Discover Your Way at NCTA

I want to make a career out of my green thumb

I want a career that combines business and agriculture

I'd like to own my own ranch or farm

I want to help animals

Nebraska College of Technical Agriculture

College Catalog

2015-2016
Welcome to the Nebraska College of Technical Agriculture. NCTA is an outstanding college, known for its small classes, friendly faculty and highly successful students. Our college has a unique mission in the University of Nebraska system. We focus on tangible learning activities and hands-on education relevant to modern agricultural careers. At the end of a day of classes, students can look back on the past few hours and clearly see that they have developed specific skills that are immediately useful in various agricultural endeavors.

We prepare students to be leaders and entrepreneurs in agricultural industries and we do so in a warm and friendly environment. Our college is small, easy to navigate, and very welcoming to our students. The college is located in the small town of Curtis which is very supportive of NCTA students and college activities. We treat students, faculty, staff and other members of our college community with respect and kindness.

An important component of the mission of the Nebraska College of Technical Agriculture is to provide residents of Nebraska and surrounding states with access to higher education services. We give students the opportunity to succeed in college. Once students arrive on campus, our faculty and staff work very hard to help them achieve success. We provide opportunity academically, socially and financially. We are an open admissions institution. We keep the cost of tuition low to make higher education more affordable. Over the past few years, more than 90% of NCTA students have received financial aid. On average, Nebraska residents getting financial aid have received grant and scholarship awards that exceeded the cost of tuition and fees by $700 per year. After paying their bill for tuition and fees, most in-state students received a check for more than $700 to be used to pay for rent, food, transportation, books and other expenses associated with living and going to college.

After graduating, students express satisfaction with their education at NCTA. In a recent student opinion survey, 76% indicated they would choose NCTA if they were to start college over again, 79% reported their impression of NCTA was good or excellent, and 85% said they were satisfied or very satisfied with the preparation they received for their occupation. Five years after graduation, of those completing the graduate survey, 76% said that NCTA career preparation was good or very good, 62% are employed in agriculture, and 71% have been at their position full-time since graduation.
NCTA students have the opportunity to become engaged in a number of exciting programs at the college. You may become involved in the rodeo team, ranch horse team, livestock judging team, shooting sports team, crop judging team and other clubs and teams. NCTA students often do very well when competing nationally. Within the past year members of our rodeo team have been nationally ranked, our agribusiness academic team was ranked number two nationally and our crop judging team was ranked number two nationally.

NCTA students now have the opportunity to enroll in a number of exciting new academic programs at NCTA such as irrigation technology and ranch horse management, in addition to our traditional outstanding academic strengths in veterinary technology, animal science, plant science, ag business agricultural mechanics and horticulture. NCTA students may also enroll in the UNL Bachelor of Applied Science degree at the Curtis campus. While working on their bachelor’s degrees, students will have full access to the standard support services available to NCTA students, such as the ability to live in the residence halls, access college advising and financial aid assistance, use NCTA library services, access computer services and participate in campus athletic activities. During their junior and senior years of the program, students will take some NCTA courses but most courses will be online from the College of Agricultural Science and Natural Resources (CASNR) at UNL.

We celebrate our passion for agriculture at NCTA. Our academic programs are comprehensive and consist entirely of agricultural disciplines. You’ll see students on horseback riding across campus and you’ll see students wearing spurs in the dining hall. Our 580 acre working farm is immediately adjacent to campus and easily accessible for classroom activities. We have an extensive array of animals used for class activities including cattle, horses, dogs, birds, snakes, alpacas, rodents, and other exotics.

This is a great time for our students to be entering the field of agriculture. We see an increasing demand placed on our agricultural industries to provide even more food for a growing world, to emerge as a source of energy, to address some of our society’s health concerns, and to play a leading role in resolving the country’s environmental issues. Profits in production agriculture have grown considerably in the past few years and the future of the industry is very bright. Students graduating from NCTA are prepared and eager to be involved with these issues.

When you’re on campus feel free to stop by if you have questions, recommendations, or just wish to say hello! My door is always open. I’m also available by phone or email to answer questions or discuss issues. I’m looking forward to hearing from you!

Ron Rosati, Dean
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Outcomes and Objectives
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**AUGUST 2015**
- **22** Residence Halls open for fall semester at 10 am
- **22-23** Freshman Orientation
- **24** Late Registration Begins ($25 late registration fee assessed)
- **24** First Semester Classes Begin

**SEPTEMBER**
- **1** Last day to drop a full semester course and receive a 100% refund
- **4** Last day to drop a full semester course and receive a 75% refund
- **4** Last day to file a drop to remove course from student’s record
- **5** All course withdrawals noted with a grade of “W” on academic record (through 11/30)
- **7** LABOR DAY (Student and Staff Holiday - NCTA Offices Closed)
- **11** Last day to drop a full semester course and receive a 50% refund
- **12** Last day to submit tuition and fees payment without penalty
- **18** Last day to drop a full semester course and receive a 25% refund - No refund after this date

**OCTOBER**
- **1** December Degree Applications Due
- **2** Last day to DROP first 8-week course
- **16** FIRST 8-WEEK FINAL EXAMS
- **16** First 8-Week Session Ends
- **19-20** FALL BREAK (Student Holiday – NCTA Offices Open)
- **19-20** Residence Halls Open (Fall Break)
- **21** Second 8-Week Session Begins

**NOVEMBER**
- **9** Registration Begins for Spring Semester 2016
- **25** Residence Halls close for Thanksgiving at 10 am
- **25** STUDENT HOLIDAY (NCTA Offices Open)
- **26-27** THANKSGIVING VACATION (NCTA Offices Closed)
- **29** Residence Halls closed at 10 am
- **30** Last day to DROP second 8-week and 16-week courses

**DECEMBER**
- **14-17** FIRST SEMESTER FINAL EXAMS
- **17** END OF FALL SEMESTER (Student Holiday Break Begins)
- **18** Residence Halls close for winter break at 10 am
- **24-1/3** HOLIDAY CLOSEDOWN (NCTA Offices Closed)

**JANUARY 2016**
- **4** NCTA Opens from Holiday Closedown
- **10** Residence Halls reopen for spring semester at 10 am
- **11** Second Semester Classes Begin
- **11** Late Registration Begins ($25 late registration fee assessed)
- **18** MARTIN LUTHER KING JR. DAY (Student and Staff Holiday – NCTA Offices Closed)
- **19** Last day to drop a full semester course and receive a 100% refund
- **22** Last day to drop a full semester course and receive a 75% refund
- **22** Last day to file a drop to remove a course from student’s record
- **23** All course withdrawals noted with a grade of “W” on academic record (through 4/14)
- **29** Last day to drop a full semester course and receive a 50% refund

**FEBRUARY**
- **5** Last day to drop a full semester course and receive a 25% refund - No refund after this date
12. Last day to submit tuition and fees payment without penalty
15. May Degree Applications Due (also applications for August grads going through May ceremony)
19. Last day to DROP first 8-week course

**MARCH**
4. **FIRST 8-WEEK FINAL EXAMS**
4. First 8-Week Session Ends
7. Registration begins for Summer Session 2016
7. Second 8-Week Session Begins
18. Residence Halls close for Spring Break at 5 pm
21-25. **SPRING BREAK**  
(STUDENT HOLIDAY — NCTA Offices Open)
27. Residence Halls Reopen at 10 am

**APRIL**
15. Last day to DROP second 8-week and 16-week courses
10. Registration Begins for Fall Semester 2015
29. **SECOND SEMESTER FINALS**

**MAY**
2-4. **SECOND SEMESTER FINALS**

5. End of Spring Semester
5. GRADUATION!!
6. Residence Halls Closed for summer at 10 am
30. **MEMORIAL DAY** (NCTA Offices Closed)

**JUNE**
8. Summer Session Begins
16. Last day to drop a summer session course and receive a 100% refund
17. Last day to drop a summer session course and receive a 75% refund
24. Last day to drop a summer session course and receive a 50% refund

**JULY**
1. August Degree Applications Due
3. Last day to drop a summer session course and receive a 25% refund - No refund after this date
4. **INDEPENDENCE DAY HOLIDAY** (NCTA Offices Closed)
22. Last day to DROP an 8-Week summer session course

**AUGUST**
5. Summer Session Ends
GENERAL INFORMATION

This is a Course Catalog for the Nebraska College of Technical Agriculture (NCTA). This catalog will serve as a reference during your time at NCTA. We hope the information contained will provide answers to your questions about NCTA.

Vision
The Nebraska College of Technical Agriculture will be an effective and nurturing student-centered learning community with a national reputation for producing graduates who are in high demand by cutting-edge industries.

Mission
The Nebraska College of Technical Agriculture is devoted to a statewide mission of preparing students for successful careers in agriculture, veterinary technology, food and related industries. The college provides open access to innovative technical education resulting in associate degrees, certificates, diplomas and other credentials.

Key Characteristics
Important and distinctive features of the NCTA experience:

✚ Practical, applied, experiential educational activities
✚ Career-applied technical education
✚ Programs relevant to job attainment and career development
✚ Dedicated and caring faculty and staff
✚ Low student-to-faculty ratio
✚ Accessible land and animal resources for hands-on learning
✚ Interaction and support from agricultural industries and employers
✚ Close working relationship with the UNL Institute of Agriculture and Natural Resources (IANR) and the College of Agricultural Sciences and Natural Resources (CASNR)

Facilities
The Nebraska College of Technical Agriculture occupies a 72-acre campus which adjoins the town of Curtis on the northeast. The facilities include Agriculture Hall (which houses the Associate Dean’s and Dean’s Offices, Business Office, Student Life Office, Agribusiness Management Systems Division, General Education Division, the Bookstore, a computer laboratory, and classrooms). The Livestock Teaching Center, completed in 2000, includes livestock classrooms, lab facilities and an arena with a 700-person seating capacity; the Education Center houses the Welcome Center, an auditorium, state of the art laboratories, a computer lab, Agronomy and Horticulture Offices, along with Student Services Office, Recruitments, Admissions, and the Financial Aid Offices. Other buildings on campus include four permanent residence halls; a cafeteria; a deli, the Student Union/Activities Center; the Learning Resource Center; a Horticulture

ACCREDITATION
The Nebraska College of Technical Agriculture has been granted accreditation with the Higher Learning Commission, a commission of the North Central Association of Colleges and Schools. The American Veterinary Medical Association accredits the Veterinary Technology program. In addition, the College is approved to offer courses and majors for veterans benefits and training under the War Orphans Act.
Computing at NCTA
Information Systems at the Nebraska College of Technical Agriculture provides easy access for the large variety of campus users. Currently, the campus has three computer labs comprised of PC systems of various speeds. All systems are capable of multimedia and are running the Windows.

Most faculty on campus use laptop computers extensively in the classroom teaching environment. Most classrooms are equipped with multimedia data projectors that are implemented in virtually every class. Most faculty use BlackBoard to distribute notes, lectures and assignments. All faculty and staff can be issued an e-mail address.

Networking on campus consists of a 100/1000 Mbps Ethernet network. Most locations on campus have access to a “wireless” connection. The wireless network is available to all faculty, staff and students on campus with the proper equipment and online registration. The network has a high-speed link off campus providing firewalled access to the Internet and Internet2.

The Computer Usage Policy for NCTA and the University of Nebraska is available upon asking Information Systems personnel and is also printed in the Student Handbook (page 22).
Catalog
The catalog should not be considered a contract between the Nebraska College of Technical Agriculture and any prospective student. The Nebraska College of Technical Agriculture reserves the right (without notice) to make changes in graduation requirements, costs, curriculum, course structure and content, the calendar of operations, and college personnel during the life of the catalog. This college catalog will be in effect beginning with the 2015-16 academic year. Students should keep this catalog for referral throughout their academic career.

In accordance with the Family Education Rights and Privacy Act of 1974, NCTA may disclose public/directory information from the education records of a student who is in attendance at NCTA. Also, the student has the right to refuse to permit NCTA to disclose directory information. If a student wishes to have all public/directory information excluded as public information, the student must notify, in writing, the Registrar’s Office no later than September 4.

The Nebraska College of Technical Agriculture does not discriminate in its academic, admissions or employment policies and abides by all federal and state regulations. NCTA is an affirmative action/equal opportunity institution. NCTA is in compliance with the Americans with Disabilities Act.

Policies Information

Student’s Right to Know
In compliance with the Department of Education’s Student Right-to-Know Act, all colleges and universities receiving Title IV funds are required to report various points of information to students, employees and prospective students.

The Student Right-to-Know Act requires an institution that participates in any federal student financial assistance program to disclose information about graduation or completion rates to current and prospective students. http://ncta.unl.edu/faculty-staff-resources

Clergy Act
The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (commonly known as the Clergy Act) is federal legislation designed to provide students, prospective students, and the public with uniform information from universities throughout the country on criminal problems and police and security issues. This brochure meets all reporting requirements as set forth in the Clergy Act. Criminal statistics are updated by October 1 of each year.

Crime Awareness and Campus Security Act of 1990
Campus security and safety is an important factor of postsecondary education. The Crime Awareness and Campus Security Act of 1990 http://ncta.unl.edu/faculty-staff-resources is a federal law that requires colleges and universities to disclose information about campus crime and security policies. Colleges and universities that are eligible to receive Title IV funding must publish an annual report by October 1. The report must contain three years of crime statistics in various categories.

Net Price Calculator - http://ncta.unl.edu/netcost
Student Complaint Form – https://nctaunl.wufoo.com/forms/student-complaint-form/

Graduation Report – Graduation Rate 2012
NCTA- 63%
Peer Institutions-37%

Retention Report – Full Time Retention 2012
NCTA-63%
Peer Institutions-60%

The following data is provided to fulfill the General Disclosure requirements relating to completion of graduation. Collection of data began in 1990 and is current through 2011. The Completion or Graduation Rate in 2011 for students who entered the Nebraska College of Technical Agriculture in 2008, on a full-time basis, was 57%.

