

CHEMISTRY - ENVIRONMENTAL OPTION, BACHELOR OF SCIENCE

Dr. Hamed Shojaei, Department Head

McEver Hall, Room 105

(479) 968-0248

hshojaei@atu.edu

Curriculum

Course	Title	Hours	Completed
Freshman			
Fall			
BIOL/ENVS/PHSC 1004	Principles of Environmental Science	4	_____
CHEM 2124 & CHEM 2120	General Chemistry I and General Chemistry I Lab	4	_____
ENGL 1013	Composition I ¹	3	_____
MATH 2243	Calculus for Business and Economics	3	_____
PHSC 1001	Orientation to Physical Science	1	_____
	Hours	15	
Spring			
CHEM 2134 & CHEM 2130	General Chemistry II and General Chemistry II Lab	4	_____
CHEM 3313	Environmental Chemistry	3	_____
ECON 2003	Principles of Macroeconomics	3	_____
ENGL 1023	Composition II ¹	3	_____
PHSC 1011	Orientation to Physical Science II	1	_____
SS 1XXX	Social Science Courses ¹	3	_____
	Hours	17	
Sophomore			
Fall			
CHEM 3254	Fundamentals of Organic Chemistry	4	_____
COMS 2003 or COMS 2803	Microcomputer Applications or Programming in C	3	_____
PHYS 2014 & PHYS 2000	Algebra-Based Physics I and Physics Laboratory I	4	_____
STAT 2163 or PSY/SOC 2053	Introduction to Statistical Methods or Statistics for the Behavioral Sciences	3	_____
USHG 1XXX	U.S. History and Government ¹	3	_____
	Hours	17	
Spring			
CHEM 2111	Environmental Seminar	1	_____
CHEM 3245	Quantitative Analysis	5	_____
CHEM 3264	Mechanistic Organic Chemistry	4	_____
PHYS 2024 & PHYS 2010	Algebra-Based Physics II and Physics Laboratory II	4	_____
	Hours	14	
Junior			
Fall			
BIOL 2124	Principles of Zoology	4	_____
BIOL/CHEM 3353	Fundamentals of Toxicology	3	_____

ENGL 2053	Technical Writing	3	_____
FAH 1XXX	Fine Arts and Humanities Courses ¹	3	_____
GEOL 1014	Physical Geology	4	_____
Hours		17	
Spring			
BIOL 2134	Principles of Botany	4	_____
BIOL/ENVS 3043	Conservation	3	_____
BIOL/CHEM/ENVS/GEOL 3111	Environmental Seminar	1	_____
FAH 1XXX	Fine Arts and Humanities Courses ¹	3	_____
SFHS 1XXX	Social Sciences/Fine Arts/ Humanities/Communication Courses ¹	3	_____
Hours		14	
Senior			
Fall			
BIOL 3054	Microbiology	4	_____
BIOL 3114	Principles of Ecology	4	_____
CHEM 4414	Instrumental Analysis	4	_____
GEOL 3083	Hydrogeology	3	_____
Hours		15	
Spring			
BIOL/CHEM/GEOL 4111	Environmental Seminar	1	_____
CHEM 4951 or CHEM 4952 or CHEM 4953 or CHEM 4954 or CHEM 4991 or CHEM 4992 or CHEM 4993 or CHEM 4994	Undergraduate Research in Chemistry or Undergraduate Research in Chemistry or Undergraduate Research in Chemistry or Undergraduate Research in Chemistry or Special Problems in Chemistry or Special Problems in Chemistry or Special Problems in Chemistry or Special Problems in Chemistry	1-4	_____
Elective		9-6	_____
Hours		11	
Total Hours		120	

¹ See appropriate choices, alternatives or substitutions in "General Education Requirements (<https://catalog.atu.edu/undergraduate/general-education-requirements/>). A specific general education core course does not have to be taken in the semester listed, any other part of the general education core at any time is acceptable as well.