

MAJOR IN EQUINE SCIENCE

Requirements Effective Fall 2023

A minimum grade of "C" (2.00) is required for each of the ANEQ courses which are required to complete the major.

A maximum of five credits is allowed for ANEQ 352, ANEQ 353, ANEQ 354, ANEQ 355, ANEQ 356, ANEQ 357, ANEQ 361, ANEQ 362, ANEQ 363, and ANEQ 364. A maximum of twelve credits is allowed for any combination of the following: ANEQ 352, ANEQ 353, ANEQ 354, ANEQ 355, ANEQ 356, ANEQ 357, ANEQ 361, ANEQ 362, ANEQ 363, ANEQ 364, ANEQ 384, ANEQ 487B, ANEQ 495, and ANEQ 496.

Freshman

		AUCC	Credits
ANEQ 102	Introduction to Equine Science		4
Select one course from the following:			1-4
ANEQ 105	Introduction to Large Animal Anatomy		
BMS 305	Domestic Animal Gross Anatomy		
ANEQ 115	Applied Equine Behavior		2
ANEQ 193	Student Seminar--Exploring Student Success		1
ANEQ 292	Equine Industry Seminar		1
CO 150	College Composition (GT-CO2)	1A	3
CS 110	Personal Computing		4
LIFE 102	Attributes of Living Systems (GT-SC1)	3A	4
Select one group from the following:			5
Group A:			
CHEM 107	Fundamentals of Chemistry (GT-SC2)	3A	
CHEM 108	Fundamentals of Chemistry Laboratory (GT-SC1)	3A	
Group B:			
CHEM 111	General Chemistry I (GT-SC2)	3A	
CHEM 112	General Chemistry Lab I (GT-SC1)	3A	
Select a minimum of 3 credits from the following:			3-4
MATH 117	College Algebra in Context I (GT-MA1)	1B	
MATH 118	College Algebra in Context II (GT-MA1)	1B	
MATH 124	Logarithmic and Exponential Functions (GT-MA1)	1B	
MATH 125	Numerical Trigonometry (GT-MA1)	1B	
MATH 126	Analytic Trigonometry (GT-MA1)	1B	
MATH 141	Calculus in Management Sciences (GT-MA1)	1B	
MATH 155	Calculus for Biological Scientists I (GT-MA1)	1B	
Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion)			3
Total Credits			31-35

Sophomore

SPCM 200	Public Speaking		3
Select one course from the following:			3-4
ANEQ 230	Farm Animal Anatomy and Physiology		
ANEQ 305	Functional Large Animal Physiology		
BMS 300 ¹	Principles of Human Physiology		
Select one course from the following:			3
ANEQ 328	Foundations in Animal Genetics		
SOCR 330	Principles of Genetics		
Select one course from the following:			3
AREC 202	Agricultural and Resource Economics (GT-SS1)	3C	
ECON 202	Principles of Microeconomics (GT-SS1)	3C	

Select one course from the following:			3
STAT 201	General Statistics (GT-MA1)	1B	
STAT 301	Introduction to Applied Statistical Methods		
STAT 307	Introduction to Biostatistics		
Business/Economics Electives ²			3
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			3B 3
Historical Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)			3D 3
Electives			5-6
Total Credits			30-31
Junior			
ANEQ 320	Principles of Animal Nutrition	4B	3
ANEQ 334	Principles of Equine Genetics		3
ANEQ 344	Principles of Equine Reproduction	4B	3
ANEQ 346	Equine Disease Management		4
Select one course from the following:			3
RS 300	Rangeland Conservation and Stewardship		
SOCR 320	Sustainable Forage Management for Livestock		
Experience Equine Science Electives – Select a minimum of 2 credits from the following:			2
ANEQ 487B	Internship: Equine		
Department-approved Study Abroad			
Applied Equine Science Electives (see list below)			4
Business/Economics Elective ²			3
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			3B 3
Total Credits			28
Senior			
ANEQ 440	Equine Industry and Issues	4A,4C	3
Select one course from following:			2
ANEQ 441	Integrated Equine Science		
ANEQ 444	Equine Business Management		
Advanced Science Course Electives (see list below)			3-4
Applied Equine Science Electives (see list below)			4
Business/Economics Elective ²			3
Advanced Writing (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#advanced-writing)			2 3
Electives ³			3-12
Total Credits			22-30
Program Total Credits:			120

