NDSU NORTH DAKOTA STATE UNIVERSITY

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EQUINE SCIENCE

The depth and reach of the U.S. equine industry is far greater than many people realize. There are 7.2 million horses in the United States and the industry contributes $122 billion to the gross domestic product. Over 1.3 million people own horses, and an additional 38 million people who don't own horses identify as a horse enthusiast. Careers in the U.S. horse industry support the equivalent of approximately 454,000 full-time jobs working directly with horses and 988,000 indirect jobs that provide support to the equine industry.

The Program

The Equine Science program provides a well-rounded, science-based education encompassing both classroom and experiential learning opportunities. For individuals interested in pursuing their education beyond a Bachelor of Science degree, the Equine Science curriculum can be tailored to meet the requirements for veterinary schools and graduate programs.

The Curriculum

The equine science major is designed to provide a strong overall background with supporting course work in the sciences, humanities and general education. Classes include anatomy, physiology, nutrition, health, production management, horsemanship and equitation. Hands-on learning opportunities are a priority with 70% of the equine courses providing students this type of experience. The curriculum requires students to complete an internship, study abroad or research experience. These unique opportunities allow students to put what they learn into practice, and offers the chance to gain valuable experiential education in the horse industry.

An equine science minor through North Dakota State University allows students to explore several equine-related courses and gain general horse industry knowledge. Students can also receive a minor in equine assisted activities & therapies which focuses on coursework in equine science, human development, and psychology. Both minors pair well with essentially any major offered at NDSU.

The Faculty

The Equine Science Program has outstanding faculty members with diverse backgrounds in the equine industry who are ready to help students learn and thrive at NDSU. Our faculty have taught internationally, earned multiple teaching and advising awards, and maintain active research programs.

Equine Science faculty expertise is complemented by other faculty within the Department of Animal Sciences and across the university. The overall quality of the faculty at North Dakota State University has been recognized through numerous awards for teaching and research excellence.

Career Opportunities

Our graduates find exciting careers in diverse areas including sales representatives for nutrition, pharmaceutical and equipment products; marketing specialists; barn and facility managers; equine event and show managers; working with breed and industry associations; equine reproduction; horse training and sales preparation; and riding instructors. In addition to career opportunities following graduation, many students have chosen to continue their education in veterinary schools or graduate programs.

Extra-Curricular Activities

The NDSU Horsemen's Association supports a variety of equine-related activities. The club supports the Intercollegiate Horse Show teams, sponsors a western IHSA show, and conducts several youth camps.

The NDSU Rodeo Club provides students the opportunity to gain experience and knowledge of the sport of rodeo. The club supports the Intercollegiate Rodeo Team and also sponsors the Bison Stampede held each fall.

Financial Aid and Scholarships

Part-time work and work-study programs are available at the equine center, in several different livestock units, and in animal science laboratories within the department. Over $50,000 in departmental scholarships are awarded to Equine Science, Animal Science and Veterinary Technology students annually. In addition, the College of Agriculture, Food Systems, and Natural Resources awards scholarships each year to incoming freshman and current NDSU students. Contact the Office of the Dean, College of Agriculture, Food Systems, and Natural Resources, for more information on college scholarships www.ag.ndsu.edu/academics/scholarships. Student loan, grant and work-study information is available from the Office of Financial Aid and Scholarships, and One Stop www.ndsu.edu/onestop/finaid/.

Equine Science Plan of Study

Please note this is a sample plan of study and not an official curriculum. Actual student schedules for each semester will vary depending on start year, education goals, applicable transfer credit, and course availability. Students are encouraged to work with their academic advisor on a regular basis to review degree progress and customize an individual plan of study.

First Year			
Fall	**Credits**	**Spring**	**Credits**
ANSC 101 Student Success Techniques - Animal and Equine Science	2	ANSC 223 Introduction to Animal Nutrition	2
ANSC 218 Anatomy and Physiology of Domestic Animals	3	BIOL 111 Concepts of Biology	3
ANSC 260 Introduction to Equine Studies	1	BIOL 100L Non-Majors Biology Lab	1
MATH 103 College Algebra	3	COMM 110 Fundamentals of Public Speaking	3
ENGL 110 College Composition I	4	ENGL 120 College Composition II	3
Gen Ed Social & Behavioral Sciences/Gen Ed Cultural Diversity	3	Gen Ed Humanities & Fine Arts	3
	16		**15**
Second Year			
Fall	**Credits**	**Spring**	**Credits**
AGEC 242 Introduction to Agricultural Management	3	AGEC 244 Agricultural Marketing	3
ANSC 235 Equine Evaluation	2	MICR 202 Introductory Microbiology	2
ANSC 261 Basic Equitation & Horsemanship	1	MICR 202L Introductory Microbiology Lab	1
CHEM 117 Chemical Concepts and Applications	3	STAT 330 Introductory Statistics	3
CHEM 117L Chem Concepts and Applications Lab	1	ECON 201 Principles of Microeconomics	3
ANSC 260L Equine Care and Management Practicum	1	Gen Ed Humanities & Fine Arts	3
Elective	3		
	14		**15**
Third Year			
Fall	**Credits**	**Spring**	**Credits**
ANSC 360 Equine Nutrition	3	ANSC 364 Equine Anatomy and Physiology	3
PLSC 315 Genetics	3	ANSC 358 Equine Genetics	2
Gen Ed ENGL 32X Upper-level Writing	3	BIOC 260 Elements of Biochemistry	4
NRM/PLSC/RNG Any level course	3	ANSC 371 Fundamentals of Animal Disease II	3
ANSC Elective	3	Elective	3
	15		**15**
Fourth Year			
Fall	**Credits**	**Spring**	**Credits**
ANSC 393/396 Internship/Research	2	ANSC 480 Equine Industry and Production Systems	3
ANSC Elective	6	ANSC 478 Research and Issues in Animal Agriculture	3
Elective	5	ANSC 463 Physiology of Reproduction	3
Gen Ed Wellness	2	ANSC 463L Physiology of Reproduction Laboratory	1
		Elective	5
	15		**15**
Total Credits: 120			

View NDSU equivalencies of transfer courses at: www.ndsu.edu/transfer/equivalencies

For Further Information

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