



Chemistry

Bachelor of Science Degree

A Major to Meet Your Career Objective

The Chemistry Department at Kentucky Wesleyan College strives to meet the diverse needs of today's science students. The chemistry faculty takes special interest in assisting students as they determine their professional objectives. The chemistry major, in close consultation with a faculty advisor, chooses a program of study appropriate for the student's career goals. To expose students to different career possibilities, the department schedules field trips to industrial and university laboratories, campus visits by specialists in many chemistry-related fields, and special projects related to specific careers. The faculty encourages students to participate in summer research programs. KWC chemistry majors have participated in research activities at the universities of Tennessee, Kentucky, Louisville, Kansas University, Mississippi State University, Ohio State University, Texas A & M University, Vanderbilt University, and Oak Ridge National Laboratories.

Chemistry Major with Different Career Emphases

All chemistry majors at Kentucky Wesleyan take a core curriculum consisting of thirty-one semester hours in chemistry and additional semester hours in one of four emphases which is consistent with the student's career goal. The *Professional Emphasis* is designed for students who primarily pursue graduate studies in chemistry or seek employment in industries. The *Biochemistry Emphasis* consists of courses most relevant for those students planning to pursue professional health science careers. The *Environmental Science Emphasis* and the *Forensic Science Emphasis* prepare students for employment or graduate studies in these areas.

Kentucky Wesleyan Graduates Demonstrate Success

Immediately upon completion of their degree, most departmental graduates have pursued graduate studies. Approximately one-third attended graduate school in chemistry, and one-third attended health science professional schools. Kentucky Wesleyan chemistry graduates have received Ph.D. or M.S. degrees from many universities, including the following:

Vanderbilt University
University of Georgia
University of Washington
University of Tennessee
University of Illinois
Auburn University

University of Cincinnati
University of Kentucky
Ohio State University
Kansas University
Emory University
Marshall University

University of Florida
Tulsa University
University of Louisville
Butler University
University of North
Carolina

The remaining one-third of the departmental graduates secured positions in industrial and government laboratories immediately following graduation. Included among the major employers of these graduates are Eli Lilly, Eastman Chemical Products, Dow Chemical Company, Mettler-Toledo Corporation, Radain International, Ethyl Corporation, Upjohn Pharmaceuticals, P.B. & S. Chemical, Center for Disease Control, 3M Company and state crime and environmental laboratories in Kentucky, Tennessee, Louisiana, Georgia and Florida.

Scholarships/Assistantships

Kentucky Wesleyan has an extensive academic scholarship program and most chemistry majors are KWC scholarship recipients. In addition to these scholarships, the Chemistry Department has several scholarships reserved for chemistry majors. Upper-class chemistry majors gain valuable experience working as laboratory assistants under the supervision of departmental faculty. Several chemistry majors receive awards given annually by the chemical industry and departmental alumni in recognition of their academic achievements.

Suggested Curriculum for the Chemistry Major

		Semester Hours	
		Fall	Spring
First Year			
Chemistry 1351, 1352	General Chemistry I, II	3	3
Chemistry 1251, 1252	General Chemistry Laboratory I, II	2	2
Mathematics 1401	College Algebra and Trigonometry	4	
Or			
Mathematics 1402	Introductory Calculus	4	
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Or			
Mathematics 2305	Calculus: Sequences and Series		4
English 1301, 1302	Writing Workshop I, II	3	3
History	Elective	3	3
KW 1101	Introduction to KWC	1	
Physical Education	Lifetime Physical Fitness/Wellness		2
		16	16/17
Second Year			
Chemistry 3301, 3302	Organic Chemistry I, II	3	3
Chemistry 3201, 3202	Organic Chemistry Laboratory I, II	2	2
Mathematics 2305	Calculus: Sequences and Series	3	
Or			
Mathematics 2306	Calculus: Vector Methods	3	
Physics 2404, 2405	General College Physics I, II	4	4
Humanities	Electives	3	3
Social Sciences	Elective		3
Physical Education	Elective	1	
		16	15
Third Year			
Chemistry 3401	Analytical Chemistry	4	
Chemistry or Biology	Electives	5 (3)	5 (4)
Or			
Environmental Science 1400	Environmental Science	4	
Or			
Forensic Science 1300	Introduction to Forensic Science	3	
Humanities	Elective		3
Religious Studies	Elective	3	
Communication Arts 1341	Public Speaking		3
Electives	Electives	3-6	6
		15 (16)	16 (17)

Fourth Year (Choose one of the following emphases):

Professional Emphasis:

Advanced Chemistry	15-16
Elective	15-17

Biochemistry Emphasis:

Advanced Chemistry	4-7
Advanced Biology	8
Electives	18-26

Environmental Science:

Advanced Chemistry	4-7
Biology Elective	8-10
Environmental Science	8-9
Electives	6-12

Forensic Science:

Advanced Chemistry	4-8
Criminal Justice	9
Psychology	6
Biology	13