

Advanced Electives List for BioSci B.S.

Prefix	#	Course Title	Skillsets	Credits	Fall	Spring	Summer
ALE	2060	Entomology and Pest Management	---	4	y		
ALE	2120	Weed Ecology & Management	-OW	3	y		
ALE	2170	Plant Pathology (<i>crosslisted w/ PBIO 2170</i>)	-O-	4	y		
ALE	2380	Commercial Plant Propagation	-OW	4		y	
ALE	2430	Forage and Pasture Management	QOW	4	e.o.		
ALE	2540	Composting Ecology and Management	-O-	3			
ALE	2560	Permaculture	-O-	3	y	y	y
ALE	3120	Advanced Agroecology		4	y		
ALE	3320	Biological Control	QOW	3		e.o.	
ALE	3680	Soil Ecology (<i>crosslisted w/ NR 4680</i>)	QOW	4			
ASCI	2110	Animal Anatomy	---	4	y		
ASCI	2120	General Physiology	---	3		y	
ASCI	2180	Applied Animal Health	QOW	3		y	
ASCI	2600	Zoos, Exotics & End. Spp		3	y		
ASCI	2700	SU: Wildlife Health & Conservation		3		y	
ASCI	3040	Advanced Animal Nutrition	Q-W	4		y	
ASCI	3080	Molecular Epidemiology of Infectious Disease	Q--	3		y	
ASCI	3150	Physiology of Reproduction	---	3		y	
ASCI	3180	Endocrinology	-O-	3	e.o.		
ASCI	3200	Lactation Physiology	QOW	3			
ASCI	3600	Adv. Topics: Zoos, Exotics, and Endangered Species	---	3		y	
BCOR	2990	Intermediate Special Topics, or other		variable			
BCOR	3000	Biology in Practice	-OW	1	y	y	
BCOR	4994	Teaching Assistantship	-O*-	1	y	y	
BCOR	2995/3995	Undergraduate Research	Q*-W*	variable	y	y	
BCOR	3990/4990	Advanced Special Topics, or other		variable			
BHSC	3420	Immunology	QO-	3		e.o.	
BHSC	3440	Immunology Lab		1		y	
BHSC	3810	Applied Molecular Biology		3	y		
BHSC	3820	Applied Molecular Biology Lab		1	y		
BIOC	2995	Undergraduate Research		variable	y	y	
BIOC	3001	Fundamentals of Biochemistry	---	3	y	y	y
BIOC	3003	Fundamentals of Biochemistry Lab		1	y		
BIOC	3005	Biochemistry	Q--	3	y		
BIOC	3006	Biochemistry II	-OW	3		y	
BIOC	3007	Biochemistry Lab	QOW	3		y	
BIOC	3030	Adv Biochem Lab: Protein CURE		4	y		
BIOC	3063	Nutritional Biochemistry	---	3		y	
BIOC	3075	Adv. Biochemistry of Human Disease	-O-	3	y		
BIOC	3991	Biotechnology internship		3	y	y	
BIOC	3994	Teaching Assistantship	-O*-	1	y	y	
BIOC	3995	Undergraduate Research		variable	y	y	
BIOL	2100	Soundscapes and Behavior Research	QOW	4			
BIOL	2105	Introduction to Marine Science	-OW	3			
BIOL	2300	Vertebrate Zoology		3	y		
BIOL	2990	Intermediate Special Topics		variable	y	y	
BIOL	2995	Undergraduate Research	QOW	variable	y	y	
BIOL	3100	Plant-Animal Interactions	QOW	3			
BIOL	3105	Community Ecology	QOW	3	y		
BIOL	3130	Behavioral Ecology	Q-W	3			
BIOL	3160	Sociobiology	--W	3	e.o.		
BIOL	3165	Evolution	Q-W	3		y	
BIOL	3200	Topics in Ecology & Evolution		3	y	y	

