

128 HR Curriculum: BS in Chemical Engineering (ChE)

(students beginning at TTU during Fall 2005 or later)

FALL

SPRING

1st Year

ENGR 1210	Intro to Eng.	1	ENGR 1120	Programming ¹	2
MATH 1910	Calculus I	4	MATH 1920	Calculus 2	4
CHEM 1110	Gen Chem I	4	CHEM 1120	Gen Chem 2	4
ENGL 1010	Writing I	3	ENGL 1020	Writing 2	3
Hum/Fine Arts	GE Elective	3	Hum/Fine Arts	GE Elective	3
CHE 1010	Intro to ChE	1			
Total Credit Hours		16			16

2nd Year

MATH 2110	Calc 3	4	MATH 2120	Diff Eqs	3
CHEM 3010	Org. Chem 1	4	CHEM 3020	Org. Chem. 2	4
PHYS 2110	Physics I	3	PHYS 2120	Physics 2	3
PHYS 2111	Physics 1 Lab	1	PHYS 2121	Physics 2 Lab	1
CHE 2010	ChE Analysis	3	CHE 2210	ChE Lab I	1
SPCH 2410	Speech	3	ENGL 2130, 2230	Hum/Fine Arts (Lit)	3
	or PC 2500			or 2330	
Total Credit Hours		18			15

3rd Year²

CHE 3010	Thermo I	3	CHE 3020	Thermo II	3
CHE 3110	Transfer I	4	CHE 3120	Transfer II	3
CHEM 3510	Physical Chem 1	4	CHE 3220	ChE Lab II	1
Soc/Beh. Sc.	GE Elective	3	CHEM 3520	Physical Chem 2	4
XXX xxxx	Tech. Elective ³	3	Soc/Beh. Sc.	GE Elective	3
			CEE 2100 or ECE 3810 or BIOL 3200		3
Total Credit Hours		17			17

4th Year

CHE 4130	Transfer III	3	CHE 4240 or 4241	ChE Lab IVa or IVb	1
CHE 4210	Kinetics	4	CHE 4420	Design II	3
CHE 4230	ChE Lab III	2	CHE 4540	Process Dyn. & Contr.	3
CHE 4410	Design I	3	CHE 4xxx	ChE Tech. Elec. ⁴	3
CHE 4730	ChE Operations	3	CHE 4xxx	ChE Tech. Elec. ⁴	3
CHE 4910	ChE Seminar	1			
Total Credit Hours		16			13

NOTES:

1. ENGR 1120 can be any programming language offering.
2. Students must apply to the ChE Fast-Track MS program by the end of their second junior term.
3. Three 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. CEE 2100
 - d. Any course with the prior approval of the ChE Undergraduate Program Coordinator
 - e. Note that CEE 2100, BIOL 3200 and ECE 3810 can not count both as a Technical Elective and as part of the CEE 2100/ECE 3810/BIOL 3200 option.
4. Three hours of ChE Technical Elective must come from one of the following courses
 - a. ChE 4950 – MEMS
 - b. ChE 4660 – Biochemical Engineering
 - c. ChE 4990 – Introduction to Research