Student’s Rights and Responsibilities
In all cases, the Nebraska College of Technical Agriculture is included as part of the University of Nebraska and is under the control of the Board of Regents of the University of Nebraska.
Equal Educational Opportunity
The Nebraska College of Technical Agriculture affirms its policy of administering all educational programs, related support services and benefits in a manner that does not unfairly discriminate on the basis of a student’s or prospective student’s race, age, color, disability, religion, sex, sexual orientation, ethnic origin, marital status, or veteran status for admission, academic performance and conduct in accordance with policies, rules and laws applicable to student conduct.

The Board of Regents Bylaws, Chapter 5, contains a series of policies entitled “Responsibilities and Rights of Students.” A number of those policies are contained in this section, with others being incorporated into other applicable sections.

Statement of Responsibility
All members of the academic community have the responsibility to create and support an educational environment, which will achieve the basic purposes of NCTA. Each member of the community should be treated with respect and dignity. Each has the right to learn. This right imposes a duty not to infringe upon the rights of others. The academic community should assure its members those opportunities, protections and privileges, which provide the best climate for learning. (Board of Regents-BOR Bylaws, Section 5.0)

Publicity of Rules Affecting Students
NCTA shall publicize and keep current all rules, regulations and policies concerning students and ensure that they are readily available to all students and other interested persons. (BOR Bylaws, Section 5.2)

Admissions and Continued Enrollment Criteria
NCTA shall publish the criteria for admission, academic progress, certificates and degrees for all programs of the Nebraska College of Technical Agriculture. Admission to NCTA and the privileges of the students shall not be denied to any person because of age, sex, race, color, national origin, or religious or political belief. (BOR Bylaws, Section 5.2)

Academic Evaluation
The faculty members determine the character of the courses, which includes the content, instructional and grading procedures. Students shall be informed of the requirements, standards, objectives and evaluation procedures at the beginning of each individual course. Instructors should be available on a regular basis for consultation with students. Each student shall be given an unbiased evaluation of his/her performance and the specified grading procedure during the progress of the course, if requested. A student has the right to ask for clarification of the basis for his/her grade.

NCTA shall provide a faculty-student appeals committee for students who believe that evaluation of their academic progress has been prejudiced or capricious. Such procedure shall provide for changing of a student’s evaluation upon the committee’s finding that an academic evaluation by a member of the faculty has been improper. The procedure for this process is described under “Grade Appeals”. (BOR Bylaws, Section 5.3, page 24)

Course Evaluation
Students can contribute significantly to the evaluation of instruction. The faculty has the obligation to solicit student evaluation of its educational efforts and to make changes in accordance with its best judgment. To assist the faculty in the task of providing the best possible education, NCTA has a standing procedure through which students have an opportunity to report their perceptions of courses and the methods by which they are being taught. This procedure, however, shall protect members of the faculty from capricious and uninformed judgments. (BOR Bylaws, Section 5.3)
STUDENT RECORDS: INCLUDING FAMILY EDUCATIONAL RIGHTS & PRIVACY ACT

Annual Notice to Students
The Nebraska College of Technical Agriculture complies fully with the Family Educational Rights and Privacy Act of 1974, as amended. This Act was designed to protect the privacy of education records, to establish the right of students to inspect and review their education records, and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. Students also have the right to file complaints with the Family Educational Rights and Privacy Act Office concerning alleged failures by the institution to comply with the act.

Kind of Information Maintained
Academic, behavioral, and “public directory” information is maintained on all enrolled students. Grade transcripts and files of graduates and withdrawn students are kept in the Registrar’s Office.

Normal Access to Files
Access of non-public or non-directory information is granted to faculty and support staff personnel only for purposes related to their educational function and/or job responsibilities. Any access other than to the student or as mentioned above, is allowed only by written consent of the student.

When a student provides written consent for release of information to another college, business, or agency, the university office or department complying with the request will notify the college, business, or agency involved that it may not pass on the information obtained to the third party without the further consent of the student.

NCTA reserves the right to deny copies of records, including transcripts, not required to be made available by FERPA in any of the following situations:

✚ The student has unpaid financial obligations to the College.
✚ There is an unresolved disciplinary action against the student.
✚ The education record requested is an exam or set of standardized test questions. (An exam or standardized test which is not directly related to a student is not an educational record subject to FERPA’s access provisions.) Students who wish to gain access to their files should contact the Registrar’s Office.

Challenge Procedures
Students who wish to challenge the accuracy of any document contained within a cumulative file should
contact the director of the office which maintains that file. The director will hear the student’s reasons for the challenge and attempt to informally resolve or arbitrate any contested points or issues. If an informal disposition cannot be made, the student has the right to a hearing before an impartial board duly established for such purpose. Students desiring a hearing should contact the appropriate director to: (1) request a hearing, (2) establish a hearing date, and (3) obtain copies of the hearing board’s rules or procedures.

Public or Directory Information
The University of Nebraska/NCTA defines the following student information as public directory information.

- Student’s name
- Local address
- Permanent address
- Telephone numbers
- Year at NCTA
- Dates of attendance
- Major field of study
- Enrollment status (full-time, part-time)
- Participation in officially recognized activities and sports
- Weight and height of member of athletic teams
- Degrees, honors and awards received
- Previous educational institution attended

Students are advised that information other than public or directory information may be released in emergency or life-threatening situations.

Directory information will be available to the public upon request and may be included in student directories published electronically and in hard copy.

Nondiscrimination Policy
It is the policy of the Board of Regents of the University of Nebraska that all employees on each campus of the University of Nebraska be employed and equitably treated in regard to the terms and conditions of their employment without regard to individual characteristics other than qualifications for employment, quality of performance of duties, and conduct in regard to their employment in accordance with University policies and rules and applicable law. (RP-3.1.1)

Students on each campus of the University of Nebraska shall be admitted and (shall) enjoy the programs and privileges of the University without regard to individual characteristics other than qualifications for admission, academic performance, and conduct in accordance with University policies and rules and law as applicable to student conduct.

This policy is enforced by the Nebraska College of Technical Agriculture in regards to the federal laws under Title IX of the Educational Amendment of 1972, Title VI of the Civil Rights Act of 1964, and section 504 of the Rehabilitation Act of 1973. Inquiries regarding compliance with these statutes may be directed to the Affirmative Action Office, c/o Office of the Chancellor, 308 Administration Building, University of Nebraska–Lincoln, telephone: 402-472-3417 or to the Director of the Office for Civil Rights, Department of Health, Education and Welfare, Washington D.C.

The Nebraska College of Technical Agriculture campus coordinator for compliance or concerns is: Jan Gilbert, Room 24, Ag Hall. Student concerns in regard to Title IX and 504 compliance may be submitted to the above officers or Dr. Scott Mickelsen.

Student Discrimination Grievance Procedures.
Any student with a grievance regarding discrimination on the NCTA campus by campus personnel should present the grievance to the Student Services Office. If the grievance is not resolved, it will be forwarded to the NCTA Title IX Committee for review. The Title IX Committee will conduct a complete investigation and recommend appropriate actions to be taken to the administration for NCTA.
American Disabilities Act. Qualified persons entering the NCTA campus, should enter the east side of Ag Hall as marked by signs. A telephone is available for services. We encourage you to call 308-367-5217 in advance to assure personal help is available on arrival.

NCTA Clean Air Policy

NO TOBACCO PRODUCTS MAY BE USED IN FACILITIES OR VEHICLES OF THE UNIVERSITY OF NEBRASKA EXCEPT AS SPECIFICALLY DELINEATED BELOW.

Use of tobacco products on the grounds of NCTA is allowed as long as such use is not within close proximity (defined as within 10 feet) of any facility or work site. All residence halls are smoke free.

Free consultations and information are available through Student Health Services which is located at the Curtis Medical Center for those students who wish to stop smoking.

Noncompliance with these provisions will be managed in accordance with existing personnel guidelines.

University Of Nebraska Harassment Policy

The University of Nebraska reaffirms that all women and men - students, staff, faculty and administrators - are to be treated fairly and equally with dignity and respect. Any form of sexual harassment is prohibited. Sexual harassment is unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when:

1. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual’s employment or academic standing.
2. Submission to, or rejection of, such conduct by an individual is used as the basis for employment decisions or academic decisions affecting such individuals, or
3. Such conduct has the purpose or effect of unreasonably interfering with an individual’s work or academic performance or creating an intimidating, hostile, or offensive working/academic environment.

Sexual harassment will not be condoned during the work or school day, nor will acts of sexual harassment be permitted outside the work or school environment or within a student/teacher relationship.

Inquiries and grievances: The University of Nebraska provides grievance procedures for anyone associated with the University who believes he or she has not received the benefit of this policy.

Questions about the filing of grievance are to be directed to:

Office of the Dean
Room 26 Ag Hall
404 East 7th Street
Curtis, NE 69025
Phone: 308-367-5200

Affirmative Action/Equal Opportunity Policy

It is the policy of the University of Nebraska and the Nebraska College of Technical Agriculture, Curtis, Nebraska not to discriminate based on gender, age, disability, race, color, religion, marital status, veteran’s status, national or ethnic origin, or sexual orientation in its educational programs, admissions policies, employment policies, financial aid, or other college administered programs. This policy is enforced by federal law under Title IX of the Education Amendments of 1972, Title VI of the Civil Rights Act of 1964, and Section 504 of the Rehabilitation Act of 1973. Inquiries regarding compliance with these statutes may be directed to the University of Nebraska-Lincoln Office for Equity, Access and Diversity Programs, 128 Administration Building, Lincoln, NE 68588, telephone (402) 472-3417 or to the Director of the Civil Rights, Department of Health, Education and Welfare, Washington, D.C. All course offerings listed in this
publication are contingent on approval of budget and adequate enrollment. The Nebraska College of Technical Agriculture reserves the right to change the information and regulations included in this catalog.

**Insurance**

NCTA strives to provide a safe environment for its students, however, due to the inherent dangers associated with agriculture, students are encouraged to obtain adequate health and life insurance while attending NCTA.

**FACULTY/STAFF RESOURCES**

**Parking Services**

Employees and students parking on the NCTA campus must purchase a parking permit annually every August with the start of the school year by completing the vehicle registration form.

Students with permits are allowed to park in the student designated parking areas only, not in the faculty/staff or employee parking areas. Faculty/Staff/Employee parking areas require a permit, which is different from the student permits.

A permit is required for each vehicle parked on campus (if you have 2 vehicles, you will need 2 permits. If you drive different vehicles at various times to campus, you may move your permit to the vehicle you are driving that day (please list all vehicles on the registration form).

Parking permits are the property of the University of Nebraska – NCTA and are issued to a specific individual. Ownership is not transferable. By obtaining a parking permit, the permit holder agrees to become familiar with and abide by the rules and regulations.

Please remove any previous year’s permits. Place the permit behind your rear view mirror with the information side facing the window. To avoid a violation the tag needs to be visible at all times. Vehicles will be ticketed without a valid parking permit. Parking violations are issued, if you park in an undesignated area. Parking fines are $25.00 payable in the Business Center in Ag Hall.

Upon receiving a violation, you have 15 days to pay. If the violation is not paid in 15 days, a hold is placed on the student’s MyNCTA account. Holds prevent a student from registering for classes and/or checking out at the end of a semester. A hold can also prevent a student from participating in extra-curricular activities. You have 5 days to appeal the violation in writing to NCTA Parking Services (Business Office) with justification for overturning the violation. Within five days of your written appeal the NCTA Parking Services will send you a letter as to why or why not your appeal was granted. Please include the citation number on all correspondence.

In accordance with UNL-NCTA Parking Services policy, the following reasons are considered as frivolous and not valid as a basis for appeal:

- Lack of knowledge of the regulations, for example, new to campus or have not reviewed regulations;
- Other vehicles were parked improperly;
- Only parked illegally for a short period of time;
- Stated failure of parking officer to ticket previously for similar offenses;
- Late to class or appointment;
- Inability to pay the amount of the fine;
- No other place to park.

Permit holders are urged to protect their permits from theft by locking their vehicles. If a permit is lost or stolen, you are required to report the loss to the NCTA Business Office, in person, immediately. At that time a free temporary permit will be issued for two weeks. If the permit is not located within those two weeks, you will be required to purchase a new permit at the current price of the permit. If the original permit is recovered, the replacement fee will be refunded. The use of any unauthorized, stolen, counterfeit, altered, or reproduced permit will result in confiscation of the permit, revocation of parking privileges for one calendar year, a fine of $50 and a report filed with the NCTA Dean.
ADMISSIONS INFORMATION

Admission Requirements
A high school diploma or the equivalent and the ACT, Compass, or Asset assessment test are required for entrance into the Nebraska College of Technical Agriculture (NCTA). In order for you to be officially accepted without provision, you must submit a complete high school transcript of grades or the equivalent and your ACT scores.

If you are accepted with a provision, the absent information must be submitted within your first semester or session on campus or you will be dismissed at the end of that semester or session.

Application Procedures
To enroll at Nebraska College of Technical Agriculture:
1. Complete the online Application for Admission/
   Mail a $25.00 nonrefundable application fee to:
   Nebraska College of Technical Agriculture
   Office of Admissions
   c/o Vicky Luke
   404 East 7TH Street
   Curtis, NE 69025-9502

2. Applicants must request that all FINAL high school and/or college transcripts be sent to the Student Services Office.

3. All students who attend the Nebraska College of Technical Agriculture are required to take the Asset, Compass, or ACT assessment test. Test scores are used for scholarships, advising, and guidance purposes. The ACT is used for in house scholarship purposes. The college’s ACT identification number is 2458.