Prefix	#	Course Title	Skillsets	Credits	Fall	Spring	Summer
BIOL	3400	Topics in General Biology		3	y	y	
BIOL	3500	Neurodevelopment	-O-	3			
BIOL	3505	Neurobiology	-O*-	3		y	
BIOL	3530	Cell Biology and Disease		3	y		
BIOL	3560	Developmental Biology	---	3	y		
BIOL	3565	Developmental Molecular Genetics		3			
BIOL	3600	Topics in Cell and Developmental Biology		3	y	y	
BIOL	3990	Special Topics		variable	y	y	
BIOL	3993	Independent Study	-OW	variable	y	y	
BIOL	3995	Undergraduate Research	QOW	variable	y	y	
BIOL	4070	Sr Seminar in General Biology		1		y	
BIOL	4075	Sr Seminar in Eco and Evo		1		y	
BIOL	4080	Sr Seminar in Cell and Dev		1		y	
BIOL	4245	Mammalogy	QOW	4	y		
BIOL	4260	Population Genetics	QO-	4		y	
BIOL	4400	Comparative Function of Vertebrate Anatomy		4		y	
BIOL	4405	Comparative Physiology	QOW	4	y		
BIOL	4410	Physiology of Global Change	QOW	4		y	
BIOL	4630	Advanced Genetics Laboratory		4	y	y	
BIOL	4635	Advanced Genetics & Proteomics Laboratory	QOW	4			
BIOL	4990	Special Topics		variable	y	y	
BIOL	4994	Teaching Assistantship		variable	y	y	
BIOL	4996	Honors: Biology (Thesis Research)	QOW	variable	y	y	
BIOL	6100	Computational Biology	Q--	4		y	
BME	3340	Computational Systems Biology	Q--	3		y	
CSD	3810	Intro Cognitive Neuroscience	-O*-	3	y		y
ENSC	2480	Global Environmental Change		3			
ENSC	2490	Climate Change II	-O-	1 or 3	y		
ENSC	4010	Recovery and Restoration of Altered Ecosystems		4	y	y	y
ENSC	4740	SU: Climate Change: Science & Perception		3		e.o.	
FOR	2570	Wildland Fire		3	y	y	
FOR	3230	Multi-Resource Silviculture	QOW	4	y		
FOR	3350	Forest Ecosystem Health	QO-	3	y	y	
GEOG	2250	Global Environmental Change		3		y	
GEOG	3250	Topics in Global Change		3			
MLS	3200	Hematology	QOW	4	y		
MLS	3300	Clinical Microbiology II	Q-W	3	y		
MMG	2010	Microbiology and Infectious Diseases	Q-W	4	y		
MMG	2040	Intro Molecular Genetics	QO-	3		y	
MMG	2060	Intro Biomedical Research Methods		3		y	
MMG	2993	Independent Study		variable	y	y	
MMG	2994	Teaching Assistantship		variable	y	y	
MMG	2995	Undergraduate Research	QOW	variable	y	y	
MMG	3010	Applied Cell & Molec Bio lab	QOW	4	y		
MMG	3110	Bacterial Genetics	QOW	3	y		
MMG	3200	Environmental Microbiology	-OW	3		e.o.	
MMG	3210	Advanced Medical Microbiology	--W	3		y	
MMG	3220	Advanced Medical Microbiology w/ Lab	--W	4		y	
MMG	3230	Immunology	--W*	3		e.o.	
MMG	3250	Eukaryotic Virology	---	3	e.o.		
MMG	3270	Cancer Genetics		3		y	
MMG	3300	Adv. Studies in Emerging Infectious Diseases	-OW	3	e.o.		
MMG	3310	Survey of Bioinformatic databases	Q--	3	y		

