

Tentative BIOL Upper Division Course Offerings - Updated September 2025
(courses highlighted in blue do not require the full completion of LS Cores Requirements)

Course Number:	Units:	Course Title:	Pre-requisites or Co-requisites:	Important Advising Notes:	Fall:	Winter:	Spring:	Summer:
BCH 100	4 units	Introductory Biochemistry	BIOL 005A with a grade of C- or better; CHEM 08HB with a grade of C- or better or CHEM 008B with a grade of C- or better; CHEM 08LB with a grade of C- or better or CHEM 08HLB with a grade of C- or better.	BIOL Majors must earn a C- or higher. Credit is awarded for one of the following BCH 100 or BCH 100H. Credit is not awarded for BCH 100 if a grade of "C-" or higher has been awarded previously in BCH 110A or BCH 110HA or BCH 110B or BCH 110HB or BCH 110C or BCH 110HC.	X	X	X	X
BCH 110B	4 units	General Biochemistry	BCH 110A or BCH 110HA with a grade of "C-" or better or consent of instructor	Credit is awarded for only one of BCH 110B or BCH 110HB.		X	X	
BIOL/ENTM 100	4 units	General Entomology	BIOL 005B, BIOL 005C, or equivalents; or consent of instructor.	*+Cross-listed courses.	X		X	
BIOL 102	4 units	Introductory to Genetics	BIOL 005A, BIOL 020 or BIOL 05LA, and BIOL 005B with grades of "C-" or better.		X	X	X	X
BIOL / BPSC 104	4 units	Foundations of Plant Biology	BIOL 005C.	*+Cross-listed courses.	X	X	X	
BIOL 105	4 units	Evolution	BIOL 005C with a grade of C- or better; BIOL 102; BCH 100 or BCH 100H or BCH 110A or BCH 110HA; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C, PHYS 02LC or PHYS 02HC, PHYS 02HLC; STAT 010.		X	X	X	X
BIOL 106	4 units	Biology of Human Variation	BIOL 102; BIOL 105 or BIOL 108; STAT 011 may be taken concurrently; or consent of instructor.		*Check Schedule of Classes (this course is not consistently offered).			
BIOL 107A	4 units	Molecular Biology	BIOL 005C; BCH 100 or BCH 100H or BCH 110A or BCH 110HA; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C, PHYS 02LC or PHYS 02HC, PHYS 02HLC.	Credit is not awarded for BIOL 107A if it has already been awarded for BCH 110C.	X	X	X	X
BIOL 107B	3 units	Advanced Molecular Biology	BIOL 107A or BCH 110C or BCH110HC or equivalents.				X	
BIOL 108	4 units	Population Genetics and Genomics	BIOL 005C; BCH 100 or BCH 100H or BCH 110A or BCH 110HA; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C, PHYS 02LC or PHYS 02HC, PHYS 02HLC; STAT 010		X			

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BIOL 110	4 units	Biology of Human Problems	BIOL 005C; BCH 100 or BCH 100H or BCH 110A or BCH 110HA; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; STAT 010.		x			
BIOL 111	4 units	Infectious Disease Epidemiology	BIOL 005A with a grade of C- or better; BIOL 005B with a grade of C- or better; BIOL 005C with a grade of C- or better; BIOL 102 with a grade of C- or better; STAT 010 with a grade of C- or better.		*Check Schedule of Classes (this course is not consistently offered).			
BIOL/BPSC/ ENTM 112	4 units	Systematics	BIOL 005C or equivalent.	*+Cross-listed courses.		X		
BIOL 113	4 units	Advanced Cell Biology: Membranes, Organelles, and the Cytoskeleton	BIOL 005C; BIOL 102; BCH 100 or BCH 100H or BCH 110A or BCH 110HA; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; STAT 010.		*Check Schedule of Classes (this course is not consistently offered).			
BIOL 114	4 units	Advanced Cell Biology: Cellular Reproduction and Signaling 4	BIOL 005C; BIOL 102; BCH 100 or BCH 100H or BCH 110A or BCH 110HA; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; STAT 010.		*Check Schedule of Classes (this course is not consistently offered).			
BIOL 115	4 units	Human Genetics	BIOL 102; BCH 100 or BCH 110A or BCH 110HA.			X		
BIOL 116	4 units	Ecology and Conversation Biology	BIOL 005C with a grade of C- or better; CHEM 001C or CHEM 01HC; MATH 007B or MATH 09HB or MATH 009B; or consent of instructor.		X	X	X	X
BIOL 118	4 units	Methods in Molecular Ecology and Evolution	BIOL 005C with a grade of C- or better; BCH 100 or BCH 100H or BCH 110A or BCH 110HA; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; STAT 010.		*Check Schedule of Classes (this course is not consistently offered).			
BIOL 119	4 units	Intro Genomics & Bioinformatics	BIOL 005C with a grade of C- or better; BIOL 102; BCH 100 or BCH 100H or BCH 110A or BCH 110HA; MATH 007B or MATH 009B or MATH 009HB; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC.		X	X		

