

BS in Biology

College and university requirements for all majors (25 credit hours)

ENGL 1, 2	Composition and Literature (6)
	First Year Seminar (3)
	Social Sciences (8)
	Humanities (8)

Major Requirements

BIOS 41	Biology Core I: Cellular and Molecular (3)
BIOS 42	Biology Core I: Cellular and Molecular Laboratory (1)
BIOS 115	Biology Core II: Genetics (3)
BIOS 116	Biology Core II: Genetics Laboratory (1)
BIOS 121	Biology Core III: Integrative and Comparative (3)
BIOS 122	Biology Core III: Integrative and Comparative Lab (1)
BIOS 317	Evolution (3)
Electives	*Biology electives (22)

*Biology electives must include two courses from list A, two courses from list B and at least four credits of laboratory experience (e.g. two 2 credit laboratory courses). These will be chosen in consultation with the major advisor.

LIST A		LIST B	
BIOS 234	Comparative and Vertebrate Anatomy	BIOS 324	Microbiology
BIOS 235	Human Physiology	BIOS 328	Immunology
BIOS 241	Vertebrate Natural History	BIOS 340	Molecular Basis of Disease
BIOS 276	Central Nervous System & Behavior	BIOS 345	Molecular Genetics
BIOS 313	Vertebrate Histology	BIOS 347	Advanced Topics in Genetics
BIOS 314	Vertebrate Development	BIOS 367	Cell Biology
BIOS 315	Neuropharmacology	BIOS 371	Elements of Biochemistry I
BIOS 317	Evolution (BA Biology only)	BIOS 372	Elements of Biochemistry II
BIOS 329	Herpetology	BIOS 376	Developmental Biology
BIOS 334	Species & Speciation	BIOS 381	Physical Biochemistry
BIOS 335	Animal Behavior	BIOS 384	Eukaryotic Signal Transduction
BIOS 337	Behavioral Ecology	BIOS 386	Genes and the Brain
BIOS 365	Neurobiology of Sensory Systems		
BIOS 366	Diseases of the Nervous System		
BIOS 369	Comparative Vertebrate Physiology		
BIOS 374	Sex Determination & Difference		
BIOS 382	Endocrinology of Behavior		
BIOS 385	Synapses, Plasticity and Learning		

Continued...

Mathematics (11-12 credit hours)	Collateral Sciences (25-26 credit hours)
MATH 21, 22 Calculus I, II (8) or MATH 51, 52 Survey of Calculus I, II (7) and BIOS 130 Biostatistics (4)	CHM 30, 31 or 40, 41 Introduction to Chemistry I, II (8) CHM 110, 111 Organic Chemistry I, II (6) CHM 111, 113 Organic Chemistry Laboratory I, II (2) PHY 10 General Physics (4) or PHY 11 Introductory Physics I (4) PHY 12 Introductory Physics Laboratory I (1) PHY 13 General Physics II (3) or PHY 21 Introductory Physics II (3) PHY 22 Physics Lab II (1)

Recommended B.S. Biology sequence:

Freshman Year	BIOS 41 - Biology Core I: Cellular and Molecular (3) BIOS 42 - Biology Core I: Cellular and Molecular Laboratory (1) MATH 51, 52 - Survey of Calculus I, II (7) CHM 30, 31 - Introductory Chemistry I, II (8) Dept 90 - First Year Seminar (3)
Sophomore Year	BIOS 115 - Biology Core II: Genetics (3) BIOS 116 - Biology Core II: Genetics Laboratory (1) <i>and/or</i> BIOS 121 - Biology Core III: Integrative and Comparative (3) BIOS 122 - Biology Core III: Integrative and Comparative Laboratory (1) CHM 110, 111, 112, 113 - Organic Chemistry and Laboratory (8) BIOS 130 - Biostatistics (4)
Junior Year	BIOS 115, 116 - Biology Core II: Genetics and Laboratory <i>or</i> BIOS 121, 122 - Biology Core III: Integrative and Comparative and Laboratory PHY 10, 12 - General Physics I and Laboratory (5) PHY 13, 22 - General Physics II and Laboratory (4) Approved biology electives including two from List A and two from List B (9-12)
Senior Year	BIOS 317 - Evolution (3) Electives - Biology electives including at least four (4) credits of laboratory (10-14)