



APS ANIMAL SCIENCE AND LIVESTOCK

Faculty

- Clyde Cranwell, Ph.D., Professor
- Jessica Rodman, Assistant Professor
- Alan Taylor, Assistant Professor

Mission

The Agricultural Production Systems is dedicated to embracing innovation and respecting tradition in the development of individuals for the agronomy, agricultural equipment, equine, and livestock industries. Graduates of this major gain technical knowledge and skills for lifelong learning that are critical for successful careers in agriculture.

Associate of Applied Science Options

- Equine Industry Management
- Feedlot Management
- Livestock Industry Management
- Meat Science

Associate of Science Options (Transfer)

- Agriculture Education
- Animal Science

Certificate

- Beef Production
- Equine Training Management

Ag Production Systems Core Courses

The following courses are required for all Associate of Applied Science degree options of the Ag Production Systems major.

ABM 2854	FARM & RANCH MANAGEMENT	4
ACT 1103	ACCOUNTING I	3
AGR 2982	AGRICULTURAL PRODUCTION SYSTEMS CAPSTONE	2
ASI 2903	INTERNSHIP	3
ECN 1103	INTRODUCTION TO AG ECONOMICS	3
Total Credit Hours		15

Feedlot Management Option-Associate of Applied Science Degree

- Students will be knowledgeable in the areas of modern livestock husbandry and management practices.

ASSOCIATE OF APPLIED SCIENCE CORE		17
AG PRODUCTION SYSTEMS CORE		15
Credit Hours Subtotal:		32
Feedlot Management Core		
ASI 1202	FEEDLOT PRACTICUM I	2
ASI 1203	FEEDLOT SYSTEMS	3
ASI 1213	LIVESTK & CARC EVAL	3

ASI 1253	NUTRITION	3
ASI 1302	FEEDLOT PRACTICUM II	2
ASI 1304	ANIMAL MANAGEMENT	4
ASI 2203	FEEDS & FEEDING	3
ASI 2383	LARGE ANIMAL DISEASES	3
ASI 2313	RATION FORMULATION	3
MKT 2203	AG MARKETING	3
Credit Hours Subtotal:		29
FEEDLOT SPECIALIZATION COURSES		
Select 6 hours of ASI Courses		6
Credit Hours Subtotal:		6
Total Credit Hours		67

Livestock Industry Management Option-Associate of Applied Science Degree

- Students will be knowledgeable in the areas of modern livestock husbandry and management practices.

Associate of Applied Science Core		17
Ag Production Systems Core		15
Credit Hours Subtotal:		32
Livestock Industry Management Core		
ASI 1203	FEEDLOT SYSTEMS	3
or ASI 2753 BEEF PRODUCTION SYSTEMS		
ASI 1213	LIVESTK & CARC EVAL	3
ASI 1253	NUTRITION	3
ASI 1304	ANIMAL MANAGEMENT	4
MKT 2203	AG MARKETING	3
ASI 2383	LARGE ANIMAL DISEASES	3
Credit Hours Subtotal:		19
Livestock Industry Specialization		
Select 12 credits of the following:		12
ASI 1312	LIVESTOCK JUDGING I	
ASI 1203	FEEDLOT SYSTEMS	
ASI 1351	ART INSEM BEEF CATTL	
ASI 1501	EQUINE SAFETY	
ASI 2203	FEEDS & FEEDING	
ASI 2303	RANGE MANAGEMENT	
ASI 2312	LIVESTOCK JUDGING II	
ASI 2313	RATION FORMULATION	
ASI 2353	LIVESTOCK BREEDING	
ASI 2433	EQUINE INDUS MNGT I	
ASI 2443	EQUINE INDUS MNGT II	
ASI 2513	MEAT SCIENCE	
ASI 2753	BEEF PRODUCTION SYSTEMS	
ASI 2773	ADVANCED REPRODUCTIVE PHYSIOLOGY	
Advisor Guided Electives		4
Credit Hours Subtotal:		16
Total Credit Hours		67

Meat Science Option-Associate of Applied Science Degree

- Students will be knowledgeable in the areas of modern livestock husbandry and management practices.

