

Sample Schedule 2015-2016

Chemical Engineering

	Total Credit Hours	Terms:							
		1	2	3	4	5	6	7	8
Subjects Required by all Programs:									
Mathematics 115+, 116+, 215+, 216+	16	4	4	4	4	-	-	-	-
Engineering 100, Introduction to Engineering +	4	4	-	-	-	-	-	-	-
Engineering 101, Introduction to Computers and Programming +	4	-	4	-	-	-	-	-	-
Chemistry 130 +	3	3	-	-	-	-	-	-	-
Physics 140 with Lab 141 +	5	-	5	-	-	-	-	-	-
Physics 240 with Lab 241 +	5	-	-	-	5	-	-	-	-
Intellectual Breadth (to include micro or macro economics)	16	4	-	-	-	4	-	4	4
Advanced Chemistry:									
Chemistry 210/211, Structure and Reactivity I and Lab +	5	-	5	-	-	-	-	-	-
Chemistry 215/216, Structure and Reactivity II and Lab +	5	-	-	5	-	-	-	-	-
Chemistry 261 Introduction to Quantum Chemistry ³	1	-	-	-	-	1	-	-	-
Related Technical Subjects									
Biology/Life Science Elective (Typically Bio 172 or 174) ¹	4	-	-	-	-	-	4	-	-
Materials Elective (MSE 250 or MSE 220) +	4	-	-	-	-	-	-	4	-
Engineering Elective ²	3	-	-	-	-	-	-	-	3
Program Subjects									
CHE 230 Material and Energy Balances +	4	-	-	4	-	-	-	-	-
CHE 330 Chemical and Engineering Thermodynamics +	4	-	-	-	4	-	-	-	-
CHE 341 Fluid Mechanics +	4	-	-	-	4	-	-	-	-
CHE 342 Mass and Heat Transfer +	4	-	-	-	-	4	-	-	-
CHE 343 Separation Processes +	4	-	-	-	-	4	-	-	-
CHE 344 Reaction Engineering and Design +	4	-	-	-	-	-	4	-	-
CHE 360 Chemical Engineering Laboratory I +	4	-	-	-	-	-	4	-	-
CHE 460 Chemical Engineering Laboratory II	4	-	-	-	-	-	-	-	4
CHE 466 Process Dynamics and Control	3	-	-	-	-	-	-	3	-
CHE 485 Chemical Engineering Process Economics +	1	-	-	-	-	-	1	-	-
CHE 487 Chemical Process Simulation and Design ⁴	5	-	-	-	-	-	-	-	5
General Electives	12	-	-	3	-	3	3	3	-
Total	128	15	18	16	17	16	16	14	16

Notes:

¹ See department list for courses that satisfy the Biology/Life Science elective requirement for students with BIO100x AP Credit

² Engineering courses are to be at the 200 or higher level and cannot include seminar courses. Engineering research credits at the 400 level or higher may be used to satisfy this requirement. Up to 8 credits of ChE 490 or ChE 695 research may be taken for a grade. Beyond that, ChE 490 or 695 credits must be taken pass/fail.

³ Either Physics 390 or Materials Science 242 or Chemistry 370 can be taken to fulfill the Chemistry 261 requirement

⁴ ChE 488 and 489, the Chemical Product Design two-semester sequence, is available as a substitute for ChE 487 for a limited number of students.

(+) Students must earn a "C-" or better in prerequisite courses indicated by the (+)