

ANS SPECIES SPECIALIZATIONS:

Please Note: ALL Species and Disciplinary Focus Specializations must be approved by Faculty Advisor.

For students interested in the Disciplinary Focus Specializations, please contact the Advising Center at asac@ucdavis.edu for course suggestions or visit our website <https://animalscience.ucdavis.edu>.

Disciplinary Focus Specialization options: Behavior, Biochemistry, Genetics, Nutrition, Physiology.

LIVESTOCK AND DAIRY (20 units minimum)

Course	Prerequisites	Units	Quarter	Title
ANS 112	ANS 1 or BIS 2B, (STA 100 or PLS 120 rec.)	3	S	Sustainable Animal Agriculture (GE SS)
ANS 113	ANS 2 or consent	2	W (odd years)	Meat Safety & Hazard Analysis & Critical Control Points
ANS 120	ANS 2 or consent	3	W	Principles of Meat Science
ANS 120L	ANS 2 or consent; ANS 120 (conc. ok)	2	W	Meat Science Laboratory
ANS 129	BIS 2ABC, CHE 2AB, CHE 8AB	3	W (odd years)	Environmental Stewardship in Animal Production Systems
ANS 143	ANS 41, NUT 115, ANS 100/NPB 101	4	F (odd years)	Pig and Poultry Care and Management
ANS 144	ANS 41, NUT 115 or consent (ANG 107 rec)	4	S	Beef Cattle and Sheep Production
ANS 146	NUT 115, or consent	5	S	Dairy Cattle Production
ANS 148	Upper division standing	4	S	Enterprise Analysis in Animal Industries
NUT 115/140	CHE 8B/118B or consent	4	W, S	Animal Feeds and Nutrition

EQUINE SCIENCE (20 units minimum)

Course	Prerequisites	Units	Quarter	Title
ANS 15	None	3	W	Introductory Horse Husbandry
ANS 108	None	3	W	Equine Behavior and Welfare
ANS 115	ANS 15, BIS 101, ANS 100/NPB 101 and any upper division NUT course	4	F	Advanced Horse Production
ANS 125	ANS 100/NPB 101	3	W (odd years)	Equine Exercise Physiology
ANS 126	ANS 15, NUT 115	3	W (even years)	Equine Nutrition
ANS 127	ANS 100/NPB 101, ANS 115	3	S	Advanced Equine Reproduction
ANS 141	ANS 115, (ECN 1AB rec)	4	S	Equine Enterprise Management (GE SS)
ANG 105	ANS 15, BIS 101	3	W (odd years)	Horse Genetics
NUT 115/140	CHE 8B/118B or consent	4	W, S	Animal Nutrition

LABORATORY ANIMALS (23 units minimum)

Course	Prerequisites	Units	Quarter	Title
ANS 42	None	4	W	Introductory Companion Animal Biology
ANS 103	ANS 104 or NPB 102 or equivalent	4	W	Animal Welfare
ANS 104	ANS 2 or BIS 2B	4	F, S	Principles and Applications of Domestic Animal Behavior
ANS 140	ANS 100/NPB 101	4	F	Management of Laboratory Animals
NPB 102	BIS 2ABC	3	F, W, SuI	Animal Behavior
NPB 123	BIS 2AB	4	F	Comparative Vertebrate Organology

COMPANION AND CAPTIVE ANIMALS (20 units minimum)

Course	Prerequisites	Units	Quarter	Title
ANG 185	Upper Division Standing	1	S	The Science of Captive Breeding and Reintroduction
ANS 42	None	4	W	Introductory Companion Animal Biology
ANS 142	ANS 42, BIS 101, ANS 100/NPB 101, (ABI 103 rec.)	4	F	Companion Animal Care and Management
ANS 104	ANS 2 or BIS 2B	4	F, S	Principles and Applications of Domestic Animal Behavior
ANS 107	BIS 2B	3	SuII	Zoo Biology and Research
ANT 154A	ANT 1 or ANT 54 or EVE 10 rec.	5	F	The Evolution of Primate Behavior
ANT 154C	ANT 54 or ANT 154A or NPB 102, STA 100, and ANT 154CL (conc. ok)	2	S	Primate Behavior: Methods & Experimental Design
ANT 155	ANT 1 or ANT 54 rec.	4	S	Primate Conservation Biology
NUT 115/140	CHE 8B/118B or consent	4	W, S	Animal Nutrition
NUT 142	ABI 102, ANS 42, (NUT 115 rec.)	4	S	Companion Animal Nutrition
PHR 106	Upper Division Standing	2	W	Human-Animal Interactions: Benefits and Issues
VME 158	BIS 2ABC, (EVE 100 rec.)	3	W, S	Disease Ecology
WFC 110	BIS 2ABC; EVE 101 or ESP 100	3	S	Biology and Conservation of Wild Animals
WFC 110L	WFC110 (conc. ok)	3	S	Laboratory in Biology and Conservation of Wild Animals
WFC 134	BIS2ABC (EVE 101 or ESP 100 recommended)	3	W	Herpetology
WFC 134L	WFC 134 (conc. ok)	3	W	Herpetology Lab

AQUATIC ANIMALS (20 units minimum)

