

Chemical Engineering Program 2009/2011 (131 Hours)

Offered:
F=Fall
S=Spring
M=Summer

Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or with Concurrency	Prerequisites	Offered:
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
**	Class has required recitation section						
Chemistry - 15 hours							
		CH 121	3	General Chemistry I	CH 101 or Plcmt, MA 112, Prereq w/Con: MA 113 or 115, Coreq: CH 125		FSM
		CH 125	1	General Chemistry Lab I	Coreq: CH 121		FSM
		CH 123	3	General Chemistry II	CH 121, Coreq: CH 126		FSM
		CH 126	1	General Chemistry Lab II	Coreq: CH 123		FSM
**		CH 331	3	Organic Chemistry I	CH 123, CH 126, Coreq: CH 331R		FSM
**		CH 335	1	Organic Chemistry Lab I	Prereq w/Con: CH 331		FSM
**		CH 332	3	Organic Chemistry II	CH 331, Coreq: CH 332R		FSM
Biology - 3 hours							
		BYS 201	3	Intro to Molecular Biological Systems	CH 123		S
Physics - 8 hours							
		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
History, Social & Behavioral Sciences - 9 hours							
		HY	3	History	Must take a six hour sequence in a discipline.		FSM
			3		See Humanities & Fine Arts List at		FSM
			3		http://www.uah.edu/engineering/StudentAffairs/forms.php .		FSM
Humanities & Fine Arts - 9 hours							
		EH	3	Literature	See History, Social & Behavioral Sciences list at		FSM
			3	Fine Arts	http://www.uah.edu/engineering/StudentAffairs/forms.php .		FSM
		PHL 202	3	Introduction to Ethics			FSM
Engineering Core - 12 hours							
		CHE 197	3	Computer Methods for Chemical Engineers	Level II Math Placement or Coreq: MA 112		F
		CHE 244	3	Intro to Chemical Engineering Systems	CH 123, CHE 197, PH 111		S
		CHE 294	3	Nature & Properties of Materials	CH 121, PH 111		FM
		CHE 344	3	Chemical Engineering Thermodynamics	CHE 244, CH 341		SM
Chemical Engineering Option - 54 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 or MAE 285)		FSM
		ISE 321	3	Engineering Economy	MA 172, Sophomore Standing		FSM
		CHE 295	1	Nature & Properties of Materials Lab	Prereq w/Con: CHE 294		FM
		CH 341	3	Physical Chemistry I	CH 123, MA 201, PH 112		F
		CHE 347	3	Quantitative Modeling for Chemical Engrs	CHE 244, MA 238		SM
		MAE 310	3	Fluid Mechanics I	MA 238, MAE/CE 271 & (MAE 285 or CPE 112 or CHE 197)		FSM
		CHE 439	2	Unit Operations Lab I	BYS 201, Prereq w/Con: CHE 441, CHE 443, 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 342	3	Transport Phenomena	CHE 244, Prereq w/Con: MAE 310		S
		CHE 443	3	Mass Transfer Operations	CHE 342, CHE 344, MAE 310		F
		CHE 445	3	Chemical Process Control	CHE 347, CHE 441		F
		CHE 446	3	Analysis & Design of Transport Equipment	MAE 310, Prereq w/Con: CHE 443		S
		CHE 448	3	Chemical Engineering Design	CHE 441, CHE 443, CHE 446, Prereq w/Con: CHE 445		S
Select One Concentration Materials Eng Biotechnology		CH 361	3	General Biochemistry I	BYS 201, CH 332, CH 335		FSM
		CH 362	1	General Biochemistry Lab I	Prereq w/Con: CH 361		FSM
		CH 363	3	General Biochemistry II	CH 361		S
		CHE 460	3	Introduction to Bioprocess Engineering	CH 362, CH 363		F
		CHE 461	3	Bioseparations	CH 362, CH 363, CHE 460		S
		CH 342	3	Physical Chemistry II	CH 341		S
		CH 346	1	Experimental Physical Chemistry II	CHE 295, Prereq w/Con: CH 342		S
		CH 440	3	Polymer Synthesis & Characterization	CH 331		F
		CHE 494	3	Applied Materials Engineering	CHE 294, CH 342 or CH 348		S
		CHE 495	3	Polymer Engineering	CH 341, CH 440		F

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

Updated
May 4, 2009

ENGINEERING APPROVALS:

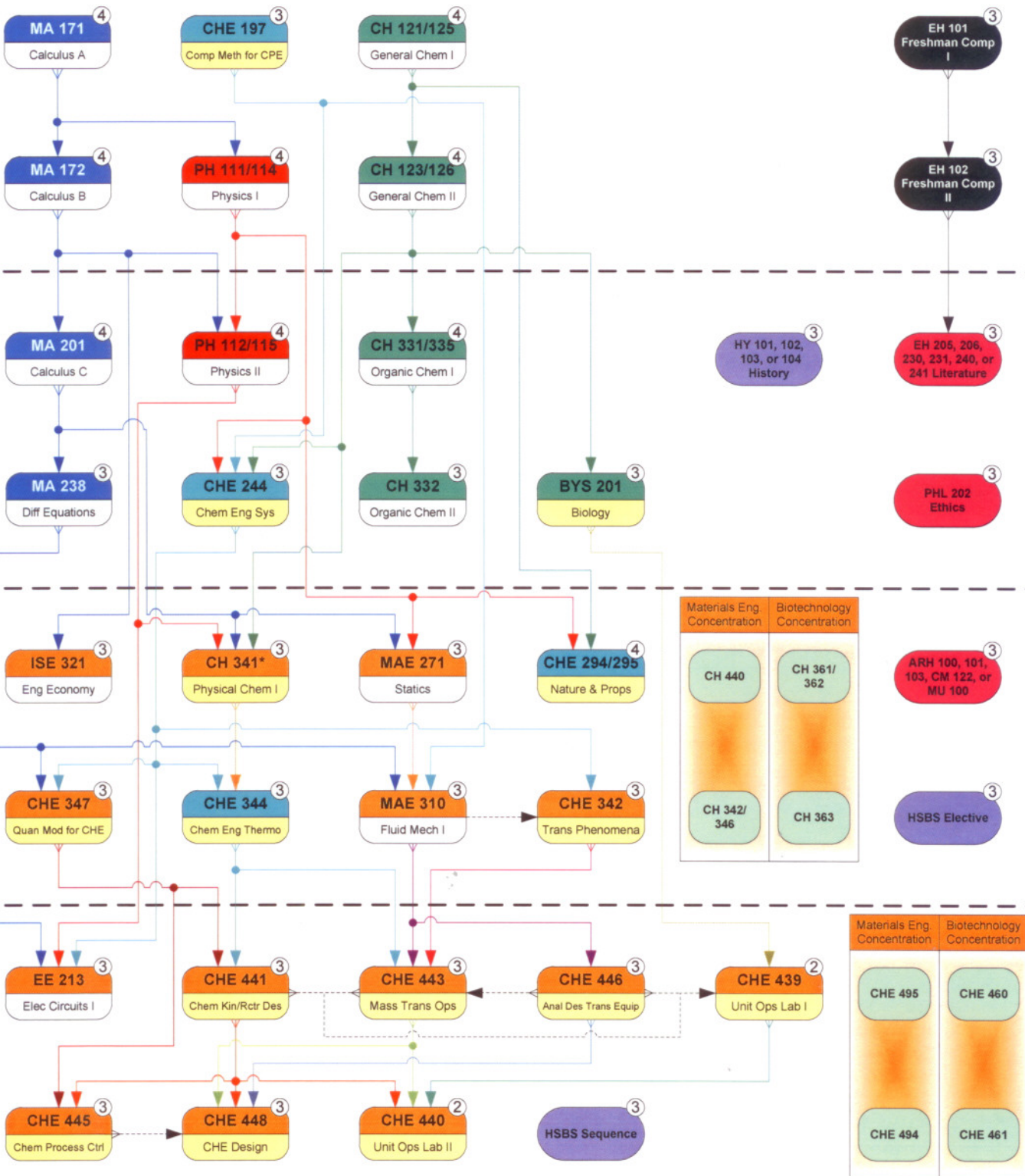
Advisor	Date	Department Chair	Date	Dean of Engineering	Date
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First Year

Second Year

Third Year

Fourth Year



* Important for scheduling curriculum completion.

Legend	Freshman Comp	Hum. & Fine Arts
	Mathematics	Engineering Core
	Chemistry / Biology Core	Chemical Eng. Option
	Physics	Offered only in that semester
	History, Social & Behavioral Sciences	Credit Hours
	Prerequisite	Prereq w/concurrency



Department CHE	Prepared by Barbie Boles	Date 9/18/07
Program Chemical Engineering Program	Approved by	Date 9/18/07