ASSOCIATE OF APPLIED SCIENCE CORE	17
AG PRODUCTION SYSTEMS CORE	15
Credit Hours Subtotal:	32
MEAT SCIENCE CORE	
ASI 1203 FEEDLOT SYSTEMS	3
or ASI 2753 BEEF PRODUCTION SYSTEMS	
ASI 1213 LIVESTK & CARC EVAL	3
ASI 1253 NUTRITION	3
ASI 1304 ANIMAL MANAGEMENT	4
ASI 2383 LARGE ANIMAL DISEASES	3
ASI 2513 MEAT SCIENCE	3
ASI 2514 MEAT PROCESSING	4
ASI 2523 MUSCLE BIOLOGY	3
MKT 2203 AG MARKETING	3
ADVISOR GUIDED ELECTIVES	6
Credit Hours Subtotal:	35
Total Credit Hours	67

Animal Science Option- Associate of Science Degree (transfer)

- Students will demonstrate the knowledge required to effectively transition to a bachelor's degree in animal science.

Associate of Science Core	
Complete requirements	24
Credit Hours Subtotal:	24
Animal Science Specialization Focus	
Select 24 hours of the following:	24
ASI 1024 FUND OF ANIMAL BIO (If not used as a general education course)	
ASI 1213 LIVESTK & CARC EVAL	
ASI 1253 NUTRITION	
ASI 1304 ANIMAL MANAGEMENT	
ASI 2203 FEEDS & FEEDING	
ASI 2303 RANGE MANAGEMENT	
ASI 2383 LARGE ANIMAL DISEASES	
ASI 2513 MEAT SCIENCE	
ASI 2753 BEEF PRODUCTION SYSTEMS	
ECN 1103 INTRODUCTION TO AG ECONOMICS	
MKT 2203 AG MARKETING	
VTS 1403 ANATOMY AND PHYSIOLOGY	
Credit Hours Subtotal:	24
Electives	
Advisor Guided Electives	12
Credit Hours Subtotal:	12
Total Credit Hours	60

BEEF PRODUCTION EMPHASIS, CERTIFICATE

Select 15 hours of the following:	15
ASI 1203 FEEDLOT SYSTEMS	
ASI 1213 LIVESTK & CARC EVAL	
ASI 1253 NUTRITION	
ASI 1304 ANIMAL MANAGEMENT	
ASI 2203 FEEDS & FEEDING	
ASI 2353 LIVESTOCK BREEDING	
ASI 2383 LARGE ANIMAL DISEASES	
ASI 2753 BEEF PRODUCTION SYSTEMS	
Electives	5
Total Credit Hours	20

EQUINE TRAINING MANAGEMENT, CERTIFICATE

Required Courses	
ASI 1161 INTRO TO HORSEMANSHIP	1
ASI 1262 BASIC EQUITATION	2
ASI 1501 EQUINE SAFETY	1
ASI 1442 EQUINE PRACTICUM I	2
ASI 2442 EQUINE PRACTICUM II	2
ASI 2462 COLT STARTING	2
ASI 2363 INTERMEDIATE TRAINING	3
ASI 2463 ADVANCED PERFORMANCE TRAINING	3
ASI 2412 EQUINE MARKETING TECHNIQUES	2
Credit Hours Subtotal:	18

AED 1023 INTERPERSONAL SKILLS FOR LEADERSHIP

Description: Introduction to the principles and practices of positive interpersonal relationships for leadership development. Self-awareness, awareness of others, effective interpersonal communication, and the building of trust relationships as a basis for understanding and developing leadership. An experiential approach, field projects and a supervised service project.

Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Grading Option: Graded

AED 1033 ADVOCACY AND APPLIED LEADERSHIP IN AGRICULTURE

Description: This course develops the knowledge and skills needed to advocate effectively and lead responsibly within agricultural and rural communities. Through applied activities, group projects, and discussion, students learn to communicate agricultural issues clearly, evaluate multiple perspectives, and engage diverse audiences with professionalism, civic awareness, and respect. Emphasis is place on ethical and evidence-based reasoning.

Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Grading Option: Graded

**AED 1101 EARLY FIELD EXPERIENCE**

Description: Early Field Experience in AED (I II) Required of all Ag Ed Departmental majors. Observing and/or performance of professional skills in agricultural education, extension education, agribusiness, journalism, and leadership.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

AED 1103 INTRODUCTION TO SECONDARY AGRISCIENCE EDUCATION

Description: Required of all Ag Ed Departmental majors. Observing and/or performance of professional skills in agricultural education, journalism and leadership focusing on agribusiness, industry training positions, secondary agricultural education instruction, extension education, advertising, public relations, broadcasting, news-editorial and international agricultural education.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