Applied Equine Sciences List – Select a minimum of 8 credits from a minimum of 4 courses

Code	Title	Credits
ANEQ 200	Applied Horsemanship and Equitation	2
ANEQ 201A	Preparation of Horses for Competition: Western	2
ANEQ 201B	Preparation of Horses for Competition: English	2
ANEQ 203	Equine Management	2
ANEQ 204	Equine Facilities Management	3

ANEQ 205	Equine Assessment, Evaluation and Retraining	2
ANEQ 249	Introduction to the Trail Riding Industry	1
ANEQ 303	Equine Digital Photography	3
ANEQ 315	Equine Behavior	2
ANEQ 325	Equine Exercise Physiology	2
ANEQ 340	Horse Training and Sale Preparation I	3
ANEQ 341	Horse Training and Sale Preparation II	3
ANEQ 349	Packing and Outfitting	2
ANEQ 351	Techniques in Therapeutic Riding	2

ANEQ 352	Introduction to Horse Evaluation	2	BMS 430	Endocrinology	3
ANEQ 353	Advanced Horse Evaluation	3	CHEM 245	Fundamentals of Organic Chemistry	4
ANEQ 358	Equine Event and Sales Management	2	CHEM 335	Introduction to Analytical Chemistry	3
ANEQ 359	Equine Sales Production	2	CHEM 341	Modern Organic Chemistry I	3
ANEQ 365	Principles of Teaching Therapeutic Riding	3	CHEM 343	Modern Organic Chemistry II	3
ANEQ 384	Supervised College Teaching	Var.	LIFE 205	Microbial Biology	3
ANEQ 386B	Equine Practicum: Equine Reproductive Management	2	LIFE 220/LAND 220	Fundamentals of Ecology (GT-SC2)	3
ANEQ 386C	Equine Practicum: Equine Farrier Management	1	LIFE 320	Ecology	3
ANEQ 442	Riding Instructor Training	2	MIP 300	General Microbiology	3
ANEQ 445	Foaling Management	2	MIP 342	Immunology	4
ANEQ 486	Therapeutic Riding Instructor Practicum	2	PSY 320	Psychopathology	3
ANEQ 495	Independent Study	Var.	PSY 454	Biological Psychology	3
ANEQ 496	Group Study	Var.	PSY 458	Cognitive Neuroscience	3
L*** 2** 200-Level Foreign Language		Var.			

Students may select a maximum of two courses from the following:

ANEQ 250	Live Animal and Carcass Evaluation	3
ANEQ 286	Livestock Practicum	2
ANEQ 300A	Topics in Animal Sciences: Livestock Handling	1
ANEQ 300E	Topics in Animal Sciences: Family Ranching	1
ANEQ 300L	Topics in Animal Sciences: Quality Assurance	2
ANEQ 300N	Topics in Animal Sciences: Seedstock Management and Merchandising	3
ANEQ 300R	Topics in Animal Sciences: Calving and Calf Care	2
ANEQ 300U	Topics in Animal Sciences: Seedstock Sale Management–Sale Planning	1
ANEQ 310	Animal Reproduction	3
ANEQ 312	Animal Ultrasonography	2
ANEQ 330	Principles of Animal Breeding	3
ANEQ 366	Animal Welfare Evaluation	2
ANEQ 410	Applied Food Animal Behavior	3
GES 201	Systems Thinking in Sustainability	3
SOCR 210	Microbiome Roles in a Sustainable Earth (GT-SC2)	3

Advanced Science Course List

Code	Title	Credits
ANEQ 345	Principles of Nutrition: Equine Applications	3
ANEQ 448	Livestock Manure Management and Environment	3
ANEQ 510	Bovine Reproduction Management	4
ANEQ 522	Animal Metabolism	3
ANEQ 545	Molecular Methods in Animal Genetics	3
BC 351	Principles of Biochemistry	4
BC 401	Comprehensive Biochemistry I	3
BC 403	Comprehensive Biochemistry II	3
BMS 325	Cellular Neurobiology	3
BMS 345	Functional Neuroanatomy	4

¹ If students opt to take BMS 300, a minimum grade of C is required.

² Select credits from any 200-level or above AREC, ECON, or business course, of which 3 credits may be a computer course. AREC 202/ECON 202 and CS 110 will not be accepted. Access granted for the following business courses: ACT 205, BUS 205, FIN 305, MGT 305, MKT 305.

³ Select enough elective credits to bring the program to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).