Gateway to

COLLEGE OF ARTS & SCIENCES
EASTERN KENTUCKY UNIVERSITY

Learning - Discovery - Community

PRE-MEDICAL SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES
DEPARTMENT OF CHEMISTRY
COLLEGE OF ARTS & SCIENCES
EASTERN KENTUCKY UNIVERSITY

Pre-Medical Sciences at EKU

Students with career interests in medicine, dentistry, osteopathic medicine, or podiatry may fulfill general admission requirements of specific professional schools by pursuing the Bachelor of Science degree in Biology or other majors (e.g., B.S. in Chemistry with a Biochemistry Option). Students pursuing degrees in either department will concentrate in biology and chemistry, with appropriate and complementary courses in humanities, social sciences, and communications. Courses in mathematics and physics will also be required. Students interested in medical fields are assigned to a pre-medical sciences advisor. These advisors work closely with students to plan programs of study and to prepare for the process of gaining admission to the chosen professional school.

Class sizes are small and there is frequent interaction with the faculty. Facilities for teaching and research are available both on and off campus. Laboratory experiences are an essential component of virtually all courses, so students gain practical as well as theoretical knowledge. If you are looking for a biology program where faculty place a high priority on both teaching and research, and getting students involved, EKU is the place!

Careers in Medicine or Dentistry

The careers for which biology students prepare themselves are quite diverse. Nationwide, about 10 percent of biology majors go on to graduate school in biology and other sciences, and about 20 percent go on to medical school. Acceptance rates to medical/dental schools for students from EKU average about 70% of those applying in any given year. Graduates from this program also are qualified for jobs as research biologists in university, governmental, and industrial laboratories; they also are good candidates for admission to graduate schools.

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

Dept. of Biological Sci. - Moore 235
Dept. of Chemistry – Moore 337
Eastern Kentucky University
521 Lancaster Avenue
Richmond, KY 40475-3102
www.biology.eku.edu (859-622-1531)
www.chemistry.eku.edu (859-622-1456)

Education For Life.

EKU
Eastern Kentucky University

WWW.EKU.EDU

PRE-MEDICAL SCIENCES (BIOLOGY B.S. OR CHEMISTRY B.S.)

These degree programs, with complementing courses in the humanities and behavioral sciences, prepare a student broadly for the Medical College Aptitude Test (MCAT) and demanding medical school course work. Students interested in medicine will work with their pre-medical sciences advisor and the pre-medical advisory committee, who will help them plan their progress and prepare them for the application process to their chosen medical schools.

Biology (B.S.)

Major Requirements ..... **35-36 hours**
BIO 121, 131, 141, 315, 316, 320; 328 or 348; 490, 514, one elective in biology at the 300-500 level.
Supporting Course Requirements ..... **32-33 hours**
CHE 111, 115, 112, 116 or 116H, 361, 366, 362 and 367; MAT 124* or 261*; PHY 131, 132; STA 215 or STA 270.
General Education Requirements ..... **30 hours**
Standard General Education program, excluding blocks II, IVA, IVB, VII (QS), and VIII (6 hours). Pre-medical and pre-dental students must take PSY 200. Refer to Section Four of this *Catalog* for details on the General Education and University requirements.
University Requirement ..... **1 hour**
ASO 100.
Free Electives ..... **28-30 hours**
Total Curriculum Requirements ..... **128 hours**

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

Chemistry (B.S.)
Pre-Medical

Major Requirements ..... **41 hours**
Chemistry Core ..... **28 hours**
CHE 111, 115, 112, 116 or 116H, 325, 361, 362, 366, 367, 471, 472, and 473.
Biochemistry Option ..... **13 hours**
CHE 480, 481, 525, 530, 531, and 532.
Supporting Course Requirements ..... **34 hours**
BIO 121; BIO 131 or 141; 315 or 320; MAT 124, 224, 225; PHY 201, 202.
General Education Requirements ..... **27 hours**
Standard General Education program, excluding blocks II, IVA, IVB, VII (QS), and VIII (6 hours). Pre-medical students must take PSY 200. Refer to Section Four of this *Catalog* for details on the General Education and University requirements.
University Requirement ..... **1 hour**
ASO 100.
Free Electives ..... **25 hours**
Total Curriculum Requirements ..... **128 hours**
* Strongly suggested electives include Histology (BIO 547), Embryology (BIO 546), and Animal Physiology (BIO 348).

Chemistry (B.S.)
Pre-Dental

Major Requirements ..... **30 hours**
CHE 111, 115, 112, 116 or 116H, 325, 361, 362, 366, 367, 470, six hours of upper division chemistry electives.
Supporting Course Requirements ..... **13-14 hours**
MAT 124* or 261*, PHY 131 or 201, PHY 132 or 202. It is recommended and expected that pre-dental students also take BIO 121, 141, and 320.
General Education Requirements ..... **36 hours**
Standard General Education program, excluding blocks II, IVB, and VIII (6 hours). Pre-dental students must take PSY 200. Refer to Section Four of this *Catalog* for details on the General Education and University requirements.
University Requirement ..... **1 hour**
ASO 100.
Free Electives ..... **47-48 hours**
Total Curriculum Requirements ..... **128 hours**

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

MAJOR COURSES

BIO 121	Principles of Biology
BIO 131	General Botany
BIO 141	General Zoology
BIO 315	Genetics
BIO 316	Ecology
BIO 320	Principles of Microbiology
BIO 328	Plant Physiology
BIO 348	Animal Physiology
BIO 490	Seminar
BIO 514	Evolution
BIO 546	Histology
BIO 547	Comparative Vertebrate Embryology
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 525	Instrumental Methods
CHE 530	Biochemistry of Macromolecules
CHE 531	Metabolic Biochemistry
CHE 532	Biochemistry Laboratory

SUPPORTING COURSES

MAT 124	Calculus I
MAT 224	Calculus II
MAT 225	Calculus III
MAT 261	Calculus with Applications for Science
PHY 131	College Physics I
PHY 132	College Physics II
PHY 201	University Physics I
PHY 202	University Physics II
STA 215	Elementary Probability and Statistics
STA 270	Applied Statistics I

GENERAL EDUCATION COURSES

PSY 200	Intro. to Psychology