AED 1233 PLANNING, LEADERSHIP AND EXPERIENTIAL PROGRAMS

Description: Theory of experiential education to middle school and secondary agricultural education programs, especially leadership and career education. Development of Supervised Ag Experience (SAE), Young Adult/Farmer, FFA and alumni activities, appropriate to the community, school and student needs using electronic technology in learning how to teach Nebraska's agricultural education financial management system. Students will learn the theory of experiential education with examples as development of an (SAE) Supervised Agricultural Experience, alumni activities and other community opportunities.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

AED 2103 YOUTH PROGRAMS

Description: This course is designed to take a deeper look at youth programs across the country such as 4-H, FFA, FCCLA and many others.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

AED 2503 LIVESTOCK PRACTICUM

Description: This course is designed to assist students learn how to care and manage livestock (SAE) Supervised Agriculture Experience projects. The students will have the opportunity to work cattle, sheep, swine and goats from selection to show.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 1001 SUCCESS IN ANIMAL SCIENCE

Description: This course will provide students the opportunity to develop their "intercultural knowledge and competence" and "information literacy" skills and abilities. It will help them as the transition to college and understand the components of being successful not only during this time, but within the industry. They will formulate life and career goals, skills for academic success, skills for life success, and learn more about NCTA. The impact of their success on the industry will also be at the forefront of discussion points within this course.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ASI 1011 INTRO TO ANIMAL SCI

Description: A course that deals with current issues facing the livestock industry, production trends, terminology, animal growth, structure & selection, breeds, and development.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ASI 1024 FUND OF ANIMAL BIO

Description: Fundamentals of animal biology as it applies to the science of livestock production. Biological principles governing production and consumption of animal products are emphasized in both lecture and laboratory sessions.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded

ASI 1031 RODEO SEMINAR I

Description: A course for first year students designed to help the student practice all of the men's and women's National Intercollegiate Rodeo Association (NIRA) events. This course will be taught through actual practice, video review and guest lectures.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 6

Grading Option: Pass No Pass

ASI 1161 INTRO TO HORSEMANSHIP

Description: This class will introduce students to horsemanship. Successful completion of this class will prepare the novice rider for basic equitation. A survey of feeding, health, and performance will be included with an emphasis on continued safety of horse and rider. Horses are required for this class. If needed, a horse can be provided at a fee. Pre-requisite: ASI 1501 Equine Safety (or take concurrently).

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ASI 1201 SHOOTING SPORTS

Description: The purpose of this class is to offer a variety of trap shooting programs, encompassing leisure recreation and competitive shooting, including leagues and/or collegiate competition while providing a social network for knowledge and training in the shooting sports. Students will learn firearm safety. Students will become familiar with different firearms, their purpose and mode of action. This class may provide opportunity to earn Nebraska hunter safety card.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ASI 1202 FEEDLOT PRACTICUM I

Description: Feedlot Practicum I will be in coordination with the Feedlot Systems class. Students will assist with the responsibilities of taking care of the NCTA feedlot. Duties will include feeding the cattle, conducting dry matters on feed ingredients, performing feedlot pen maintenance, monitoring animal health, and maintaining the general appearance of the feed yard and working facilities. Students will work 5-10 hours a week depending upon the number of students signed up for the course.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

ASI 1203 FEEDLOT SYSTEMS

Description: The main emphasis will be to discuss current trends, problems, or issues related to the feedlot industry. Each profit center of a feedlot will be studied through an internship with a local feedlot. The lab portion will include practical application of common health and processing procedures found in the feedlot industry. It will incorporate low-stress cattle handling, as well as safety procedures. (Pre req: ASI 1253 & ASI 1304)

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 1213 LIVESTK & CARC EVAL

Description: This course is a comprehensive study of the evaluation of livestock, including beef, lamb, pork, and poultry, and their carcasses and products. This will include study of animal growth and development, measures of animal performance, and use of performance records for selection. Measures of carcass traits and monetary value as well as federal and industry product standards will be reviewed. The relationship to production economics will be considered for all selection processes.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 1222 ADV LVSTK EVAL/JUDG

Description: An advanced course in livestock evaluation and judging designed to apply principles learned in ASI 1213. This course will teach and develop written and oral communication skills that enable the student to convey in a brief, concise presentation the results of their decisions. Logical and systematic decision making will be taught. This class will involve extensive field trips to livestock producers and travel to national livestock exhibitions. The livestock judging team will be selected from this class to represent NCTA at intercollegiate competitions. (Pre req: ASI 1213 or instructor permission)

