CLEAR PATH for ADVISING – *Chemistry: STEM Education, B.S.* **2023-2024**

Please refer to the Undergraduate Catalog for further program requirements and course descriptions.

First Year – 31-32 Hours			
Fall Semester:	**Hrs**	***Spring Semester:***	**Hrs**
CHEM 1110/1110L: *General Chemistry I/Lab* (Natural Science)	4	CHEM 1120/1120L: *General Chemistry II/Lab* (Natural Science)	4
BIOL 1110/1110L: *Principles of Biology I/Lab*	4	BIOL 1130: *Principles of Biology III*	3
MATH 1950: *Calculus w/ Analytic Geometry I* (Quantitative Reasoning)	4	MATH 1960: *Calculus w/ Analytic Geometry II*	4
Writing and Communication (ENGL 1010 or 1011)	3-4	Writing and Communication(ENGL 1020)	3
STEM 1030: *Step One/Two: Inquiry-Based Math & Science Teaching*	2		
	17-18		14
Second Year – 29 Hours			
Fall Semester:	**Hrs**	***Spring Semester:***	**Hrs**
STEM 2010: *Knowing and Learning*	3	STEM 2020: *Classroom Interactions*	3
CHEM 3010/3010L: *Organic Chemistry I/Lab*	4	CHEM 3020/3020L: *Organic Chemistry II/Lab*	4
PHYS 1030/1030L: *Gen Phys: Mechanics & Heat/Lab* or PHYS 2300/2300L: *Princ. of Phys: Mechanics & Heat/Lab*	4	PHYS 1040/1040L: *Gen Phys: Eletromagnetism & Optics/Lab* or PHYS 2310/2310L: *Princ. of Phys: Electricity & Magnetism/Lab*	4
CHEM 3210/3210L: *Quanitative Analysis/Lab*	4	MATH 2100: Introductory Stats or 3100: *Applied Stats* (Quantitative Reasoning)	3
	15		14
Third Year – 29-33 Hours			
Fall Semester:	**Hrs**	***Spring Semester:***	**Hrs**
STEM 3010: *Perspectives on Science & Math*	3	STEM 3020: *Research Methods in Science*	3
CHEM 3310: *Inorganic Chemistry*	3	CHEM 4510: *Biochemistry*	3
CHEM 3710/3710L: *Physical Chemistry I/Lab*	4	Behavioral and Social Science	3
CHEM 3820: *Chemical Literature*	1	Humanities and Fine Arts	3-4
Humanities and Fine Arts	3-4	Humanities and Fine Arts	3-4
Elective	0-1		
	14-16		15-17
Fourth Year – 30-32 Hours			
Fall Semester:	**Hrs**	***Spring Semester:***	**Hrs**
STEM 4010: *Project-Based Instruction*	3	STEM 4020r: *Apprentice Teaching*	6
CHEM 3720/3720L: *Physical Chemistry II/Lab* or CHEM 4230: *Instrumental Analysis*	4	Approved Chemistry Elective	4
CHEM 4830r: *Seminar*	1	Individual and Global Citizenship	3-4
EDUC 4170: *Technology & Learning*	3	Humanities and Fine Arts	3-4
Behavioral and Social Science	3		
	14		16-18

Completed:			
Graduation Requirements:	**Hrs**	**Degree Requirements:**	**Hrs**
121 Total Hours		27-33 General Education Hours	
39 Upper Division (3000-4000) Hours		92 Program (Major) Hours	
30 Hours at UTC		Minor *(Not Required)*	
45 Hours at 4-year Institution		0-1 Elective Hours	
		Foreign Language *(Not Required)*	