4. Students are required to complete and submit the NCTA Health form along with required immunizations before attending classes.

5. Students should apply as early as possible to assure admittance to the major and classes of their choice.

6. Part-Time Students in High School:
   a. Must be a high school junior or senior.
   b. Obtain the recommendation of your high school principal or guidance counselor.
   c. Apply online.

International Application Procedures
https://nctaglobal.unl.edu

1. Pay your fee and verify funds. The application fee and verification of funds need to be sent to NCTA by the following deadlines:
   • March 1 for Fall admittance
   • September 1 for Spring admittance
   • January 1 for Summer admittance

Please mail that to NCTA at:
NCTA
   c/o Vicky Luke
   404 E 7th St
   Curtis, NE 69025

All students are required to demonstrate financial ability to pay for at least one year of academic and living expenses before being issued an immigration document (I-20).

All supporting financial documents must be in English or accompanied by a notarized English translation showing available liquidable funds. The financial documents cannot be older than three months at the time of submission to Nebraska College of Technical Agriculture in order to be considered valid. Appropriate documents reflecting financial ability include, but are not limited to, the following:

• Bank Letter, stamped and signed by a bank official, and specifies the date, monetary currency, and name of the account holder.
• NCTA Dean’s Scholarship Letter
• Signed letter from the U.S. Government, Home Government, International Organization, Company, or Employer on government or organizational letterhead specifying dates, amount, monetary currency, and terms of sponsorship.
• An individual sponsor who is not a U.S. citizen, U.S. Permanent Resident, or
non-immigrant legally present in the U.S., must sign the CFIS Form and attach supporting financial documents.

• An individual sponsor who is a U.S. citizen, U.S. Permanent Resident, or non-immigrant legally present in the U.S., must submit a completed I-134 Affidavit of Support Form with supporting financial documents.

Please note that these supporting financial documents will also be required at the U.S. Embassy or Consulate when you apply for your visa.

2. Apply for admissions.

You will apply online at this website: http://ncta-global.unl.edu/apply.

During this process, you will:

• Set up your NUID number. It is important that you retain this NUID number for registration and enrollment. Registration and enrollment will happen in later steps of your admission to NCTA.
• Submit official secondary school transcripts, which will be verified by NCTA.
• Verify that your deposit has been paid.
• Submit your TOEFL scores. A score of 90 or above will not be required to attend an English training program.

3. After your application is completed and your documents have been certified, you will receive a letter of acceptance.

4. Set up your interview with the US Consulate to start I-20 paperwork.

5. You will receive admissions information, including the following:

• Instructions on MyNCTA
• Release information (pictures, articles, etc.)
• NCTA Policies
• Orientation dates and times
• WiFi instructions
• Information on dorm rooms and dining services
• Room assignments
• Meal plan information

Campus Visitors

Prospective students and any other interested people are invited and encouraged to visit the Nebraska College of Technical Agriculture Monday through Thursday at 10:30 a.m. or 1:30 p.m. and Fridays at 10:30 a.m. These visits may be scheduled by calling Kevin Martin at (308) 367-5217 or 1-800-328-7847. You may also schedule a tour online at http://ncta.unl.edu/tours.

FEES INFORMATION

Residency Requirements

Individuals seeking to establish resident status for tuition purposes who are subject to the one (1) year minimum requirement, must be able to demonstrate that they have established homes in Nebraska at least one (1) year prior to the term they apply for resident status. Acceptable documentation for verifying the one (1) year residence period includes:

1. Proof of home ownership
2. Apartment lease
3. Cancelled rent receipts/checks

Any other type of documentation must be approved by one of the University’s residence officers. In addition to the one (1) year requirement, applicants will also be expected to obtain a checking or savings account with a Nebraska financial institution and have held these documents for a reasonable period of time (usually at least one month). All twelve months of the residency requirement must be documented.

Financial Obligations

It is the responsibility of students to satisfy all financial obligations to NCTA. Failure by a student to pay a financial obligation to the University or to any department, division, or agency thereof, will result in denial of readmission, denial of transcripts, denial of registration for ensuing terms, and withholding of diplomas, and in addition, may result in dismissal and/or denial of grade reports, until such debt be paid in full. (RP-5.3.1)
Student Fees
The student’s on-line MyNCTA account will electronically notify with the email provided that the tuition and fees billing has been generated. It is the responsibility of each student to monitor their account and notify appropriate parties having payment responsibility. The “Activity Since Last Monthly Statement” screen will allow daily monitoring but a consolidated statement will be available by the 25th of each month. Payment deadlines are always the 12th of the month following the bill date.

A student must contract for both room and board at double occupancy rates unless conditions are met to waive. Room and board reservation requires a $250 security deposit to be held by NCTA until all conditions have been met. The room and board charges will be due in accordance to the above monthly billing schedule.

All fees and other charges may be changed at any time by the Board of Regents of the University of Nebraska.

2015-2016 Tuition
Nebraska Resident per credit hour .................. $118
Non-Resident per credit hour ..................... $250.25

Fees
Academic/Student fee (per semester)
Per Credit Hour ............................................................. $19.62
Registration Fee for Course Enrollment
Per Semester ................................................................. $20

Special Fees
Graduation Fee ............................................................. $25
Application Fee .............................................................. $25
Parking Permit (Annual: Administration, Faculty, Staff, Students) ........................................ $20
Textbooks (average cost per semester) ........... $500

FINANCIAL ASSISTANCE
Financial assistance information is available in the Office of Financial Aid. If you are or will be receiving financial assistance, it is important for you to carefully read the following Satisfactory Academic Progress Policy:

Satisfactory Academic Progress Policy
Nebraska College of Technical Agriculture is required by federal regulations to establish a Satisfactory Academic Progress (SAP) policy students must meet to be eligible or maintain eligibility for federal and state financial aid. This includes but is not limited to grants, loans and federal work study. There are three components to the Satisfactory Academic Progress Policy which are: 1) pace, 2) grades and 3) time frame. These are monitored each semester.

Pace:
A student must be making progress through his/her educational program at a pace of 67% or higher. Pace is calculated by dividing the cumulative number of successfully completed credit hours by the cumulative number of attempted credit hours. Credit hours that will not count as successfully completed include letter grades of F (Fail), I (Incomplete), NP (No Pass), W (Withdrawal), AU (Audit) or NR (Not Reported). A student that is able to have one of the above listed grades changed to a grade of D or higher should contact the Financial Aid office to see if the change impacts the pace calculation. A repeat class will be funded only the second time taken provided the student is meeting the SAP policy.

Grades:
A student must maintain a minimum grade point average depending on the number of credit hours attempted:

1 through 17 credit hours: Cumulative Grade Point Average 1.5 or higher
18 through 35 credit hours: Cumulative Grade Point Average 1.75 or higher
36 and above credit hours: Cumulative Grade Point Average 2.0 or higher
Time Frame:
Students are permitted to receive financial aid only until the total number of credit hours attempted equals 150% of the length of his/her program. (see program descriptions in the NCTA course catalog) For a 76 credit program, the total allowed credit hours attempted would be 76 X 150% = 114 hrs. Transfer hours count toward the total number of credit hours attempted. A second course of study must also fall within this 150% time frame in order to receive federal financial aid.

Warning:
A student will be placed on financial aid warning for one semester if he/she fails to maintain the required cumulative GPA and/or fails to meet the 67% pace requirement. All aid will be paid during the warning semester. If standards are not met at the end of the warning semester, all aid will be suspended until eligibility is re-established.

Suspension:
A student will be placed on financial aid suspension and receive no federal or state financial aid if he/she fails to meet the Satisfactory Academic Progress requirements at the end of the warning semester.

Regaining Eligibility after Suspension:
A student that has had financial aid eligibility suspended has two options for regaining his/her eligibility:

1. A student may qualify for reinstatement of financial aid eligibility by enrolling at his/her own expense. A student must bring his/her cumulative GPA back to the level necessary in the above chart for the number of hours attempted and bring his/her pace up to the 67% to meet the minimum requirements of the Satisfactory Academic Progress policy.

2. A student may appeal his/her financial aid suspension if extenuating circumstances (death of a relative, injury or illness of the student, or other special circumstances) exist. A Satisfactory Academic Progress Appeal form should be completed and must include supporting documentation of the extenuating circumstances. Examples: Letters from health providers, copies of medical bills showing health provider visits, or any other statements or documentation to support the extenuating circumstance that prevented the student from making satisfactory progress. Also include information about what has changed in the student’s situation that would allow him/her to demonstrate satisfactory academic progress at the next evaluation.

If the Appeals Committee approves the appeal, the student is placed on Financial Aid Probation for the subsequent semester of enrollment. At the end of Financial Aid Probation, the student must meet the Satisfactory Academic Progress standards or meet the expectations of the Academic Plan the Appeals Committee established to continue receiving financial aid.

Planning and Assistance
In planning to attend the Nebraska College of Technical Agriculture, a student should expect the following typical expense items for each semester: tuition and general fees, room, board, books and supplies. In addition, allowances should be added to these figures for personal expenses, transportation and extra charges for special curriculums (such as Veterinary Technology lab jackets, supplies, and higher book costs, etc.) The Financial Aid Office will consider the total costs for attendance, including the items listed above, when making a financial aid commitment.

Procedures for Applying for Financial Aid
To apply for all need-based financial assistance (Federal Pell Grant, Federal Supplemental Education Opportunity Grants (FSEOGs), Nebraska Opportunity Grant (NOG), Federal Student Loans, or Work Study), you and your parents must complete the Free Application for Federal Student Aid (FAFSA). The FAFSA may be filed electronically at www.fafsa.gov.

To avoid any delays in processing your FAFSA, please
follow these helpful hints:

✚ File your 2014 tax returns electronically.
✚ File the 2015-16 FAFSA using IRS data retrieval process (IRS data will be available two weeks after filing your tax return electronically).
✚ Complete your FAFSA as soon as possible after January 1.
✚ Read the instructions carefully.
✚ Always use your correct Social Security number. Your Social Security number is the primary means of identifying your records.
✚ Designate the Nebraska College of Technical Agriculture as a recipient of the information on your FAFSA (federal school code is 007358).

Respond quickly and accurately to any requests for additional information. Some of the financial aid that is available will only be available to students who apply and submit any necessary documentation early in the award process. Notice of Awards and Acceptance will be found on MyNCTA after the verification process has been completed.

Refund Policy
The Higher Education Amendments of 1998 state that when a student receives Title IV, HEA program funds to attend an institution and subsequently withdraws, drops out, or otherwise fails to complete the period of enrollment for which he or she was charged, the institution is required to make a refund of “unearned tuition, fees, room and board and other charges” assessed the student by the institution. Federal regulations require that the Student Services Office and Financial Aid Office determine the last day of attendance for all students who do not officially withdraw from the college. If the last date of attendance is not reported for each student, the law stipulates the mid-point of the payment period be used as the drop date, which could result in a substantial aid repayment penalty for the student.

The amount of Title IV grant and loan assistance the student must repay is calculated by determining the complement of the percentage of assistance the student earned and applying it to the total amount of grant and loan assistance that was disbursed to the student for the period of enrollment as of the day the student withdrew. A printed example of the application of the refund policy is available upon request.

Title IV funds returned by the school or student are credited to outstanding Title IV loan balances for the student. If excess funds remain after repaying all outstanding loan amounts, the remaining amount is credited to grant programs beginning with the Pell Grant. It is NCTA’s policy that a portion of the funds that it is required to return to comply with Title IV requirements may be charged back to the students for unpaid services payable to NCTA.

For students who withdraw from college before the end of each session, tuition fees and housing charges will be refunded based upon the following schedule:

Room and Board refunds are based on a 16-Week session.

Rehabilitation Benefits
Anyone 16 years of age or over with a permanent disability may be eligible for benefits if schooling will allow him/her to become employable within a reasonable length of time. Financial assistance

Withdrawal Time, Percentage of Tuition and Fees Refunded

<table>
<thead>
<tr>
<th>16 Week Sessions (Fall and Spring Semesters)</th>
<th>1st Week</th>
<th>100%</th>
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</thead>
<tbody>
<tr>
<td>2nd Week</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td>3rd Week</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>4th Week</td>
<td>25%</td>
<td></td>
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<tr>
<td>No refund after the end of the 4th week</td>
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<td></td>
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</tbody>
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<tr>
<th>8 Week Session</th>
<th>Prorated</th>
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<table>
<thead>
<tr>
<th>Summer Session</th>
<th>1st Week</th>
<th>Prorated</th>
</tr>
</thead>
<tbody>
<tr>
<td>No refund after the end of the 2nd week</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
provided may include cost of living expenses, books, tuition, and transportation during training. Further information may be obtained from your local State Department of Education, Division of Rehabilitation Services.

We strongly encourage students to work closely with rehabilitation counselors and have them maintain contact with the students’ academic advisors.

**Selective Service Registration**

Federal Law requires young men to register with the Selective Service System at any U.S. Post Office, or on-line. Young men are to register sometime during the period beginning 120 days prior to their 18th birthday until 30 days after their 18th birthday. No financial aid may be awarded until this requirement is met.

**Sources of Financial Assistance**

- Federal Pell Grants
- Campus-Based Programs
  - Federal Supplemental Education Opportunity Grants (FSEOGs)
  - Federal Work Study (FWS)
  - NOG – Nebraska Opportunity Grant
  - Federal Perkins Loans
- Federal Direct Loans
  - Federal Subsidized Stafford Loans
  - Federal Unsubsidized Stafford Loans
  - Federal PLUS Loans

Grants (Pell Grants, FSEOG’s, and NOG’s) do not have to be repaid; loans (Perkins Loans, Federal Direct Loans, and PLUS loans) must be repaid. FWS provides students with income from part-time jobs. Federal Pell Grants are awarded through strict rules set by the Department. If a student is eligible on the basis of these rules, an eligible school pays the student his or her Federal Pell Grant using federal funds.

