

# **BIOLOGY**

Name:

CORE REQUIREMENTS (46 credit hours)						
	SEMESTER	REQUIREMENT	Course Options	Credits		
FR Year		Knight Academy	SVU 101	1		
		Fresh. Writing	WRI 120	3		
		Philosophy	LIB 110	3		
		Am. Republic	LIB 120	3		
		Literature	LIB 130	3		
ear		Civilization I	ART 210, HIS 210, HIS 260, HUM 210, PHI 210, or POL 210	3		
Complete by Sophomore Year		Civilization II	ART 215, HIS 215, HUM 215, MUS 215, PHI 215, POL 215 or THE 215	3		
lete bv Sc		Mathematics	MAT 106, 114, 115, 221, 241, 242, CSC 120, or PHI 223	3-4		
Comp		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		
		Culture & Language 2	HUM 235R or Foreign Language Course (or approved F.L. equivalency exam)	3		
Anv Year		Fine Arts	ART 120, 121, or 263; ENG 220, MUS 108, 129R, 139R, 221*, 256R*, 259R*, 275R*, 350R*; THE 110, 206, or 230R/330R* (*2 instances of the same ensemble needed to satisfy requirement)	3		
Complete Any Year		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 Year		Adv.Writing	WRI 320 *must be completed by the end of your Junior year.	3		

Advisor:				

MAJOR REQUIREMENTS (45-46 credit hours)					
Major Core (37-38 Hours)					
SEMESTER	Course	CREDITS			
	BIO 201 General Biology I	4			
	BIO 202 General Biology II	4			
	BIO 211 General Botany or BIO 212 General Zoology	4			
	BIO 340 Genetics and Molecular Biology				
	BIO 345 Cell Biology				
	BIO 360 General Ecology	3			
	BIO 440 Evolution	3			
	BIO 498 Senior Capstone	1			
	CHE 201 General Chemistry I	4			
	CHE 202 General Chemistry II	4			
	MAT 221 Statistics or MAT 241 Calculus I	4			
	MAJOR ELECTIVES (8) 8 CREDIT HOURS FROM AMONG MAJOR ELECTIVES				
	OTHER COURSES TOWARDS GRADUATION (120 TOTAL HOURS)				

### BACHELOR OF ARTS GRADUATION REQUIREMENTS

THE STUDENT MUST DO THE FOLLOWING TO RECEIVE A BACHELOR OF ARTS DEGREE:

- COMPLETE A MINIMUM OF 120 CREDIT HOURS OF STUDY, AT LEAST 60 OF WHICH OR AT LEAST THE LAST 30 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.
- EARN A MINIMUM GRADE POINT AVERAGE OF 2.00 ON ALL COURSE WORK TAKEN AT THE UNIVERSITY.
- COMPLY WITH ALL UNIVERSITY STANDARDS, REGULATIONS, AND PROCEDURES, FROM THE DATE OF MATRICULATION THROUGH THE DATE OF FINAL GRADUATION.

## BIOLOGY MAJOR REQUIREMENTS

(42 CREDIT HOURS)

THE BIOLOGY MAJOR ASSISTS STUDENTS TO ACHIEVE A BROAD-BASED EDUCATION IN THE LIFE SCIENCES, WHICH EMPHASIZE THE VARIOUS BIOLOGICAL PRINCIPLES RELATED TO STRUCTURAL, FUNCTIONAL, TAXONOMICAL AND ECOLOGICAL PHENOMENA. IT PROVIDES A RICH UNDERSTANDING OF THE NATURAL WORLD—KNOWLEDGE WORTH HAVING FOR ITS OWN SAKE AND FOR THE PERSPECTIVE IT BRINGS TO ONE'S LIFE.

#### **LEARNING OBJECTIVES**

THE BIOLOGY FACULTY EXPECTS BIOLOGY MAJOR STUDENTS TO:

- 1. LEARN MOLECULAR/CELLULAR, GENETIC, ORGANISMAL, AND ECOLOGICAL PRINCIPLES OF BIOLOGY INCLUDING HISTORICAL PERSPECTIVES AND CURRENT TRENDS. (BIOLOGICAL PRINCIPLES)
- 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. (COMMUNICATION)

PROGRAM COORDINATOR: JARED LEE, Ph.D.

### MAJOR REQUIREMENTS (42 CREDIT HOURS)

MAJOR CORE (34 CREDIT HOURS):

- BIO 201 GENERAL BIOLOGY I (GE) (4)
- BIO 202 GENERAL BIOLOGY II (4)
- BIO 212 GENERAL ZOOLOGY (GE) (4)
- BIO 340 GENETICS AND MOLECULAR BIOLOGY (4)
- BIO 345 CELL BIOLOGY (3)
- BIO 360 GENERAL ECOLOGY (3)
- BIO 440 EVOLUTION (3)
- BIO 498 SENIOR CAPSTONE (1)
- CHE 201 GENERAL CHEMISTRY I (GE) (4)
- CHE 202 GENERAL CHEMISTRY II (4)

Major Electives: at least 8 credit hours from among the following:

- BIO 211 BOTANY (GE) (4)
- BIO 228 HUMAN ANATOMY (GE) (4)
- BIO 310 PARASITOLOGY (4)
- BIO 312 MICROBIOLOGY (3)
- BIO 315 MEDICAL ENTOMOLOGY (3)
- BIO 328 HUMAN PHYSIOLOGY (4)
- BIO 338 ENDOCRINOLOGY (3)
- BIO 350 DEVELOPMENTAL BIOLOGY (3)
- BIO 375R TOPICS IN BIOLOGY (VAR.)
- BIO 385R DIRECTED STUDY (VAR.)
- BIO 399 INTERNSHIP/PRACTICUM (1-3)



**BIOLOGY** 

Name:		Advisor:

CHE 383 BIOCHEMISTRY (3)

ALTHOUGH NOT REQUIRED, MAT 221, PHY 201, AND PHY 202 ARE STRONGLY RECOMMENDED FOR THE BIOLOGY MAJOR.