Chemical Engineering B.S/M.S. - Non-Thesis Option (161 hrs)

First Year

Fall	CHEM 1307/1107 Prin. Chem. I		CH E 1121 Ch E Seminar	MATH 1451 Calc I	ENGL 1301 Ess. Coll. Rhetoric	HIST 2300† Amer. Hist. I
Spring	CHEM 1308/1108 Prin. Chem. II	PHYS 1408 Prin. Phys. I	CH E 1305 Eng. Anal.	MATH 1452 Calc II	ENGL 1302 Adv. Coll. Rhetoric	HIST 2301† Amer. Hist. II

Second Year

Fall	CHEM 3305/3105 Org. Chem. I	PHYS 2401 Prin. Phys. II	CH E 2410 Chem. Proc.	MATH 2450 Calc III		POLS 1301‡ Amer. Govt. I
Spring	CHEM 3251, 3301, 3351, 3306/3106, or 4311 Chem. Elect.*		CH E 2421 Thermo. I	MATH 3350 Adv. Math Engr. I	CHE 3315 Fluid Mech.	ENGR 2392 Engr. Ethics (LPC)

Third Year

Fall	CHEM3306/3106, 3341/3141, or 3310 Chem. Elect.*	CH E 2306 Expos. Of Tech Info (Oral Comm.)	CH E 3322 Thermo. II	CH E 3326 Heat Transfer		POLS 2306‡ Texas Politics
Spring	Apply to Graduate College File intent to graduate for BS degree	CH E 3330 Eng. Mat. Sci.	CH E 3341 Mass-Trans. Oper.	CH E 3232 Transport Lab	CH E 3323 Reaction Eng.	IE 2324 Engr. Econ. Analysis (Ind./Group)

Fourth Year

Fall	CHEM 3107 Chem. Elect.*	CH E 53xx Grad Core+	CH E 53xx Grad Core+	CH E 4232 Unit Oper. Lab	CH E 4353 Process Ctrl.	CH E 4322 CH E Review.
Spring		CH E 53xx Grad Core+	CH E 53xx Grad Core+	CHE 4356 Process Safety	CH E 4455 Proc. Des. & Sim.	Creative Arts/Mltclt** elective
Summer	RESEARCH					

Fifth Year

Fall	CH E 7121 Grad Seminar	CH E 53xx Grad Core+	CH E 53xx Grad Elect++	CH E 53xx Grad Elect++	CHE 5000 Ind. Studies
Spring	CH E 7121 Grad Seminar	CH E 53xx Grad Elect++	CH E 53xx Grad Elect++	CH E 53xx Grad Elect++	CHE 5000 Ind. Studies

CH E Electives:
CH E 4340 - Polymer Processing
CH E 4341 - Polymerization Engineering
CH E 4342 - Polymer Physics and Engineering
CH E 4344 - Polymers/Materials Laboratory
CH E 4346 - Polymer Viscoelasticity
CH E 4363 - Biochemical Engineering
CH E 4364 - Ch E Applications in Biological Systems
CH E 4365– Biotransport
CH E 4366 - Biomicrofluidics
CH E 4372 - Engineering Experimentation
CH E 4381 - Numerical Techniques for Ch E Problems
CH E 4385 - Bioprocess Control
CH E 4391 – Ch E Applications in Energy Science
CH E 4392 – Entrepreneurship in Chemical Engineering
CH E 4393 – Colloid Science and Engineering
CH E 4394 – Soft Materials

* **CHEM Electives:**
8 hours total: 6 lecture, 2 hours of lab. Chemistry courses listed for electives are suggestions only. Consult with departmental advisor for more information on elective choices.

Graduate Courses:
+ 5 required core courses
CH E 5310- Adv. Chemical Engineering Techniques
CH E 5312- Fluid Transport Prin. and Analysis
CH E 5321- Adv. Chem. Eng. Thermodynamics
CH E 5323- Dig. Computation for Chem. Engineers
CH E 5343- Reaction Kinetics
++ Electives as recommended by graduate mentor

For CHE course descriptions, click here.

INTERNATIONAL EXPERIENCE REQUIRED FOR STUDENTS ENTERING FALL 2013 AND LATER.

† **U.S. History Requirement (6 hrs):**
HIST 2300 and 2301 will fulfill the U.S. History requirement. However, HIST 2310 can also be applied to this requirement.

‡ **Political Science Requirement (6 hrs):**
POLS 1301 and 2306 will fulfill the political science requirement.

‡ **Foreign Language Requirement:** One year (or the equivalent) of a single foreign language at the college level fulfills this requirement. Two years of credit in a single language in high school qualifies student for a waiver of this requirement.

** **Creative Arts, and Multicultural Electives:**
Courses should be selected from the core curriculum course lists in the undergraduate catalog in order to meet core curriculum requirements. One course should be chosen that simultaneously appears on the Multicultural list and on the Creative Arts list for the least number of hours for degree. Otherwise an additional course will be needed.