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

ASI 1241 RANCH HORSE I

Description: A course for first-year students designed to help the student and their horse learn and practice the skills necessary to be successful in the Collegiate Division of the American Stock Horse Association (ASHA) which includes four events: Stock Horse Pleasure, Trail, Reining, and Working Cow Horse. NCTA was one of the founding institutions of the ASHA Collegiate Stock Horse Versatility Education Program which organizes many of the competitions for the year. Collegiate ASHA has three different rider skill levels which provide each student the opportunity to compete against others at the same skill level whether you are a beginning rider or an accomplished rider. NCTA has a limited number of school horses available by instructor approval. This course will be taught through actual practice, video review, and guest lecture/clinicians.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ASI 1253 NUTRITION

Description: A study of water, carbohydrates, fat, protein, vitamins and minerals as they apply to animal utilization. Lab will include problems involving water, protein, and TDN in rations.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 1262 BASIC EQUITATION

Description: This course is a study and application of basic equitation principles for the novice rider. Basic handling practices, safety issues, and adapting dressage maneuvers towards Western and English performance is emphasized. *Horses are required for this class. If available, a horse is provided at a fee. Pre-requisites: ASI 1501 Equine Safety and ASI 1161, or instructor permission.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

ASI 1263 BASIC EQUITATION

Description: (Pre req: ASI 1501) This course is a study and application of basic equitation principles for the novice rider. Basic horse handling practices, safety issues, and adapting dressage maneuvers towards Western and English performance is emphasized.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 1302 FEEDLOT PRACTICUM II

Description: Feedlot Practicum II will be a course offered during the spring semester so as to keep the feed yard maintained and operating effectively. Students will assist with the responsibilities of taking care of the NCTA feedlot. Duties will include feeding the cattle, conducting dry matters on feed ingredients, performing feedlot pen maintenance, monitoring animal health, and maintaining the general appearance of the feed yard and working facilities. Students will work 5-10 hours a week depending upon the number of students signed up for the course.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

ASI 1304 ANIMAL MANAGEMENT

Description: A course that deals with current issues facing the livestock industry, production trends, terminology, animal growth, structure and selection, breeds and development. Upon completion of course, students should be able to do each of the following: 1. Outline the basic management of beef cattle, dairy cattle, poultry, swine, and sheep. 2. Describe how biological principles of animal production influence animal management decisions. 3. Study managerial problems and provide feasible solutions given specific resource limitations. 4. Within each livestock industry, explain how the principles of business, nutrition, reproduction, breeding, herd health, and marketing are interrelated.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded

ASI 1312 LIVESTOCK JUDGING I

Description: A continuation of ASI 1213. (Pre req: ASI 1213 and ASI 1222)

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 3

Grading Option: Graded

ASI 1341 RANCH HORSE II

Description: A course for second-year students designed to help the student and their horse practice and refine the skills necessary to be successful in the Collegiate Division of the American Stock Horse Association (ASHA) which includes four events: Stock Horse Pleasure, Trail, Reining, and Working Cow Horse. NCTA was one of the founding institutions of the ASHA Collegiate Stock Horse Versatility Education Program which organizes many of the competitions for the year. Collegiate ASHA has three different rider skill levels which provide each student the opportunity to compete against others at the same skill level whether you are a beginning rider or an accomplished rider. NCTA has a limited number of school horses available by instructor approval. This course will be taught through actual practice, video review, and guest lecture/clinicians.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ASI 1351 ART INSEM BEEF CATTLE

Description: This course trains individuals in the techniques of artificial insemination of cattle.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ASI 1412 MEAT EVALUATION I

Description: Meats Evaluation I will be an introductory course where students will learn the basics of meats evaluation so as to compete in the collegiate competition. Students will meet 2-3 times a week in the classroom as well as for field trips to harvest facilities. Meats evaluation, yield and quality grade determination, and the writing of reasons to back up evaluation decisions will all be aspects of this introductory class.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

ASI 1432 EQUINE CARE

Description: A study of the working horse, emphasizing utilization in the feedlot. Health, nutrition, and proper care of equipment will be covered. Animal safety as well as safety of personnel in the feedlot, will be evaluated. Common lameness problems and hoof trimming will be covered.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

ASI 1442 EQUINE PRACTICUM I

Description: This course will introduce first year Equine Industry Management students to hands-on equine activities of care, feeding, grooming, and barn management. Students enrolled in this course will work at the horse barn with the NCTA horses.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