Course Number:	Units:	Course Title:	Pre-requisites or Co-requisites:	Important Advising Notes:	Fall:	Winter:	Spring:	Summer:
BIOL/MCBL/PLPA 120	3 units	Introduction to Plant Pathology	BIOL 005C; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; BCH 100 or BCH 100H or BCH 110A or BCH 110HA; STAT 004; or equivalent.	*+Cross-listed course. Credit is not awarded for PLPA 210 if it has already been awarded for BIOL 120/MCBL 120/PLPA 120 and/or BIOL 120L/ MCBL 120L/PLPA120L.	X			
BIOL/ MCBL/PLPA 120L	1 unit	Introduction to Plant Pathology Lab	BIOL 005C; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; BCH 100 or BCH 110A or BCH 110HA; BIOL 120, may be taken concurrently or MCBL 120, may be taken concurrently or PLPA 120, may be taken concurrently; STAT 010, may be taken concurrently; BIOL 121/MCBL 121 and BIOL 124/MCBL 124 recommended; or consent of instructor	*+Cross-listed course. Credit is awarded for one of the following PLPA 120L, BIOL 120L, MCBL 120L, or PLPA 210.	X			
BIOL / MCBL 121	4 units	Introduction to Microbiology	BIOL 005A; BIOL 05LA or BIOL 020; BIOL 005B; BIOL 005C; CHEM 001C or CHEM 01HC; MATH 007B or MATH 009B or MATH 09HB; PHYS 002A, may be taken concurrently or PHYS 02HA, may be taken concurrently; PHYS 02LA, may be taken concurrently or PHYS 02HLA, may be taken concurrently; BCH 100, may be taken concurrently or BCH 110A, may be taken concurrently or BCH 110HA, may be taken concurrently; STAT 010; or consent of instructor.	*+Cross-listed course. Credit is awarded for one of the following MCBL 121, BIOL 121, or MCBL 131.	X	X	X	
BIOL / MCBL 121L	3 units	Microbiology Lab	BIOL 121 with a grade of C- or better or MCBL 121 with a grade of C- or better.	*+Cross-listed course. Credit is awarded for one of the following MCBL 121L, BIOL 121L, or MCBL 121LS.	X	X	X	
BIOL / MCBL 122	4 units	Food Microbiology	BIOL 005C; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; BCH 100 or BCH 110A or BCH 110HA; STAT 010; or consent of instructor.	*+Cross-listed course.	*Check Schedule of Classes (this course is not consistently offered).			

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BIOL / MCBL / PLPA 123	4 units	Introduction to Comparative Virology	BIOL 005C; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; BCH 100 or BCH 110A or BCH 110HA; STAT 004, or equivalent; or consent of instructor.	*+Cross-listed course.		X	X	
BIOL / MCBL 124	4 units	Medical Microbiology	BIOL 005C; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; BCH 100 or BCH 110A or BCH 110HA; STAT 010; or consent of instructor.	*+Cross-listed course.		X		
BIOL/ ENTM 127	4 units	Insect Ecology	BIOL 005C; MATH 007B or MATH 009B or MATH 09HB; PHYS 002B or PHYS 02HB; PHYS 02LB or PHYS 02HLB; BCH 100 or BCH 110A or BCH 110HA; STAT 010, or equivalent; or consent of instructor	*+Cross-listed course.		X		
BIOL / CBNS 128	3 units	Immunology	BIOL 005C; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; BCH 100 or BCH 110A or BCH 110HA.	*+Cross-listed course.	X		X	X
BIOL/ BPSC 132	4 units	Plant Anatomy	BIOL 005A and BIOL 005B; BPSC 104 or BIOL 104; or consent of instructor.	*+Cross-listed course.		X		
BIOL/PLPA 134	3 units	Introduction to Mycology	BIOL 005C; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; BCH 100 or BCH 110A or BCH 110HA; STAT 004, or equivalent; or consent of instructor	*+Cross-listed course.	X			
BIOL/PLPA 134L	1 units	Introduction to Mycology Lab	BIOL 005A, BIOL 005B, BIOL 005C, or equivalents; concurrent enrollment in BIOL 134/PLPA 134; or consent of instructor.	*+Cross-listed course.	X			
BIOL/PBSC 138	4 units	Plant Developmental Morphology	BIOL 005C; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; BCH 100, may be taken concurrently or BCH 100H, may be taken concurrently or BCH 110A, may be taken concurrently or BCH 110HA, may be taken concurrently; or consent of instructor	*+Cross-listed course.	*Check Schedule of Classes (this course is not consistently offered).			

