**ANIMAL SCIENCE (ASI)**

**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
**Format:** LEC
**Prerequisite for:** VTS 1521

**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
**Format:** LEC

**ASI 1031 RODEO SEMINAR**
**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
**Format:** LEC

**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
**Format:** FLD

**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 1303)
**Credit Hours:** 3
**Max credits per semester:** 3
**Max credits per degree:** 3
**Format:** LLB

**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
**Format:** LEC

**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
**Format:** LEC

**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
**Format:** LEC

**ASI 1253 NUTRITION**
**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 lecture.
**Credit Hours:** 3
**Max credits per semester:** 3
**Max credits per degree:** 3
**Format:** LEC
ASI 1263 BASIC EQUITATION
Description: (Pre req: ASI 1161 and 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
Format: LAB

ASI 1303 ANIMAL MANAGEMENT
Description: Animal Management is a course that deals with current issues facing the livestock industry, production trends, terminology, animal growth, structure, selection breeds, and development. Principles of managing animals in typical production systems through their life cycle for economic and efficient production will also be suited.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

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: 2
Format: LEC

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
Format: LAB

ASI 1351 ART INSEM BEEF CATTL
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
Format: LEC

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
Format: LEC

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
Format: LEC

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
Format: LEC

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
Format: LEC

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, Division Chair, and Advisor)
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: IND

ASI 2031 RODEO SEMINAR
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
Format: LEC

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
Format: LEC

ASI 2262 EQUINE NUTRITION
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Description</th>
<th>Credit Hours</th>
<th>Max credits per semester</th>
<th>Max credits per degree</th>
<th>Format</th>
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<tbody>
<tr>
<td>ASI 2303</td>
<td>RANGE MANAGEMENT</td>
<td>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.</td>
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<td>LEC</td>
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<tr>
<td>ASI 2312</td>
<td>LIVESTOCK JUDGING II</td>
<td>A continuation of ASI 1312. (Pre req: ASI 1312)</td>
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<tr>
<td>ASI 2313</td>
<td>RATION FORMULATION</td>
<td>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)</td>
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<tr>
<td>ASI 2332</td>
<td>LIVESTOCK JUDGING III</td>
<td>A continuation of ASI 2312. (Pre req: ASI 2312)</td>
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<tr>
<td>ASI 2353</td>
<td>LIVESTOCK BREEDING</td>
<td>A course in the principles of genetics and hereditary characteristics applied to livestock production, including production records, selection, and design of mating systems.</td>
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<tr>
<td>ASI 2362</td>
<td>ADVANCED EQUITATION</td>
<td>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)</td>
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<tr>
<td>ASI 2363</td>
<td>INTERMEDIATE TRAINING</td>
<td>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.</td>
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<tr>
<td>ASI 2383</td>
<td>LARGE ANIMAL DISEASE</td>
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<tr>
<td>ASI 2403</td>
<td>MONITORING TECHNIQUES AND DATA COLLECTION</td>
<td>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.</td>
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<tr>
<td>ASI 2412</td>
<td>EQUINE MARKETING TECHNIQUES</td>
<td>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.</td>
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<tr>
<td>ASI 2433</td>
<td>EQUINE INDUS MNGT I</td>
<td>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.</td>
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<tr>
<td>ASI 2442</td>
<td>EQUINE PRACTICUM II</td>
<td>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.</td>
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<tr>
<td>ASI 2443</td>
<td>EQUINE INDUS MNGT II</td>
<td>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.</td>
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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
Format: LEC

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
Format: LAB

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
Format: LLB

ASI 2513 MEAT SCIENCE
Description: 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. (Pre req: ASI 1303)
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

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
Format: LEC

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
Format: LEC

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
Format: LEC

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
Format: LEC

ASI 2612 EQUINE REPRODUCTION
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.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

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
Format: LLB

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
Format: LEC
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
Format: FLD

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 Division Chair)

Credit Hours: 6
Max credits per semester: 6
Max credits per degree: 6
Format: FLD

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 Division Chair and faculty for their approval. (Pre req: Approval of project by Instructor, Division Chair, and Advisor)

Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC

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 Division Chair and faculty for their approval. (Pre req: Approval of project by Instructor, Division Chair, and Advisor)

Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC