

## BIOLOGY DEGREE REQUIREMENTS

GENERAL EDUCATION REQUIREMENTS (38 – 40 Hours)		
College Preparation*		3-6
Writing and Communicating Effectively*		10
Humanities and Social Sciences*		12
Mathematics		6
Natural Science†		8
†Biology majors must take BSC 2010 and BSC 2011 as their natural science requirements (Please see the introductory biology requirements).		
Mathematics		
Foreign Language**		6
** EWC students who have not met the State of Florida Foreign Language requirement in high school will be required to take the following:		
SPN 1120	Elementary Spanish I	3
SPN 1121	Elementary Spanish II	3
INTRODUCTOY BIOLOGY REQUIREMENTS		
BSC 2010	Biology I – Cell Processes	3
BSC 2010L	Biology I – Cell Processes Lab	1
BSC 2011	Biology II – Diversity of Life	3
BSC 2011L	Biology II – Diversity of Life Lab	1
MAJOR REQUIREMENTS (35 hours)		
ZOO 2010	General Zoology	3
ZOO 2010L	General Zoology Lab	1
BOT 3015	Botany	3
BOT 3015L	Botany Lab	1
PCB 3063	Genetics	3
PCB 3063L	Genetics Lab	1
BSC 2093C	Human Anatomy & Physiology I Combined Lab	4
BSC 2094C	Human Anatomy & Physiology II Combined Lab	4
MCB 3020	Microbiology	3
MCB 3020L	Microbiology Lab	1
PCB 3043	Ecology	3
PCB 3043L	Ecology Lab	1
PCB 3023	Cell Biology	3
PCB 3023L	Cell Biology Lab	1
BSC 4905	Biology Seminar/Exit Exam	3
CORE REQUIREMENTS (31 – 37 hours)		
CHM 2045	General Chemistry I	3
CHM 2045L	General Chemistry I Lab	1
CHM 2046	General Chemistry II	3
CHM 2046L	General Chemistry II Lab	1
CHM 2210	Organic Chemistry I	3
CHM 2210L	Organic Chemistry I Lab	1
CHM 2211	Organic Chemistry II	3

CHM 2211L	Organic Chemistry II Lab	1
PHY 2053	General Physics I	3
PHY 2053:	General Physics I Lab	1
PHY 2054	General Physics II	3
PHY 2054L	General Physics II Lab	1
MAC 1114	Trigonometry	3
MAC 1145	Pre-Calculus	3
STA 2023	Elementary Statistics	3
MAC 2311	Calculus w/Analytical Geometry I	4
<b>CONCENTRATIONS ELECTIVE (Choose one of the following concentrations)</b>		
<b>Allied Health/Biomedical Applications Concentration Electives Hours (Minimum Total Required – 18 hrs.)</b>		
BSC 4434	Introduction to Bioinformatics	3
BIO 410	Bacteriology	3
MCB 4503	Virology	3
ZOO 4752	Histology with Lab	4
PCB 4109	Biology of Cancer	3
BSC 4910	Biology Research*	3
BSC 2930	Special Topics in Biology	1-6
PCB 4233	Immunology*	3
PCB 4233L	Immunology Lab*	1
BSC 3023	Biochemistry*	3
BSC 3023L	Biochemistry Lab*	1
CHS 3549	Introduction to DNA Forensics	3
HSC 2620	African American Health	3
BSC 3022	Biology of Aging	3
PCB 4523C	Developmental Biology w/Lab	4
<i>The courses listed above with asterisk (*) are mandatory – total of 11 credit hours</i>		
<b>BIOTECHNOLOGY CONCENTRATION ELECTIVES (MINIMUM TOTAL REQUIRED – 18 HRS.)</b>		
BSC 4434	INTRODUCTION TO BIOINFORMATICS*	3
BSC 3402	Research Methods in Biology*	3
MCB 4503	Virology	3
BSC 4910	Biology Research*	3
BSC 2931	Special Topics in Biology	1-6
PCB 4233	Immunology	3
PCB 42331	Immunology Lab	1
STA 4127	Biostatistics	3
BCH 3023	Biochemistry*	3
BSC 3023L	Biochemistry Lab*	1
CHS 3549	Introduction to DNA Forensics	3
BSC 2420	Introduction to Biotechnology*	3
<i>The courses listed above with asterisk (*) are mandatory – total of 16 credit hours</i>		
<b>ENVIRONMENTAL BIOLOGY/ECOLOGY CONCENTRATION ELECTIVES (MINIMUM TOTAL REQUIRED – 12 HRS.)</b>		

BSC3402	Research Methods in Biology	3
Zoo 4752	Histology	3
BSC 4054	Environmental Toxicology	3
BSC 2931	Special Topics in Biology	3
BIO 405	Field Methods in Urban Ecology*	4
BIO 405	Marine Biology*	4
STA 4173	Biostatistics	3
BSC 4910	Biology Research*	3
BCH 3053	Biochemistry	3
BCH 3053L	Biochemistry Lab	1
PCB 4523C	Developmental Biology	4

***The courses listed above with asterisk (\*) are mandatory – total of 14 credit hours***

Total to graduate (including 38 - 40 hours of General Education) 122 – 130 Hours  
(Without Experiential Learning)

Total to graduate (including 44 - 46 hours of General Education) 128 – 136 Hours  
(Including Experiential Learning)

FORENSIC BIOLOGY CONCENTRATION ELECTIVES (MINIMUM TOTAL REQUIRED 12 HOURS)		Prerequisite
CJE 2601	Introduction to Forensic Sciences*	3
BCH 3053	Biochemistry*	3
BCH 3053L	Biochemistry Lab*	1
CHS 3549	Introduction to DNA Forensics*	3
BSC 4401	Forensic Biology w/Lab*	4
CHS 3511	Forensic Criminalistics Lab	4
CJE 3619C	Forensic Photography	4