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BIOL/BPSC 143	4 units	Plant Physiology	BIOL 005C, MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC, PHYS 02LC or PHYS 02HLC; BCH 100, may be taken concurrently or BCH 100H, may be taken concurrently or BCH 110A, may be taken concurrently or BCH 110HA, may be taken concurrently; BPSC 104 or BIOL 104; or consent of instructor	*+Cross-listed course.	X			
BIOL/BPSC 148	4 units	Quantitative Genetics	BIOL 005C; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC, PHYS 02LC or PHYS 02HLC; STAT 011; BCH 100, may be taken concurrently or BCH 100H, may be taken concurrently or BCH 110A, may be taken concurrently or BCH 110HA, may be taken concurrently; BIOL 102.	*+Cross-listed course.		X		
BIOL 151	5 units	Invertebrate Zoology	BIOL 005A, BIOL 005B, BIOL 005C, PHYS 002A or PHYS 02HA with grades of "C-" or better.		*Check Schedule of Classes (this course is not consistently offered).			
BIOL/GEO 152	4 units	Principles of Invertebrate Paleobiology and Paleoecology	BIOL 005C with a grade of "C-" or better or BIOL 010/GEO 003 with a grade of "C-" or better.	*+Cross-listed course.	X			
BIOL/ENTM 154	4 units	Forensic Entomology	BIOL 005C with a grade of C- or better; restricted to class level standing of sophomore, or junior or senior; or consent of instructor.	*+Cross-listed course.			X	
BIOL/BPSC 155	4 units	Chromosomes	BIOL 005A, BIOL 005B, BIOL 005C, MATH 007B or MATH 009B or MATH 09HB, PHYS 002C or PHYS 02HC, PHYS 02LC or PHYS 02HLC, BCH 100 or BCH 110A or BCH 110HA (BCH 100 or BCH 110A or BCH 110HA may be taken concurrently); or consent of instructor.	*+Cross-listed course.			X	
BIOL 157	4 units	Parasitology	BIOL 005A, BIOL 005B, BIOL 005C, BCH 100 or BCH 100H or BCH 110A; MATH 007B or MATH 009B or MATH 09HB, STAT 010		X			
BIOL 158	4 units	Medical Molecular	BCH 110C or BCH 100HC or BIOL 107A.			X		
BIOL/NEM 159	3 units	Biology of Nematodes	BIOL 005A, BIOL 05LA or BIOL 020, BIOL 005B, BIOL 005C, MATH 007B or MATH 009B or MATH 09HB, PHYS 002C or PHYS 02HC, PHYS 02LC or PHYS 02HLC, BCH 100 or BCH 110A or BCH 110HA, STAT 010.	*+Cross-listed course.	*Check Schedule of Classes (this course is not consistently offered).			

