

# Outline for Biology Major Requirements (B.S.)

Common Program Prerequisites			Credits	Grade	Biology Laboratories Courses			Credits	Grade
<b>BSC2010C</b>	<b>Biology I (GEP)</b>	(PR: High school biology)	4	_____	<b>Section A</b>	Complete at least 1 Core Lab from the following:			
(A min. grade of "C" (2.0) is required in BSC2010C subsequent biology courses)					<b>PCB3044L*</b>	<b>Principles of Ecology Lab</b>	1	_____	
<b>BSC2011C</b>	<b>Biology II</b>	(PR: A "C" (2.0) or better in BSC 2010C)	4	_____	(PR/CR: PCB3044)				
(A min. grade of "C" (2.0) is required in BSC2011C subsequent biology courses)					<b>PCB3063L*</b>	<b>Genetics Laboratory</b>	1	_____	
<b>CHM2045C</b>	<b>Chemistry Fundamentals I (GEP)</b>		4	_____	<b>PCB4683L*</b>	<b>Evolutionary Biology Lab</b>	1	_____	
(PR: Chemistry Placement Exam. And C (2.0) or better in MAC 1105)					<b>Section B</b> Complete at least 1 Core/Non-Core: from above or designated below with †				
<b>CHM2046</b>	<b>Chemistry Fundamentals II</b>		3	_____	<b>BOT3018C**</b>	Culinary Botany Across the Cultures (P)	4	_____	
(PR: A min. grade of "C" (2.0) is required in CHM2045C and MAC1105C)					<b>BOT4223C**</b>	Plant Anatomy (P)	4	_____	
<b>CHM2046L</b>	<b>Chemistry Fundamentals Lab</b>	(PR/CR: CHM2046)	1	_____	<b>BOT 4282C**</b>	Plant Microtechniques	4	_____	
<b>PHY2053</b>	<b>College Physics I</b>	(PR: MAC1105C & MAC1114C)	3	_____	<b>BOT4303C**</b>	Plant Kingdom (P)	4	_____	
<b>PHY2053L</b>	<b>College Physics I Lab</b>	(PR/CR: PHY2053 w/ a "C" or better)	1	_____	<b>BOT4503C**</b>	Plant Physiology (P)	4	_____	
<b>PHY2054</b>	<b>College Physics II</b>	(PR: PHY2053 w/ a "C" or better)	3	_____	<b>BOT4530C**</b>	Plant Genomics and Biochemistry (P)	4	_____	
<b>PHY2054L</b>	<b>College Physics II Lab</b>	(PR/CR: PHY2054 w/ a "C" or better)	1	_____	<b>BOT4713C**</b>	Plant Taxonomy (P)	5	_____	
<b>STA2023</b>	<b>Statistical Methods I (GEP)</b>		3	_____	<b>BSC 4312C**</b>	Adv Marine Biol	4	_____	
(PR: MGF1106 or any other MAC course)					<b>BSC 4445C**</b>	Genomics Lab	4	_____	
<b>MAC2233</b>	<b>Concepts of Calculus</b>		3	_____	<b>ENY3571**</b>	Honey Bee Biology and Beekeeping (A)	3	_____	
(PR: Math Placement Exam or MAC1140C w/ A "C" or better)					<b>ENY4004C**</b>	General Entomology (A)	4	_____	
