

# Biology - Science with Biology Concentration

## Associate in Science

Minimum of 61 Credits

Biology students strive to understand the fundamental processes of life. Their studies cover everything from plants and animals to fungi and bacteria. Courses cover a wide variety of subjects including microbiology, botany, ecological systems, comparative vertebrate anatomy, zoology, genetics and physiology. Within the biology concentration, students can focus on specialized areas such as environmental science, botany and zoology. A science degree with a concentration in biology gives a student the thorough academic background needed to pursue additional education at a four-year college or university. Once the student graduates with a bachelor's degree, career opportunities become available in areas such as ecology, education, pollution control, medical technology, medicine, research, forestry, wildlife management, dentistry and pharmacology.

Course #	Course Name	Credits	Type	Prerequisites
<b>Suggested Freshman 1st Semester</b>				
SCL 1001	SUCCESS IN COLLEGE AND LIFE	1	Life Skills	None
ENGL 1113	ENGLISH COMPOSITION I	3	Gen Ed	(R) (W), Adequate reading and writing assessment scores or LS 0033 College Writing II, either taken within the last year, with strong encouragement for immediate continuation.
BIO 2114	* GENERAL BOTANY --OR--		Major	(R) (W) (M)
BIO 2215	* GENERAL ZOOLOGY		Major	(R) (W) (M), BIO 1113, BIO 1114 or CHEM 1115 with a "C" or better, an OCCC Biology Placement Test Score of 70% or better, high school AP Biology exam score of 3 or better, an ACT science score of 22 or better.
HIST 1483	U.S. HISTORY TO THE CIVIL WAR --OR--		Gen Ed	(R) (W)
HIST 1493	U.S. HISTORY SINCE THE CIVIL WAR	3	Gen Ed	(R) (W)
MATH 1513	COLLEGE ALGEBRA	3	Gen Ed	(R), MATH 0123 or adequate Math Placement Test Score, either within the last year.
<b>Suggested Freshman 2nd Semester</b>				
ENGL 1213	ENGLISH COMPOSITION II	3	Gen Ed	(R) (W), ENGL 1113 English Composition I taken within the last year, with strong encouragement for immediate continuation.
POLSC 1113	AMERICAN FEDERAL GOVERNMENT	3	Gen Ed	(R) (W)
CHEM 1115	GENERAL CHEMISTRY I	5	Gen Ed	(R) (W), MATH 1513 or MATH 1533 or both MATH 0123 and High School Chemistry or CHEM 0123 or CHEM 1123
BIO 2224	* INVERTEBRATE ZOOLOGY --OR--	4-5	Major	(R) (W) (M), BIO 2215 or Equivalent
BIO 2324	* COMPARATIVE VERTEBRATE ANATOMY --OR--		Major	(R), BIO 2215 or Equivalent
BIO 2255	HUMAN ANATOMY		Major	(R), (W), (M), BIO 2215 with a "C" or better, sophomore standing, and Permission by Instructor
<b>Suggested Sophomore 1st Semester</b>				
PHYS 1114	COLLEGE PHYSICS I	4	Gen Ed	(R) (W), MATH 1513 or higher or APPM 1223, within the last two years or Evaluation by Instructor.
HUM	HUMANITIES ELECTIVE	3	Gen Ed	
CHEM 1215	GENERAL CHEMISTRY II	5	Support	(R) (W), CHEM 1115 and either MATH 1513 or MATH 1533. A grade of "C" or better in CHEM 1115 is strongly recommended.
GEN ED	GEN ED ELECTIVE	4	Gen Ed	
<b>Suggested Sophomore 2nd Semester</b>				
BIO 2234	* HUMAN PHYSIOLOGY		Major	(R) (W) (M), One biology and one chemistry course each with a laboratory included
BIO 2125	MICROBIOLOGY --OR--	3-5	Major	(R) (W) (M), Four credits of college biological science and any college-level chemistry course
BIO 2203	* CELL BIOLOGY --OR--		Major	(R) (W) (M), Four credit hours of General Biology or higher biology course, and any college level chemistry course.
BIO 2404	* ECOLOGY AND ENVIRONMENTAL ISSUES		Major	(R) (W) (M), Assessment required prior to enrollment
SUPP	** SUPPORT ELECTIVE	4-6	Support	
HUM	HUMANITIES ELECTIVE	3	Gen Ed	
SOC	SOCIOLOGY ELECTIVE	3	Gen Ed	

Major Courses: (12-14 credit hours) Biological Science: \*12 to 14 credit hours Biology: \*BIO 2114, BIO 2125, BIO 2203, BIO 2215, BIO 2224, BIO 2324, BIO 2334, BIO 2404, BIO 2255

General Education Courses: (37 credit hours) English: ENGL 1113; ENGL 1213; History: HIST 1483 or HIST 1493; Political Science: POLSC 1113; Chemistry: CHEM 1115; Physics: PHYS 1114; Humanities: Six credit hours; Social Science: Three credit hours; Mathematics: MATH 1513; General Education Elective: Four credit hours

Life Skills Courses: (1 credit hour) Life Skills: SCL 1001

Support Courses: (9-11 credit hours) Chemistry: CHEM 1215; \*\*Electives: Four to six credit hours

Notes: This program is designed for students planning to continue their education at a four-year college or university. See University Parallel/Transfer Programs for information and requirements in the general information section of the catalog. \*Biological Science: 12-14 credit hours selected from BIO 1203; BIO 2000; BIO 2114; BIO 2125; BIO 2203; BIO 2215; BIO 2224; BIO 2234; BIO 2404; or BIO 2324.

\*\*Support Electives: 4-6 credit hours selected from PHYS 1034/GEOL 1115; PHYS 1064; PHYS 1214; CHEM 2115; CHEM 2125; CS 1103 or above, any MATH above MATH 1513; any 5-credit hour GRMN, any 5-credit hour FREN, any 5-credit hour SPAN