## CLEAR PATH for ADVISING – Chemistry: STEM Education, B.S.

## 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	4	CHEM 1120/1120L: General Chemistry II/Lab	4
(Natural Science)	4	(Natural Science)	4
BIOL 1110/1110L: Principles of Biology I/Lab	4	BIOL 1130: Principles of Biology III	4
MATH 1950: Calculus w Analytic Geometry I (Math)	4	MATH 1960: Calculus w Analytic Geometry II	4
ENGL 1010 or 1011 (Rhetoric and Writing I)	3-4	ENGL 1020 or HIST 2100 (Rhetoric and Writing II)	3
STEM 1030: Step One/Two: Inquiry-Based Math & Science Teaching	2		
	14-16		14-15
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	
CHEM 3210/3210L: Quanitative Analysis/Lab	4	MATH 2100: Introductory Stats or 3100: Applied Stats (Statistics)	3
	15		14
Third Year – 31 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 3820: Chemical Literature	1	Behavioral and Social Science	
CHEM 2810: Scientific Communication	2	FAH: Literature	
CHEM 3710/3710L: Physical Chemistry I/Lab	4	FAH: Thought, Values & Beliefs	3
FAH: Historical Understanding	3		
	16		15
Fourth Year – 30 Hours			
Fall Semester:	Hrs	Spring Semester:	Hrs
STEM 4010: Project-Based Instruction	3	STEM 4020: Apprentice Teaching	6
CHEM 3720: Physical Chemistry II or 4230: Instrumental Analysis	4	CHEM 4030: Advanced Organic Chem, 4220: Methods of Environmental Analysis, or 4997r: Research	4
CHEM 4830r: Seminar	1	Non-Western Culture	3
EDUC 4170: Technology & Learning	3	FAH: Visual and Performing Arts	3
Behavioral and Social Science	3	~	1

Completed:				
Graduation Requirements:	Hrs	Degree Requirements:	Hrs	
121 Total Hours		27-28 General Education Hours		
39 Upper Division (3000-4000) Hours		95 Program (Major) Hours		
30 Hours at UTC		Minor (Not Required)		
60 Hours at 4-year Institution		1-2 Elective Hours		
		Foreign Language (Not Required)		