For the campus-based programs, the Department funds participating schools annually at a specified level. The school then awards these funds to students following federal guidelines. When those funds are spent, no more campus-based aid is available at that school. Therefore, the earlier an eligible student applies, the more likely he or she is to receive campus-based aid.

1. **Perkins Loan** - The Federal Perkins Loan Program provides long-term, low interest loans to students with established financial need. The maximum amount a student can receive is $5,500 per year. Interest starts accumulating at the rate of 5% annually nine months after you leave college, repayment begins 12 months after you leave college. You may be allowed up to 10 years to repay the loan. NCTA, however, has a limited amount of Federal Perkins Loan money so eligible students must apply early to receive these funds.

2. **Federal Direct Stafford Loans** - There are two types of Federal Direct Stafford Loans – Subsidized and Unsubsidized. A student qualifies for a Federal Direct Subsidized Stafford Loan based on financial need, as determined under federal regulations. A student’s need is not a factor in determining eligibility for a Federal Direct Unsubsidized Stafford Loan. It is possible for a student to have a Direct Subsidized and Direct Unsubsidized Stafford Loan for the same award year. A student can borrow a combination of loans based on the cost of education minus other financial aid up to maximum annual loan limits and/or cost of education. **Important** – Federal Direct Unsubsidized Stafford loans have many of the same terms and conditions as the Federal Direct Subsidized Stafford Loan (i.e., loan limits, origination/insurance fees, and deferments). However students are responsible for the interest during in-school, grace and deferment periods. Interest accruing during those periods may be paid or capitalized as agreed to by the borrower and the servicer.

3. **Federal Direct PLUS Loans** - The Federal Direct PLUS Loan Program assists eligible parents in meeting educational expenses. The Federal
Direct PLUS Loan allows parents to borrow up to the cost of attendance minus other resources. The U.S. Department of Education is the lender and delivers the loan money to you through NCTA. Students must be attending school at least half-time to be eligible. PLEASE NOTE: Federal Direct PLUS Loan funds are applied ahead of all other financial aid funds your student may receive, regardless of when the PLUS Loan funds are applied.

SCHOLARSHIPS: The Nebraska College of Technical Agriculture (NCTA) is committed to assisting current and potential students achieve their educational goals by offering scholarships that help pay for tuition, books and school related expenses. With the support of generous donors, scholarships can range from $100 to $2,500. To be eligible for scholarships students must be accepted and enrolled as a student at NCTA. Monies received in the form of scholarships do not have to be repaid.

To be considered for a scholarship/remission at the Nebraska College of Technical Agriculture a student must:

+ Have a 2.5 CGPA (most scholarships require a 2.5 or higher);
+ Complete the admissions process;
+ Take the ACT, Compass, or Asset test and have the scores sent to the college;

Student Employment

Federal Work Study (FWS) - provides federal funds for work opportunities for students. To be eligible for this program, you must demonstrate financial need. By submitting a Free Application For Federal Student Aid (FAFSA) you will automatically be considered for FWS.

Part-time Employment - NCTA and surrounding area businesses (including farm and ranch operations) offer some part-time employment to students. Interested students should inquire at the NCTA Student Services Office.

Veterans Training

1. Educational Assistance

The Nebraska College of Technical Agriculture is approved for veterans training and for training under the War Orphans Act. It is recommended that those enrolling under the direction of the Veterans Administration have adequate funds for tuition and other expenses until their first sustenance check arrives. Veterans interested in veteran’s benefits should contact their local county service officer or their Regional Veterans Administration Office.

2. Vocational Rehabilitation

Students who are vocationally handicapped due to a disability are eligible for training under
the supervision of the Veterans Administration Rehabilitation services. Application should be made to the veteran’s county service officer.

3. Nebraska National Guard Tuition Credit

Up to 75% of tuition credit may be given to members of the National Guard who are attending college.

ACADEMIC INFORMATION

Academic Bankruptcy

Academic Bankruptcy is available to NCTA students who have a GPA or CGPA of less than a 2.0 and have completed no more than two academic semesters.

To apply for Academic Bankruptcy, the following conditions must be met:

1. Prior to or by the end of the first week of a semester or summer session, an application for Academic Bankruptcy must be submitted to a committee consisting of the Division Chair, the previous major Advisor and the new major Advisor if changing majors, or a faculty member from the major the student is enrolled in.

- Following the Academic Bankruptcy application, all grades for the semester/session in which a student is enrolled for a minimum of 12 credit hours must be a 2.0 or above. If this requirement is met, all grades that are less than a 2.0 will be removed from grade consideration. If this requirement is not met, the student’s grades will not be removed from grade consideration. Application for Academic Bankruptcy does not have any effect on eligibility for financial aid. All students on financial aid must continue to meet the “Standards of Progress”.

Academic Responsibility

Students are expected to be honest in all aspects of their college work.

The University of Nebraska Undergraduate Bulletin states: “The maintenance of academic honesty is a vital concern of the university community. Any student found guilty of academic dishonesty shall be subject to both academic and disciplinary sanctions.” Academic dishonesty includes, but it is not limited to the following:

- Cheating
- Fabrication and Falsification
- Plagiarism
- Abuse of Academic Materials
- Complicity in Academic Dishonesty
- Falsifying Grade Reports
- Misrepresentation to Avoid Academic Work

Academic judgments about a student’s work (including questions of cheating) are the responsibility of the instructor. Normally, disagreements are resolved by means of the conference between the student and instructor. However, if a student feels (s)he is treated unjustly, (s)he can take their case to their Division Chair (if the Division Chair should be his/her instructor, (s)he may then present his/her case to the Chair of the Academic Council). The instructor must inform the student of this right. The student may make a further appeal to the NCTA Dean if (s)he is not satisfied with the Division Chair’s and Academic Council’s responses.

One or more violations involving cheating may be cause for the student to be placed on probation or dismissed from college. (See page 51 of the 2013-2014 NCTA Student Handbook)

Academic Standards

Probation, Dismissal, and Withdrawal

Good Academic Standing: A cumulative grade point average (CGPA) of 2.000 or greater.

Academic Probation: A temporary status due to low academic grades. Improvement in academic grades is needed for continued enrollment. A student is placed on probation due to one of the following conditions:

- Semester or Cumulative GPA is lower than 2.000
• Conditionally admitted as a transfer or new freshman
• Readmitted after leaving while on probation or when dismissed for academic reasons

**Academic Dismissal:** Termination of enrollment due to one of the following conditions:

• Semester GPA and Cumulative GPA is less than 2.000 at the end of two successive semesters.

If a student earns a 2.500 or higher GPA in the 2nd semester of Academic Probation, but the cumulative GPA is below 2.00 for 2 successive semesters, the student will be granted an additional or third semester on Academic Probation.

**Readmission Application Timeline Following Dismissal:**

• One semester must lapse if academically dismissed.
• Two years must lapse if academically dismissed, readmitted, and failed a second time to earn the required grade point average.

**Appeal Process to Dismissal:** If circumstances were so unusual and out-of-the-ordinary that academic performance was significantly and temporarily impacted, the dismissal decision may be appealed. The appeal process is handled by the Associate Dean of Student Services.

**Adding a Class**

Students may add classes on “MyRed” prior to and during the first week of any semester or session. After that period a “Registration Change” form is required with the instructor’s and advisor’s signature in order to add the class. These forms may be picked up from the Student Services Office and when completed, returned to that office.

**Attendance Policy**

Student attendance in college is a gauge to determine how successful an individual may be. **Therefore, at NCTA a student is encouraged to attend all classes.** Students on college sponsored activities during regular class hours will not be considered absent from the class they miss. At the discretion of the instructor, permission may or may not be given to make up missed class work and/or tests. It is the student’s responsibility to obtain assignments prior to the arranged absence.

Federal regulations require that the Office of Student Services and Financial Aid Office determine the last day of attendance for all students who do not officially withdraw from the college. If the last date of attendance is not reported for each student, the law stipulates that mid-point for that semester/term be used as the drop date, which could result in a substantial financial aid repayment penalty for the student.

For unusual circumstances, a temporary leave of absence may be obtained. Illnesses which require a leave of absence will need a written statement from the doctor as supporting documentation. Neither absence nor an excuse relieves anyone from meeting all course requirements.

**Audit Registration**

Students desiring to attend a course without taking examinations or receiving credit for the course may register in an audit status with permission of the course instructor and their advisor. Students who register for an audit course will pay all regular fees. Students may change from audit to credit or credit to audit with permission of the course instructor and their advisor only within the first week of the session.

Students auditing a course will receive no credit and a grade of AU (Audit) will be noted on the transcript for the course.

Students receiving financial aid or veteran’s benefits cannot count audited courses in determining course load.

**Certificate Program**

The certificate programs vary in required credit hours.

All students enrolled in a certificate program must
abide by NCTA’s academic standards and the Standards of Progress for financial aid.

**Code of Conduct**

Students are expected to conduct themselves as adults and responsible law-abiding citizens at all times. Misconduct either in college or off campus may result in students being officially warned, placed on probation, suspended or asked to leave college. Misconduct off campus which brings discredit to the college will be justification for probation and/or expulsion. As part of the student’s conduct, reasonable cleanliness and appropriate dress is required.

**Commencement, Degrees and Certificates**

An Associate of Applied Science Degree, Associate of Science Degree or Certificate is granted to students who meet all prescribed requirements. These include passing grades in each required course, having completed the minimum semester credit hours required for the major they are enrolled in, successful internship and a minimum accumulated average grade of 2.0 (C).

Students who expect to receive a degree or certificate must file an “Application for Degree” in the Office of Student Services according to the following criteria:

- Completing Degree requirements in:
  - May .............. February 15th
  - August .......... July 1st
  - December .... October 1st

All accounts must be paid in full, with no current or pending disciplinary actions and/or other necessities associated with commencement. A $25 non-refundable degree application fee must accompany the application for the degree. The fee applies only to the term marked on the application and is not transferable to another term. Caps and gowns are purchased from the NCTA bookstore.

**Course Repeats**

If a student repeats a course in an effort to improve his/her level of competency, both grades will appear on the transcript, but only the grade received the second time is used in calculation of the cumulative GPA. This does not apply to courses with grades of a C (2.0) or above.

**Credit Hours**

The maximum credit hour load a student can take per semester is 18 hours with a maximum credit hour overload of 21 with permission from their advisor.

**Credit Transfer**

**Incoming Students:**

Those students who have had post-secondary education prior to attending the Nebraska College of Technical Agriculture may request that their transcripts be reviewed. This review is to determine if prior education may be used in meeting a student’s NCTA degree requirements. In all cases, evaluations must be initiated by the student and each will be made on an individual basis. Inquiries on credit transfer are to be made to the incoming student’s advisor. A minimum grade of 2.0 (C) is required on any course for which transfer credit is requested. (only credit hours, not grades are transferred) Transferred credit has no effect on a student’s NCTA grade point average. The maximum number of credit hours a student may transfer to NCTA is 30.

**Dean’s List and Honor Roll**

During the fall and spring semesters, students are honored for their academic achievements. Students with a 3.5 or above semester GPA and have completed at least 12 credit hours during the semester are eligible for the Dean’s Honor Roll. Students who receive a 4.0 for the semester and have completed at least 12 credit hours during the semester are eligible for the Dean’s List. Students who have an “Incomplete” on their academic record are not eligible.

**Dropping a Class**

During the 8-week modular semesters and/or 16-week semester, a student may drop a course on MyRed up until the last drop period. If the course is dropped during the first week of the session, the
dropped course will not appear on the student’s academic record.

If a student withdraws from a class after the first week and prior to the last drop period, a “W” will be recorded...no credit given...and the credit(s) will not be averaged into the student’s GPA. No withdrawals will be allowed after the last drop period, which is two weeks before the start of finals.

Students withdrawing from ALL classes must drop their classes on MyNCTA and complete the checkout form from the Student Services Office. The same withdrawal policy for dropping a course, as mentioned above, will be followed. A student may not withdraw from a course after the course has ended.

Financial Obligations
It is the responsibility of the student to satisfy all financial obligations to NCTA before class enrollment can be completed, prior to release of records, and upon application for a degree. All fees and other charges may be changed at any time by the Board of Regents of the University of Nebraska.

Grades
Grades of I (Incomplete), W (Withdrawal), N (No Pass, for P/NP course), AU (Audit), and P (Pass, for P/NP course) are not assigned grade points and therefore are not used in computation of a student’s grade point average. Students are given the opportunity and encouraged to discuss their grades with their Division Chair/Advisor and/or their instructors.

| NCTA grade table: |
|-------------------|------------------|------------------|
| Letter | Range | Points | Letter | Range | Points |
| A+ | 100.0 – 100.0 | 4.00 | C+ | 73.3 – 76.3 | 2.33 |
| A | 90.0 – 99.9 | 4.00 | C | 70.0 – 73.3 | 2.00 |
| A- | 86.7 – 90.0 | 3.67 | C- | 66.7 – 70.0 | 1.67 |
| B+ | 83.3 – 86.7 | 3.33 | D+ | 63.3 – 66.7 | 1.33 |
| B | 80.0 – 83.3 | 3.00 | D | 60.0 – 63.3 | 1.00 |
| B- | 76.3 – 80.0 | 2.67 | F | 00.0 – 60.0 | 0.00 |

Grade Appeals
The NCTA Academic Council hears appeals from students on grades received within all college programs. The committee will hear such appeals, however, only after the student has followed the process listed.
  • Appealed without satisfaction to the course instructor.
  • Notified the Division Chair, then the Associate Dean of Student Services of the circumstances and filed an appeal with each.
  • The student is to provide to the Academic Council a written statement stating the grounds of the appeal. Both the student and the course instructor will be given an opportunity to present materials to the NCTA Academic Council in the presence of each other.
  • A student will have 30 days following the beginning of the next session to protest a posted grade from the previous session. If no protest is received the grade will stand. After that time any grade change will need to be approved by the Academic Council. This does not apply to Incompletes.

