

Department of Biological Sciences

Bachelor of Science

Biochemistry and Molecular Biology Major

This interdisciplinary BMB major provides an exciting opportunity for students to pursue additional graduate study or employment in fields such as biotechnology, bioengineering, or biomedical research. It also represents an excellent choice of major for preparation for a health-related professional program such as medical school.

In addition, to the requirements shown below, students must complete the University-wide general education and graduation requirements, as well as 45 hours of courses with 300+ course numbers.

Major Area Requirements (53 Hours)

Chemistry Core (31 hours):

<u>COURSES</u>		<u>HOURS</u>
CH 123-124	Chemistry I & Lab	5
CH 126-127	Chemistry II & Lab	5
CH 572-573	Organic Chemistry I & Lab*	5
CH 574-575	Organic Chemistry II & Lab*	5
CH 620	Elements of Physical Chemistry	3
CH 660-661	Biochemistry I & Lab	5
CH 662	Biochemistry II	3

Biology Core (22 hours):

GB 140-141	Principles of Biology & Lab	4
MC 350-351	Molecular & Cellular Biology & Lab	4
GB 425	General Genetics	3
MC 520	Molecular Genetics	3
MC 540	Cell Biology	3
MC 549-550	Immunology & Lab	5

Electives (13 hours):

MC 765 or CH 765	Advanced Biotechnology Lab	4
MC 409 or CH 479	"Undergraduate Research"	2
GB 470 or CH 730	Seminar	1
Other BMB Electives: Students must choose a minimum of 2 additional elective courses in chemistry or biology, totaling at least 6 hours.		6

Required Associate Courses (15 hours):

PH 140-141	College Physics I & Lab	5
PH 143-144	College Physics II & Lab	5
MA 165	Basic Calculus	5

*In some cases with the advance approval of both the chemistry and biology BMB advisors, it may be appropriate to substitute CH 370-371 General Organic Chemistry (5 hours) for CH 572-575. If done in a special circumstance, this would increase the BMB major electives to 11 hours.

Biology Web Site: <http://biology.emporia.edu>

(Updated January 22, 2007)