

Chemical Engineering 5 Year Plan of Study for ROTC Students

First Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
CHEM 1035	General Chemistry	3	ENGL 1106	First-Year Writing	3
CHEM 1045	General Chemistry Lab	1	ENGE 1216	Foundations of Engineering (C-)	2
ENGE 1215	Foundations of Engineering (C-)	2	PHYS 2305	Foundation of Physics w/Lab	4
ENGL 1105	First-Year Writing	3		Pre: (MATH 1205 or MATH 1205H or MATH 1225) or (MATH 1206 or MATH 1206H or MATH 1226); Co: 2325 or (MATH 1206 or MATH 1206H or MATH 1226)	
MATH 1225	Calculus of a Single Variable (C-)	4	MATH 1226	Calculus of a Single Variable	4
	Pre: Math Ready			Pre: MATH 1225	
	ROTC	Varies		ROTC	Varies
Total Credit Hours		13 - 18	Total Credit Hours		13 - 18

Second Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
*CHEM 1036	General Chemistry	3	CHEM 1046	General Chemistry Lab	1
	Pre: CHEM 1035			Pre: CHEM 1045; Co: CHEM 1036	
PHYS 2306	Foundations of Physics II w/Lab	4	CHE 2114	Mass & Energy Balances (C-)	3 [F,S]
	Pre: 2305, (MATH 1206 or MATH 1206H or MATH 1226), PHYS 2305			Pre: (MATH 1206 or MATH 1206H or MATH 1226), (CHEM 1036 or 1056 or 1056H)	
MATH 2204	Multivariable Calculus	3	MATH 2214	Differential Equations	3
	Pre: MATH 1226			Pre: MATH 1226, (MATH 1114 or 2114 or MATH 2114H or MATH 2405H)	
MATH 2114	Intro to Linear Algebra OR	3	CHE 2004	CHE Sophomore Seminar (P/F)	1 [S]
OR	Pre: MATH 1225 (B) or MATH 1226	OR		Pathways 2	3
MATH 1114	Elementary Linear Algebra	2			
	ROTC	Varies		ROTC	Varies
Total Credit Hours		12/13 - 16/17	Total Credit Hours		11 - 15

* ChE Advisor Recommendation: Take CHEM 1036 over the summer between your first and second year if possible.

Third Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
CHEM 2535	Organic Chemistry I OR	3 [F,S]	CHEM 2536	Organic Chemistry II OR	3 [S,SII]
OR	Pre: CHEM 1036 or CHEM 1056 or CHEM 1056H or ISC 1106 or ISC 1106H	OR	OR	Pre: (CHEM 2535 or CHEM 2565 or CHEM 2565H)	OR
CHEM 2565	Principles of Org. Chemistry I	3 [F]	CHEM 2566	Principles of Org. Chemistry II	3 [S]
	Pre: CHEM 1036 or CHEM 1036H or CHEM 1056 or CHEM 1056H			Pre: CHEM 2565	
CHEM 2545	Organic Chemistry Lab	1 [F,S]	CHEM 2546	Organic Chemistry Lab	1 [S,SII]
	Pre: CHEM 1046 or CHEM 1066; Co: CHEM 2535 or CHEM 2565			Pre: CHEM 2545; Co: CHEM 2536	
CHEM 3615	Physical Chemistry	3 [F,S]	CHEM 3625	Physical Chemistry Lab	1 [F,S,SII]
	Pre: (CHEM 1035 or CHEM 1055 or CHEM 1055H), (CHEM 1036 or CHEM 1056 or CHEM 1056H), (MATH 2204 or MATH 2204H or MATH 2224), PHYS 2306		CHE 3134	Separation Processes	3 [F,S]
CHE 2164	CHE Thermodynamics	3 [F,S]		Pre: CHE 2114; Co: CHE 2164 or CHEM 3615	
	Pre: 2114 (C-); Co: CHEM 3615			Pathways 3	3
	ROTC	Varies		ROTC	Varies
Total Credit Hours		10 - 16	Total Credit Hours		11 - 17

Fourth Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
CHE 3114	Fluid Transport	3 [F,S]	CHE 3184	Chemical Reactor Analysis	3 [S]
	Pre: CHE 2114, PHYS 2305, (MATH 2204 or MATH 2224); Co: MATH 4564			Pre: CHE 2164, (MATH 2214 or MATH 2214H); Co: CHE 3144, CHE 3044	
CHE 3124	CHE Modeling	3 [F,S]	CHE 3044	Heat Transfer	2 [S]
	Pre: CHE 2114 (C-), MATH 2214; Co: CHE 3114, MATH 4564			Pre: CHE 2164, CHE 3114, MATH 4564	
ENGL 3764	Technical Writing	3	CHE 3015	Process Meas. & Controls	3 [S]
	Pre: Junior Standing, ENGL 1106 or ENGL 1204H or COMM 1016			Pre: MATH 4564; Co: (CHE 2124 or CHE 3124), CHE 3184, CHE 3044	
MATH 4564	Operational Methods	3	CHE 3144	Mass Transfer	3 [S]
	Pre: MATH 2214 or MATH 2214H or MATH 2406H or CMDA 2006			Pre: CHE 2164, CHE 3114, MATH 4564	
	ROTC	Varies		ROTC	Varies
Total Credit Hours		12 - 18	Total Credit Hours		11 - 17

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Summer I or Summer II		
Course	Course Title	Credits
CHE 4014	Chemical Engineering Laboratory Pre: CHE 3015, CHE 3044, CHE 3124, CHE 3134, CHE 3144, CHE 3184, ENGL 3764 2.0 in-Major GPA Required	5 [SI,SI]

Fifth Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
CHE 4104	Process Materials Pre: CHE 2164, (CHEM 2535 or CHEM 2565)	3 [F]	CHE 4186	Process and Plant Design II Pre: CHE 4185 2.0 in-Major GPA Required	4 [S]
CHE 4185	Process and Plant Design I Pre: CHE 3015, CHE 3044, CHE 3124, CHE 3134, CHE 3144, CHE 3184 2.0 in-Major GPA Required	4 [F]	STAT 4604	Stat Methods for Engineers Pre: MATH 1206 or MATH 1226	3
			OR		
			STAT 4705	Probability & Stat for Engineers Pre: MATH 2224 or MATH 2204 or MATH 2204H or MATH 2406H	
			OR		
			STAT 4714	Prob & Stat for Electrical Engineer Pre: MATH 2224 or MATH 2204 or MATH 2204H or MATH 2406H	
	Technical Elective	3		Pathways 6a	3
	Pathways 2/7	3		Pathways 3	3
	ROTC	Varies		ROTC	Varies
Total Credit Hours		13 - 15	Total Credit Hours		13 - 15