

BACHELOR OF SCIENCE BIOLOGY

GENERAL EDUCATION Courses that are **required** are in bold type.

REQUIRED HOURS.....	48-49
Communication.....	8
ENGL 1113 English Composition I	
ENGL 1213 English Composition II	
COMM 1312 Basic Speech	
Mathematics.....	3
MATH 1143 Math Concepts	
MATH 1513 College Algebra OR a	
higher numbered math course	
Computer Applications/Technology.....	2
COMSC 1022 Computers & Information Access	
TECH 1122 Technology & Society	
Economics.....	3
ECONO 1113 Contemporary Economics	
Health & Physical Education.....	3
HPE R 1133 Wellness Concepts & Exercise	
Applications (includes 1 hr lab)	
Natural Sciences.....	8
BIOL 1004 Biological Concepts*	
SCI 1514 Concepts of Physical Science*	
SCI 1614 Science & the Environment	
ASTRO 1904 Astronomy	
GEOL 1934 Physical Geology	
Fine Arts & Humanities.....	6
ART 1222 Art Survey	
LIT 2412 Introduction to Literature	
MUSIC 1012 Introduction to Music I	
PHILO 1452 Introduction to Philosophy	
U.S. History & Government.....	6
HIST 1063 U.S. History	
POLSC 1103 American Government & Politics	
International & Cultural Studies.....	6-7
HIST 1033 World History	
GEOG 1103 World Cultural Geography	
POLSC 1153 World Relations & Politics	
Foreign Language (4 hr/includes 3 hr class & 2 hr lab)	
Behavioral/Social Science.....	3
PSYCH 1003 General Psychology	
SOCIO 1003 Introduction to Sociology	

*Concepts of Physical Science may be satisfied by Gen. Chem. I (1203 & 1252) and Gen. Chem. II (1303 & 1352); Biological Concepts may be satisfied by Principles of Biology (1054)

Biology Major Code No. 103

Required Courses.....	19 hours
*BIOL 1054 Principles of Biology	
BIOL 2022 Biological Orientation	
BIOL 2204 Introductory Zoology	
BIOL 2404 Introductory Botany	
BIOL 3254 Genetics	
BIOL 4901 Senior Seminar in Biological Sciences	
*Principles of Biology is a pre-requisite for most higher numbered biology courses.	
Major Electives.....	21 hours
(Majors must complete at least one *field biology course or a 4 hr lab course from the Gulf Coast Research Lab)	
BIOL 3012 Biological Terminology	
*BIOL 3304 Aquatic Biology	
BIOL 3403 Plant Morphology	
*BIOL 3504 Natural History	
*BIOL 3604 General Entomology	
BIOL 3704 Human Anatomy	
BIOL 3804 Plant Physiology	
BIOL 3904 Human Physiology	
BIOL 4154 Developmental Biology	
BIOL 4284 Animal Parasitology	
*BIOL 4314 Environmental Biology	
ALHLT 4355 Microbiology	
*BIOL 4454 Plant Taxonomy	
*BIOL 4604 General Ecology	
BIOL 4622 Economically Important Plants	
BIOL 4933 Cellular Physiology	
BIOL 4964 Molecular Biology	
BIOL 4974 Histology	
BIOL 4001-4 Independent Studies	
BIOL 4010-4 Seminar in Biology	
(A maximum of 4 hours total of Independent Studies and Seminar may be counted toward the major.)	
Other Requirements.....	24-33 hours
Mathematics	
MATH 1613 College Trigonometry (or 1834 Calculus I)	
MATH 3413 Statistical Methods I	
Chemistry	
CHEM 1203 & 1252 General Chemistry (Lecture and Lab)	
CHEM 1303 & 1332 General Chemistry II (Lecture and Lab)	
CHEM 2114 Organic/Biochemistry	
(or 3013 & 3111 Organic Chemistry I and 4113 & 4021 Organic Chemistry II)	
Physics	
PHY 1064 General Physics	
(or 1044 Basic Physics I and 1054 Basic Physics II)	
Electives to bring total to.....	124 hours
Minor Program listed on page 207.	

