

Department of Biological Sciences

Bachelor of Science

Biology Major: Concentration in Physiology

I. General Information

A. A minimum of 45 hours in the biological sciences is required. You must satisfy all core and concentration requirements plus elect a sufficient number of upper division courses to complete this 45 hour requirement.

B. General Education requirements are to be fulfilled as outlined in the class schedule published each term for all bachelor degrees in the College of Liberal Arts and Sciences.

C. At least 45 hours of college credit must be earned in courses numbered 300 or above, and you must have an accumulative GPA of 2.0 to meet university graduation requirements.

D. You must have a minimum GPA of 2.2 for all biology courses listed on the major contract to graduate as a biology major.

E. A basic understanding of mathematics and physical science is essential to all biologists. It is strongly recommended that courses in these areas be elected in addition to those required.

F. You are expected to confer with your academic advisor each term to review progress towards graduation and to discuss the biology courses you should take the next term. In consultation with your advisor, you must prepare and submit a major contract during the junior year. This contract must be approved by the chair.

II. Biology Requirements (45 hours):

<u>COURSE</u>		<u>HOURS</u>
GB 140-141	Principles of Biology & Lab	4
BO 212-213	Biology of Plants & Lab	4
ZO 214-215	Biology Animals & Lab	4
MC 316-317	Microbiology & Lab	4
GB 425	General Genetics	3
EB 480	Principles of Ecology	3
BO 750-751	Plant Anatomy & Lab	4
MC 540	Cell Biology	3
ZO 570	Mammalian Physiology	<u>3</u>
	TOTAL	32

(OVER)

13 additional hours from the courses listed below:

ZO 362-363	Human Anat. & Physiology & Lab	5
ZO 520	Neurobiology	3
ZO 559	Comparative Animal Physiology	3
ZO 565-566	Histology & Lab	4
ZO 760	Endocrinology	3
ZO 762	Environmental Physiology	3
MC 541	Cell Biology Lab	1
MC 549	Immunology	3
MC 560-561	Hematology & Lab	3
ZO 409	Zoology Projects: Physiology	1-3
ZO 459	Special Topics in Zoology: Physiology	1-3
ZO 459	Special Topics in Zoology: Experiments in Physiology	1-3

III. Physical Science and Math Requirements (23-30 hours):

<u>COURSE</u>		<u>HOURS</u>
CH 123-124	Chemistry I & Lab	5
CH 126-127	Chemistry II & Lab	5
CH 370-371	General Organic Chemistry & Lab	5
	OR	
CH 572-573	Organic Chemistry I & II and Lab	9-10
PH 140-141	College Physics I & Lab	5
MA 165	Basic Calculus	5
	OR	
MA 161	Calculus I	5
	OR	
PY 520	Statistics I	3

IV. Recommended Courses:

CH 560-561	Biochemistry & Lab	5
ZO 515-516	Vertebrate Structure/Develop. & Lab	4-5
PH 143-144	College Physics II & Lab	5
CH 572-573	Organic Chemistry I & Lab	5
CH 574-575	Organic Chemistry II & Lab	5

Biology web site: <http://biology.emporia.edu>

(Updated October 5, 2006)