ASI 1501 EQUINE SAFETY

Description: This horsemanship safety class will help develop safe habits for horse and rider when on the ground and in the saddle. A format of lectures and actual hands-on handling of horses both on the ground and in the saddle will be used.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ASI 1752 RAISING POULTRY FOR PROFIT: SMALL-SCALE PRODUCTION

Description: An overview of small-scale poultry production for meat and eggs. Topics include species, breeds, management of young and mature birds, housing, pasturing, feeding, breeding, harvesting, food safety, basic health care, and marketing.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

ASI 1753 SMALL RUMINANT PRODUCTION

Description: This course will focus on the application of management principles and opportunities of the Nebraska sheep and goat industries. Breeding, nutrition, management practices, selection, health, facilities/equipment, predator control, and economics related to a small ruminant operation will be covered.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 1991 INDEPENDENT STUDY

Description: Individual or group projects in research, literature review, or extension of course work under the supervision and evaluation of a Major faculty member who is willing and available to contract with the student. (Pre req: Approval of project by Instructor, Academic Lead, and Advisor)

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 2

Grading Option: Graded

ASI 2031 RODEO SEMINAR II

Description: A course for second year students designed to help the student practice all of the men's and women's National Intercollegiate Rodeo Association (NIRA) events. This course will involve actual practice and video tape review.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 6

Grading Option: Pass No Pass

ASI 2203 FEEDS & FEEDING

Description: The study of feedstuffs, feed processing, and feed additives. Lab will include feed evaluation, moisture determination and conversion, feed tag interpretation, ration evaluation, and balancing. (Pre req: ASI 1253 recommended)

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2303 RANGE MANAGEMENT

Description: A study of pasture and range management as it applies to the production system. This class includes the identification of common range plants, and range sites along with determination of range condition from a plant survey. Balanced forage systems are studied including native range, introduced grass pastures, irrigated grass pastures, and the use of annual grasses and crop residues in livestock forage systems.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2312 LIVESTOCK JUDGING II

Description: A continuation of ASI 1312. (Pre req: ASI 1312)

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 3

Grading Option: Graded

ASI 2313 RATION FORMULATION

Description: A continuation of Feeds and Feeding with an emphasis on ration balancing for specific classes of cattle and swine. Computer ration balancing will be used. (Pre req: ASI 1253, ASI 2203, AIT 1053 or permission)

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2332 LIVESTOCK JUDGING III

Description: A continuation of ASI 2312. (Pre req: ASI 2312)

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

ASI 2353 LIVESTOCK BREEDING

Description: A course in the principles of genetics and hereditary characteristics applied to livestock production, including production records, selection, and design of mating systems.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2362 ADVANCED EQUITATION

Description: This class addresses the study and application of equine and rider maneuvers basic to performance excellence. Students will be expected to show satisfactory progress toward standards of excellence in Western and English disciplines. (Pre req: ASI 1263 or permission, limited enrollment)

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

ASI 2363 INTERMEDIATE TRAINING

Description: Students will acquire skills in intermediate horsemanship (including equitation and training techniques) and green-breaking. Students, with the aid of the instructor, will set and achieve individual objectives.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2383 LARGE ANIMAL DISEASES

Description: Large Animal Diseases and Pharmacology is an upper level course designed to increase student knowledge in disease identification and treatment strategies. Students will learn about the basics of immunology, disease diagnosis and treatment, and herd health and bio-security plan construction. There is also component to this course to provide students the opportunity to engage and observe necropsy in various species. Pre req: ASI 1304 Animal Management and one nutrition based course or permission.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2403 MONITORING TECHNIQUES AND DATA COLLECTION

Description: This course emphasizes the importance of keeping accurate range production records and how to gather, store and utilize data. It, also, includes an in-depth use of current monitoring techniques used to gather data on rangelands.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2412 EQUINE MARKETING TECHNIQUES

Description: This class is designed to give students the experience of creating a sale from start to finish. It includes working with horses to creating the sale catalog.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

**ASI 2433 EQUINE INDUS MNGT I**

Description: A study of the light horse production with emphasis on nutrition, reproduction, management, and principle usage of light horses. Courses such as horse production, Equine care, Advertising and Merchandising opens doors to a variety of careers in the horse industry.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2442 EQUINE PRACTICUM II

Description: This course will introduce second year Equine Industry Management students to hands-on equine activities of care, feeding, grooming, and supervisory barn management. Students enrolled in this course will work at the horse barn with the NCTA horses.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