REGULATIONS PERTAINING TO GRADUATION

Minimum credit hours for graduation.....	124
Minimum credit hours in the liberal arts & sciences.....	55
Minimum credit hours in upper-division (3000/4000 courses).....	40
Minimum credit hours (3000/4000 courses) in major completed at SWOSU.....	8
Minimum credit hours at SWOSU (including last 8).....	30
Minimum Grade Point Average in all coursework.....	2.00
Minimum Grade Point Average in major.....	2.00

BIOLOGY (CODE 103) Suggested Course Sequence

FIRST YEAR		SECOND YEAR	
FIRST SEMESTER	SECOND SEMESTER	FIRST SEMESTER	SECOND SEMESTER
1001 Freshman Orient* 1	2404 Introd Botany 4	2204 Introd Zoology 4	3254 Genetics 4
1054 Princ of Biology 4	1213 English Comp II 3	1203 Gen Chem I Lect 3	1303 Gen Chem II Lect 3
1113 English Comp I 3	1613 College Trig 3	1252 Gen Chem I Lab 2	1332 Gen Chem II Lab 2
1513 College Algebra 3	2022 BioOrientation 2	3413 Statistical Methods I 3	Gen Educ Crses 6
Gen Educ Crses 4	Gen Educ Crses 4	Gen Educ Crse 3	
		English Proficiency Exam**	
Total: 15	Total: 16	Total: 15	Total: 15

THIRD YEAR		FOURTH YEAR	
FIRST SEMESTER	SECOND SEMESTER	FIRST SEMESTER	SECOND SEMESTER
1064 General Physics 4	Minor Course 4	Biology Field Course 4	4901 Senior Seminar 1
2114 BioOrganic Chem 4	Major Elective 8	Major Elective 4	Major Elective 2
Gen Educ Crses 5	Gen Educ Crse 3	Minor Course 4	Minor Course 11
Major Elective 3		Gen Educ Crse 3	Gen Educ Crse 3
Total: 16	Total: 15	Total: 15	Total: 17

* First time entering Freshmen need to take 1001 Freshman Orientation

** If applicable. See English Proficiency Program under the General Academic Information Section.

BIOLOGY PRE-PROFESSIONAL MAJOR (CODE 103) Suggested Course Sequence

FIRST YEAR		SECOND YEAR	
FIRST SEMESTER	SECOND SEMESTER	FIRST SEMESTER	SECOND SEMESTER
1001 Freshman Orient* 1	2404 Introd Botany 4	2204 Introd Zoology 4	3254 Genetics 4
1054 Princ of Biology 4	1213 English Comp II 3	1203 Gen Chem I Lect 3	1303 Gen Chem II Lect 3
1113 English Comp I 3	1613 College Trig 3	1252 Gen Chem I Lab 2	1332 Gen Chem II Lab 2
1513 College Algebra 3	2022 BioOrientation 2	3413 Statistical Methods I 3	Gen Educ Crses 6
Gen Educ Crses 4	Gen Educ Crses 4	Gen Educ Crse 3	
		English Proficiency Exam**	
Total: 15	Total: 16	Total: 15	Total: 15

THIRD YEAR		FOURTH YEAR	
FIRST SEMESTER	SECOND SEMESTER	FIRST SEMESTER	SECOND SEMESTER
3704 Human Anatomy 4	3904 Human Physiology 4	Field Course 4	4901 Senior Seminar 1
1044 Basics Physics I 4	1054 Basic Physics II 4	Major Elective 4	Major Elective 5
3013 Organic Chem I 3	4113 Organic Chem II 3	Gen Educ Crse 2	Gen Educ Crse 3
3111 Organic Chem Lab 1	4021 Organic Chem II Lab 1	Free Elective 6	Free Elective 8
Gen Educ Crse 3	Gen Educ Crse 3		
Total: 15	Total: 15	Total: 16	Total: 17

* First time entering Freshmen need to take 1001 Freshman Orientation

** If applicable. See English Proficiency Program under the General Academic Information Section.