



# Biology Roadmap 2024-2025



All prerequisite courses require a "C" (2.0) or better

MPT = Appropriate Score on Math Placement Test      CPE = Appropriate Score on Chem Placement Exam.

## Common Program Prerequisites - "C" (2.0) or better in each course

		Credits	Status			Credits	Status
<b>BSC2010C</b>	<b>Biology I (GEP)</b> PR: High school biology	4	_____	<b>CHM2210</b>	<b>Organic Chemistry I</b> PR: CHM 2046	3	_____
<b>BSC2011C</b>	<b>Biology II</b> PR: BSC 2010C	4	_____	<b>CHM2211</b>	<b>Organic Chemistry II</b> PR: CHM 2210	3	_____
<b>CHM2045C</b>	<b>Chemistry Fundamentals I (GEP)</b> PR: CHM 1025 or CPE, and MAC 1105 or MPT	4	_____	<b>CHM2211L</b>	<b>Organic Laboratory Techniques I</b> PR: CHM 2046L and CHM 2210	2	_____
<b>CHM2046</b>	<b>Chemistry Fundamentals II</b> PR: CHM 2045C, and MAC 1105C or MPT	3	_____	<i>Also satisfied by CHM2205 followed by CHM3120 and CHM3120L</i>			
<b>CHM2046L</b>	<b>Chemistry Fundamentals Lab</b> PR or CR: CHM2046	1	_____	<b>Biology Core Requirements: "C" (2.0) or better in each course</b>			
<b>MAC2311C</b>	<b>Calculus with Analytic Geometry I</b> PR: MAC1140C & MAC1114C, or MPT	4	_____	<b>PCB3044*</b>	<b>Principles of Ecology</b> PR: CHM2045, BSC 2010C & BSC2011C	3	_____
---OR---				<b>PCB3063*</b>	<b>Genetics</b> PR: BSC2011C or CHM2046	3	_____
<b>MAC2233</b>	<b>Concepts of Calculus</b> PR: MAC 1140C or MPT	3	_____	<b>PCB3023*</b>	<b>Molecular Cell Biology</b> PR: CHM2210 or CHM2205 or CHM3120, and BSC2010C, and PCB3063	3	_____
<b>STA2023</b>	<b>Statistical Methods I (GEP)</b> PR: MGF 1106 or any MAC course	3	_____	<b>PCB4683*</b>	<b>Evolutionary Biology</b> PR: JR Standing & PCB 3063	4	_____
<b>PHY2053</b>	<b>College Physics I</b> PR: MAC 1114C or higher, or MPT	3	_____	<p><i>Were all four of the above courses taken at UCF?</i></p> <p>YES <input type="checkbox"/> nothing further needed</p> <p>NO <input type="checkbox"/> check overall UL residency: ____ of 23</p>			
<b>PHY2053L</b>	<b>College Physics I Lab</b> PR or CR: PHY 2053  <i>Also satisfied by PHY 2053C (4cr, Lab included)</i> <i>Also satisfied by PHY 2048C, or PHY 2048 &amp; Lab (PR: MAC2311C)</i>	1	_____	<b>Upper Level Lab Requirements</b>			
<b>PHY2054</b>	<b>College Physics II</b> PR: PHY 2053	3	_____	<b>Lab A</b>	PCB3044L Principles of Ecology Lab	1	_____
<b>PHY2054L</b>	<b>College Physics II Lab</b> PR or CR: PHY 2054  <i>Also satisfied by PHY 2054C (4cr, Lab included)</i> <i>Also satisfied by PHY 2049C, or PHY 2049 &amp; Lab (PR: PHY 2048 &amp; MAC2312)</i>	1	_____	<i>Choose one</i>	PCB3063L Genetics Laboratory		
					PCB4683L Evolutionary Biology Lab		
				<b>Lab B</b>	<i>A second Lab A course, or other lab elective (see second page)</i>		
				<b>Upper Level Electives</b>			
				<b>22 Credit Hours of Electives - See Second Page</b>			
				<b>Other Requirements</b>			
				UCF GPA _____	Major GPA _____	<b>Exit Exam*</b> <input type="checkbox"/>	
				<i>2.0 minimum</i>	<i>2.0 minimum</i>		



\* The Biology Exit Exam covers the following core courses: Biology I, Biology II, Genetics, Ecology, Molecular Cell Biology, and Evolutionary Biology.