Grade Point Average (GPA) Computation
Grade point averages are computed for each term and accumulated for the duration of attendance. Credit hours accepted for transfer from another institution are excluded in grade average computations. Withdrawals from courses resulting in a “W” and “I” are disregarded in the grade point average computations. All grades resulting in failure (“F”) are used in computing averages.

Holds/Service Indicators
Academic and administrative offices can place holds on your registration which prevent registering or changing your registration schedule. Holds are placed for a variety of reasons (academic, financial, etc.) Failure to meet a payment deadline will result in a financial hold which prevents adds for a registered student. If a hold was placed on your registration
after you have registered, your registration will not be automatically cancelled. However, you will not have registration access to adjust your schedule for subsequent terms until the holds are cleared. If you have a hold you will not be able to participate in extra-curricular activities.

**Honor Graduates**

Graduating students who have shown outstanding performance and dedication in their academics are honored with the following distinctions.

Cum Laude – 3.50-3.74  
Magna Cum Laude – 3.75-3.99  
Suma Cum Laude – 4.00

**Incomplete (“I”) Courses**

When unusual circumstances beyond the student’s control, e.g., serious illness, etc., prevent the student from completing course requirements, the instructor should be notified as soon as possible during the semester. In such cases, the instructor may award the student an incomplete (“I”) instead of a final grade at the end of the session/semester. The “I” is recorded on the student’s grade report and transcript.

The student will be given one full semester to change a grade of incomplete (I) to a completed grade. This time interval may be shortened by the instructor. Any incomplete not completed by the end of the makeup semester will convert to failure (“F”) on the student’s grade report and will remain permanently on the student’s transcript.

**Learning Communities**

Learning Communities is a course designed to increase the student’s success in college by assisting in obtaining skills necessary to reach educational objectives.

Learning Communities is required for all incoming students unless a similar course is transferred from another college or the student has taken 24 or more credit hours (from another college) and has a CGPA of 2.0 or higher, or at the discretion of the instructor in special cases.

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**Pass/No Pass Policy**

All courses at NCTA are graded by letter, score, or percentage except for:

- Internships because there is no instructor to determine a score; internships are also not structured like courses.
- Developmental courses, because they are used to develop skills in preparation for courses that are applied to degrees.
- The S.T.A.R.S. course work is not designed to warrant a score. Students do not have the opportunity to choose whether a class is graded or pass/no pass.

**Student Eligibility**

Students who participate in the following must meet the group’s eligibility rules:

1. Members of Student Senate and Student Ambassadors
2. Students involved in extracurricular activities where they will be absent from class
3. Club Officers
4. All competitive and extracurricular activities
   - Ineligible students will be allowed to practice with their respective teams
   - Ineligible students will not be allowed to travel or suit up with the team

**Standards of Eligibility**

Students must maintain a minimum 2.0 GPA for each semester and be enrolled a minimum of 12 credit hours per semester.

**Student Status**

<table>
<thead>
<tr>
<th>Weeks/Session</th>
<th>Full Time (credit hours)</th>
<th>¾ Time (credit hours)</th>
<th>½ Time (credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>12</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>4.5</td>
<td>3</td>
</tr>
</tbody>
</table>
Withdrawal from NCTA
Withdrawal from college will be handled the same as a class withdrawal. Each course the student is enrolled in will be handled separately. Students will be charged tuition in accordance with the college refund policy. Failure to officially withdraw from College will result in a grade failure (“F”) for all registered classes. Students, after withdrawing from class, must fill out the checkout form from the Registrar’s Office. Students are responsible for dropping their classes on MyNCTA. Student ID cards and UNL football tickets (if applicable), must be turned in at the time of checkout.

STUDENT ACTIVITIES AND ORGANIZATIONS

Aggie Rodeo Association
All students on campus have the opportunity to become active members of the Aggie Rodeo Association. The purpose of the Association is to support the College Rodeo Team, as well as, participate in and attend livestock shows, and roping club events.

Aggie Rodeo Association members, who join the National Inter-Collegiate Rodeo Association, are eligible to become NCTA College Rodeo Team members and compete with the team in the NIRA Great Plains Region.

Business Club
Membership in the Business Club is offered to all NCTA students with an interest in business, regardless of their major. Through such means as guest speakers and business visitation, the Business Club promotes an increased awareness of business activities in our economy and offers students the opportunity to establish a network of business contacts with area business. Further, the Business Club promotes enhanced communications among students interested in agriculture business.

Churches in Our Community
- Berean Fundamental Church
- Christian Church (Maywood)
- First United Methodist Church
- St. James Catholic Church
- St. John’s Lutheran Church
- United Church of Christ (Maywood)
- Vineyard Christian Fellowship

Collegiate Cattlemen
Affiliated with the Nebraska Cattlemen, Nebraska Cattlemen, and the National Cattlemen’s Beef Association, this organization’s mission is to alert members of current beef industry related issues. Beef industry leaders are invited to speak at meetings. Members tour area beef facilities and attend the Nebraska Cattlemen’s Association Convention.

Collegiate FFA
NCTA made history in the spring of 2005 when 27 students voted to pass a charter to form the first and only Collegiate FFA chapter in the state of Nebraska. The club has an extensive program of activities including plans to work with local high school chapters with activities, help those students fill out proficiencies and state degrees, work on fundraising for the new NCTA dorms, help with workshops at Chapter Officer Leadership Training, coordinate pre-state practice contests for local chapters and much more. Collegiate FFA allows members opportunities for professional growth, leadership development and service through a national website, travel opportunities and local projects.

Collegiate 4-H Club
This club provides an opportunity for all students to continue their interest in 4-H activities by not only helping the local 4-H clubs, and assisting at the county fair but also in attending regional college 4-H meetings and expanding leadership skills.
Dances
Sponsored dances are held on campus each month. Admission may be required. All dances are to be concluded at 12 midnight.

Farm Bureau Club
The Farm Bureau Club at NCTA is for any student interested in agriculture. The primary goal of the club is to educate students on the important issues facing agriculture in Nebraska and the U.S. Students are also exposed to the process of developing agricultural policy and the role of Farm Bureau in the policy development process. Club activities include: guest speakers that highlight issues that are important to farmers and ranchers; field trips to learn more about the agricultural industry in Nebraska; and attending annual Nebraska Farm Bureau meeting each December and the Young Farmers and Ranchers conference each January. The club is supported by Nebraska Farm Bureau.

Horticulture Club
Students enrolled in the Horticulture Systems major are members of the Horticulture Club, however, any student enrolled at NCTA is welcome to join. Activities include a winter plant sale, a spring vegetable and annual sale, campus landscaping projects, and potential for hire landscaping projects. These fundraising activities help pay for students to attend professional meetings, seminars, and workshops. Horticulture Club also participates in PLANET Student Career Days each spring.

Intercollegiate Livestock Judging
NCTA is committed to excellence in the area of collegiate livestock judging. For those students interested in allocating the time and effort necessary for successful completion of this program, the benefits by far exceed knowledge acquired in form to function analysis of livestock. Leaders in the institution and livestock industry are aware this program is the most thorough training in the decision making process educators in any field have developed. Additional personal enhancement benefits developed in this program include commitment, self-confidence, perseverance, concentration and mental toughness, teamwork, and communications skills. As a result students completing this program are better prepared to meet life’s challenges and are highly sought after by employers. Additionally, the educational benefit of traveling, interacting with producers of quality livestock, and competing in national contests provide students with valuable information and knowledge not always available in classroom settings. This program is available to any full-time NCTA student and all highly motivated individuals are encouraged to enroll in the program.

Phi Theta Kappa
Phi Theta Kappa is an honorary society whose purpose is that academic excellence among community and junior college students may be nurtured; that opportunity may be provided for leadership training; that an intellectual climate may be promoted for an interchange of ideas and ideals; and that scholars may be imbued with desire for continuing education. Membership is earned by qualifications, honor, and service.

Ranch Horse Team
Ranch Horse Team is affiliated with American Stock Horse Association (ASHA). ASHA has a collegiate division with a College National Finals and has a strong commitment to education. There are 25 colleges and universities in the association with more joining every day. NCTA was one of the original founding institutions of ASHA Collegiate Division. ASHA has 3 different rider skill levels so that each individual is competing against their own skill level whether you are a beginning rider or an accomplished rider. Most shows start with a training session. NCTA competes in approximately 8 shows a year, mostly in the spring. Besides showing horses,
team members go through various horse training workshops to improve your skills in showing horses. Students do not need to have a horse or show horses to join the team.

**Residence Hall Council**
All students who reside on campus are members of the Residence Hall Association (RHC). RHC is the representative governing body for the residence halls. RHC strives to promote a positive on-campus living environment through residence hall programming; supporting and sponsoring programs and events between residence halls and campus organizations; addressing issues and concerns that affect residence hall life.

**Safari Club**
Safari Club is offered to any NCTA student and is intended for those students with an exotic animal, wildlife or ecological interest. With the guidance of the instructor, students plan an educational trip to learn more about exotic animals. Prior to this trip, the “safari” students set educational goals and compile research pertinent to their trip. A presentation, open to the public, is developed following the experience. There is limited enrollment.

**Student Senate**
The purpose of the Student Senate is to promote unity, harmony, and fellowship between students, campus organizations, faculty, staff, and college administration. Regular meetings are held the first and third Tuesday of each month and special meetings are called when necessary. At meetings, Student Senate members discuss topics of concern. All campus activities are coordinated through the Student Senate. The Student Senate makes suggestions to improve student life on campus.

**STVMA (Student Technicians of Veterinary Medicine Association) (Vet Tech Club)**
STVMA is a student run organization designed to help students prepare for active participation in state and national technician organizations. As a member of STVMA, students will enjoy social, educational, and community service activities.

**Women in Ag**
NCTA Women in Ag is open to all first and second year students in any major. The purpose of this organization is to promote women in agriculturally oriented areas of study and ag-related jobs upon graduation. Members have the opportunity to attend the Women in Ag Conference held in Kearney. Guest speakers will present information of various topics ranging from personal and social issues to professional interests.
DIVISION CHAIR:
Eric Reed, Assistant Professor

MISSION
The mission of the General Education Division is to provide broad intellectual knowledge, awareness, and critical thinking skills in the liberal arts, humanities, and natural and social sciences directed toward the successful pursuit of students’ personal and career goals as citizens and leaders in agriculture enterprises.

PHILOSOPHY
General education is part of the academic experience that builds students’ growth as citizens and professionals. General education instruction engages students in independent, critical, and creative thinking; promotes open-mindedness and understanding; gives confidence and inquisitiveness to challenge assumptions and explore ideas and values; promotes the passing of sound judgment; encourages the consideration of ethical and practical consequences of actions; and facilitates wisdom.

ASSOCIATE OF APPLIED SCIENCE DEGREE

OUTCOMES: Upon completion of the Associate of Applied Science degree students should be able to demonstrate the following skills and abilities (as defined within the Association of American Colleges & Universities VALUE Rubrics):

RUBRICS:

1. Written Communication. Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum.

2. Oral Communication. Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners’ attitudes, values, beliefs, or behaviors.

3. Quantitative Literacy. Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a “habit of mind,” competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

4. Problem Solving. Problem solving is the process of designing, evaluating and implementing a strategy to answer an open-ended question or achieve a desired goal.

5. Civic Engagement: Civic engagement is “working to make a difference in the civic life of our communities and developing the combination of knowledge, skills, values and motivation to make that difference. It means promoting the quality of life in a community, through both political and non-political processes.” (Excerpted from Civic Responsibility and Higher Education, edited by Thomas Ehrlich, published by Oryx Press, 2000, Preface, page vi.) In addition, civic engagement encompasses actions wherein individuals participate in activities of personal and public concern that are both individually life enriching and socially beneficial to the community.
**Critical Thinking:** Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

**Information Literacy:** The ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively and responsibly use and share that information for the problem at hand. - Adopted from the National Forum on Information Literacy.

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**GENERAL EDUCATION COURSES**

**Required for Associate of Applied Science Degree**
(19-21 Credit Hours Required)

**+ WRITTEN COMMUNICATION**
(3 hours required)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 1503</td>
<td>Business &amp; Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 1903</td>
<td>College Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 3

**+ ORAL COMMUNICATION** (3-5 hours required)

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>SPC 1103</td>
<td>Sales Communication</td>
<td>3</td>
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<tr>
<td>SPC 1113</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>SPA 1115</td>
<td>Beginning Spanish I</td>
<td>5</td>
</tr>
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</table>

Total 3-5

**+ QUANTITATIVE LITERACY** (3 hours required)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 1203</td>
<td>Intermediate Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MTH 1403</td>
<td>Agricultural Math</td>
<td>3</td>
</tr>
<tr>
<td>MTH 1503</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MTH 2203</td>
<td>Elements of Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MTH 2253</td>
<td>Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>VTS 1313</td>
<td>Math for Vet Techs</td>
<td>3</td>
</tr>
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Total 3

**+ PROBLEM SOLVING** (6 hours required)

*Take all of the following*

**Computers**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AIT 1092</td>
<td>Intro to Spreadsheets</td>
<td>2</td>
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**Life Sciences**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ASI 1024</td>
<td>Fundamentals Of Animal Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 1104</td>
<td>General Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 1313</td>
<td>Plant Science and</td>
<td>3</td>
</tr>
<tr>
<td>BIO 1321</td>
<td>Plant Science Lab or</td>
<td>1</td>
</tr>
<tr>
<td>BIO 1331</td>
<td>Horticulture Science Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

**Physical Sciences**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 1014</td>
<td>Intro to Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHM 1104</td>
<td>General Chemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

Total 6

**+ CIVIC ENGAGEMENT & INFORMATION LITERACY** (4 hours required)

*Take all of the following*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 1011</td>
<td>Learning Communities</td>
<td>1</td>
</tr>
<tr>
<td>PSY 1103</td>
<td>Human Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 4
ASSOCIATE OF SCIENCE DEGREE

OUTCOMES: Upon completion of the Associate of Science degree students should be able to demonstrate the following skills and abilities (as defined within the Association of American Colleges & Universities VALUE Rubrics):

RUBRICS:

1. **Written Communication.** Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum.

