Bachelor of Science in Chemical Engineering
Study Plan (Fall Start)

Total Credit Hours: 136

First Year (Freshman)

Semester 1

Code	Title	Cr.	Prerequisite
ARL 100	Communication Skills in Arabic I	3	None
ENG 200	English II	3	6.5 IELTS or/EPT or/ C in ENG100
ISL 100	Islamic Culture	3	None
CME 200	Introduction to Chemical Engineering	3	None
UNS 102	University Study Skills	1	None
MTT 102	Calculus I	3	C grade in MTT 101 or MPT
	Total Credit Hours	**16**	

Semester 2

Code	Title	Cr.	Prerequisite
PSY 201	General Psychology	3	ENG 200 + UNS 102
PHY 102	Physics and Engineering Applications I	3	MTT 102
PHY 102L	Physics and Engineering Applications I Lab	1	MTT 102+ PHY 102 (co-req)
MTT 200	Calculus II	3	MTT 102
CHE 205	General Chemistry I	3	ENG 100
CHE 201L	Chemistry Lab	1	CHE 205 (co-req)
CME 210	Principles of Chemical Engineering	4	CHE 205 (co-req) + CME 200
	Total Credit Hours	**18**	

Second Year (Sophomore)

Semester 3

Code	Title	Cr.	Prerequisite
CRT 301	Critical Thinking	2	UNS 102 + ENG 200
MTT 201	Calculus III	3	MTT 200
CSC 201	Structured Programming	3	MTT 102
PHY 201	Physics and Engineering Applications II	3	PHY 102
PHY 201L	Physics and Engineering Applications II Lab	1	PHY 102 + PHY 201 (co-req)
STT 100	General Statistics	3	None
	Total Credit Hours	**15**	

Semester 4

Code	Title	Cr.	Prerequisite
ENG 305	Technical Communications for Eng.& Science	3	ENG 200
CME 220	Chemical Engineering Thermodynamics I	3	CME 210 + MTT 205 (Co-req)
CHE 206	General Chemistry II	3	CHE 205
CHE 206L	General Chemistry II Lab	1	CHE 205 + CHE 206 (Co-req)
MTT 204	Introduction to Linear Algebra	3	MTT200
MTT 205	Differential Equations	3	MTT 200+MTT 204 (Co-req)
	Total Credit Hours	**16**	

Third Year (Junior)

Semester 5

Code	Title	Cr.	Prerequisite
CHE 305	Organic Chemistry	4	CHE 206
CME 300	Chemical Engineering Thermodynamics II	3	CME 220
CME 310	Fluid Mechanics for Chemical Engineers	3	CME220
CHE 330	Physical Chemistry	3	CME 220+CHE 206
MEC 300	Materials Science	3	CHE205
CME 341	Heat Transfer	3	CME 310 (Co-req)
	Total Credit Hours	**19**	

Semester 6

Code	Title	Cr.	Prerequisite
INE 300	Innovation and Entrepreneurship	3	Completion of 60 credits
CME 301	Mass Transfer	3	CME 300 + CME 341
GEN 200	Engineering Economy	3	ENG 200 + MTT 102
CME 331	Chemical Reaction Engineering	3	CHE 330 +MTT 205+CME 341
CME 305	Modeling and Simulation in Chemical Eng.	2	CME 210+CME 310+CME 331 (Co-req)
CME 321	Process Dynamics and Control	3	CME 331 (Co-req)
	Total Credit Hours	**17**	

Summer Semester

Code	Title	Cr.	Prerequisite
CME 399i	Internship	3	90 credit hours

Fourth Year (Senior)

Semester 7

Code	Title	Cr.	Prerequisite
CME 400	Separation Processes	3	CME 301 + CME 305
CME 450	Process Design	3	CME 331+CME 400 (Co-req)
CME 320	Chemical Engineering Laboratory I	1	CME310 +CME 341 + CME 301
ME1	Major Elective I	3	
SOC 201	UAE and GCC Society	3	ENG 100 + UNS 102
CME 498	Design Project (Capstone) I	1	Senior Level
OE1	Open Elective I	3	
	Total Credit Hours	**17**	

Semester 8

Code	Title	Cr.	Prerequisite
CME 499	Design Project (Capstone) II	2	CME 498
CME 430	Chemical Engineering Laboratory II	1	CME 321 +CME 331 + CME 400
ME2	Major Elective II	3	
ME3	Major Elective III	3	
CIV 402	Engineering Ethics	3	
OE2	Open Elective II	3	
	Total Credit Hours	**15**	

***Note:* English Proficiency Specified Score: Score of 1250+ & B2 (CEFR) in Writing Component for EmSat or/ 5.5 overall average & 5.5 specific score in Writing Component for IELTS, equivalent in other English Proficiency Test**