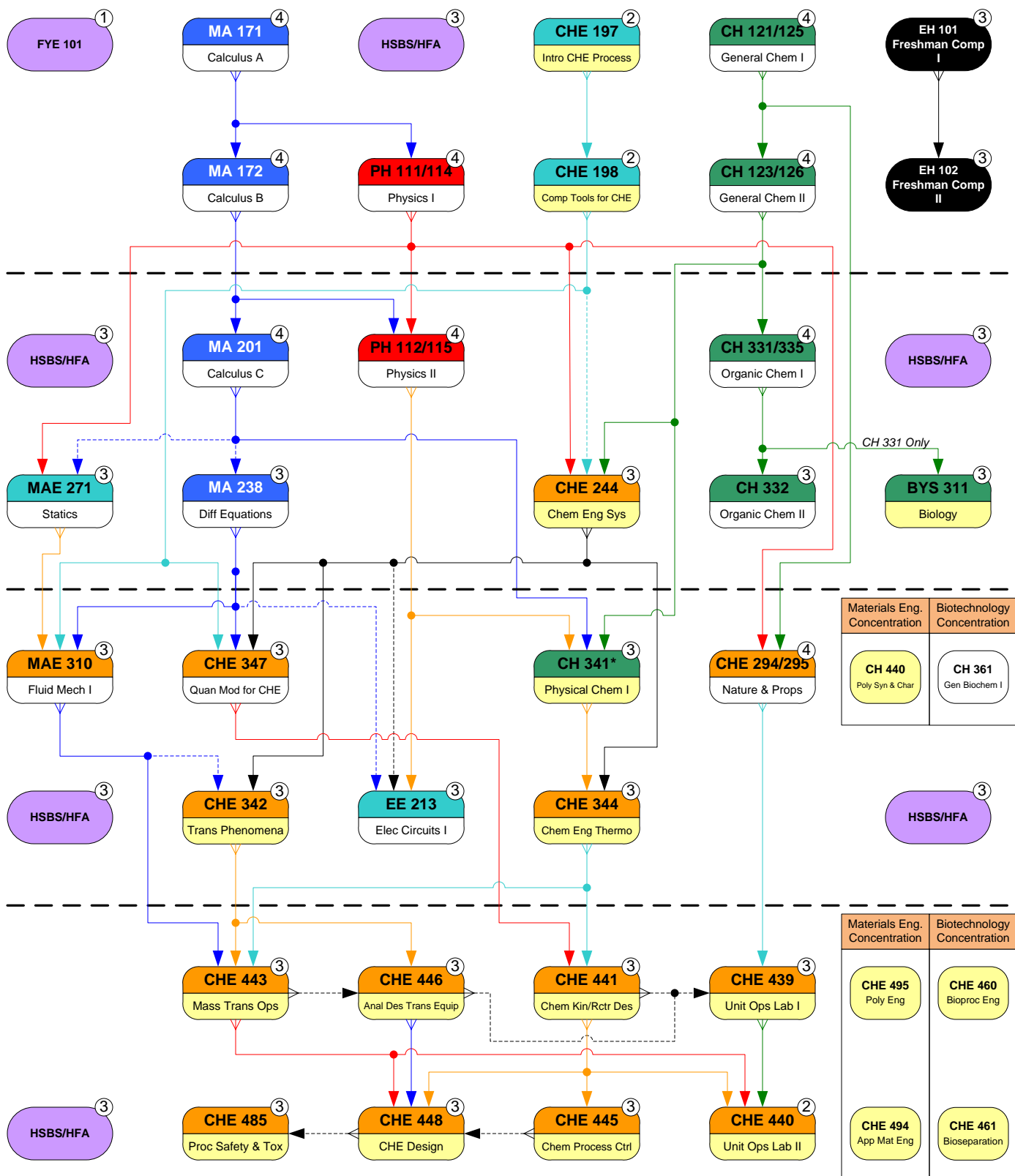
Chemical Engineering 2014/2015 (129 Hours)

First Year

Second Year

Third Year

Fourth Year






* Important for scheduling curriculum completion.

Legend Updated: 8/28/14	■ Mathematics	■ Engineering Core	■ Freshman Comp	③ Credit Hours
	■ Physics	■ Chemical Engineering Option	■ History, Social & Behavioral Science Humanity & Fine Art	→ Prerequisite
	■ Chemistry / Biology	■ Electives	■ Offered only in semester listed	- - - - -> Prereq w/concurrency

Academic Pathways



Chemical Engineering 2014-2015 Plan

Curriculum Pathway	Research Pathway	Internship Pathway	Co-op Pathway	Required
				Recommended
Milestone Year-1				
<input type="checkbox"/> 34 hours completed including: MA 171, CH 121/125, CHE 197, HSBS/HFA, FYE 101, EH 101		<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, CHE 198, CH 123/126, EH 102				
Milestone Year-2				
<input type="checkbox"/> 64 hours completed including: MA 201, PH 112/115, CH 331/335, HSBS/HFA MA 238, CH 332, MAE 271 BYS 311, CHE 244, HSBS/HFA		<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				
Research Pathway <input type="checkbox"/> 99 hours completed including: MAE 310, CHE 347, CH 341, CHE 294, CHE 295, CHE Conc 1 EE 213, CHE 342, CHE 344, HSBS/HFA, HSBS/HFA <input type="checkbox"/> Undergraduate Research <input type="checkbox"/> Attend JUMP Information Session		Internship Pathway <input type="checkbox"/> 99 hours completed from Curriculum Pathway <input type="checkbox"/> Summer Internship	Co-op Pathway <input type="checkbox"/> Obtain Faculty Mentor <input type="checkbox"/> 90 hours completed including: Work Semester (Summer) CHE 347, CH 341, CHE 294, CHE 295, CHE Conc 1 (Fall) Work Semester (Spring) MAE 310, CHE 344, HSBS/HFA, HSBS/HFA (Summer) <input type="checkbox"/> 2 Semesters of Co-op	
Milestone Year-4				
Research Pathway <input type="checkbox"/> 128 hours completed including: CHE 443, CHE 446, CHE 441, CHE 439, CHE Conc 2 CHE 485, CHE 448, CHE 445 CHE 440, CHE Conc 3, 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"/> 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	Co-op Pathway <input type="checkbox"/> 100 hours completed including: Work Semester (Fall) CHE 342, EE 213, HSBS/HFA, HSBS/HFA (Spring) 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"/> 129 hours completed including: CHE 433, CHE 446, CHE 441 CHE 439, CHE Conc 2 CHE 485, CHE 448, CHE 445, CHE 440, HSBS/HFA, CHE Conc 3 <input type="checkbox"/> Senior Design Complete <input type="checkbox"/> Degree Complete <input type="checkbox"/> Begin Career or Graduate School	