THE DEPARTMENT OF

CHEMISTRY AND BIOCHEMISTRY



PREPARING YOU FOR EXCITING CAREERS IN THE SCIENCES

If understanding how compounds behave and react excites and satisfies you, and you enjoy the rigor of scientific experimentation, Chemistry is the major for you! It interfaces with and supports a wide range of related disciplines, such as biology, medicine, environmental and material sciences, physics, so much so that it is often referred to as the central science. Our majors go on to work in chemical industries or chemical sales, as professors at universities and community colleges, teachers at high schools, doctors, pharmacists, dentists, and in forensic labs.

PROGRAMS OFFERED

- Biochemistry BS
- Chemistry BS, with ACS certification
- Chemistry BS, with Management Track
- Chemistry BA
- Science with Teacher Licensure BS, Chemistry
- * Accelerated BS/MS or BA/MS 5-yr degrees
- minors in Chemistry or Biochemistry
- options to include pre-health (for example, pre-medicine)

ASPECTS OF OUR PROGRAM

Our curriculum includes both lecture and laboratory courses, and the labs are small so there is great student-faculty interaction as well as allowing you to get hands-on use of modern instrumentation. You also have courses on chemical safety, give seminars for the seminar courses, and become adept at reading and analyzing current articles from prestigious journals.

RESEARCH

All our Unit A faculty are research active, and regularly involve undergraduate and graduate students to work alongside them on exciting research projects covering all areas of chemistry. They are successful in securing major grants from funding agencies such as the NSF, ACS, and Dreyfus foundations, which allows for employment of students in the summer. In addition our students are very successful in securing internal funding, and present at local, regional, and national meetings as well as serve as coauthors on publications in peer-reviewed journals. The majority of our majors (over 70%) participate in at least 1 semester of research, and most say that this is one their favorite experiences at EIU.

REGISTERED STUDENT ORGANIZATIONS

We have two RSOs - the ACSSA (the American Chemistry Society's Student Affiliates) and ASBMB (the American Society of Biochemistry and Molecular Biology

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EDWARD TREADWELL Professor and Chair emtreadwell@eiu.edu



CURRICULUM

The first two years for most Chemistry majors look the same in terms of courses required for the major, and would include:

CHM 1310 & 1315 Gen Chemistry I & lab OR CHM 1390 & 1395 Honors Gen Chemistry I & lab

CHM 1410 & 1415 Gen Chemistry II & lab

CHM 2730 Quantitative Analysis

CHM 2310 Inorganic Chemistry I

CHM 2440, 2840, 2445, & 2845 Organic Chemistry I & II and labs*

MAT 1441 & 2442 Calculus I & II

PHYS 1351, 1361, 1352, & 1362 General Physics I & II. & labs

* Science Teacher Licensure students can take CHM 2430 & 2435 Survey Organic Chemistry instead

After that, schedules vary depending on specific major. But upper level courses include:

CHM 3780 Instrumental Analysis

CHM 3910 & 3920 Thermodynamics and Kinetics & Quantum Chemistry (physical chemistry)

CHM 3915 Physical Chemistry lab

CHM 3450, 3460, & 4860 Biochemistry I, II, & Advanced Biochemistry

CHM 3455 Biochemistry lab

CHM 4900 Inorganic Chemistry II

CHM 4915 Advanced Lab

CHM 3000, 3001, 4000, and 4001 Chemistry seminar series

CHM 3500 Intro to Chemistry research

CHM 4750 Environmental Chemistry, CHM 4780 X-Ray Crystallography, and 4790 Medicinal Chemistry

RECENT MEETINGS STUDENTS PRESENTED AT

Fall 2022 (Chicago) and Spring 2023 (Indianapolis) National Meeting of American Society

Fall 2022 East Central Illinois Region Undergraduate Research Conference

Summer 2022 (Ypsilanti, MI) Midwest Regional American Chemical Society Meeting

2023 (Bradley) Illinois State Academy of Sciences Annual Meeting