<b>Core Requirements: Basic Level (8-9 credits)</b>					<b>PCB 4301C**</b>	Wetland Eco & Biogeochem.	4	_____	
<b>CHM2210</b>	<b>Organic Chemistry I</b>		3	_____	<b>PCB 4353L**</b>	FL Ecology Lab	1	_____	
(PR: A "C" (2.0) or better in CHM 2046)					<b>PCB 4315C**</b>	Marine Ecology of Florida	4	_____	
<b>CHM2211</b>	<b>Organic Chemistry II</b>		3	_____	<b>ZOO 3713L**</b>	Comp Vert Anat Lab	1	_____	
(PR: A "C" (2.0) or better in CHM 2210)					<b>ZOO 4205C**</b>	Invertebrate Biodiversity	4	_____	
<b>CHM2211L</b>	<b>Organic Laboratory Techniques I</b>		2	_____	<b>ZOO4310C**</b>	Vertebrate Evolution & Ecology (A)	4	_____	
(PR: A C (2.0) or better in both CHM 2046L and CHM 2210)					<b>ZOO4405C**</b>	Sea Turtle Conservation Internship (A)	3	_____	
<b>(CHM2205 followed by CHM3120 and CHM3120L can also be taken to meet this requirement)</b>					<b>ZOO4462C**</b>	Herpetology (A)	4	_____	
<b>Biology Core Requirements: Advanced Level</b>					<b>ZOO 4480L**</b>	Mammalogy Lab	1	_____	
<b>PCB3044*</b>	<b>Principles of Ecology</b>		3	_____	<b>ZOO4603C**</b>	Embryology/Development (A)	5	_____	
(PR: CHM2045 and a "C" or better in both BSC2010C & BSC2011C)					<b>ZOO4756C**</b>	Comparative Vertebrate Histology (A)	4	_____	
<b>PCB3063*</b>	<b>Genetics</b>		3	_____	<b>ZOO4910L**</b>	Res in Animal Beh. in a Zoo Env (A)	3	_____	
(PR: CHM2046C and a "C" or better in BSC2010C)					<p style="text-align: center;"><b>* All Biology Major Students must complete at least one course dealing exclusively with Zoology (A) and one course dealing exclusively with Botany (P).</b></p> <p style="text-align: center;"><b>Upper Division Required and Restricted Electives (22 credits)</b></p> <p style="text-align: center;">Please see the roadmaps to determine which Required and Restricted Electives are needed for the Track of your choice.</p>				
<b>PCB3023*</b>	<b>Molecular Cell Biology</b>		3	_____					
(PR: CHM2210 or CHM2205 and a "C" or better in BSC2010C & PCB3063)									
<b>PCB4683*</b>	<b>Evolutionary Biology</b>		4	_____					
(PR: JR Standing & a "C" or better in PCB3063)									
UCF GPA: _____ Major GPA: _____ Restricted Elective: _____					<b>Independent Study/Directed Research: May include a maximum of 4hrs towards restricted electives- (Completed with Biology Faculty)</b>				

