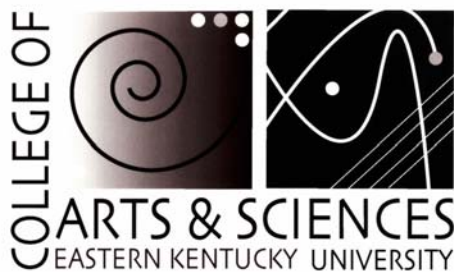


Gateway to



Learning - Discovery - Community

CHEMISTRY (B.S.)

DEPARTMENT OF CHEMISTRY
COLLEGE OF ARTS & SCIENCES
EASTERN KENTUCKY UNIVERSITY

Chemistry at EKU

The chemistry programs at EKU provide in-depth learning experiences that include both classroom principles and laboratory applications. The Chemistry Department offers the Bachelor of Science (B.S.) and Bachelor of Arts (B.A.) degrees and currently hosts about 40 students in these programs. Its 12-member faculty is among the most available and approachable on campus. The B.S. program is accredited by the American Chemical Society, providing students with the strongest foundation in chemistry available in an undergraduate program and thereby offering a wide variety of career choices and opportunities for advanced study. Pre-meds are encouraged to follow the B.S. biochemistry option. The B.A. program provides a firm background in chemistry while allowing one to pursue a supporting line of study such as teaching, business, journalism, pre-law, pre-dentistry, pre-optometry or pre-veterinary medicine. Regardless of which program one pursues, EKU's emphasis on understanding chemical principles and their applications will help students launch successful careers.

Careers in Chemistry

Chemistry is the central science of our modern technological society. Its study provides students with excellent opportunities in many fields of employment. In addition to the conventional career paths such as graduate school or analytical and R&D laboratory work, a large number of employers routinely employ individuals with science backgrounds for work in less traditional fields such as journalism, sales, marketing, molecular biology, publishing, patent law and database management.

Degree Programs

In addition to the B.A. and B.S. programs and the pre-professional degrees they support, the Department offers a B.A. in Chemistry Teaching, a B.S. in Forensic Science with chemistry and biology options. The Pre-Pharmacy and Pre-Chemical Engineering 2+2 and 2+3 programs can culminate in early transfer or completion of a degree at EKU.

Eastern Kentucky University

If you are serious about learning, Eastern Kentucky University is your kind of place. We're committed to helping you realize your potential and achieve your goals. And we'll work hard to provide you with a quality, life-changing learning experience.

As a student at EKU, you'll be taught, challenged and guided by professors who put teaching first. And because we maintain high standards set by national and regional accrediting agencies, we'll have high expectations for you as a student. You'll work hard, and we'll help you succeed.

Most of your classes at EKU will be small and will be taught by professors, not graduate students. You'll study in modern classrooms, laboratories, libraries and other facilities using state-of-the-art technology and equipment. And you'll discover opportunities to enhance classroom learning with hands-on experience through internships or the cooperative education program.

- A comprehensive, public university serving more than 16,000 students.
- Undergraduate and graduate excellence through more than 160 associate, baccalaureate, master's, specialist and cooperative doctoral programs.
- Quality and diversity in faculty and staff.
- Student/professor ratio of 17:1
66-acre main campus in Richmond, educational centers in Corbin, Danville and Manchester, and academic offerings at other sites throughout the Commonwealth.

For More Information

Office of Admissions
SSB CPO 54
Eastern Kentucky University
521 Lancaster Avenue
Richmond, KY 40475-3102
www.admissions.eku.edu
800-465-9191
859-622-2106

Department of Chemistry
Moore 337
Eastern Kentucky University
521 Lancaster Avenue
Richmond, KY 40475-3102
www.chemistry.eku.edu
859-622-1456

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University

WWW.EKU.EDU

CHEMISTRY (B.S.)

Major Requirements 41-45 hours

Chemistry Core 28-29 hours

CHE 111, 115, 112, 116 or 116H, 325, 361, 362, 366, 367, 471, 472, 473 and must include one of the following options:

Options**

Biochemistry 13 hours
CHE 480, 481, 525, 530, 531, 532.

Chemistry 16 hours
CHE 480, 481, 515, 525, 530, 550. For the program to be approved by the ACS, the student must elect six additional hours of advanced chemistry courses.

Supporting Course Requirements 22-34 hours

Biochemistry 34 hours
BIO 121; 131 or 141; 315 or 320; MAT 124*, 224, 225, PHY 201, 202.

Chemistry 22 hours
MAT 124*, 224, 225, PHY 201, 202. A year of foreign language is recommended.

General Education Requirements 30-33 hours
Standard General Education program, excluding blocks II, IVB, VII (QS), and VIII (6 hours) (chemistry) or course blocks II, IVA, IVB, VII (QS), and VIII (6 hours) (biochemistry). Refer to Section Four of this *Catalog* for details on the General Education and University requirements.

University Requirement 1 hour
ASO 100.

Free Electives 22-27 hours

Total Curriculum Requirements 128 hours

* A preparatory course in mathematics (MAT 109) may be required before admission to calculus.

** CHE 349 or 349 A-N may not be used to satisfy area, major, or minor requirements.

MINOR IN CHEMISTRY

A student may minor in chemistry by completing CHE 111, 115, CHE 112, 116 or 116H plus an additional 12 hours of upper division chemistry.

MINOR IN CHEMISTRY (TEACHING)

A student may obtain a teaching minor in chemistry by completing CHE 111, 115, CHE 112, 116 or 116H plus an additional 12 credits of upper division chemistry.

[Note: Given the scope of the required PRAXIS exam that must be passed for a certificate extension in chemistry, the following courses are particularly recommended for students seeking a teaching minor in chemistry: CHE 325, 330, 361/366, and 470.]

CHEMISTRY COURSES

| | |
|----------|-----------------------------------|
| CHE 111 | General Chemistry I |
| CHE 112 | General Chemistry II |
| CHE 115 | General Chemistry Lab I |
| CHE 116 | General Chemistry Lab II |
| CHE 116H | General Chemistry Honors Lab II |
| CHE 325 | Quantitative Analytical Chemistry |
| CHE 361 | Organic Chemistry I |
| CHE 362 | Organic Chemistry II |
| CHE 366 | Organic Chemistry Lab I |
| CHE 367 | Organic Chemistry Lab II |
| CHE 471 | Physical Chemistry I |
| CHE 472 | Physical Chemistry II |
| CHE 473 | Physical Chemistry Laboratory |
| CHE 480 | Seminar I |
| CHE 481 | Seminar II |
| CHE 515 | Analysis and Characterization |
| CHE 525 | Instrumental Methods |
| CHE 530 | Biochemistry of Macromolecules |
| CHE 531 | Metabolic Biochemistry |
| CHE 532 | Biochemistry Laboratory |
| CHE 550 | Inorganic Chemistry |

OTHER COURSES

| | |
|---------|----------------------------|
| BIO 121 | Principles of Biology |
| BIO 131 | General Botany |
| BIO 141 | General Zoology |
| BIO 315 | Genetics |
| BIO 320 | Principles of Microbiology |
| MAT 124 | Calculus I |
| MAT 224 | Calculus II |
| MAT 225 | Calculus III |
| PHY 201 | University Physics I |
| PHY 202 | University Physics II |