AGRICULTURE (AGR)

AGR 1011 AGRICULTURAL CAREERS
Description: Students will be exposed to the great diversity of careers that support the agricultural industry. Educational requirements to prepare for these agricultural careers will also be explored.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC

AGR 1091 CROP PRACTICUM I
Description: This is the first course of a 3-course sequence that integrates students into the crop production on NCTA’s farm laboratory. Students will work as a team to develop a crop management plan for one of NCTA’s crop fields. The plan will include actual production practices, budgeting and marketing of the harvested crop. Crop planting and harvest will be conducted by the students and possibly some ag chemical applications. Due to farm size limitations, the practicum courses will be limited to just Agronomy majors.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC

AGR 1103 CROP SCIENCE
Description: Students will develop a global understanding of the food, feed, and fiber system. Crop production strategies to maximize yield and quality while sustaining resources and the environment will be emphasized. Principles of crop growth and development, pest management and technology for crop production will be covered.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

AGR 1116 AGRICULTURE APPLICATIONS
Description: This course is designed for students to gain experience in handling conditions on the farm daily. Students will receive hands on experience.
Credit Hours: 6
Max credits per semester: 6
Max credits per degree: 6
Format: LLB

AGR 1201 SOILS LAB
Description: Laboratory activities dealing with physical, biological and chemical properties of soils that support plant growth.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LAB

AGR 1203 PRINCIPLES OF SOILS
Description: A study of soil formation, physical, biological and chemical properties of soil with attention given to conditions that affect plant growth. Impacts of crop management on soil quality will be emphasized.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

AGR 1213 NATURAL RES MNGT
Description: A study of our natural resources with special emphasis on soil and water management including land classification, conservation practices, and protection methods used to conserve our natural resources, plus the role of government agencies in Natural Resource Management.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

AGR 1591 CROP PRACTICUM II
Description: This course is the second of a three course sequence that will be required for all agronomy majors. The 3-course practicum sequence will provide another direct assessment of the agronomy program learning outcome of “applying economically sound and environmentally sustainable agriculture crop production practices.” The practicum courses will also increase student utilization of the college's farm laboratory.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LLB

AGR 1603 INTRODUCTION TO URBAN AGRICULTURE
Description: An introduction to the history, definitions, principles, practices, and innovations of agricultural production in urban and peri-urban settings. Topics will include urban farming systems including traditional and emerging systems such as controlled environment agriculture, hydroponics, animal systems in urban settings, urban food systems, community gardens, policies regarding urban agriculture, food access and security, urban agriculture’s role in community and society, agricultural marketing in urban setting, and sustainable urban agricultural best practices.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

AGR 1661 AGRONOMY ORIENTATION
Description: This course will provide students the opportunity to develop their “intercultural knowledge and competence” and “information literacy” skills and abilities. It will also include group activities to help formulate career goals, improve academic success skills, develop a resume and select and appropriate internship.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC

AGR 1881 APPLIED AGRICULTURAL EXPERIENCE
Description: Instructor permission required for enrollment. The course will provide agricultural experiential learning activities that meet the specific needs of international students and partner. Learning experiences will emphasize hands-on activities in the field or laboratory that reflects the student's chosen career. Experiences will be designed collaboratively between NCTA and the international student or partner, including the determination of the appropriate credit hours for the experience.
Credit Hours: 1-6
Min credits per semester: 1
Max credits per semester: 6
Max credits per degree: 6
Format: FLD
AGR 1891 CROPS JUDGING I
Description: This course will cover all principles of agronomy to prepare students to compete in crops judging contests that operate under the North American Colleges and Teachers of Agriculture (NACTA) contest guidelines.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 3
Format: LEC

AGR 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

AGR 2002 WILDLIFE HABITAT MGT
Description: A course that studies the most common Nebraska Wildlife species that are managed for harvest throughout the state. The habitat requirements and management techniques for each wildlife species will be covered. Current wildlife habitat support programs will be reviewed.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

AGR 2091 CROP PRACTICUM III
Prerequisites: AGR 1991 Crop Practicum II
Description: This is the third of a 3-course sequence that integrates students into the crop production o NCTA's farm laboratory. Students will work as a team to develop a crop management plan for one of NCTA's irrigated crop fields. The plan will include actual production practices, budgeting and marketing of the harvested crop. Crop planting and harvest will be conducted by the students and possibly some ag chemical applications. Due to farm size limitations, the practicum courses will be limited to just Agronomy majors.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC

