

BS in Chemical Engineering (ChE)

(students beginning at TTU during Spring 2018 or later)

<u>1st Year</u>	<u>FALL</u>	
CHE 1010 ²	Intro. to Chemical Eng.	1
ENGR 1120	Programming ¹	2
MATH 1910	Calculus I	4
CHEM 1110	General Chemistry I	4
ENGL 1010	Writing I	3
Total Credit Hours		14

<u>1st Year</u>	<u>SPRING</u>	
CHE 1020	CHE Processes, Products & Ethics	1
Hum/Fine Arts	GE Elective	3
MATH 1920	Calculus 2	4
CHEM 1120	General Chemistry 2	4
ENGL 1020	Writing 2	3
Total Credit Hours		15

<u>2nd Year</u>	<u>FALL</u>	
CHE 2015	Intro to Chem/Bio An-Scl I	3
MATH 2110	Calculus 3	4
PHYS 2110	Physics I w/ Lab	4
Hum/Fine Arts	ENGL 2130, 2235 or 2330	3
Soc/Beh. Sc.	GE Elective	3
Total Credit Hours		17

<u>2nd Year</u>	<u>SPRING</u>	
CHE 2020	Intro to Chem/Bio An-Scl II	3
CHE 3730	ChE Operations	3
MATH 2120	Differential Equations	3
PHYS 2120	Physics II w/ Lab	4
COMM 2025	Fundamentals of Communication	3
	or PC 2500 Communicating in the Profession	
Total Credit Hours		16

<u>3rd Year</u> ³	<u>FALL</u>	
CHE 3010	Thermo of ChE Processes	3
CHE 3111	TS1: Cond, Radiation, Diff	4
CHEM 3010	Organic Chemistry 1	4
XXX xxxx	Tech Elective ⁴	3
Hum/Fine Arts	GE Elective	3
Total Credit Hours		17

<u>3rd Year</u> ³	<u>SPRING</u>	
CHE 3021	Sep and Sol Thermo	4
CHE 3121	TS 2: Fluid Mechanics	4
CHEM 3020	Organic Chemistry 2	4
XXX xxxx	Tech Elective ⁴	3
Soc/Beh. Sc.	GE Elective	3
Total Credit Hours		18

<u>4th Year</u>	<u>FALL</u>	
CHE 4131	TS3: Diff. & Mass Transfer	4
CHE 4210	ChE Reaction Engr.	4
CHE 4410	Process Design I	3
CHEM 3510	Physical Chemistry 1	4
Total Credit Hours		15

<u>4th Year</u>	<u>SPRING</u>	
CHE 4240	ChE Capstone Lab	1
CHE 4420	Process Design II	3
CHE 4540	Process Dyn. & Contr.	3
CHEM 3520	Physical Chemistry 2	4
CHE 4xxx	ChE Tech. Elec. ⁵	3
CHE 4xxx	ChE Tech. Elec. ⁵	3
Total Credit Hours		17

*Please see notes on back.

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NOTES:

1. ENGR 1120 must be MATLAB.
2. Fulfills UNIV 1020 requirement.
3. Students must apply to the ChE Fast-Track MS program by the end of their second junior term.
4. Six hours of Technical Elective can be from any of the following courses:
 - a. Any College of Engineering course at the 3000 or 4000 level
 - b. Any BIOL/CHEM/MATH/PHYS at the 3000 or 4000 level
 - c. Any course with the prior approval of the ChE Undergraduate Program Coordinator
5. Six hours of ChE Technical Electives must come from the following courses:
 - ChE 4245 – Clinical Immersion
 - ChE 4330 – Polymers Engineering
 - ChE 4335 – Fuel Cells
 - ChE 4440 – Protein Engineering
 - ChE 4661 – Transport in Biochemical & Biological Processes
 - ChE 4990 – Intro to Research

General Education Core Electives

At least one literature course, selected from those marked with an asterisk () must be included.*

Humanities and/or Fine Arts (9 hours)			Social/Behavioral Sciences (6 hours)		
ART 1035	Introduction to Art	3	AGBE 2010	World Food and Society	3
ENGL 2130*	American Literature	3	ANTH 1100	Introduction to Anthropology	3
ENGL 2235*	Topics in British Literature	3	ECON 2010	Principles of Microeconomics	3
ENGL 2330*	World Literature	3	ECON 2020	Principles of Macroeconomics	3
FLST 2520	Cultures and Peoples of North Africa	3	ESS 1100	Introduction to Environmental Studies	3
FREN 2510	French Culture and Civilization	3	EXPW 2015	Concepts of Health and Wellness	3
GERM 2520	German Culture and Civilization	3	GEOG 1012	Cultural Geography	3
HIST 2210	Early Western Civilization	3	GEOG 1130	Geography of Natural Hazards	3
HIST 2220	Modern Western Civilization	3	POLS 1030	American Government	3
HIST 2310	Early World History	3	PSY 1030	Introduction to Psychology	3
HIST 2320	Modern World History	3	SOC 1010	Introduction to Sociology	3
HIST 1310	Science and World Cultures	3	WGS 2010	Intro to Women/Gender Studies	3
MUS 1030	Music Appreciation	3			
PHIL 1030	Introduction to Philosophy	3			
RELS 2010	Introduction to Religious Studies	3			
SPAN 2510	Spanish Culture and Civilization	3			
SPAN 2550	Latin American Culture and Civilization	3			
THEA 1030	Introduction to Theater	3			