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BIOL 160	4 units	Animal Behavior	BIOL 005A, BIOL 005B, BIOL 005C, and BIOL 102 with grades of "C-" or better; BCH 100 or BCH 100H or BCH 110A or BCH 110HA; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC, PHYS 02LC or PHYS 02HLC; STAT 010		*Check Schedule of Classes (this course is not consistently offered).			
BIOL 160L	1 unit	Laboratory in Animal Behavior	BIOL 160 (may be taken concurrently).		*Check Schedule of Classes (this course is not consistently offered).			
BIOL 161A	5 units	Functional Anatomy of the Vertebrates	BIOL 005A with a grade of C- or better; BIOL 005B with a grade of C- or better; BIOL 005C with a grade of C- or better; CHEM 001C with a grade of C- or better or CHEM 01HC with a grade of C- or better; CHEM 008A with a grade of C- or better or CHEM 08HA with a grade of C- or better; CHEM 08LA with a grade of C- or better or CHEM 08HLA with a grade of C- or better; MATH 007B with a grade of C- or better or MATH 009B with a grade of C- or better or MATH 09HB with a grade of C- or better; PHYS 002A with a grade of C- or better or PHYS 02HA with a grade of C- or better	A combination of BIOL 161A, BIOL 161B, BIOL 171A, BIOL 171B, and BIOL 171L provide a one-year sequence in anatomy and physiology.	X			
BIOL 161B	5 units	Functional Anatomy of the Vertebrates	BIOL 161A with a grade of C- or better; CHEM 008B with a grade of C- or better or CHEM 08HB with a grade of C- or better; CHEM 08LB with a grade of C- or better or CHEM 08HLB with a grade of C- or better; PHYS 002B with a grade of C- or better or PHYS 02HB with a biochemical adaptations to parasitism. Prior knowledge of classical parasitology is not assumed. Students present original research papers during the seminar. BIOL 160 Biology of Nematodes 2 Lecture	A combination of BIOL 161A, BIOL 161B, BIOL 171A, BIOL 171B, and BIOL 171L provides a oneyear sequence in anatomy and physiology.		X		
BIOL/ENTM 162	4 units	Insect Behavior	BIOL 005C with a grade of C- or better or BIOL 100 with a grade of C- or better or ENTM 100 with a grade of C- or better; restricted to class level standing of sophomore, junior, or senior; or consent of instructor	*+Cross-listed course.	X		X	
BIOL 163	5 units	Vertebrate Natural History	BIOL 005B; BIOL 005C; CHEM 001C or CHEM 01HC; MATH 007B or MATH 009B or MATH 09HB.		X			
BIOL/BPSC 165	4 units	Restoration Ecology	BIOL 104 or BPSC 104 or BIOL 116 or ENSC 100; CHEM 008B, CHEM 08LB or CHEM 08HB, CHEM 08HLB; STAT 010, may be taken concurrently; or consent of instructor.	*+Cross-listed course.		X		

Course Number:	Units:	Course Title:	Pre-requisites or Co-requisites:	Important Advising Notes:	Fall:	Winter:	Spring:	Summer:
BIOL 166	4 units	Global Change Biology	Lecture, 3 hours; discussion, 1 hour. Prerequisite(s): BIOL 116 with a grade of C- or better; BCH 100 or BCH 100H or BCH 110A or BCH 110HA; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; STAT 010; or consent of instructor.		X			
BIOL 167	4 units	Forest Ecology	3 Lecture, 2 hours; laboratory, 3 hours. Prerequisite(s): BIOL 116.		X			
BIOL 168	4 units	Developmental Biology	Lecture, 3 hours; discussion, 1 hour. Prerequisite(s): BCH 110C or BCH 110HC or BIOL 107A; a course in cell biology is recommended.		*Check Schedule of Classes (this course is not consistently offered).			
BIOL 169	4 units	Ornithology	BIOL 005C; CHEM 001C or CHEM 01HC; MATH 007B or MATH 009B or MATH 09HB.	Includes over-night field trips to UC field stations.			X	
**BIOL 170	5 units	Herpetology	BIOL 005B; BIOL005C; CHEM 001C or CHEM 01HC; MATH 007B or MATH 009B or MATH 09HB.		*Check Schedule of Classes (this course is not consistently offered).			
BIOL 171A	4 units	Human Anatomy	BIOL 005C; CHEM 001C or CHEM 01HC; CHEM 01LC or CHEM 01HLC; CHEM 008B or CHEM 08HB; CHEM 08LB or CHEM 08HLB; MATH 007B or MATH 009B or MATH 09HB; PHYS 002B or PHYS 02HB; PHYS 02LB or PHYS 02HLB.		X			
BIOL 171B	4 units	Human Physiology 1	Lecture, 3 hours; discussion, 1 hour. Prerequisite(s): BIOL 005A; BIOL 05LA or BIOL 020; BIOL 005B; BIOL 005C; CHEM 001C or CHEM 01HC; CHEM 01LC or CHEM 01HLC; CHEM 008C or CHEM 08HC; CHEM 08LC or CHEM 08HLC; MATH 007B or MATH 009B or MATH 09HB; PHYS 002B or PHYS 02HB;			X		
BIOL 171C	4 units	Human Physiology 2	BIOL 171B.				X	
BIOL 171L		Human Anatomy & Physiology Laboratory	BIOL 171A; BIOL 171B, may be taken concurrently.	A combination of BIOL 161A, BIOL 161B, BIOL 171A, BIOL 171B and BIOL 171L provide a one-year sequence in anatomy and physiology.			X	
**BIOL 172	4 units	Biology of Fishes	BIOL 005B; BIOL 005C; CHEM 001C or CHEM 01HC; MATH 007B or MATH 009B or MATH 09HB.		*Check Schedule of Classes (this course is not consistently offered).			

