

Department of Biological Sciences

Bachelor of Science

Major in Biology - Concentration in Botany

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 bachelors 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 you advisor, you must prepare and submit a major contract during the junior year. This contract must be approved by the chair.
- G. Note that Chemistry I is a prerequisite for MC 350-351, MC 316-317, and ZO 362-363, and you are advised to complete all other core courses before enrolling in EB 480. Some required courses are taught either during alternate terms or years so you should plan ahead to avoid delaying graduation.

(OVER)

II. Biology Requirements (45 hours)

	<u>Hours</u>
GB 140-141..... Principles of Biology & Lab	4
BO 212- 213..... Biology of Plants & Lab.....	4
ZO 214- 215..... Biology of Animals & Lab.....	4
MC 316- 317.... Microbiology & Lab.....	4
GB 425..... General Genetics.....	3
EB 480..... Principles of Ecology.....	3
EB 481..... Field Ecology.....	2
GB 539..... Soil Science & Lab.....	4
BO 542- 543... Plant Taxonomy & Lab.....	4
Upper Division Electives in Biology.....	<u>13</u>
	45

III. Physical Science and Math requirements (23-25 hours)

	<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
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
OR	
GB 750..... Research Design & Analysis.....	<u>3</u>
	23-25

IV. Recommended Electives

Biology (minimum of 10 of the 13 elective hours in biology must be taken from the following list of courses)

MC 350- 351..... Molecular & Cellular Biology & Lab.....	4
BO 338- 339..... Trees and Shrubs & Lab.....	3
BO 409..... Botany Project.....	1-3
GB 426..... General Genetics Lab.....	1
MC 703- 704.... Mycology & Lab.....	4
BO 748..... Range Management & Lab.....	4
BO 750- 751.... Plant Anatomy and Physiology & Lab.....	4
BO 765- 766.... Grasses & Lab.....	4

Physical Science

CH 560..... Introductory Biochemistry.....	3
GO 325..... Earth History.....	3
GO 231..... Physical Geology (Summer only).....	3

Social Sciences

GE 254..... Physical Geography.....	3
GE 365..... World Regional Climatology.....	3

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

(Updated September 20, 2006)