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MMG	3320	QR: Advanced Bioinformatics	QOW	3		e.o.	
MMG	3330	Genetics and Genomics	QO-	3	y		
MMG	3350	Bioterrorism		3		y	
MMG	3990	Special Topics		variable	y	y	
MMG	3993	Independent Study		variable	y	y	
MMG	3994	Teaching Assistantship		variable	y	y	
MMG	3995	Undergraduate Research	QOW	variable	y	y	
MMG	4990	Adv. Special Topics, as appropriate		variable	y	y	
NSCI	2105	Exploring Neuroscience	-O-	3	y	y	
NSCI	2100	Exploring Neuroscience w/ Lab	Q-W	4	y	y	
NSCI	3220	Cellular Neurophysiology	QOW	3			
NSCI	3230	Neurochemistry		3			
NSCI	3250	Human Neuroanatomy	---	3		y	
NSCI	3500	Neuroregeneration	-OW	3		y	
NSCI	4500	Diseases of the Nervous System	-OW	3	y	y	
NFS	2114	Human Health in the Food System		3		y	
NFS	2143	Nutrition in the Lifecycle	QO-	3	y		y
NFS	2153	Principles of Food Technology		3		y	
NFS	2163	Sports Nutrition	QOW	3	y	y	
NFS	2195	Foods for Planetary Health	QOW	3		y	
NFS	2196	Foods for Planetary Health Lab		1		y	
NFS	3203	Food Microbiology	-OW	3	y		e.o.
NFS	3204	Food Microbiology Lab	Q-W	1	y		
NFS	3243	Advanced Nutrition	QOW	3		y	y
NFS	3254	Global Food Safety	-OW	3		y	
NR	4680	Soil Ecology (<i>crosslisted w/ ALE 3680</i>)	QO*W	4			
PATH	2010	Intro to Human Disease		3	y		
PHRM	3000	Medical Cannabis	--W	3		y	
PHRM	3010	Pharmacology & Therapeutics	Q-W	3	y		
PHRM	3720	Toxicology	---	3		y	
PHRM	3900	Topics in Molecular and Cellular Pharmacology	Q*-W*	3		y	
PHRM	5400	Molecules and Medicine	-O-	3	y		
PBIO	2040	Plant Physiology	Q-W	4		y	
PBIO	2080	Morphology & Evolution of Vascular Plants	--W	4			
PBIO	2090	Plant Systematics	---	4	y		
PBIO	2170	Plant Pathology (<i>crosslisted w/ ALE</i>)	-O-	4	y		
PBIO	2330	SU: How Plants Can Save the World	Q*OW	3	y		
PBIO	2440	Nature-based Climate Solutions		3		y	
PBIO	2510	Plant Anatomy		3			
PBIO	2770	Biology of Fungi	-O-	4	y		y
PBIO	2890	Ecuador: Natural History		3		y	
PBIO	2990	Special Topics		variable	y	y	
PBIO	2993	Independent Study		variable	y	y	
PBIO	2994	Teaching Assistantship		variable	y	y	
PBIO	2995	Undergraduate Research		variable	y	y	
PBIO	3090	Biology of Ferns	-OW	3			
PBIO	3220	Ecological Invasions		3			
PBIO	3320	Plant Systematics in Costa Rica	-O-	1		e.o.	
PBIO	3410	Tropical Plant Systematics	-OW	3			
PBIO	3440	Community Climate Solutions		3			y
PBIO	3750	Global Change Ecology		3			y
PBIO	3880	Evolution of Development	-OW	3		y	
PBIO	3940	Modeling of Ecological Systems		3			

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PBIO	3990	Special Topics		variable	y	y	
PBIO	3993	Independent Study		variable	y	y	
PBIO	3994	Teaching Assistantship		variable	y	y	
PBIO	3995	Undergraduate Research		variable	y	y	
PBIO	4996	Honors: Plant Biology	QOW	variable	y	y	
PBIO	5220	Ecology of Invasive Species		3		y	
PBIO	5940	QR: Ecological Modeling	Q--	3			
PSYS	2200	Biopsychology	---	3	y	y	y
PSYS	3200	Physiological Psychology w/lab	-OW	4			
PSYS	3202	Physiological Psychology	-OW	3			
PSYS	3205	Hormones and Behavior	OW	3	e.o.		
PSYS	3210	Behavioral Genetics	-OW	3		y	
PSYS	3250	Psychopharmacology	-OW	3	y	y	y
SEP	4200	Landscape Ecology	QOW	3	e.o.		
SEP	4280	Ecosystem Ecology		3			
SEP	4500	Limnology	QOW	4	y		
SEP	4800	Stream Ecology	QOW	4		y	
STAT	3000	Medical Biostatistics & Epidemiology	QOW	3	y	y	
WFB	2300	Ornithology	---	3		y	
WFB	2310	Field Ornithology	---	2			y
WFB	2410	Field Herpetology	QOW	4		y	
WFB	2740	Principles of Wildlife Management	Q-W	3	y		
WFB	3100	Wildlife Disease Ecology		3	y		
WFB	3240	Conservation Biology	Q-W	4		y	y
WFB	3610	Fisheries Biology and Techniques	Q-W	4	y		
WFB	4320	Ichthyology	--W	3		e.o.	
WFB	4610	Fisheries Management	QOW	3		e.o.	
WFB	4750	Wildlife Behavior	Q-W	3	y		
WFB	4830	Terrestrial Wildlife Ecology	QOW	4		y	