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BIOL/ENTM 173	4 units	Insect Physiology	Lecture, 3 hours; laboratory, 3 hours. Prerequisite(s): BIOL 005B, BCH 100, may be taken concurrently or BCH 100H, may be taken concurrently; restricted to class level standing of sophomore, junior, or senior; or consent of	*+Cross-listed course.			X	
BIOL 174	4 units	Ecological & Evolutionary Physiology	Lecture, 3 hours; discussion, 1 hour. Prerequisite(s): BIOL 005C; BCH 100 or BCH 100H or BCH 110A or BCH 110HA; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; MATH 007B or MATH 009B or MATH 09HB; STAT 010.			X		
BIOL 175	4 units	Comparative Animal Physiology	Lecture, 3 hours; discussion, 1 hour. Prerequisite(s): BIOL 005C; BIOL 161A; BCH 100 or BCH 100H or BCH 110A or BCH 110HA; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; STAT 010; recommended BIOL 151 and		*Check Schedule of Classes (this course is not consistently offered).			
BIOL 176	4 units	Comparative Biomechanics	BIOL 005C; PHYS 002C or PHYS 02HC or PHYS 040C or PHYS 040HC; BCH 100 or BCH 110A or BCH 110HA.		X			X
BIOL 177	4 units	Exercise Biology	BIOL 005B; or consent of instructor.	Illustrates applications to human health and sports.	*Check Schedule of Classes (this course is not consistently offered).			
BIOL 178	4 units	Hormones & Behavior	BIOL 005C; BCH 100 or BCH 100H or BCH 110A or BCH 110HA; MATH 007B or MATH 009B or MATH 09HB; PHYS 002C or PHYS 02HC; PHYS 02LC or PHYS 02HLC; STAT 010				X	X
BIOL 191	2-4 units	Seminar in Biology	Upper-Division Standing or Consent of Instructor.	Course is Repeatable.	*Check Schedule of Classes (this course is not consistently offered).			
CBNS 101	4 units	Fundamentals of Cell Biology	CHEM 008C and CHEM 08LC or CHEM 08HC and CHEM 08HLC and BCH 100 or BCH 110A or BCH 110HA (BCH 100 or BCH 110A or BCH 110HA may be taken concurrently). y).	Credit is not awarded for CBNS 101 if it has already been awarded for BIOL 113 or BIOL 114.	X	X	X	X
CBNS 106	4 units	Introduction to Neuroscience	BIOL 005A and BIOL 005B with grades of "C-" or better, CHEM 001A, CHEM 001B, CHEM 001C; or consent of instructor		X	X	X	X

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CBNS 108	4 units	Introduction to Developmental Biology	<i>BIOL 102, CHEM 008C and CHEM 08LC or CHEM 08HC and CHEM 08HLC; or consent of instructor</i>				X	X
CBNS / ENTX 150	4 units	Cancer Biology	<i>BCH 110C or BCH 110HC or BIOL 107A or CBNS 101 (may be taken concurrently with consent of instructor)</i>	*+Cross-listed course.			X	X
CBNS 165	4 units	Stem Cell Biology	<i>CBNS 101 or consent of instructor.</i>			X		X
CBNS 169	4 units	Human Embryology	<i>BIOL 005A, BIOL 005B, BIOL 005C or consent of instructor.</i>		*Check Schedule of Classes (this course is not consistently offered).			

* BCH 100: Credit is not awarded for BCH 100 if a grade of "C-" or higher has been awarded perviously in BCH 110A or BCH 110HA or BCH 110B or BCH 110HG or BCH 110C or BCH 100HC.*+Cross-listed Courses: A cross-listed course is when a course (with the same content) is taught under two or more departments. Cross-listed courses usually have the same course number. Refer to the Schedule of Classes for further cross-listed course details (review the course description).

*Schedule subject to change.

**Please check the UCR Schedule of Classes each quarter for official course availability.

-Please refer to the most recent UCR catalog for all up to date curriculum details (registrar.ucr.edu/registering/catalog).

-Students must maintain 2.0 major, quarter, and cumulative GPAs to remain in good standing.

Updated September 15, 2025