ASI 2443 EQUINE INDUS MNGT II

Description: This course of study is designed for students who wish to pursue a career in horse production. The curriculum involves both classroom and applied study primarily aimed at the production aspect of the horse industry. At the end of the program students will be tested to demonstrate competencies needed for success in the chosen area of horse production.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2453 SEEDSTOCK PREPARATION AND MARKETING

Description: This course is designed for students to develop the skills of marketing seedstock such as cattle, sheep, and swine. Students will learn various methods of preparing seedstock for live/video auctions. The student will have hands on experience of preparing livestock for sale.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2462 COLT STARTING

Description: This course is an application in basic colt starting principles for the advanced rider. Basic young horse handling practices and safety issues will be studied and applied. (By Permission)

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

ASI 2463 ADVANCED PERFORMANCE TRAINING

Description: Students will acquire skills in the correction of bad habits and advanced training techniques leading toward an area of specialization. Students, with the aid of the instructor, will set and achieve individual objectives.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2512 MEATS EVALUATION II

Description: Meats Evaluation II will be a more focused course to prepare students for meat evaluation competition. This is when more difficult meat evaluation contests take place, so students will continue to meet 2-3 times a week in the classroom as well as for field trips to harvest facilities. Meats evaluation, yield and quality grade determination, and the writing of reason to back up evaluation decisions will all be aspects of this class, where material covered will build upon what was taught in Meats Evaluation I.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

ASI 2513 MEAT SCIENCE

Description: (Pre req: ASI 1304) This course covers physical and chemical aspects associated with structure and composition of meat. Conversion of muscle to meat and principles relative to fresh and processed meats, storage, microbiology, palatability, and nutritive values will be discussed in depth. Hormonal influence on growth, development, and final product will also be covered.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2514 MEAT PROCESSING

Description: Meat processing is designed to show students how to properly process livestock carcasses. Understanding of HAACP, BQA, PQA, and management of the various species will be stressed. This is a career applied course which could lead to working in the processing industry or owning their own business.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded

ASI 2523 MUSCLE BIOLOGY

Description: This course will provide an advanced education in understanding the muscles and the biology surrounding the muscles of livestock species for the purpose of providing high quality carcasses.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2603 LIVESTOCK ANATOMY AND PHYSIOLOGY

Description: Livestock Anatomy and Physiology is a combined lecture and laboratory course dealing with the anatomy and physiology of common domestic livestock. The course studies basic tissues utilizing a systems approach to the organs of the body. Also a review of basic cellular biology with the intent of applying it to individual organ tissues is covered.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2604 LIVSTCK ANAT & PHYSO

Description: Livestock Anatomy and Physiology is a combined lecture and laboratory course dealing with the anatomy and physiology of common domestic livestock. The course studies basic tissues utilizing a systems approach to the organs of the body. Also a review of basic cellular biology with the intent of applying it to individual organ tissues is covered.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded

ASI 2611 EQUINE REPRODUCTION I

Description: A study of the anatomy and physiology of the stallion and mare, the hormones of reproduction, and breeding systems and methods, including artificial insemination. The student will also be introduced to breeding farm management. This is a lecture based, eight week focused course. There is no lab component with ASI 2611.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ASI 2621 EQUINE REPRODUCTION II

Description: (Pre req: ASI 2611 Equine Reproduction I) A study and application of anatomy and physiology of the stallion and mare, the hormones of reproduction, and breeding systems and methods, including artificial insemination. In this course a variety of skills are studied and practiced, including such things as utilizing breeding instruments, preparing and conducting stall-side lab diagnostics, the AI process, care of the stallion, mare, and foal, as well as making sound breeding decisions.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ASI 2702 AGRICULTURAL ANIMAL BEHAVIOR AND WELFARE

Description: An overview of agricultural animal behavior with a particular emphasis in behavior patterns in response to handling and management. Handling techniques to minimize stress and optimize health and welfare will be emphasized. Primary animals will be large ruminants.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

ASI 2753 BEEF PRODUCTION SYSTEMS

Description: (Recommended pre req: ASI 1253 & ASI 2203) The economics, breeds, selection, nutrition, breeding and management of beef cattle. About 20% of the course will be lab.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2773 ADVANCED REPRODUCTIVE PHYSIOLOGY

Description: (Pre req: Anatomy & Physiology w/ 70%; Animal Management; AI of Beef Cattle.) The objective of this course is to promote an understanding of reproductive processes in domestic animals. The students will understand the processes of reproduction in the various livestock species.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2864 NEBR RANCH PRACTICUM

