Chemical Engineering, BS

University of Wyoming, 2016-17

Freshman Fall Semester			Hrs	Min Grade	Notes
		USP First-Year Seminar	3	C	FY
CHEM	1050	Advanced General Chemistry I *	4	C	PN
LIFE	1010	General Biology I **	4		
MATH	2200	Calculus I ***	4	C	Q
		Credit hours subtotal:	**15**		

Freshman Spring Semester			Hrs	Min Grade	Notes
CHE	1005	Introduction to Chemical Engineering	1		
CHEM	1060	Advanced General Chemistry II	4	C	
ENGL	1010	College Composition and Rhetoric	3	C	C1; can substitute HP 1020 (Fresh Honors Colloquium) or ESL 1210 (Engl Comp for Intl Students).
MATH	2205	Calculus II	4	C	
PHYS	1210	Engineering Physics I	4	C	PN; can substitute ES 2110 (Statics) and ES 2120 (Dynamics).
		Credit hours subtotal:	**16**		

Sophomore Fall Semester			Hrs	Min Grade	Notes
CHE	2005	Chemical Process Analysis	3	C	
CHEM	2420	Organic Chemistry I	4	C	
COJO	2010	Public Speaking	3	C	C2
MATH	2210	Calculus III	4		
PHYS	1220	Engineering Physics II	4		
		Credit hours subtotal:	**18**		

Sophomore Spring Semester			Hrs	Min Grade	Notes
CHE	2060	Introduction to Chemical Eng Computing	3		
CHE	2070	Chemical Thermodynamics I	3		
CHE	2080	Chemical Engineering Fluid Mechanics	3		
CHEM	2440	Organic Chemistry II	4		
MATH	2310	Applied Differential Equations I	3		
		Credit hours subtotal:	**16**		

This is a guide for course work in the major; actual course sequence may vary by student. Please refer to the online student degree evaluation, and consult with an academic advisor. • Not all courses are offered every semester and some electives may have prerequisites. Students should review the course descriptions in the *University Catalog* and consult with their academic advisor to plan accordingly.

University of Wyoming requirements:

Students must have a minimum cumulative GPA of 2.0 to graduate. • Students must complete 42 hours of upper division (3000-level or above) coursework, 30 of which must be from the University of Wyoming. • Courses must be taken for a letter grade unless offered only for S/U. • University Studies Program (USP) Human Culture (H) and Physical & Natural World (PN) courses must be taken outside of the major subject, but can be cross-listed with the major.

College of Engineering and Applied Science requirements:

Students must have a minimum cumulative GPA of 2.0 in all Engineering courses for graduation. • A grade of C or higher is required for all prerequisite courses. Students must also achieve a grade of C or better in all required mathematics courses.

Chemical Engineering Program Notes:

* Requires MATH ACT ≥ 27, MATH SAT ≥ 600, or concurrent enrollment in MATH 2200; one year of high school chemistry required. (University standard)

** Requires MATH ACT ≥ 21, MATH SAT ≥ 600, Math Placement Exam ≥ 2, or ≥ C in MATH 0921. (University standard)

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Chemical Engineering, BS

University of Wyoming, 2015-16

Junior Fall Semester			Hrs	Min Grade		Notes
CHE	3015	Chemical Thermodynamics II	3			
CHE	3026	Heat Transfer	3			
CHEM	4507	Physical Chemistry I	3			
		Technical Electives ****	6			
		Credit hours subtotal:	**15**			

Junior Spring Semester			Hrs	Min Grade		Notes
		USP Human Culture	3		H	
CHE	3028	Mass Transfer	3			
CHE	3070	Process Simulation and Economics	3			
CHE	4060	Reaction Engineering	3			
		Technical Elective ****	3			
		Credit hours subtotal:	**15**			

Senior Fall Semester			Hrs	Min Grade		Notes
		USP Human Culture	3		H	
CHE	3040	Unit Operations Laboratory I	3			
CHE	4070	Process Design I	4			
CHE	4090	Process Dynamics and Control	3			
		Technical Elective ****	3			
		Credit hours subtotal:	**16**			

Senior Spring Semester			Hrs	Min Grade		Notes
		USP US & Wyoming Constitutions	3		V	
CHE	4050	Unit Operations Laboratory II	3			
CHE	4080	Process Design II	4	C	C3	
		Technical Electives ****	6			
		Credit hours subtotal:	**16**			

TOTAL CREDIT HOURS: **127**

Chemical Engineering Program Notes:

*** Requires MATH ACT $\geq$ 27, MATH SAT $\geq$ 600, Math Placement Exam $\geq$ 5, or $\geq$ C in MATH 1405 or 1450. (University standard)

**** **Technical Electives**. The Chemical Engineering curriculum allows for the following elective concentrations:

- Biological Engineering
- Chemical Process Industry
- Environmental Engineering
- Materials Science and Engineering
- Petroleum Engineering
- Graduate School preparation

Elective courses can also be used to obtain a concurrent chemistry major (Plan 1 BS or BA) or a minor (math, business, management, agricultural business, etc.), or to satisfy pre-med recommended courses. Students are referred to the respective departments for further information. The Chemical Engineering program only requires that the number of technical elective credits of upper division courses be satisfied (i.e., 10 hours of electives must be 3000-level or above). Students should consult with their academic advisor about appropriate course selections.