**Biology Major B.S. – General Track**  
**Upper Division Restricted Electives (22 credits)**  
**(Must have a "C" or better in each prerequisite course)**

<b>RESTRICTED COURSES</b>		
<b>Complete at least (22 hrs) from the following:</b>		
ANT3550C - Primatology	3 _____	PCB3233 - Immunology 3 _____
BCH4024 - Medical Biochemistry	4 _____	PCB3343L* - Principles of Field Ecology 5 _____
BCH4053 - Biochemistry I	3 _____	PCB3354* - Tropical Ecology and Conservation 3 _____
BCH4054 - Biochemistry II	3 _____	PCB3355L* - Tropical Marine Biology 2 _____
BOT3015* - Principles of Plant Science (P)	3 _____	PCB3442* - Aquatic Ecology 3 _____
BOT3018C*† - Cul Botany Across the Cultures (P)	4 _____	PCB3522 - Molecular Biology I 3 _____
BOT3802* - Ethnobotany (P)	3 _____	PCB3522H - Honors Molecular Biology I 3 _____
BOT4223C*† - Plant Anatomy (P)	4 _____	PCB3703C - Human Physiology 4 _____
BOT 4282C*† - Plant Microtechniques	4 _____	PCB4301C*† - Wetland Ecology & Biogeochemistry 4 _____
BOT4303C*† - Plant Kingdom (P)	4 _____	PCB4315C*† - Marine Ecology of Florida 4 _____
BOT4430C*† - Biology of Fungi (P)	4 _____	PCB4353* - Fl Ecology, Natural History and Conserv 3 _____
BOT4503C*† - Plant Physiology (P)	4 _____	PCB4353L*† - Florida Ecology Lab 1 _____
BOT4530C*† - Plant Genomics and Biochem (P)	4 _____	PCB4402* - Disease Ecology & Ecoimmunology 3 _____
BOT4713C*† - Plant Taxonomy (P)	5 _____	PCB4413* - Sensory Ecology 3 _____
BOT4850* - Medical Botany (P)	3 _____	PCB4462* - GIS for Biologists and Ecologists 3 _____
BOT4922* - Plant Science Capstone	2 _____	PCB4514* - Epigenetics 3 _____
BOT 4970H - Honors Undergrad. Thesis	_____	PCB4524 - Molecular Biology II 4 _____
BSC3052* - Conservation Biology	3 _____	PCB4575* - Wildlife Genomics 3 _____
BSC3312* - Principles of Marine Biology	3 _____	PCB4678* - Evolution and Medicine 3 _____
BSC3453C* - Bio Res. Meth & Exp Design	3 _____	PCB4683L* - Evolutionary Biology Lab 1 _____
BSC 4310* - Service Learning Marine Conserv	3 _____	PCB4684* - Population Genetics 3 _____
BSC4312C*† - Advanced Marine Biology	4 _____	PCB4723* - Animal Physiology (A) 4 _____
BSC4330* - Invasion Biology	3 _____	PCB5435C* - Marine Ecology of Florida 4 _____
BSC4445C*† - Genomics Laboratory	4 _____	ZOO3454* - Ichthyology (A) 3 _____
BSC4456C* - Programming for Biologists	3 _____	ZOO3713* - Comparative Vertebrate Anatomy (A) 4 _____
BSC4473C* - Scientific Diving	4 _____	ZOO 3713L*† - Comp Vert Anat Lab 1 _____
BSC4821* - Biogeography	4 _____	ZOO3733C - Human Anatomy 4 _____
BSC4861L* - Urban Ecological Field Studies	3 _____	ZOO4205C*† - Invertebrate Biodiversity (A) 4 _____
BSC4910C* - Group Effort Applied Research in Bio	4 _____	ZOO4272* - Ornithology (A) 3 _____
BSC4927* - Sci and Public Engage for Bio Majors	3 _____	ZOO4310C*† - Vertebrate Evolution & Ecology (A) 4 _____
ENY3571*† - Honey Bee Biology and Beekeeping (A)	3 _____	ZOO4405C*† - Sea Turtle Ecology, Conserv Intern (A) 3 _____
ENY4004C*† - General Entomology (A)	4 _____	ZOO4462C*† - Herpetology (A) 4 _____
MCB3020C - General Microbiology	5 _____	ZOO4480* - Mammalogy (A) 4 _____
OCE3008* - Oceanography	3 _____	ZOO4480L*† - Mammalogy Lab 1 _____
PAZ4234* - Zoo and Aquarium Management	3 _____	ZOO4513* - Animal Behavior (A) 3 _____
PCB3044L* - Principles of Ecology Laboratory	1 _____	ZOO4603C*† - Embryology/Development (A) 5 _____
PCB3063L* - Genetics Laboratory	1 _____	ZOO4756C*† - Comparative Vertebrate Histology (A) 4 _____
		ZOO4910L*† - Res in Animal Beh. in a Zoo Env (A) 3 _____
		ZOO3930 - Intro to Zoology (A) 3 _____

All Biology Major Students must complete at least one course dealing exclusively with Zoology (A) and one course dealing exclusively with Botany (P)

\* Classes taught in the UCF Biology Department

† Each track must complete one of the following laboratories

(All Biology Students MUST complete the Biology Exam Exit after completing the Biology Core Courses.)  
 (The Exam MUST be taken and passed by the deadline date Posted on the Testing Website within your Graduating Semester)