

Degree Requirements - Chemistry BS with Concentration in Analytical and Environmental Chemistry

The B.S. Degree with Analytical and Environmental Concentration is recommended for students who are planning professional careers in industry, careers in environmental science with a chemistry emphasis, or those seeking graduate study in analytical or environmental chemistry. This degree is certified by the American Chemical Society as meeting the necessary criteria for a professional baccalaureate degree in chemistry.

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Major Requirements (78-79 hours required)

CHEM 211, 212 (4,4) *	General Chemistry I and II	8
CHEM 313, 314 (3,3)	Organic Chemistry I and II	6
CHEM 315, 318 (2,2)	Organic Chemistry Lab I and II	4
CHEM 321	Elementary Quantitative Analysis	4
CHEM 331, 332 (3,3)	Physical Chemistry I and II	6
CHEM 336,337 (2,2)	Physical Chemistry Lab I and II	4
CHEM 422	Instrumental Analysis	3
CHEM 423	Instrumental Analysis Lab	2
CHEM 427	Aquatic Environmental Chemistry or	3
CHEM 458	Chemical Oceanography	3
CHEM 438	Atmospheric Chemistry	3
CHEM 441	Prop. and Bonding of Inorganic Compounds	3
	or	
CHEM 446	Bioinorganic Chemistry	3
CHEM 445	Inorganic Preparations and Techniques or	2
CHEM 465	Biochemistry Lab	2
CHEM 463	General Biochemistry	4
	Total	52

Science Electives (a minimum of 7 credits) from **7**

GEOL 101	Introductory Geology	and	4
GEOL 309	Introduction to Oceanography		3
	or		
EVPP 110	Introduction to Environmental Science I	and	4
EVPP 111	Introduction to Environmental Science II		4
	or		
CHEM 341	Fundamental Inorganic Chemistry		3

CHEM 355	Undergraduate Research	and	1-3
CHEM 451/452	Special Projects in Chemistry		1-3/1-3
MATH 113, 114 (4,4) **	Analytic Geometry and Calculus I and II		8
MATH 213 (3)	Analytic Geometry and Calculus III		3
PHYS 243, 245 (3,3)	College Physics I and II		6
PHYS 244, 246 (1,1)	College Physics Lab I and II		2
or			
PHYS 160, 260 (3,3)	University Physics I and II		6
PHYS 161, 261 (1,1)	University Physics Laboratory I and II		2
Total			19

*satisfies Natural Science requirement

**satisfies Quantitative Reasoning requirement

General Education (30 Hours)

Written Communication	ENGL 101, 302(3,3)	6
Oral Communication	COMM 100,101, or 104	3
Literature (view list)		3
Information Technology	IT 103	3
Western Civilization	HIST 100	3
Fine Arts (view list)		3
Social/Behavioral Science (view list)		3
Global Understanding (view list)		3
Synthesis (view list)		3
Total		30

Electives (12):

Upper division hours \geq 45

Minimum Hours to Graduate: 120