

CLEAR PATH for ADVISING – Chemical Engineering: Environmental, B.S.Ch.E. 2021-2022

[Please refer to the Undergraduate Catalog for further program requirements and course descriptions.](#)

First Year – 32-33 Hours			
Fall Semester:	Hrs	Spring Semester:	Hrs
ENME 1030/1030L: <i>Basic Engineering Science/Lab</i>	4	ENCE 1040: <i>Vector Statics</i>	3
CHEM 1110/1110L: <i>General Chemistry I/Lab</i> (Nat. Science)	4	CHEM 1120/1120L: <i>General Chemistry II/Lab</i>	4
MATH 1950: <i>Calculus w Analytic Geometry I</i> (Math)	4	MATH 1960: <i>Calculus w Analytic Geometry II</i>	4
ENGL 1010 or 1011 (Rhetoric and Writing I)	3-4	ENCH 1000: <i>Intro to Chemical Engineering</i>	3
		ENGL 1020 or HIST 2100 (Rhetoric and Writing II)	3
	15-16		17
Second Year – 33-34 Hours			
Fall Semester:	Hrs	Spring Semester:	Hrs
ENME 2240: <i>Intro to Engineering Computations</i>	3	ENCE 2220: <i>Probability & Stats for Engineering</i> (Stats)	3
MATH 2200: <i>Elementary Linear Algebra</i>	3	MATH 2560: <i>Calculus w Analytic Geometry III</i> (or 2550)	3-4
MATH 2450: <i>Intro to Differential/Difference Equations</i>	3	ENME/ENCH 3030: <i>Thermodynamics</i>	3
CHEM 3010/3010L: <i>Organic Chemistry I/Lab</i>	4	BIOL 2100/2100L: <i>Microbiology and Health/Lab</i>	4
PHYS 2310/2310L: <i>Principles of Physics - Electricity & Magnetism/Lab</i> (Natural Science)	4	Behavioral and Social Science (ECON 1010)	3
	17		16-17
Third Year – 30 Hours			
Fall Semester:	Hrs	Spring Semester:	Hrs
ENCH 3310: <i>Chemical Process Principles</i>	3	ENME 3070/3070L: <i>Fluid Mechanics/Lab</i>	4
ENCH 3350: <i>Unit Operations Laboratory</i>	1	ENCH 3040: <i>Chemical Thermodynamics</i>	3
ENCE 3520: <i>Engineering Economy</i>	3	ENCH 3280/3280L: <i>Control Systems/Lab</i>	4
ENME 3400: <i>Engineering Materials Science</i>	3	ENCH 3320: <i>Heat Transfer Process</i>	3
Non-Western Culture	3	Fine Arts and Humanities*	3
	13		17
Fourth Year – 32-33 Hours			
Fall Semester:	Hrs	Spring Semester:	Hrs
ESC 4100: <i>Environmental Law and Agencies</i>	3	ENCH 4300: <i>Chemical System Design</i>	3
GEO 4450: <i>Hydrology</i>	3	ENCH 4340: <i>Chemical Kinetics and Reactor Design</i>	3
ENCH 4330: <i>Chemical Process Operations</i>	3	ENCE 4380: <i>Wastewater and Water Treatment</i> *	3
ENCH 4350: <i>Chemical Processes Lab</i>	2	Fine Arts and Humanities**	3
ENCH 4290: <i>Intro to Chemical Engineering Design</i>	3	Behavioral and Social Science (ECON 1020)	3
ENEV 4370: <i>Municipal Industrial Waste Management</i>	3	Elective	0-1
	17		15-16

*ENCE 3380 may be required as a prerequisite for ENCE 4380.

**Fine Arts and Humanities: 6 hours must be taken so that two different categories in FAH: Historical Understanding; Literature; Thought, Values & Beliefs; or Visual & Performing Arts are satisfied.

Completed:			
Graduation Requirements:	Hrs	Degree Requirements:	Hrs
128 Total Hours		24-25 General Education Hours	
39 Upper Division (3000-4000) Hours		104 Program (Major) Hours	
32 Hours at UTC		Minor (<i>Not Required</i>)	
60 Hours at 4-year Institution		Electives (<i>Not Required</i>)	
		Foreign Language (<i>Not Required</i>)	