

# ANIMAL SCIENCE CURRICULUM – 2003-2005

## Advisor Approved Career Elective Areas (20 - 28 units)

### Note:

A minimum of 60 units of 300/400 level must be taken to graduate.

Pre-Veterinary Medicine		UNITS
<b>RECOMMENDED CORE:</b>		
Biology of Animals	BIO 153	5
General Chemistry	CHEM 128	4
General Chemistry	CHEM 129	4
Organic Chemistry II	CHEM 317	5
Survey of Biochemistry & Biotechnology <b>OR</b>		
Biochemical Principles	*CHEM 313 <b>OR</b> *CHEM 371	5
Metabolism	CHEM 372	3
Microbiology	MCRO 221 <b>OR</b> MCRO 224 & 225	4/5,5
College Physics	PHYS 121	4
College Physics	PHYS 122	4
Systemic Animal Physiology	*VS 438	4
Vertebrate Development	ZOO 405	5
<b>Directed Electives:</b>		
Equine Reproduction	*ASCI 333	5
Internship in Animal Science	ASCI 339	6
Animal Nutrition	ASCI 420	3
Biology of Plants and Fungi	BIO 152	5
Biochemistry Laboratory	CHEM 374	2
Artificial Insemination & Embryo Biotechnology	*DSCI 330	4
Poultry Immunology and Diseases	PM X340	4
Applied Statistics for the Life Sciences	*STAT 218	4
Animal Parasitology	VS 203	3
Production Medicine	VS 312	3
Zoonoses and Veterinary Public Health Concerns	VS 320	4
*These classes may be used to satisfy courses in GE & B or major categories. They cannot be double-counted.		

Graduate School		UNITS
<b>RECOMMENDED CORE:</b>		
Applied Biotechnology in Animal Science	ASCI 403	5
Domestic Livestock Endocrinology	*ASCI 405	4
Biology of Animals	BIO 153	5
Principles of Genetics	*BIO 351	5
General Chemistry	CHEM 128	4
General Chemistry	CHEM 129	4
Organic Chemistry II	CHEM 317	5
Biochemical Principles	*CHEM 371	5
Applied Exper. Design & Regression Models	STAT 313	4
Systemic Animal Physiology	*VS 438	4
<b>Directed Electives:</b>		
Applied Animal Embryology	*ASCI 406	5
Animal Nutrition	*ASCI 420	3
Organic Chemistry III	CHEM 318	3
Metabolism	CHEM 372	3
Calculus for the Life Sciences I	MATH 161	4
Microbiology	MCRO 221 <b>OR</b> MCRO 224 & 225	4/5,5
College Physics	PHYS 121	4
College Physics	PHYS 122	4
College Physics	PHYS 123	4
*These classes may be used to satisfy courses in GE & B or major categories. They cannot be double-counted.		

Biotechnology		UNITS
<b>RECOMMENDED CORE:</b>		
Applied Biotechnology in Animal Science	*ASCI 403	5
Domestic Livestock Endocrinology	*ASCI 405	4
Applied Animal Embryology	*ASCI 406	5
Principles of Genetics	*BIO 351	5
Molecular Biology Laboratory	CHEM 375	2
Protein Techniques Laboratory	CHEM 474	2
Microbiology	MCRO 221	4
Orientation to Biotechnology	SCM 201	1
<b>Directed Electives:</b>		
Internship in Animal Science	ASCI 339	6
Animal Nutrition	*ASCI 420	3
Bioinformatics Applications	BIO 447	4
General Chemistry	CHEM 128	4
General Chemistry	CHEM 129	4
Survey of Biochemistry & Biotechnology <b>OR</b>		
Biochemical Principles	*CHEM 313 <b>OR</b> *CHEM 371	5
Organic Chemistry II	CHEM 317	5
Bioinformatics Algorithms	CSC 448	4
Industrial Microbiology and Biotechnology	MCRO 433	5
*These classes may be used to satisfy courses in GE & B or major categories. They cannot be double-counted.		

Livestock Production		UNITS
<b>RECOMMENDED CORE:</b>		
Farm Records/Fin Actg for Nonbus Maj	AGB 321/BUS 212	4
Livestock Evaluation	ASCI 226	3
Principles of Range Management	ASCI 329	3
ASCI 290/490 (Enterprise) or ASCI 339 (Internship)		6
Introductory Soil Science	SS 121	4
Production Medicine	VS 312	3
<b>Directed Electives:</b>		
Introduction to Agribusiness	AGB 101	4
Principles of Farm Management	AGB 322	4
Meat Grading and Evaluation	ASCI 216	2
Advanced Livestock Evaluation	ASCI 326	2
Equine Reproduction	ASCI 333	5
Equine and Human Communication	ASCI 344	3
Equine Behavior Modification	ASCI 345	5
Processed Meat Products	ASCI 384	4
Survey of Biochemistry and Biotechnology	CHEM 313	5
Forage Crops	CRSC 123	4
General Dairy Husbandry	DSCI 230	4
Artificial Insemination and Embryo Biotechnology	DSCI 330	4
Environmental Management	FNR 202	3
Natural Resource Ecology and Habitat Mgmt	FNR 306	4
Resource Recreation Management	FNR 410	4
Watershed Management and Restoration	FNR 419	4
Agricultural Entomology	PPSC 311	4
Foreign Language (4 units - option with advisor approval)		4