2. **Oral Communication.** Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners’ attitudes, values, beliefs, or behaviors.

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4. **Problem Solving.** Problem solving is the process of designing, evaluating and implementing a strategy to answer an open-ended question or achieve a desired goal.

5. **Civic Engagement:** Civic engagement is “working to make a difference in the civic life of our communities and developing the combination of knowledge, skills, values and motivation to make that difference. It means promoting the quality of life in a community, through both political and non-political processes.” (Excerpted from Civic Responsibility and Higher Education, edited by Thomas Ehrlich, published by Oryx Press, 2000, Preface, page vi.) In addition, civic engagement encompasses actions wherein individuals participate in activities of personal and public concern that are both individually life enriching and socially beneficial to the community.

6. **Critical Thinking.** Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

7. **Information Literacy.** The ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively and responsibly use and share that information for the problem at hand. - Adopted from the National Forum on Information Literacy.
### GENERAL EDUCATION COURSES

**Required for Associate of Science Degree**  
(26-28 Credit Hours Required)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 1903</td>
<td>College Composition</td>
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<tr>
<td>ENG 2203</td>
<td>Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>SPC 1113</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>SPA 1115</td>
<td>Beginning Spanish I</td>
<td>5</td>
</tr>
<tr>
<td>MTH 1503</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
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<td>3</td>
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<td>MTH 2253</td>
<td>Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>AIT 1092</td>
<td>Computers II</td>
<td>2</td>
</tr>
<tr>
<td>ASI 1024</td>
<td>Fundamentals Of Animal Biology</td>
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<tr>
<td>CHM 1104</td>
<td>General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>HSL 1053</td>
<td>Landscape Appreciation</td>
<td>3</td>
</tr>
</tbody>
</table>

Take all of the following

**Physical Sciences**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 1104</td>
<td>General Chemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

**CIVIC ENGAGEMENT & INFORMATION LITERACY** (4 hours required)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSY 1011</td>
<td>Learning Communities</td>
<td>1</td>
</tr>
<tr>
<td>PSY 1103</td>
<td>Human Relations</td>
<td>3</td>
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</tbody>
</table>

**CREATIVE THINKING** (3 hours required)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENG 2223</td>
<td>Intro to Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>HSL 1053</td>
<td>Landscape Appreciation</td>
<td>3</td>
</tr>
</tbody>
</table>

Take all of the following

### Discover Your Way at NCTA
The Agribusiness Management Systems major supports the college mission by striving to develop students into competent citizens through general education and promoting involvement, innovation, and individuality in the agribusiness industry.

**DIVISION CHAIR:**
Mary Rittenhouse, Asst. Professor

**FACULTY:**
Jeremy Sievers, Asst. Professor

**ASSOCIATE OF APPLIED SCIENCE OPTIONS**
+ Management Option
+ Office Systems Option
+ Plus One

**ASSOCIATE OF SCIENCE OPTIONS**
(TRANSFER)
+ Baccalaureate Transfer Option
+ Minor
+ Certificate

**PROGRAM OUTCOMES:**
1. AMS students will be able to demonstrate computer skills.
2. AMS students will be able to apply economic information to real world situations.
3. AMS students will be able to think critically and demonstrate problem-solving skills.
4. AMS students will be able to read, comprehend, and analyze basic financial statements and demonstrate basic accounting skills.
5. AMS students will be able to effectively communicate in both an oral and written format.
6. AMS students will be able to demonstrate skills enabling them to work effectively as individuals and in groups.

**Career Opportunities:**
Agribusiness Management graduates are pursuing careers in agriculture finance and at farm cooperatives; as office managers in various agricultural companies and are partners or owners of production agriculture businesses and as small main street business owners.

**Internship:**
An internship will be required for completion of the Agribusiness Management Systems Program. The internship will be a 4 credit hour course and should include 8 weeks of on-site training in an area of interest for the student.

**Capstone:**
Entrepreneurship (ABM 2903) serves as the AMS capstone course. Entrepreneurship students complete a business plan for a small business or value added enterprise based on marketing and financial feasibility studies.

**AGRIBUSINESS MANAGEMENT SYSTEMS CORE COURSES**
The following courses are required for all Associate of Applied Science degree options of the Agribusiness Management Systems major.

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ABM 2004 Internship (P)</td>
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<tr>
<td>ABM 2911 Seminar</td>
<td>1 credit</td>
</tr>
<tr>
<td>ACT 1103 Accounting I</td>
<td>3 credits</td>
</tr>
<tr>
<td>ECN 1203 Microeconomics</td>
<td>3 credits</td>
</tr>
<tr>
<td>MGT 2103 Management Concepts</td>
<td>3 credits</td>
</tr>
<tr>
<td>MTH 1203 Intermediate Algebra or MTH 1503 College Algebra</td>
<td>3 credits</td>
</tr>
<tr>
<td>PHL 1103 Critical Thinking</td>
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</table>

**Total 20**
# MANAGEMENT OPTION

**Associate of Applied Science**

**Associate of Applied Science Core** ...... 18-19

**Agribusiness Mgt. Systems Core** .......... 20

+ **Management Option Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ABM 2403</td>
<td>Ag. Finance</td>
<td>3</td>
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<tr>
<td>ABM 2503</td>
<td>Ag. Decision Analysis</td>
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</tr>
<tr>
<td>ABM 2854</td>
<td>Farm and Ranch Mgt.</td>
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</tr>
<tr>
<td>ABM 2903</td>
<td>Entrepreneurship</td>
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<tr>
<td>ACT 1203</td>
<td>Accounting II</td>
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</tr>
<tr>
<td>AIT 1073</td>
<td>Intro to Databases</td>
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</tr>
<tr>
<td>ECN 1303</td>
<td>Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MGT 2503</td>
<td>Human Resource Mgt.</td>
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</tr>
<tr>
<td>MKT 2203</td>
<td>Ag. Marketing</td>
<td>3</td>
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</table>

Electives (AMS) (not already taken) ...... 3 credits

choose from below:

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>ABM 1403</td>
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<tr>
<td>ABM 2103</td>
<td>Personal Finance</td>
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<td>ABM 2203</td>
<td>Office Practices</td>
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<tr>
<td>ABM 2963</td>
<td>Farm, Ranch &amp; Small Business Recordkeeping</td>
<td>3 credits</td>
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<tr>
<td>AIT 1083</td>
<td>Desktop Publishing/ Web Design</td>
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</tr>
<tr>
<td>MKT 2103</td>
<td>Retail Marketing</td>
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Total 31

**Total Credit Hours for Degree** 69-70

## Suggested Sequence of Study

+ **First Semester (Fall)**

<table>
<thead>
<tr>
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<th>Course Name</th>
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<tbody>
<tr>
<td>ACT 1103</td>
<td>Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>AIT 1092</td>
<td>Intro to Spreadsheets*</td>
<td>2</td>
</tr>
<tr>
<td>ECN 1203</td>
<td>Microeconomics</td>
<td>3</td>
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<tr>
<td>ENG 1503</td>
<td>Business and Technical Writing **</td>
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<tr>
<td>ENG 1903</td>
<td>College Composition</td>
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<tr>
<td>PSY 1011</td>
<td>Learning Communities*</td>
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<tr>
<td>PSY 1103</td>
<td>Human Relations</td>
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Total 15

+ **Second Semester (Spring)**

<table>
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<td>ASI 1024</td>
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<tr>
<td>BIO 1104</td>
<td>General Biology and</td>
<td>4</td>
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<tr>
<td>BIO 1313</td>
<td>Plant Science and</td>
<td>3</td>
</tr>
<tr>
<td>BIO 1321</td>
<td>Plant Science Lab **</td>
<td>1</td>
</tr>
<tr>
<td>CHM 1003</td>
<td>Ag. Chemistry and</td>
<td>4</td>
</tr>
<tr>
<td>CHM 1104</td>
<td>General Chemistry and</td>
<td>4</td>
</tr>
<tr>
<td>ECN 1303</td>
<td>Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MTH 1203</td>
<td>Intermediate Algebra **</td>
<td>3</td>
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<tr>
<td>MTH 1503</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>SPC 1103</td>
<td>Sales Communication **</td>
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</tr>
<tr>
<td>SPC 1113</td>
<td>Speech</td>
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</table>

Total 16

+ **Summer**

<table>
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<tbody>
<tr>
<td>ABM 2004</td>
<td>Internship</td>
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Total 4

+ **Third Semester (Fall)**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABM 2403</td>
<td>Ag. Finance</td>
<td>3</td>
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<tr>
<td>ABM 2854</td>
<td>Farm and Ranch Mgt.</td>
<td>4</td>
</tr>
<tr>
<td>ABM 2911</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1073</td>
<td>Intro to Databases</td>
<td>3</td>
</tr>
<tr>
<td>MGT 2503</td>
<td>Human Resource Mgt.</td>
<td>3</td>
</tr>
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</table>

Electives (AMS) ...... 3 credits

Total 17

+ **Fourth Semester (Spring)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ABM 2503</td>
<td>Ag. Decision Analysis</td>
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<tr>
<td>ABM 2903</td>
<td>Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>MGT 2103</td>
<td>Management Concepts</td>
<td>3</td>
</tr>
<tr>
<td>MKT 2203</td>
<td>Ag. Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MTH 1503</td>
<td>College Algebra **</td>
<td>3</td>
</tr>
<tr>
<td>MTH 2203</td>
<td>Elements of Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PHL 1103</td>
<td>Critical Thinking</td>
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</tbody>
</table>

Total 18
OFFICE SYSTEMS OPTION

Associate of Applied Science
Associate of Applied Science Core......18-19
Agribusiness Mgt. Systems Core........20

Office Systems Option Courses
ABM 2203 Office Practices ..................3 credits
ABM 2103 Personal Finance or
ABM 2403 Ag. Finance ..........................3 credits
ABM 2903 Entrepreneurship .............3 credits
ABM 2963 Farm, Ranch, and Small Business Recordkeeping ......3 credits
ACT 1203 Accounting II ..........................3 credits
AIT 1073 Intro to Databases...............3 credits
AIT 2503 Desktop Publishing/Web Design .......3 credits
MGT 2503 Human Resource Mgt .............3 credits
MKT 2103 Retail Marketing .............3 credits
Electives (AMS) (not already taken) ......3-4 credits
choose from below:
ABM 1403 Econ of World Food ..........3 credits
ABM 2503 Ag Decision Analysis ..........3 credits
ABM 2854 Farm & Ranch Mgmt ..........4 credits
ECN 1303 Macroeconomics...............3 credits
MKT 2203 Ag Marketing ..........................3 credits

Total 30-31

Suggested Sequence of Study
✦ First Semester (Fall)
ACT 1103 Accounting I ..........................3 credits
AIT 1092 Intro to Spreadsheets* ........2 credits
ECN 1203 Microeconomics ..................3 credits
ENG 1503 Business and Technical Writing or
ENG 1903 College Composition ..........3 credits
PSY 1011 Learning Communities* ..........1 credit
PSY 1103 Human Relations* ..............3 credits
Total 15

✦ Second Semester (Spring)
ACT 1203 Accounting II ......................3 credits
ASI 1024 Fund. Of Animal Bio.* and
ASI 1024 Fund. Of Animal Bio. Lab* or . 4 credits
BIO 1104 General Biology and
BIO 1104 General Biology Lab ..........4 credits
BIO 1313 Plant Science and
BIO 1313 Plant Science Lab ..........1 credit
CHM 1003 Ag. Chemistry and
CHM 1003 Ag. Chemistry Lab ..........4 credits
CHM 1104 General Chemistry and
CHM 1104 General Chemistry Lab ..........4 credits
ECN 1303 Macroeconomics ..................3 credits
MTH 1203 Intermediate Algebra or
MTH 1503 College Algebra ..................3 credits
SPC 1103 Sales Communications or
SPC 1113 Speech ..............................3 credits

Total 16

✦ Summer
ABM 2004 Internship ............................4 credits

Total 4

✦ Third Semester (Fall)
ABM 2911 Seminar ............................1 credit
ABM 2403 Ag Finance ..........................3 credits
AIT 1073 Intro to Databases ................3 credits
MGT 2103 Management Concepts ..........3 credits
MKT 2503 HR Management ..............3 credits
MKT 2103 Retail Marketing .............3 credits

Total 16

✦ Fourth Semester (Spring)
ABM 2903 Entrepreneurship .............3 credits
ABM 2203 Office Practices ..............3 credits
AIT 1083 Dsk Top Pub/Web Design ....3 credits
MTH 1503 College Algebra or
MTH 2203 Elements of Statistics ..........3 credits
PHL 1103 Critical Thinking ..............3 credits
Electives (AMS) .........................3-4 credits