Description: The Nebraska Ranch Practicum is a three-season, hands on educational program designed to give the participants the skill and education needed in today's complex ranching industry. This unique class consists of eight, day long sessions, from June through January held at the West Central Research and Extension Center in North Platte and the Gudmundsen Sandhills Laboratory near Whitman, Nebraska. Students must register for this class as well as apply and be accepted into the program. This application is available at www.panhandle.unl.edu/ranchpracticum. (Pre req: Advisor permission only)

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded

ASI 2903 INTERNSHIP

Description: The internship provides job experience in your field of study at an approved work location. Official agreements are entered into between the student, employer, and the college. The student's internship/practicum includes a mandatory 12-week job placement experience. A written journal plus an oral presentation required upon returning from internship. (Pre req: Approval by Academic Lead)

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

ASI 2906 INTERNSHIP

Description: The internship provides job experience in your field of study at an approved work location. Official agreements are entered into between the student, employer, and the college. Full-time employment for 2 weeks is equivalent to 1 credit hour. A written journal plus an oral presentation required upon returning from internship. (Pre req: Approval by Academic Lead)

Credit Hours: 6

Max credits per semester: 6

Max credits per degree: 6

Grading Option: Pass No Pass

ASI 2991 INDEPENDENT STUDY

Description: Individual or group projects in research, literature review or extension of course work under the supervision and evaluation of a Major faculty member who is willing and available to contract with the student. The student will present his/ her independent study proposal to the Major Academic Lead and faculty for their approval. (Pre req: Approval of project by Instructor, Academic Lead, and Advisor)

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 3

Grading Option: Graded



ASI 2992 INDEPENDENT STUDY

Description: Individual or group projects in research, literature review or extension of course work under the supervision and evaluation of a Major faculty member who is willing and available to contract with the student. The student will present his/ her independent study proposal to the Major Academic Lead and faculty for their approval. (Pre req: Approval of project by Instructor, Academic Lead, and Advisor)

Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 4
Grading Option: Graded

Program Outcomes

1. Students will be able to effectively communicate in oral and written form.
2. Students will be able to gather, assimilate and process information to reach sound logical conclusions.
3. Students will be able to apply economic principles of accounting, marketing and budgeting to agricultural enterprises.
4. Students will be able to exhibit required knowledge and skills consistent with their chosen field of study.

Equine Industry Management

Suggested Sequence of Study

Course	Title	Credit Hours
First Year		
Fall		
ASI 1001	SUCCESS IN ANIMAL SCIENCE	1
ECN 1103	INTRODUCTION TO AG ECONOMICS	3
ASI 1304	ANIMAL MANAGEMENT	4
ASI 1253	NUTRITION	3
ASI 1501	EQUINE SAFETY	1
ASI 1442	EQUINE PRACTICUM I	2
ASI 1262	BASIC EQUITATION	2
Credit Hours		16
Spring		
ASI 1024	FUND OF ANIMAL BIO	4
ASI 2203	FEEDS & FEEDING	3
ABM 2963	FARM, RANCH, AND SMALL BUSINESS RECORD KEEPING	3
MTH 1403	AGRICULTURAL MATHEMATICS	3
Elective		3
Credit Hours		16
Summer		
ASI 2903	INTERNSHIP	3
Credit Hours		3
Second Year		
Fall		
ABM 2854	FARM & RANCH MANAGEMENT	4
ASI 2412	EQUINE MARKETING TECHNIQUES	2
ASI 2433	EQUINE INDUS MNGT I	3
AGR 2823	INTRODUCTION TO GLOBAL AGRICULTURE AND NATURAL RESOURCES	3

Advisor Guided Electives		4
Credit Hours		16
Spring		
AGR 2982	AGRICULTURAL PRODUCTION SYSTEMS CAPSTONE	2
ASI 2443	EQUINE INDUS MNGT II	3
ENG 1503	TECHNICAL COMMUNICATION I	3
SPC 1103	SALES COMM	3
ASI 2442	EQUINE PRACTICUM II	2
Advisor Guided Electives		3
Credit Hours		16
Total Credit Hours		67

