Sample Plan of Study

Sample Plan of Study
Chemical Engineering (CHE)
Freshmen Year

Semester 1				Semester 2			
Course	**Title**	**Cr.**	**Pre/ConP**	**Course**	**Title**	**Cr.**	**Pre/ConP**
MA 165	Analytic Geometry and Calculus I (Math)	4	MAT 110 or MA 158 or ENG Math Placement Test	MA 166	Analytic Geometry and Calculus II (Math)	4	MA 165
CHM 115	General Chemistry I (Science)	4	ConP: MA 165	CHM 116	General Chemistry II (Science)	4	CHM 115
ENGL 100	English for Academic Studies (English Lan. & Com.)	3		ENGL 106	First-Year Composition (English Lan. & Com.)	4	ENGL 100
ENGR 131	Transforming Ideas to Innovation I (General Engineering)	2		ENGR 132	Transforming Ideas to Innovation II (General Engineering)	2	ENGR 131
GEE	General Education Elective (refer to course catalogue)	3		PHYS 172	Modern Mechanics (Science)	4	ConP: MA 165
	Semester Credits =	***16***			***Semester Credits =***	***18***	

Sophomore Year

Semester 3				Semester 4			
Course	**Title**	**Cr.**	**Pre/ConP**	**Course**	**Title**	**Cr.**	**Pre/ConP**
CHE 200	Chemical Engineering Sophomore Seminar (CHE Core)	1	Sophomore	CHE 211	Introductory Chemical Engineering Thermodynamics (CHE Core)	4	CHE 205 (min C), MA 261
CHE 205	Chemical Engineering Calculations (CHE Core)	4	ENGR 131, PHYS 172, MA 165, ConP: CHM 116 For CHE 205 passing grade is C	CHM 262	Organic Chemistry II (CHE Science Core)	3	CHM 261
CHM 261	Organic Chemistry I (CHE Science Core)	3	CHM 116	CHM 264	Organic Chemistry Laboratory II (CHE Science Core)	1	CHM 263, ConP: CHM 262
CHM 263	Organic Chemistry Laboratory I (CHE Science Core)	1	ConP: CHM 261	MA 265	Linear Algebra (CHE Math Core)	3	MA 166
MA 261	Multivariate Calculus (Math)	4	MA 166	COM 114	Fund. of Speech Communication (English Lan. & Com.)	3	ENGL 100
PHYS 241	Electricity and Optics (Science)	3	PHYS 172	GEE	General Education Elective (refer to course catalogue)	3	
	Semester Credits =	***16***			***Semester Credits =***	***17***	

Junior Year

Semester 5

Course	Title	Cr.	Pre/ConP
CHE 306	Design of Staged Separation Processes (CHE Core)	3	CHE 211
CHE 377	Momentum Transfer (CHE Core)	4	CHE 211, ConP: MA 266
CHM 370	Topics in Physical Chemistry (CHE Science Core)	3	CHE 211, MA 261, PHYS 241, CHM 116
MA 266	Ordinary Diff. Equations (CHE Math Core)	3	MA 261
GEE	General Education Elective (refer to course catalogue)	3	
	Semester Credits =	***16***	

Semester 6

Course	Title	Cr.	Pre/ConP
CHE 300	Chemical Engineering Junior Seminar (CHE Core)	1	CHE 200, Junior
CHE 378	Heat and Mass Transfer (CHE Core)	4	CHE 211, CHE 377
CHE 348	Chemical Reaction Engineering (CHE Core)	4	CHE 211, MA 265, MA 266, ConP: CHM 261
CHE 320	Statistical Modeling and Quality Enhancement (CHE Core)	3	CHE 205, ConP: MA 265,
TE	Technical Elective (CHE Selectives)*; for ex: CHM 333	3	for CHM 333: CHM 262
GEE	General Education Elective (refer to course catalogue)	3	
	Semester Credits =	***18***	

Senior Year

Semester 7

Course	Title	Cr.	Pre/ConP
CHE 400	Chemical Engineering Senior Seminar (CHE Core)	1	CHE 300, ConP: CHE 456, Senior
CHE 456	Process Dynamics and Control (CHE Core)	3	CHE 377, ConP: CHE 348, CHE 378
CHE 435	Chemical Engineering Laboratory (CHE Core)	4	CHE 306, CHE 320, CHE 348, CHE 378
CHE 420	Process Safety Management (CHE Core)	3	ConP: CHE 348, CHE 378
BIO Sel	Biology Selective (CHE Selectives)*; for ex: BIOL 230	3	for BIOL 230: CHM 116, MA 166
GEE	General Education Elective (refer to course catalogue)	3	
	Semester Credits =	***17***	

Semester 8

Course	Title	Cr.	Pre/ConP
CHE 450	Design and Analysis of Processing Systems (CHE Senior Design)	4	CHE 306, CHE 378,CHE 400; ConP: CHE 435
CHE EL	Chemical Engineering Electives (CHE Selectives)*; for ex: CHE 463	3	for CHE 463: CHE 378
ENG EL1	Engineering Elective (General Engineering)*; for ex.: IE 343	3	for IE 343: ENGR 131, MA 166
ENG EL2	Engineering Elective (General Engineering)*; for ex: CHE 442	3	for CHE 442: CHM 262, CHM 370
GEE	General Education Elective (refer to course catalogue)	3	
	Semester Credits =	***16***	

Total Minimum Credits Required for Graduation = 134

AUM reserves the right to change program content, course requirements, materials, and/or schedules as deemed necessary

The sample plan of study is designed for a full time student within an ordinary graduation period between four and five years.