Total 18-19
PLUS ONE OPTION
Associate of Applied Science

Suggested Sequence of Study

+ First Semester (Fall)
ABM 2403 Ag. Finance .................. 3 credits
ABM 2911 Seminar ..................... 1 credit
ABM 2963 Farm, Ranch, and Small Business Recordkeeping .............. 3 credits
ACT 1103 Accounting I ................ 3 credits
ECN 1203 Microeconomics .......... 3 credits
MGT 2103 Management Concepts .... 3 credits
MGT 2503 Human Resource Mgt. .... 3 credits

Total 19

**If one of these courses has previously been completed, then select another course:
ABM 2203 Office Practices ............. 3 credits
ABM 2993 Independent Study ......... 3 credits
ABM 2854 Farm and Ranch Management ... 4 credits
AIT 1072 Intro to Data Base .......... 2 credits
MKT 2103 Retail Marketing .......... 3 credits

+ Second Semester (Spring)
ABM 2103 Personal Finance .......... 3 credits
ABM 2503 Ag. Decision Analysis ...... 3 credits
ABM 2903 Entrepreneurship .......... 3 credits
ACT 1203 Accounting II ............... 3 credits
ECN 1303 Macroeconomics .......... 3 credits
ECN 1403 Economics of World Food and Agriculture or
PHL 1103 Critical Thinking .......... 3 credits

Total 18

**If one of these courses has previously been completed, then select another course:
ABM 2993 Independent Study ......... 3 credits
AIT 1083 Desktop Publishing and Web Design ...................... 3 credits
MKT 2203 Ag. Marketing ............. 3 credits

Total Credit Hours for Degree 37

TRANSFER OPTION
Associate of Science

Suggested Sequence of Study

+ First Semester (Fall)
ACT 1103 Accounting I ................. 3 credits
BIO 1313 Plant Science and .......... 3 credits
BIO 1321 Plant Science Lab or ....... 1 credit
BIO 1331 Horticulture Science Lab or .... 1 credit
CHM 1104 General Chemistry and General Chemistry Lab .......... 4 credits
ECN 1203 Microeconomics .......... 3 credits

Total Credit Hours for Degree 37

AMS Required Courses
ABM 2403 Ag Finance .................. 3 credits
ABM 2903 Entrepreneurship ........... 3 credits
ACT 1103 Accounting I ............... 3 credits
ACT 1203 Accounting II ............... 3 credits
ECN 1203 Microeconomics .......... 3 credits
ECN 1303 Macroeconomics .......... 3 credits
MGT 2503 Human Resource Mgt. .... 3 credits
MKT 2203 Ag. Marketing ............. 3 credits

Total 24

Select 12 hours from the following or by Advisor approval
(At least six must be AMS courses)
ABM 2004 Internship .................. 4 credits
ABM 2854 Farm and Ranch Mgt. .... 4 credits
AGR 1103 Crop Science ............... 3 credits
AGR 2404 Crop Management .......... 4 credits
ASI 1303 Animal Management ....... 3 credits
ASI 2303 Range Management .......... 3 credits
ASI 2513 Meat Science ............... 3 credits
MKT 2103 Retail Marketing .......... 3 credits
MTH 2203 Elements of Statistics ...... 3 credits

Total 12

Total Credit Hours for Degree 61-62
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<th>Credits</th>
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<tr>
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<td>Business and Technical Writing or</td>
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<tr>
<td>ENG 1903</td>
<td>College Composition</td>
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<tr>
<td>PSY 1011</td>
<td>Learning Communities*</td>
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<td>SPC 1113</td>
<td>Speech</td>
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**Total 17**

**Second Semester (Spring)**

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<tr>
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<tr>
<td>BIO 1104</td>
<td>General Biology and General Biology Lab</td>
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<td>CHM 1104</td>
<td>General Chemistry and General Chemistry Lab</td>
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<td>ECN 1303</td>
<td>Macroeconomics</td>
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<td>ENG 2203</td>
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**Total 16**

**Third Semester (Fall)**

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<tr>
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<td>ABM 2854</td>
<td>Farm and Ranch Mgt.</td>
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<td>MGT 2503</td>
<td>Human Resource Mgt.</td>
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<td>ECN 1403</td>
<td>Economics of World Food and Agriculture</td>
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<tr>
<td>ENG 2103</td>
<td>Short Stories or</td>
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<tr>
<td>HIS 100</td>
<td>Western Civ. To 1715 or (UNL Independent Study)</td>
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<td>HIS 101</td>
<td>Western Civ. Since 1715 or (UNL Independent Study)</td>
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<tr>
<td>HTY 1303</td>
<td>American History after 1877 or</td>
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<tr>
<td>POLS 160</td>
<td>International Relations or (UNL Independent Study)</td>
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<tr>
<td>SOCI 101</td>
<td>Introduction to Soc. (UNL Independent Study)</td>
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<td>Electives (AMS)</td>
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**Total 16**

**Fourth Semester (Spring)**

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<tr>
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<td>ENG 2223</td>
<td>Intro to Creative Writing</td>
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<td>Ag. Marketing</td>
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**Total 12**

**MINOR**

**Required AMS Minor Courses**

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<td>Farm, Ranch and Small Business Recordkeeping or</td>
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<td>ACT 1103</td>
<td>Accounting I</td>
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<td>ECN 1203</td>
<td>Microeconomics</td>
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<tr>
<td>MGT 2103</td>
<td>Management Concepts</td>
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**Total 9**

**As well as 12 additional hours of Agribusiness Management Courses**

(Nine must be 2000 level courses)

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<td>Office Practices</td>
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<td>ABM 2403</td>
<td>Ag. Finance</td>
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<td>ABM 2503</td>
<td>Ag. Decision Analysis</td>
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<td>ABM 2854</td>
<td>Farm and Ranch Mgt.</td>
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<td>ABM 2911</td>
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<td>MKT 2103</td>
<td>Retail Marketing</td>
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<td>MKT 2203</td>
<td>Ag. Marketing</td>
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<tr>
<td>PHL 1103</td>
<td>Critical Thinking</td>
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<tr>
<td>SPC 1103</td>
<td>Sales Communication</td>
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**Total 12**

**Total Credit Hours for Minor 21**
CERTIFICATE

AMS Certificate Core Courses
(Select 6 Hours)

ENG 1503 Business and Technical Writing or
ENG 1903 College Composition............ 3 credits
PSY 1103 Human Relations*.................. 3 credits
SPC 1203 Sales Communication or
SPC 1113 Speech .................................. 3 credits

Total 9

Additional AMS Courses
(Select 21 Hours)

ABM 2103 Personal Finance ................. 3 credits
ABM 2203 Office Practices ..................... 3 credits
ABM 2403 Ag. Finance ......................... 3 credits
ABM 2503 Ag. Decision Analysis ............ 3 credits
ABM 2854 Farm and Ranch Mgt. ............. 4 credits
ABM 2903 Entrepreneurship .................. 3 credits
ABM 2911 Seminar.............................. 1 credit
ABM 2963 Farm, Ranch, and Small Business Recordkeeping......... 3 credits
ACT 1103 Accounting I ....................... 3 credits
ACT 1203 Accounting II ....................... 3 credits
ECN 1203 Microeconomics .................... 3 credits
ECN 1303 Macroeconomics .................... 3 credits
ECN 1403 Economics of World Food and Agriculture .................. 3 credits
MGT 2503 Human Resource Mgt. ........... 3 credits
MGT 2103 Management Concepts ............ 3 credits
MKT 2103 Retail Marketing .................... 3 credits
MKT 2203 Ag. Marketing ....................... 3 credits
PHL 1103 Critical Thinking ................... 3 credits

Total 21

Total Credit Hours for Certificate 30
ANIMAL SCIENCE/AG EDUCATION

DIVISION CHAIR
Dr. Doug Smith, Asst. Professor

FACULTY
Terri Jo Bek, Professor
Bridger Chytka, Asst. Professor
Joanna Hergenreder, Asst. Professor

MISSION
The Animal Science/Ag Ed division is dedicated to the development of innovative individuals for equine and livestock.

The Animal Science/Ag Ed major prepares students for lifelong careers in agriculture and its allied industries. Graduates of this major gain technical knowledge necessary for success in agriculture and obtain the necessary skills for lifelong learning and community leadership.

ASSOCIATE OF APPLIED SCIENCE OPTIONS
✚ Equine Industry Management
✚ Livestock Industry Management

BACCALAUREATE TRANSFER OPTIONS
✚ Agriculture Education/Extension A to B
✚ Animal Science A to B
✚ Grazing Livestock Systems A to B

BACHELOR OF APPLIED SCIENCE DEGREE
2+2 Transfer Association of Science degree from Nebraska College of Technical Agriculture and Bachelor of Applied Science Degree from University of Nebraska-Lincoln (UNL)
Online bachelor’s degree completion option

ASSOCIATE OF SCIENCE OPTIONS (TRANSFER)
✚ Agriculture Education/Extension
✚ Animal Science
✚ Grazing Livestock Systems

MINOR
✚ Agriculture Production Systems

CERTIFICATE
✚ Beef Production
✚ Equine Care
✚ Equine Training Management

FARM/RANCH OWNERSHIP PROGRAMS
This program is designed to assist students in obtaining their own ranch operation. The outcome of this program is a beginning ranch loan application.

100 Beef Cow Ownership Advantage Program
• Enroll in the Livestock Industry Management or Equine Industry Management Option
• Additional required courses:
  ▫ AGR 1001 Ownership Advantage Seminar I
  ▫ AGR 1501 Ownership Advantage Seminar II
  ▫ AGR 2001 Ownership Advantage Seminar III
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.
   - Students will be knowledgeable in the areas of modern livestock husbandry and management practices.
6. Learning outcomes specific to transfer options.
   - Students will demonstrate a basic knowledge in the areas of biology, chemistry, mathematics, and oral/written communication along with a basic understanding of agriculture consistent with standards set for baccalaureate degrees.

AG PRODUCTION SYSTEMS CORE COURSES
The following courses are required for all Associate of Applied Science degree options of the Ag Production Systems major.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<td>ABM 2903</td>
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EQUINE INDUSTRY MANAGEMENT

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

Associate of Applied Science Core .......... 18-19
Ag Production Systems Core ............. 19
Equine Industry Core ...................... 28

<table>
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<tr>
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<tr>
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<td>ASI 1253</td>
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<tr>
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<td>ASI 1303</td>
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<td>ASI 1432</td>
<td>Equine Care</td>
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<tr>
<td>ASI 1442</td>
<td>Equine Practicum I</td>
<td>2</td>
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<tr>
<td>ASI 1501</td>
<td>Equine Safety</td>
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<tr>
<td>ASI 2203</td>
<td>Feeds &amp; Feeding (P)</td>
<td>3</td>
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<tr>
<td>ASI 2262</td>
<td>Equine Nutrition</td>
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<tr>
<td>ASI 2433</td>
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INTERNISHIP:
Students within the Animal Science/Ag Ed major complete a 12 week internship working full-time in the agriculture industry. Students are permitted to complete their internship after completing a minimum of 3 eight week instructional periods with a minimum 2.0CGPA.
### Equine Industry Specialization Focus Course (Select 7 hours)

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<tr>
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<td>ASI 2363</td>
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<td>Equine Marketing Techniques</td>
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<td>ASI 2462</td>
<td>Colt Starting</td>
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<tr>
<td>ASI 2604</td>
<td>Livestock Anatomy and Physiology or</td>
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<td>ASI 2612</td>
<td>Equine Reproduction</td>
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**Total Credit Hours for Degree: 76**

### Suggested Sequence of Study

#### First Semester

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**Total 20**

#### Second Semester (Spring)

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<td>AIT 1092</td>
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**Total 14-16**

#### Third Semester (Fall)

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<tr>
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<td>Large Animal Diseases &amp; Pharmacology or</td>
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<td>ASI 2412</td>
<td>Equine Marketing Techniques or</td>
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<tr>
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<td>ASI 2854</td>
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**Total 20**

#### Fourth Semester (Spring)

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**Total 13**

**Total Credit Hours for Degree: 76**
LIVESTOCK INDUSTRY MANAGEMENT


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

**Associate of Applied Science Core**.... 18-19

**Ag Production Systems Core** ............... 19

**Livestock Industry Management Core**..... 21

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<td>Beef Production Systems (P)</td>
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<td>Livestock &amp; Carcass Evaluation</td>
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<td>Nutrition</td>
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<td>ASI 1303</td>
<td>Animal Management</td>
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<td>ASI 2384</td>
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<td>MGT 2103</td>
<td>Management Concepts</td>
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<tr>
<td>MGT 2503</td>
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**Total Credit Hours for Degree 76**

SPRING INTERNSHIP

ASSOCIATE OF APPLIED SCIENCE

**Suggested Sequence of Study**

**First Semester (Fall)**

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<td>ASI 1011</td>
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<td>ASI 1253</td>
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<td>Animal Management</td>
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<tr>
<td>ASI 1213</td>
<td>Livestock and Carcass Evaluation</td>
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**Total 19**

**Second Semester (Spring)**

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<td>SPC 1103</td>
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<td>PSY 1103</td>
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<tr>
<td>ASI 1024</td>
<td>Fundamentals of Animal Biology</td>
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**Total 19**
+ **Third Semester (Fall)**

- ACT 1103  Accounting or
- ABM 2963  Farm Records .................. 3 credits
- ASI 2854  Farm and Ranch Management ........................................ 4 credits
- ASI 2384  Large Animal Diseases ....... 4 credits
- ASI 2353  Livestock Breeding** .......... 3 credits
- ASI 2303  Range Management** .......... 3 credits
- ASI 2312  Livestock Judging II** ........ 2 credits
- ASI 2604  Livestock Anatomy & Physiology** .................................. 4 credits

