

## Applied Biology Electives

**Choose a minimum of 21 credits, with one course from each of the following seven subgroups:**

<b>Animal Production</b>				
<b>Course</b>	<b>Title</b>	<b>Credits</b>	<b>Prerequisite</b>	<b>Typically Offered</b>
ANS 3006	Introduction to Animal Science	3	None	Fall, Spring, Sum C
ANS 3006L	Introduction to Animal Science Laboratory	1	ANS 3006 concurrent or completed	Fall, Spring, Sum C
ANS 3440	Principles of Animal Nutrition	4	CHM 2045 and 2045L	Fall, Spring, Sum C
ENY 4573	Beekeeping	3	Junior Standing	Fall, Spring, Summer
FAS 4405	Aquariums, Water and Aquaculture	3	BSC 2010 and 2010L	Spring
<b>Plant Production</b>				
AGR 4214C	Applied Field Crop Production	3	None	Spring
AGR 4231C	Forage Science and Range Management	4	None	Spring
AGR 4512	Physiology and Ecology of Crops	3	AGR 3303	Spring
FOR 3004	Forests, Conservation and People	3	None	Fall
FRC 3252	Tropical and Subtropical Fruits	2	None	Fall even years
FRC 3274	Tree and Small Fruit Production	3	None	Fall odd years
HOS 3020	Principles of Horticulture Crop Production	3	None	Fall
HOS 3222C	Greenhouse and Protected Agriculture	3	None	Spring even years
HOS 3281C	Organic and Sustainable Crop Production	3	None	Fall
PLS 3004C	Principles of Plant Science	3	BOT 2010C or BSC 2010	Fall, Summer B
PLS 3223	Plant Propagation	2	BOT 2010C or BSC 2010; PLS 3223L concurrent	Fall, Spring, Sum C
PLS 3223L	Plant Propagation Laboratory	1	BOT 2010C or BSC 2010	Fall, Spring, Sum C
VEC 3221C	Vegetable Production	4	None	Fall
<b>Food Science and Human Nutrition</b>				
FOS 3042	Introductory Food Science	3	None	Fall, Spring, Sum A
FOS 4202	Food Safety and Sanitation	2	MCB 2000 and 2000L	Fall
FOS 4222	Food Microbiology	3	MCB 2000 or MCB3020	Spring
FOS 4321C	Food Analysis	4	(CHM 2200 and 2200L) or (CHM 2210 and 2211 and 2211L)	Fall
FOS 4731	Government Regulations & the Food Industry	2	FOS 3042	Spring
HUN 2201	Fundamentals of Human Nutrition	3	BSC 2005 or BSC 2010 or CHM 1025 or CHM 2045 or APK 2100C or APK 2105C	Fall, Spring, Sum B
HUN 3403	Nutrition Through the Life Cycle	2	HUN 2201	Fall, Spring, Sum A
<b>Pest Management</b>				
ENY 3005 & 3005L	Principles of Entomology and Laboratory	3	None	Fall, Spring, Summer
ENY 3222C	Biology and Identification of Urban Pests	3	ENY3005 and 3005L	Fall, Summer C
ENY 3225C	Principles of Urban Pest Management	3	ENY3005 and 3005L	Spring
ENY 3228	Urban Vertebrate Pest Management	2	None	Spring
ENY 3510C	Turf and Ornamental Entomology	3	None	Fall
IPM 3022	Fundamentals of Pest Management	3	None	Spring
PCB 2441	Biological Invaders	3	None	Fall
PLS 4601C	Principles of Weed Science	3	None	Fall
PLP 3002C	Fundamentals of Plant Pathology	4	BOT 2010C or BSC 2010	Fall
PLS 4613	Aquatic Weed Control	3	Department permission	
<b>Natural Resource Management</b>				
ALS 3153	Agricultural Ecology	3	None	Fall, Spring
ALS 3133	Agricultural and Environmental Quality	3	None	Fall, Spring
EVS 3000	Environmental Science	3	CHM 2045	Fall, Spring
EES 3008	Energy and Environment	3	None	Fall
FAS 4305C	Introduction to Fishery Science	3	Department permission	Spring
FOR 4854	Agroforestry	3	Senior standing	
SWS 3022	Introduction to Soils in the Environment	3	None	Fall, Spring
SWS 4207	Sustainable Agricultural and Urban Land Mngt	3	SWS 3022	Fall
SWS 4233	Soil and Water Conservation	3	None	Summer C
SWS 4800	Environmental Soil and Water Monitoring	3	BSC 2010 and 2010L and CHM 2045 and 2045L	Summer C
WIS 3401	Wildlife Ecology and Management	3	BSC 2011 and 2011L	Fall, Spring
WIS 4427C	Wildlife Habitat Management	3	WIS 3401	Spring
<b>Biological Monitoring and Assessment</b>				
AOM 4434	Precision Agriculture	3	Junior standing	Spring
FNR 3410C	Natural Resources Sampling	3	STA 2023	Fall
FOR 3430C	Forest Mensuration	3	FNR 3410C	Fall, Spring
FOR 3434C	Forest Resource Information Systems	3	None	Summer B
ORH 4242C	Arboriculture	4	ORH 3513C	Spring even years
PMA 4570C	Field Techniques in IPM	2	IPM 3022	Summer B
SUR 3103C	Geomatics	3	MAC 1147	Fall, Spring
SWS 4233	Soil and Water Conservation	3	None	Summer C
<b>Molecular Biology and Genetics</b>				
AGR 4320	Plant Breeding	3	AGR 3303 or PCB 3063	Spring
AGR 4304	Plant Chromosomes and Genomes	3	AGR 3303 or PCB 3063	
ANS 3384C	Genetics of Domestic Animals	3	ANS 3006 and BSC 2011 and 2011L	Spring, Summer B
HOS 3305	Introduction to Plant Molecular Biology	3	APB 2150 or BOT 2010C or BSC 2010	Fall
MCB 4304	Genetics of Microorganisms	3	MCB 3020 and 3020L with C or better	Fall
PCB 4522	Molecular Genetics	3	BSC 2010 and 2010L with C or better	Spring, Summer C
PLS 4242C	Micropropagation of Horticultural Crops	4	ORH 3513C recommended	Spring
WIS 3553C	Introduction to Conservation Genetics	4	STA 2023 and (FOR 3153C or PCB 3601C)	Spring