SOUTHERN VIRGINIA UNIVERSITY

BIOLOGY (BS)

Name: _____ Advisor: _____

CORE REQUIREMENTS (46 credit hours)

	Semester	Requirement	Course Options	Credits
FR Year		Knight Academy	SVU 101	1
		Fresh. Writing	WRI 120	3
Complete by Sophomore Year		Philosophy	LIB 110	3
		Am. Republic	LIB 120	3
		Literature	LIB 130	3
		Civilization I	ART 210, HIS 210, HIS 260, HUM 210, PHI 210, or POL 210	3
		Civilization II	ART 215, HIS 215, HUM 215, MUS 215, PHI 215, POL 215 or THE 215	3
		Mathematics	MAT 106, 114, 115, 221, 241, 242, CSC 120, or PHI 223	3-4
		Life Science	BIO 114, 126, 201, or 212	3-4
		Physical Science	CHE 114, 201, PHY 114, 117, 126, or 201	3-4
	One of the above life or physical science courses must have a **LAB** component. BIO 126, PHY 117, and PHY 126 are non-lab courses.			
		Culture & Language 1	HUM 235R or Foreign Language Course (or approved F.L. equivalency exam)	3
Complete Any Year		Culture & Language 2	HUM 235R or Foreign Language Course (or approved F.L. equivalency exam)	3
		Fine Arts	ART 120, 121, or 263; ENG 220, MUS 108, 129R, 139R, 221*, 221*, 256R*, 259R*, 275R*, 350R*, THE 110, 206, or 230/330R* (*2 instances of the same ensemble needed to satisfy requirement).	3
		Social Sciences	ECN 210, EDU 200, 250, FHD 210, 250, POL 203, 223, or PSY 105	3
		Health & Wellness	Complete PER 143 or 2 credits worth of activity courses. • ***PER 203 First Aid does not count as an activity course***	2
JR		Adv.Writing	WRI 320 **must be completed by the end of your Junior year.*	3

MAJOR REQUIREMENTS (59 credit hours)

MAJOR CORE (43)

Semester	Course	Credits
	BIO 201 Molecules, Cells, & Inheritance	4
	BIO 202 Ecology, Evolution, and Organisms	4
	BIO 340 Genetics and Molecular Biology	4
	BIO 440 Evolution	3
	CHE 201 General Chemistry I	4
	CHE 202 General Chemistry II	4
	CHE 301 Organic Chemistry I	4
	CHE 302 Organic Chemistry II	4
	MAT 221 Statistics	3
	PHY 201 General Physics I	4
	PHY 202 General Physics II	4
	BIO/CHE 498 (see emphasis below)	1

MAJOR EMPHASIS (16)

COMPLETE 16 CREDITS IN ONE AREA OF EMPHASIS:

Organismal Biology Emphasis	Molecular Biology Emphasis
BIO 211 General Botany (4)	BIO 312 Microbiology (3)
BIO 212 General Zoology (4)	BIO 312L Microbiology Lab (1)
BIO 331 Human Anatomy & Phys I (4)	BIO 331 Human Anatomy & Phys I (4)
BIO 332 Human Anatomy & Phys II (4)	BIO 332 Human Anatomy & Phys II (4)
BIO 355 Field Biology (3)	BIO 345 Cell Biology (3)
BIO 356 Marine Biology (3)	CHE 375R Topics in Biochemistry (3)
BIO 360 General Ecology (3)	CHE 383 Biochemistry (3)
BIO 375R Topics in Biology (3)	CHE 383L Biochemistry Lab (1)
BIO 385R Directed Study in Biology (3)	CHE 385R Directed Study in Biochem (3)
*Take BIO 498	CHE 481 Bio-organic &Medicinal CHE (3)
	CHE 483 Advanced Biochemistry (3)
	*Take CHE 498

OTHER COURSES TOWARDS GRADUATION

(REQUIRED: 120 TOTAL HOURS)

BACHELOR OF SCIENCE
GRADUATION REQUIREMENTS

The student must do the following to receive a bachelor of arts degree:

1. Complete a minimum of 120 credit hours of study, at least 60 of which or at least the last 36 credits before graduation are at Southern Virginia. No more than 9 credit hours will be granted for internship courses.
2. Complete all requirements of the Southern Virginia Core.
3. Complete all requirements of at least one major.
4. Earn a minimum grade point average of 2.00 on all course work taken at the university.
5. Comply with all university standards, regulations, and procedures, from the date of matriculation through the date of final graduation.

BACHELOR OF SCIENCE IN BIOLOGY
(59 CREDIT HOURS)

Learning Outcomes

1. Learn the fundamental concepts of the physical and life sciences. (Scientific Principles)
2. Demonstrate critical thinking skills in the areas of evaluation of experimental design and in the interpretation of experimental results. (Experimentation)
3. Demonstrate laboratory skills in the areas of experimental procedure and use of equipment. (Laboratory Skills)
4. Apply effective oral and written communication skills in communicating biological principles, scientific procedures, technical results, and overall conclusions of an experiment. (Communication)

Program coordinator: Dr. Jared Lee

Major Core

Complete all 12 courses (43 credits) listed below.

BIO 201 Molecules, Cells, & Inheritance
BIO 202 Ecology, Evolution, & Organisms
BIO 340 Genetics & Molecular Biology
BIO 440 Evolution
CHE 201 General Chemistry I
CHE 202 General Chemistry II
CHE 301 Organic Chemistry I
CHE 302 Organic Chemistry II
MAT 221 Statistics
PHY 201 General Physics I
PHY 202 General Physics II
BIO/CHE 498 (see emphasis below)

Major Emphasis

Complete at least 16 credit hours from one of the following emphasis options below along with its corresponding Senior Capstone (16 credits).

ORGANISMAL BIOLOGY EMPHASIS

BIO 211 General Botany
BIO 212 General Zoology
BIO 331 Human Anatomy & Physiology I
BIO 332 Human Anatomy & Physiology II
BIO 355 Field Biology
BIO 356 Marine Biology
BIO 360 General Ecology
BIO 375R Topics in Biology
BIO 385R Directed Study
BIO 498 Senior Capstone

MOLECULAR BIOLOGY EMPHASIS

BIO 312 Microbiology
BIO 312L Microbiology Lab
BIO 331 Human Anatomy & Physiology I
BIO 332 Human Anatomy & Physiology II
BIO 345 Cell Biology
CHE 375R Topics in Biochemistry
CHE 383 Biochemistry
CHE 383L Biochemistry Lab
CHE 385R Directed Study
CHE 481 Bio-organic and Medicinal Chemistry
CHE 483 Advanced Biochemistry
CHE 498 Senior Capstone