<b>Equine Science Minor</b>		UNITS
<b>REQUIRED COURSES:</b>		
Principles of Animal Science	ASCI 102	4
Introductory Animal Nutrition and Feeding	ASCI 220	4
Equine Science	ASCI 224	4
Equine Biomechanics <b>OR</b> Equine Exercise Physiology	ASCI 315 <b>OR</b> 347	4/3
Equine Nutrition	ASCI 346	3
Equine Reproduction Physiology	ASCI 333	5
<b>Selected Courses (6-9 units)</b>		
Select 6-9 units from the following:		
ASCI 324, 329, 333, 339/490, 344, 345, 347; AGB 303, 321		
<b>Must enroll in minor with the Animal Science Department.</b>		

<b>Agricultural Communication Minor</b>		UNITS
<b>REQUIRED COURSES:</b>		
Agricultural Leadership	AGED 404	3
News Writing and Reporting	JOUR 203	4
Agricultural Communications	JOUR 205	4
Business and Professional Communication	SCOM 301	4
<b>Elective Area (15 units):</b>		
College of Agriculture Majors:		
Selected from advisor approved list. Minimum of 10 units must be at 300-400 level; two courses must be selected from JOUR, SCOM, ENGL.		
(See page 103 of the 2003/2005 Cal Poly Catalog.)		
<b>Must enroll in minor with the Brock Center for Agricultural Communication.</b>		

<b>Meat Science and Processing Minor</b>		UNITS
<b>REQUIRED COURSES:</b>		
Meats	ASCI 211	3
Processed Meat Products <b>OR</b> Egg and Poultry Meat Processing	ASCI 384 <b>OR</b> PM 320	4
HACCP for Meat and Poultry Operations	ASCI 415	3
Microbiology	MCRO 221	4
<b>Selected Courses (13 – 16 units):</b>		
6 units must be at upper-division level:		
ASCI 102/231, 226, 290/490, 339, 450, 476; FSN 125/230, 278, 364; MCRO 421, 444; AG 360; any upper-division AGB course		
<b>Must enroll in minor with the Animal Science Department.</b>		

<b>Poultry Management Minor</b>		UNITS
<b>REQUIRED COURSES:</b>		
Applied Nonruminant Nutrition	ASCI 350	4
Introduction to Poultry Management	PM 225	4
Egg and Poultry Meat Processing	PM 320	4
Poultry Production Management	PM 330	4
Poultry Immunology and Diseases	PM X340	4
Poultry Business Management	PM 345	4
<b>Electives (4 units):</b>		
To be chosen from:		
AGB 310; ASCI 339, 415; BUS 212, 346; ENGL 310; FSN 275, 278, 323, 334, 335; PM 290/490, 360		
<b>Must enroll in minor with the Animal Science Department.</b>		

<b>Rangeland Resources Minor</b>		UNITS
<b>Range Resource Area. Select two: (7 units)</b>		
Principles of Range Management	ASCI 329	3
Holistic Management	AG 360	4
<b>Related Animal Area. Select one: (4 units)</b>		
Introduction to Beef Production	ASCI 221	4
Systems of Sheep Management	ASCI 223	4
Advanced Beef Cattle System Management	ASCI 311	4
<b>Related Agricultural Business Area. Select one: (4 units)</b>		
Agricultural Economics	AGB 212	4
Farm Records	AGB 321	4
Farm Appraisal	AGB 326	4
Livestock Management Problems	AGB 457	4
<b>Related Plant Area. Select one: (4 units)</b>		
Plant Physiology	BIO 435	4
Taxonomy of Vascular Plants	BOT 313	4
Plant Ecology	BOT 326	4
Field Botony	BOT 333	4
Advanced Forage Crop Production	CRSC 330	4
Weed Ecology	PPSC 321	4
<b>Related Resource Management Area. Select one: (3-4 units)</b>		
General Ecology	BIO 325	4
Ecological Methodology	BIO 419	4
Wildlife Management	BIO 427	4
Natural Resource Ecology & Habitat Management	FNR 306	4
Water Resource Law and Policy	FNR 408	3
Applications in GIS	FNR/GEOG/LA 318	3
<b>Related Soil Science Area. Select one: (3-4 units)</b>		
Soil Erosion and Water Conservation	SS 202	4
Soil Morphology	SS 321	4
Land Use Planning	SS 433	3
Forest and Range Soils	SS 440	4
(See page 104 of the 2003/2005 Cal Poly Catalog.)		
<b>Must enroll in minor with the Animal Science Department OR the Earth and Soil Sciences Department.</b>		

<b>Zoo and Exotic Animal Care</b>		UNITS
<b>RECOMMENDED CORE:</b>		
Biology of Animals	BIO 153	5
Wildlife Conservation Biology	BIO 227	4
Microbiology	MCRO 221	4
Special Problems/Internship (Zoo Experience)	VS 200/ASCI 339	4-6
<b>Directed Electives:</b>		
Animal Diversity and Ecology	BIO 113	4
Wildlife Biology Methods	BIO 327	5
Principles of Genetics	BIO 351	5
Production Medicine	VS 312	3
Mammalogy	ZOO 321	4
Ornithology	ZOO 323	4
Herpetology	ZOO 341	4
Parasitology	ZOO 425	4
Animal Behavior	ZOO 437	4

<b>Agribusiness Minor</b>		UNITS
<b>REQUIRED COURSES:</b>		
Agricultural Economics	AGB 212	4
Food and Fiber Marketing	AGB 301	4
Agribusiness Credit and Finance	AGB 310	4
Farm Records/Fin Actg for Nonbus Majors	AGB 321/BUS 212	4
Managing Cultural Diversity in Ag Labor Relations	AGB 401	4
<b>Additional Courses</b>		
Student will choose 8 additional units of AGB courses (not including AGB 101, 200, 339, 400) with prior approval of AGB Minor Coordinator.		
(See page 112 of the 2003/2005 Cal Poly Catalog.)		
<b>Must enroll in minor with the Agribusiness Department.</b>		