

CHEMICAL ENGINEERING CURRICULUM (for students who enter Chemical Engineering Fall 2007 and after)

Freshman Year

CES 102	Engineering Disciplines & Skills	2	CH 102	General Chemistry	4
CH 101	General Chemistry	4	CH E 130	Chemical Engineering Tools	3
ENGL 103	English Composition	3	MTHSC 108	Calculus of One Variable II	4
MTHSC 106	Calculus of One Variable I	4	PHYS 122	Physics with Calculus I	3
Arts and Humanities/Social Science ¹		3	Arts and Humanities/Social Science ¹		3
<i>Semester Totals:</i>		16			17

Sophomore Year

CH 223	Organic Chemistry	3	CH 224	Organic Chemistry	3
CH E 211	Intro. to Chemical Engineering	4	CH 229	Organic Chemistry Lab.	1
MTHSC 206	Calculus of Several Variables	4	ChE 220	Chemical Engr. Thermodynamics I	3
PHYS 221	Physics with Calculus II	3	ChE 230	Fluids/Heat Transfer	4
Arts and Humanities/Social Science ¹		3	MTHSC 208	Intro. to Ord. Diff. Equations	4
<i>Semester Totals:</i>		17			15

Junior Year

Biochemistry Option ²		3	CH 332	Physical Chemistry	3
CH 339	Physical Chemistry Lab.	1	CH 340	Physical Chemistry Lab.	1
ChE 307	Unit Operations Lab. I	3	CH E 321	Chemical Engr. Thermodynamics II	3
CH E 319	Engineering Materials	3	CH E 330	Mass Transfer & Separ. Proc.	4
ECE 307	Basic Electrical Engineering	2	Arts and Humanities/Social Science ¹		3
ECE 309	Electrical Engineering Lab	1	Emphasis Area ³		3
Arts and Humanities/Social Science ¹		3			
<i>Semester Totals:</i>		16			17

Senior Year

CH E 407	Unit Operations Lab. II	3	CH E 353	Process Dynamics and Control	3
CH E 431	Chemical Process Design I	3	CH E 433	Process Design II	3
CH E 443	Chem. Engr. Senior Seminar I	1	CH E 444	Chem. Engr. Senior Seminar II	1
CH E 450	Chemical Reaction Engineering	3	MICRO 413	Industrial Microbiology	3
Arts and Humanities/Social Science ¹		3	Emphasis Area ³		3
Emphasis Area ³		3			
<i>Semester Totals:</i>		16			13

Total = 127 hrs.

Notes

¹ See Policy on Social Sciences and Humanities for Engineering Curricula. Six of these credit hours must also satisfy the Cross-Cultural Awareness and Science and Technology in Society Requirements.

² Select from BIOCH 301, BIOCH 305, BIOCH 423

³ See advisor for details. Nine credit hours devoted to completion of an emphasis area or approved minor is required. Emphasis areas are these: Applied Engineering, Mathematics and Science; Biomolecular Science and Engineering; Polymeric Materials; Energy Studies; Environmental Engineering; Business Management.

Note: No student may exceed a maximum of two attempts, including a W, to complete successfully any CH E course.