

CHEMISTRY - PROFESSIONAL OPTION, BACHELOR OF SCIENCE

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Curriculum

Course	Title	Hours	Completed
Freshman			
Fall			
CHEM 2124 & CHEM 2120	General Chemistry I and General Chemistry I Lab	4	_____
ENGL 1013	Composition I ¹	3	_____
MATH 2914	Calculus I	4	_____
PHSC 1001	Orientation to Physical Science	1	_____
SS 1XXX	Social Science Courses ¹	3	_____
Hours		15	
Spring			
BIOL 1114	Principles of Biology	4	_____
CHEM 2134 & CHEM 2130	General Chemistry II and General Chemistry II Lab	4	_____
ENGL 1023	Composition II ¹	3	_____
MATH 2924	Calculus II	4	_____
PHSC 1011	Orientation to Physical Science II	1	_____
Hours		16	
Sophomore			
Fall			
CHEM 3254	Fundamentals of Organic Chemistry	4	_____
COMS 2003 or COMS 2803	Microcomputer Applications or Programming in C	3	_____
MATH 2934	Calculus III	4	_____
PHYS 2114 & PHYS 2000	Calculus-Based Physics I and Physics Laboratory I	4	_____
SS 1XXX	Social Science Courses ¹	3	_____
Hours		18	
Spring			
CHEM 3245	Quantitative Analysis	5	_____
CHEM 3264	Mechanistic Organic Chemistry	4	_____
PHYS 2124 & PHYS 2010	Calculus-Based Physics II and Physics Laboratory II	4	_____
USHG 1XXX	U.S. History and Government ¹	3	_____
Hours		16	
Junior			
Fall			
CHEM 3301	Chemistry Seminar	1	_____
CHEM 3324	Physical Chemistry I	4	_____
CHEM 3423	Descriptive Inorganic Chemistry	3	_____
CHEM Elective ²		3	_____

FAH 1XXX	Fine Arts and Humanities Courses ¹	3	_____
Hours		14	
Spring			
CHEM 3334	Physical Chemistry II	4	_____
FAH 1XXX	Fine Arts and Humanities Courses ¹	3	_____
SFHS 1XXX	Social Sciences/Fine Arts/ Humanities/Communication Courses ¹	3	_____
Elective ³		6	
Hours		16	
Senior			
Fall			
CHEM 3344	Principles of Biochemistry	4	_____
CHEM 4401	Chemistry Seminar	1	_____
CHEM 4414	Instrumental Analysis	4	_____
CHEM 4433	Advanced Topics in Chemistry	3	_____
Hours		12	
Spring			
CHEM 4424	Advanced Inorganic Chemistry	4	_____
CHEM 4952	Undergraduate Research in Chemistry	4-2	_____
or CHEM 4951	or Undergraduate Research in Chemistry		
or CHEM 4953	or Undergraduate Research in Chemistry		
or CHEM 4954	or Undergraduate Research in Chemistry		
or CHEM 4991	or Undergraduate Research in Chemistry		
or CHEM 4992	or Undergraduate Research in Chemistry		
or CHEM 4993	or Undergraduate Research in Chemistry		
or CHEM 4994	or Special Problems in Chemistry or Special Problems in Chemistry or Special Problems in Chemistry or Special Problems in Chemistry		
Elective ³		5-7	
Hours		13	
Total Hours		120	

¹ See appropriate 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.

² Excluding CHEM 1113 A Survey of Chemistry and CHEM 2204 Organic Physiological Chemistry.

³ German, Statistics, and Technical Communications are encouraged. (Electives must include sufficient upper division courses to result in 40 upper division hours) (upper division = 3000-4000 level)