AGR 2103 BUILDING CONSTRUCTION
Description: A study of materials, techniques, and design used for farm and ranch facilities. Lab time will include the construction of Ag building, fences, and facilities on the NCTA campus.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

AGR 2153 ORGANIC FOOD PRODUCTION
Description: An introduction to the history, definitions, principles, and practices of organic food production. Topics include soil husbandry, integrated pest management, farming systems including diversified vegetables, perennial fruit, agronomic field crops, meat, egg, and milk production, organic certification, and marketing.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

AGR 2201 COMMERCIAL AG CARRIER
Description: A course of study designed to enable students to successfully obtain their CDL with all necessary endorsements. This course of study targets agricultural employees and producers. It is not intended for those seeking fulltime employment as commercial truck drivers. (Pre req: Must be a full time NCTA student)
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC

AGR 2304 SOIL FERTILITY
Description: Dynamics of essential plant nutrients in the soil environment. Sustainable and profitable fertility management of agronomic and horticultural crops will be emphasized. Characteristics of the fertilizer materials, fertilizer application methods and fertilizer rate calculations will be covered.
Credit Hours: 4
Max credits per semester: 4
Max credits per degree: 4
Format: LEC

AGR 2353 PEST MANAGEMENT
Description: Identification of plant pests, including morphology and life cycles of selected insects, weeds and diseases. Pest control methods will include chemical, physical, mechanical, cultural and biological techniques. Application of integrated pest management will be stressed.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

AGR 2383 IRRIGATION MANAGEMENT
Description: Efficient irrigation management strategies of agronomic crops. Irrigation techniques, irrigation scheduling, equipment selection, and water use regulations will be covered. Sustainable utilization of our water resources will be emphasized.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

AGR 2403 CROP MANAGEMENT
Description: Integration of principles of crop and soil science, plant breeding, climatology and integrated pest management in the development ad evaluation of crop management practices. Students will be able to apply economically sound and environmentally sustainable crop production strategies in the Great Plains.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
AGR 2714 FARM BEGINNINGS  
**Description:** The Farm Beginnings Program consists of a series of sessions offered throughout the year by Nebraska Extension with cooperation from NCTA. The sessions focus on alternative agriculture and cover a variety of topics, including building networks, goal setting, whole farm planning, building your business plan, marketing, business and farm management and financials management. In addition to learning first-hand from successful farmers, participants will develop their own business plan as they progress through the course.  
**Credit Hours:** 4  
**Max credits per semester:** 4  
**Max credits per degree:** 4  
**Format:** LEC

AGR 2892 CROPS JUDGING II  
**Description:** This course will cover all principles of agronomy to prepare students to compete in crops judging contests that operate under the North American College and Teachers of Agriculture (NACTA) contest guidelines.  
**Credit Hours:** 2  
**Max credits per semester:** 2  
**Max credits per degree:** 6  
**Format:** LEC

AGR 2903 INTERNSHIP  
**Description:** (Pre req: approval by Division Chair) 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 internship must last a minimum of 8 weeks averaging at least 40 hours per week (NOTE: students must honor length agreed upon by employer). A written journal of daily work activities plus a 10 minute PowerPoint presentation are required upon returning form internship. Students must submit a list of learning objectives prior to the internship and include discussion of these withing their presentation. The student and employer will also complete a survey at the conclusion of the internship.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** FLD

AGR 2943 FARM AND RANCH CAPSTONE  
**Description:** (Pre req: Second year students only in their last semester before graduation.) This is a Capstone course for students intending to own and operate their own farm or ranch. A business plan will be completed including: facility design, management plan, marketing plan, and complete financial package for the proposed operation including a cash flow, net worth, and budget.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

AGR 2983 CAPSTONE  
**Description:** This course is designed to culminate the student’s experience in their APS or AMS program and will focus on tying together functional aspects of a farm, ranch, or entrepreneurial venture. The class will culminate with a workable business plan, understand the legal and regulatory environment of their proposed enterprise, and be ready to move into formation. Included in this plan will include facility design, applicable management plans, and a complete financial package for the proposed operation that will include a cash flow, net worth, one year and three year budget, and what-if analysis. This course allows students an opportunity to integrate tools learned in their respective program.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

AGR 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/h her independent study proposal to the Major Division Chair and faculty for their approval. (Pre req: Approval of project by Instructor, Advisor, and Division Chair)  
**Credit Hours:** 2  
**Max credits per semester:** 2  
**Max credits per degree:** 2  
**Format:** IND