Feedlot Management Option

Suggested Sequence of Study

Course	Title	Credit Hours
First Year		
Fall		
ASI 1001	SUCCESS IN ANIMAL SCIENCE	1
ECN 1103	INTRODUCTION TO AG ECONOMICS	3
ASI 1304	ANIMAL MANAGEMENT	4
ASI 1213	LIVESTK & CARC EVAL	3
ASI 1253	NUTRITION	3
AGR 2823	INTRODUCTION TO GLOBAL AGRICULTURE AND NATURAL RESOURCES	3
Credit Hours		17
Spring		
ASI 1024	FUND OF ANIMAL BIO	4
ASI 2203	FEEDS & FEEDING	3
ABM 2963	FARM, RANCH, AND SMALL BUSINESS RECORD KEEPING	3
MTH 1403	AGRICULTURAL MATHEMATICS	3
Advisor Guided Electives		3
Credit Hours		16
Summer		
ASI 2903	INTERNSHIP	3
Credit Hours		3
Second Year		
Fall		
ABM 2854	FARM & RANCH MANAGEMENT	4
ASI 2383	LARGE ANIMAL DISEASES	3
ASI 1202	FEEDLOT PRACTICUM I	2
SPC 1103	SALES COMM	3
Advisor Guided Electives		3
Credit Hours		15
Spring		
AGR 2982	AGRICULTURAL PRODUCTION SYSTEMS CAPSTONE	2
ASI 1203	FEEDLOT SYSTEMS	3
ASI 1302	FEEDLOT PRACTICUM II	2
ASI 2313	RATION FORMULATION	3

ENG 1503	TECHNICAL COMMUNICATION I	3
MKT 2203	AG MARKETING	3
Credit Hours		16
Total Credit Hours		67

Livestock Management, Associate of Applied Science

Course	Title	Credit Hours
First Year		
Fall		
ASI 1001	SUCCESS IN ANIMAL SCIENCE	1
ECN 1103	INTRODUCTION TO AG ECONOMICS	3
ASI 1304	ANIMAL MANAGEMENT	4
ASI 1213	LIVESTK & CARC EVAL	3
ASI 1253	NUTRITION	3
AGR 2823	INTRODUCTION TO GLOBAL AGRICULTURE AND NATURAL RESOURCES	3
Credit Hours		17
Spring		
ASI 1024	FUND OF ANIMAL BIO	4
MTH 1403	AGRICULTURAL MATHEMATICS	3
ABM 2963	FARM, RANCH, AND SMALL BUSINESS RECORD KEEPING	3
ASI 2203	FEEDS & FEEDING	3
Advisor Guided Elective		3
Credit Hours		16
Summer		
ASI 2903	INTERNSHIP	3
Credit Hours		3
Second Year		
Fall		
ABM 2854	FARM & RANCH MANAGEMENT	4
ASI 2383	LARGE ANIMAL DISEASES	3
SPC 1103	SALES COMM	3
Advisor Guided Electives		6
Credit Hours		16
Spring		
MKT 2203	AG MARKETING	3
AGR 2982	AGRICULTURAL PRODUCTION SYSTEMS CAPSTONE	2
ASI 2753 or ASI 1203	BEEF PRODUCTION SYSTEMS or FEEDLOT SYSTEMS	3
ENG 1503	TECHNICAL COMMUNICATION I	3
Advisor Guided Electives		4
Credit Hours		15
Total Credit Hours		67

Animal Science-Associate of Science, Transfer degree

Course	Title	Credit Hours
First Year		
Fall		
ASI 1001	SUCCESS IN ANIMAL SCIENCE	1
ASI 1304	ANIMAL MANAGEMENT	4
ASI 1213	LIVESTK & CARC EVAL	3
ASI 1253	NUTRITION	3
ECN 1103	INTRODUCTION TO AG ECONOMICS	3
Credit Hours		14
Spring		
AGR 2823	INTRODUCTION TO GLOBAL AGRICULTURE AND NATURAL RESOURCES	3
ASI 1024	FUND OF ANIMAL BIO	4
ASI 2203	FEEDS & FEEDING	3
HTY 1303	AMERICAN HISTORY AFTER 1877	3
MTH 1503	COLLEGE ALGEBRA	3
Credit Hours		16
Second Year		
Fall		
AED 1023	INTERPERSONAL SKILLS FOR LEADERSHIP	3
MTH 2203	INTRODUCTION TO STATISTICS	3
ACT 1103	ACCOUNTING I	3
ASI 2383	LARGE ANIMAL DISEASES	3
ASI 2303	RANGE MANAGEMENT	3
Credit Hours		15
Spring		
CHM 1014	CHEMISTRY IN CONTEXT I	4
ASI 2513	MEAT SCIENCE	3
ENG 1903	WRITING & INQUIRY	3
MKT 2203	AG MARKETING	3
Electives		2
Credit Hours		15
Total Credit Hours		60