TRACK

NAME

UCF ID

DATE

		Biology Major B.S. – Marine and Aquatic Track					Upper Division Restricted Electives (22 hrs)									
		KEY: R = Elective Residency (Taught by UCF Biology Dept) L = Lab Option A = Animal/Zoology Option P = Plant/Botany Option														
Course Detail		R	L	A	P	Cr	Status	Course Detail		R	L	A	P	Cr	Status	
<b>REQUIRED - COMPLETE AT LEAST 1</b>		<b>"C" or better required</b>							BSC 4456C	Programming for Biologists	R				3	
BSC 3312	Principles of Marine Biology	R				3		BSC 4821	Biogeography	R				4		
OCE 3008	Oceanography	R				3		ENY 4004C	General Entomology	R	L	A		4		
PCB 3442	Aquatic Ecology	R				3		ENY 4455C	Social Insect Behavior	R	L	A		4		
<b>RESTRICTED - COMPLETE AT LEAST 4</b>		<b>Additional From Above, or:</b>							MCB 3020C	General Microbiology		L			5	
BSC 4312C	Advanced Marine Biology	R	L			4		PCB 3044L	Principles of Ecology Lab	R	L*			1		
BSC 4310	Service Learning Marine Conserv	R				3		PCB 3063L	Genetics Laboratory	R	L*			1		
BSC 4473C	Scientific Diving	R				4		PCB 3233	Immunology					3		
BSC 4927	Sci and Public Engage for Bio Majors	R				3		PCB 3354	Tropical Ecology and Conservation	R				3		
PCB 4301C	Wetland Ecology & Biogeochemistry	R	L			4		PCB 3522	Molecular Biology I					3		
PCB 4413	Sensory Ecology	R				3		PCB 3703C	Human Physiology					4		
PAZ 4234	Zoo and Aquarium Management	R				3		PCB 4353	Fl Ecology, Natural History & Cons	R				3		
ZOO 3454	Ichthyology	R		A		3		PCB 4353L	Florida Ecology Lab	R	L			1		
ZOO 3713	Comparative Vertebrate Anatomy	R		A		4		PCB 4402	Disease Ecology & Ecoimmunology	R				3		
ZOO 4205C	Invertebrate Biodiversity	R	L	A		4		PCB 4408	Urban Ecology	R				3		
ZOO 4405C	Sea Turtle Ecology, Conserv Intern	R	L	A		3		PCB 4514	Epigenetics	R				3		
ZOO 4462C	Herpetology	R	L	A		4		PCB 4524	Molecular Biology II					3		
ZOO 4480	Mammalogy	R		A		4		PCB 4575	Wildlife Genomics	R				3		
<b>NON-TRACK / GENERAL TRACK OPTIONS</b>								PCB 4683L	Evolutionary Biology Lab	R	L*			1		
ANT 3550C	Primatology			A		3		PCB 4723	Animal Physiology	R		A		4		
ANT 4516	Human Biological Diversity					3		PCB 4932	Population Ecology	R				3		
BCH 4024	Medical Biochemistry					4		ZOO 3001	Integrated Principles of Zoology	R		A		3		
BCH 4053	Biochemistry I					3		ZOO 4272	Ornithology	R		A		3		
BCH 4054	Biochemistry II					3		ZOO 4310C	Vertebrate Evolution & Ecology	R	L	A		4		
<b>BOT 3015</b>	<b>Principles of Plant Science<sup>2</sup></b>	R			P	3		ZOO 4513	Animal Behavior	R		A		3		
<b>BOT 3802</b>	<b>Ethnobotany<sup>2</sup></b>	R			P	3		ZOO 4480L	Mammalogy Lab	R	L			1		
BOT 3018C	Cul Botany Across the Cultures	R	L		P	4		ZOO 4513	Animal Behavior	R		A		3		
BOT 4223C	Plant Anatomy	R	L		P	4		ZOO 4603C	Embryology/Development	R	L	A		5		
BOT 4303C	Plant Kingdom	R	L		P	4		ZOO 4756C	Comparative Vertebrate Histology	R	L	A		4		
BOT 4503C	Plant Physiology	R	L		P	4		ZOO 4910L	Res in Animal Beh. in a Zoo Env	R	L	A		3		
BOT 4713C	Plant Taxonomy	R	L		P	5		ZOO 3713L	Comp Vert Anat Lab	R	L			1		
BOT 4850	Medical Botany	R			P	3		ZOO 3733C	Human Anatomy					4		
BSC 3052	Conservation Biology	R				3		<p><b>Only a few elective courses are offered each semester. We suggest performing class search using Department &gt; Biology (to find "R" elective courses)</b></p> <p><b>Current &amp; IP Total: _____ / 22      Needed: _____</b></p>								
BSC 3403C	Quantitative Biological Methods															
BSC 3453C	Bio Res. Meth & Exp Design	R				3										
BSC 4330	Invasion Biology	R				3										
BSC 4445C	Genomics Laboratory	R	L			4										
<b>Requirements Met:</b>	Animal/Zoology Course (A)	Plant / Botany Course (P) <sup>2</sup>		Lab A (L*)	Lab B (L)	10+ Residence Elective Hours (R)	in addition to 13cr of Core									

<sup>1</sup> You may only earn a MAXIMUM OF 4 CREDIT HOURS from internship, research and independent study (collectively) towards your Biology electives.

**NAME**

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# NOTES

## PROJECTED SCHEDULE

**Semester**

**Semester**

**Semester**

**Semester**

**Semester**

**Semester**

If planning through graduation, you *may* need to include upper-level "free electives" to meet the university requirement of 42 upper level credit hours. Best practice is to focus on major courses as free electives can be taken your final semester if needed.

**UL Credits remaining out of 42:**

**UL Credits remaining in major:**

**Room for Free Electives?**

**Yes**

**No**