Course	Prerequisites	Units	Quarter	Title
ANS 18	None	4	F	Introductory Aquaculture
ABT 161	BIS 2B, CHE 2B, MAT 16B	3	W (even years)	Water Quality Management for Aquaculture
ENT 116	BIS 2B or equivalent	3	S	Freshwater Macroinvertebrates
ESP 116N	GEL 001 or GEL 002 or GEL 016 or GEL 050	3	W	Oceanography
ESP 155	BIS 2A (ESP 100 or EVE 101 rec.)	4	F	Wetland Ecology
ETX 120	BIS 2A, CHE 8B	4	W (odd years)	Perspectives in Aquatic Toxicology
EVE 112L	BIS 1B or BIS 2BC, EVE 112 (conc. ok)	2	W (even years)	Biology of Invertebrates Laboratory
EVE 115	BIS 2B, ESP 100/EVE 101	4	W (odd years)	Marine Ecology
NPB 123	BIS 2AB	4	F	Comparative Vertebrate Organology
MCB 150	BIS 101	4	W	Developmental Biology

**Students interested in fulfilling the Aquatic Animals specialization through the Bodega Bay Marine Laboratory may visit their undergraduate course website for more information: <http://bml.ucdavis.edu/education/courses/>

AVIAN SCIENCES (20 units minimum)

Course	Prerequisites	Units	Quarter	Title
AVS 13	Lower Division Students Only	3	F	Birds, Humans, and the Environment
AVS 115	BIS 2A	3	SuI	Raptor Biology
NPB 102	BIS 2ABC	3	F, W, SuI	Animal Behavior
WFC 111	BIS 2ABC (upper division ecology course rec.)	3	F	Biology and Conservation of Wild Birds
WFC 111L	WFC 111 (conc ok)	3	F	Laboratory in Biology and Conservation of Wild Birds
WFC 136	WFC 111 (WFC 111L rec.)	4	W (even years)	Ecology of Waterfowl and Game Birds

POULTRY (20 units minimum)

Course	Prerequisites	Units	Quarter	Title
AVS 13	Lower Division Students Only	3	F	Birds, Humans, and the Environment
ANS 113	ANS 2 or consent	2	W	Meat Safety & Hazard Analysis & Critical Control Points
ANS 143	NUT 115, ANS 100/NPB 101	4	F odd	Pig and Poultry Care and Management
ANS 120	ANS 2 or consent	3	W	Principles of Meat Science
ANS 120L	ANS 2 or consent; ANS 120 (conc. ok)	2	W	Meat Science Laboratory
WFC 136	WFC 111 (WFC 111L rec.)	4	W (even years)	Ecology of Waterfowl and Game Birds

COURSES THAT MAY BE USED TOWARDS ANY SPECIALIZATION:**

Course	Prerequisites	Units	Quarter	Title
ANS 103	ANS 104 or NPB 102	4	W	Animal Welfare
ANS 104	ANS 2 or BIS 2B	4	F, S	Principles and Applications of Domestic Animal Behavior
ANS 112	ANS 1 or BIS 2B, (STA 100 or PLS 120 rec)	3	S	Sustainable Animal Agriculture (GE SS)
ANS 120	ANS 2 or consent	3	W	Principles of Meat Science
ANS 120L	ANS 2 or consent, ANS120 (conc. ok)	2	W	Meat Science Laboratory
ANS 128	Upper Div. Standing, PLS 21 or ECS 15	4	W	Agricultural Applications of Linear Programming
ANS 129	BIS 2ABC, CHE 2AB, CHE 8AB	3	W (odd years)	Environmental Stewardship in Animal Production Systems
ANS 148	Upper division standing	4	S	Enterprise Analysis in Animal Industries (GE SS)
ANS 150	ANS 2 rec.	4	S	Health and Disease Issues in Animals
ANS 170	Writing course	4	F, S	Ethics of Animal Use (GE SS)
EVE 107	BIS 2B	4	F (odd years)	Animal Communication
EVE 181	BIS 2B, BIS 2C (conc. ok)	4	F	Ecology and Evolution of Plant-Animal Interactions
NPB 102	BIS 2ABC	3	F, W, SuI	Animal Behavior
NPB 123	BIS 2AB	4	F	Comparative Vertebrate Organology
NPB 152	ANS 100/NPB 101, 102	3	S, Su I	Hormones and Behavior
NUT 115/140	CHE 8B/118B or consent	4	W, S	Animal Feeds and Nutrition
NUT 141	ABI 103 and NUT 115	4	S	Comparative Nutrition and Metabolism
PMI 126	ABI 102/BIS 102 or consent	3	W	Fundamentals of Immunology
PMI 127	Microbiology course w/lab	3	S	Medical Bacteria and Fungi
PMI 128	BIS 102 or ABI 102	3	S	Biology of Animal Viruses
VMB 101V, 101Y	Upper Div. Standing, BIS 2ABC, CHE 8AB	3	F, S	Principles of Pharmacology and Toxicology
VME 158	BIS 2ABC	3	W, S	Infectious Disease in Ecology and Conservation
WFC 160	BIS 2ABC	3	W (odd years)	Animal Coloration

****All specialization courses must be approved by your assigned Faculty Advisor.**