Total 23

+ **Fourth Semester (Spring)**

- ENG 1503  Business and Technical Writing or .................................... 3 credits
- ENG 1903  College Composition .................. 3 credits
- AGR 2943  APS Capstone .................. 3 credits
- ASI 1204  Feedlot Operations or .......... 4 credits
- ASI 2774  Beef Productions Systems ....... 4 credits
- MKT 2203  Ag Marketing .................... 3 credits
- ASI 2313  Ration Formulation** ............ 3 credits
- ASI 1351  Artificial Insemination of Beef Cattle** .................. 1 credit
- ASI 1432  Equine Care** .................. 2 credits
- ASI 2513  Meat Science** .................. 3 credits
- ASI 2773  Advanced Reproductive Physiology** .................. 3 credits

Total 25

**Livestock Management Summer Internship**

**Associate of Applied Science**

**Suggested Sequence of Study**

+ **First Semester (Fall)**

- MTH 1403  Ag Math or
- MTH 1203  Intermediate Algebra or
- MTH 1503  College Algebra .................. 3 credits
- ECN 1203  Microeconomics .................. 3 credits
- ASI 1011  Intro. To Animal Science ...... 1 credit
- ASI 1252  Nutrition .................. 2 credits
- ASI 1303  Animal Management .................. 3 credits
- ASI 1213  Livestock & Carcass Eval ....... 3 credits
- AIT 1092  Intro to Spreadsheets ............ 2 credits
- PSY 1011  Learning Communities* ....... 1 credit

Total 18

+ **Second Semester (Spring)**

- SPC 1113  Speech or
- SPC 1103  Sales Communications ....... 3 credits
- PSY 1103  Human Relations ............ 3 credits
- ASI 2203  Feeds and Feeding ............ 3 credits
- ASI 1024  Fundamentals of Animal Biology or .................. 4 credits
- BIO 1104  General Biology or ............ 4 credits
- CHM 1104  General Chemistry or ............ 4 credits
- CHM 1004  Ag Chemistry ............ 4 credits
- ASI 1312  Livestock Judging I** ........ 2 credits
- AEQ 1203  Welding** .................. 3 credits

Total 18

+ **Summer**

- ASI 2906  Internship ............ 6 credits

Total 6

+ **Third Semester (Fall)**

- ACT 1103  Accounting I or
- ABM 2963  Farm Records .................. 3 credits
ASI 2854  Farm and Ranch Management .................... 4 credits
ASI 2384  Large Animal Disease & Pharmacology ............... 4 credits
ASI 2353  Livestock Breeding** .................. 3 credits
ASI 2303  Range Management** .................. 3 credits
ASI 2312  Livestock Judging II** ............... 2 credits
ASI 2604  Livestock Anatomy & Physiology ..................... 4 credits

Total 23

Fourth Semester (Spring)

ENG 1503  Business and Technical Writing or
ENG 1903  College Composition ............... 3 credits
AGR 2943  APS Capstone .................................. 3 credits
ASI 1204  Feedlot Operations or
ASI 2774  Beef Production Systems............ 4 credits
MKT 2203  Ag Marketing ....................... 3 credits
ASI 2313  Ration Formulation** ............. 3 credits
ASI 1351  Artificial Insemination of Beef Cattle** ....... 1 credit
ASI 1432  Equine Care** ............... 2 credits
ASI 2513  Meat Science** ............. 3 credits
ASI 2773  Advanced Reproductive Physiology** .... 3 credits
ASI 2332  Livestock Judging III** ........... 2 credits

Total 27

Total Credit Hours for Degree 76

Agriculture Production Systems Minor

Students with majors other than Agriculture Production Systems can earn a minor in Agriculture Production by meeting the requirements of their major, plus taking:

AGR 1103  Crop Science or
ASI 1303  Animal Management ............ 3 credits

Twelve (12) additional hours of Agriculture Production Systems courses must be taken. VTS 1713 Pharmacology and Anesthesiology (3) and VTS 2733 Diseases of Veterinary Medicine (3) can be used as part of the required twelve hours.

BACCALAUREATE TRANSFER OPTIONS

Agriculture Education A to B

Pre-baccalaureate Program

Associate of Applied Science Core ...... 18-19
APS Major Core ...................................... 19

ABM 2903  Entrepreneurship (P) or
AGR 2943  APS Capstone (P) ............... 3 credits
ACT 1103  Accounting I or ............... 3 credits
ABM 2963  Farm Records ....................... 3 credits
AGR 2906  Internship ....................... 6 credits
ASI 2854  Farm & Ranch Management (P) ........... 4 credits
ECN 1203  Microeconomics ............... 3 credits

Total 19

Agriculture Education Curriculum Core

ASI 1101  Introduction to Animal Science .................................... 1 credit
ASI 1303  Animal Management ............ 3 credits

Total 4

Agriculture Education Specialization Courses (Select 20 hours)

AED 1101  Early Field Experience ............ 1 credit
AED 1103  Agricultural Education, Journalism & Leadership Careers ............... 3 credits
AED 1233  Planning Leadership & Experiential Programs ............... 3 credits
AED 2103  Youth Programs ............... 3 credits
AED 2503  Livestock Practicum ............... 3 credits
AGR 1103  Crop Science .................. 3 credits
AGR 1201  Principles of Soils Lab ............ 1 credit
AGR 1203  Principles of Soils ............ 3 credits
AGR 2303  Soil Fertility .................. 3 credits
AGR 2354  Pest Management ............... 4 credits
AGR 2383  Irrigation Management ............ 3 credits
AGR 2404  Crop Management ............... 4 credits
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**ANIMAL SCIENCE A TO B PRE-BACCALAUREATE PROGRAM**

**Associate of Applied Science Core** ........ 18-19

**APS Major Core** ........................................... 19

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<td>ABM 2963</td>
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**Animal Science Curriculum Courses**

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**Animal Science Specialization Focus Courses** (Select 18 hours)

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**Grazing Livestock Systems A TO B PRE BACCALAUREATE PROGRAM**

**Associate of Applied Science Core** ........ 18-19

**APS Major Core** ........................................... 19

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**Grazing Livestock Systems Curriculum Courses**

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<td>Livestock &amp; Carcass Evaluation</td>
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### Grazing Livestock Systems Specialization

Focus Courses (Select 18 hours)

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**Total 18**

Advisor Guided Electives ..... 8-9

**Total Credit 76**

### BACHELOR OF APPLIED SCIENCE DEGREE

2 + 2 Transfer Association of Science degree from Nebraska College of Technical Agriculture and Bachelor of Applied Science Degree from University of Nebraska-Lincoln (UNL)

The Applied Science degree program offers an online bachelor's degree completion option with flexible pathways to degrees in agriculture, environmental, and other science-focused careers.

Applied Science degree programs prepare students to be the problem solvers, innovators, and teachers for the great challenges that our world will face related to food, energy and water in our landscapes. Students have the opportunity to individualize their course choices to broaden their studies, or combine them with electives to add a minor or dual degree.

The goal of the Applied Science degrees is to provide students with the science and leadership skills necessary to expand their career options, encourage life-long learning, and enrich their personal and civic lives.

#### Year 1 – Fall – NCTA

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<tr>
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<td>BIO 1313</td>
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**Total 14**

#### Year 1 – Spring – NCTA

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<td>Principles of Soils</td>
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<td>Soils Lab</td>
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<td>SPC 1113</td>
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<td>AEQ 1153</td>
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**Total 18**

#### Year 2 – Fall – NCTA

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<td>CHM 1004</td>
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<td>HSL 1053</td>
<td>Landscape Appreciation</td>
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<td>HTY 1303</td>
<td>American History after 1877</td>
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**Total 16**

#### Year 2 – Spring – NCTA

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<td>ECN 1303</td>
<td>Macroeconomics</td>
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<tr>
<td>ENG 2203</td>
<td>Advanced English</td>
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</table>
Composition..........................3 credits*

ABM 2903  Entrepreneurship ............... 3 credits

Total 15

NCTA Total Credit Hours: 62

*Transfer into University of Nebraska-Lincoln to meet the 16 hour Free Elective requirement. Student will receive an A.S. from Nebraska College of Technical Agriculture, Curtis, Nebraska.

+ Year 3 – Fall – University of Nebraska-Lincoln

FDST/CHEM/NUTR 131
The Science of Food ..............3 credits*

ENTO/BIOS 115
Insect Science .....................3 credits
Ecology .........................3 credits

AGRO 315 Genetics ..................4 credits

Total 13

+ Year 3 – Spring – University of Nebraska-Lincoln

Food Genetics, Biotechnology & Processing Elective .........................3 credits

NRES 108 Earth’s Natural Resource Systems .........................3 credits

AGRI 115 Biotechnology: Food, Health and Environment ......3 credits
Ecology ................................3 credits

FDST 301 Chemistry of Food ..................3 credits

Total 15

University of Nebraska-Lincoln

Total Credit Hours: 60

Total Credit Hours to Graduate: 122

PLEASE NOTE: No more than 60 credit hours earned at a two-year college can be applied to a baccalaureate degree from UNL. Student will receive a B.A.S. degree from University of Nebraska-Lincoln (UNL) Lincoln, Nebraska

ASSOCIATE OF SCIENCE DEGREE

TRANSFER

Learning outcomes specific to APS transfer options.

+ Students will demonstrate a basic knowledge in the areas of biology, chemistry, mathematics, and oral/written communication along with a basic understanding of agriculture consistent with standards set for baccalaureate degrees.

ASSOCIATE OF SCIENCE DEGREE

AGRICULTURE EDUCATION

Associate of Science Core ....................... 29

Agriculture Education Specialization Focus Courses (Select 24 hours)

ACT 1103 Accounting I ......................... 3 credits
ACT 1203 Accounting II ....................... 3 credits
AED 1101 Early Field Experience ............ 1 credit
AED 1103 Agricultural Education, Journalism & Leadership
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<td>AED 2103</td>
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<td>Livestock &amp; Carcass Evaluation</td>
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<td>ASI 1303</td>
<td>Animal Management</td>
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<td>ASI 2513</td>
<td>Meat Science</td>
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<tr>
<td>PHL 1103</td>
<td>Critical Thinking</td>
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Total 24

Advisor Guided Electives .... 11

Total Credit Hours for Degree 64

ASSOCIATE OF SCIENCE DEGREE GRAZING LIVESTOCK

Associate Of Science Core…………………………. 29
Grazing Livestock Systems Specialization
Focus (Select 24 hours)

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<th>Course Title</th>
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<td>ASI 1303</td>
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<td>PHL 1103</td>
<td>Critical Thinking</td>
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Total 24

Electives ................................................................ 11 credits

Total Credit Hours for Degree 64
## CERTIFICATES

### BEEF PRODUCTION EMPHASIS

**Total Required Core Courses** ........................................... 6  
**Emphasis Area (Select 12 hours)**

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**Total 12**

**Electives** ............................................................................ 12 credits

**Total Credit – Certificate Hours 30**

### EQUINE CARE

**Total Required Core Courses** ........................................... 6  
**Emphasis Area (Select 12 hours)**

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**Total Credit – Certificate Hours 30**

### EQUINE TRAINING MANAGEMENT CERTIFICATE

**Required Courses**

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<td>Equine Marketing Techniques</td>
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**Total Credit – Certificate Hours 20**

---

**Discover Your Way at NCTA**

---
AGRONOMY AND AGRICULTURAL MECHANICS

DIVISION CHAIR:
Dr. Brad Ramsdale, Associate Professor

FACULTY:
Tee Bush, Asst. Professor
Connie Landis Fisk, Asst. Professor
Dan Stehlik, Asst. Professor

MISSION
The Agronomy-Agricultural Mechanics Division is dedicated to the development of innovative individuals in the agronomy, horticulture and agricultural equipment disciplines. These degree programs prepare students for lifelong careers in agronomy, horticulture, and ag equipment industries. Graduates gain technical knowledge necessary for success in their chosen career path and obtain skills for lifelong learning and community leadership.

NCTA’s campus includes a farm laboratory with over 500 acres of crop and pasture land combined. The farm has three center-pivots including a state-of-the-art Reinke center-pivot irrigation system. Ag mechanics, welding and irrigation technology laboratories are fully equipped. Additionally, the NCTA greenhouse and high tunnel, Nebraska Statewide Arboretum affiliate site and campus ground, and the surrounding community provide living laboratories for horticulture students.

ASSOCIATE OF APPLIED SCIENCE IN AGRONOMY OPTIONS
✚ Crop Production
✚ Agriculture Equipment Management
✚ Diversified Agriculture

ASSOCIATE OF SCIENCE OPTIONS (TRANSFER)
✚ Agronomy
✚ Horticulture

CERTIFICATES AND AREAS OF CONCENTRATION
✚ Ag Chemical Application
✚ Crop Production
✚ Diversified Agriculture
✚ Horticulture
✚ Irrigation Technician
✚ Welding

FARM OWNERSHIP ADVANTAGE PROGRAM
This program is designed to assist students in obtaining their own farm or diversified agriculture operation. The outcome of this program is a beginning farmer loan application.
✚ Enroll in Agronomy Industry Management or Diversified Agriculture option.
✚ Additional required courses:
  • AGR 1001 Ownership Advantage Seminar I
  • AGR 1501 Ownership Advantage Seminar II
  • AGR 2001 Ownership Advantage Seminar III

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 in their chosen career pathway.
3. Students will be able to apply economic principles of accounting, marketing and budgeting to agronomy or agricultural mechanics enterprises.
4. Students will be able to exhibit required knowledge and skills consistent with their chosen field of study. (Technical Competence)
ASSOCIATE OF APPLIED SCIENCE DEGREE OPTIONS

Agronomy-Ag Mechanics Core Courses
The following courses are required for all Associate of Applied Science degree options.

AGR 2903 Internship .................................. 3 credits
ECN 1203 Microeconomics ...................... 3 credits

Choose 1 of the following courses:
ABM 2963 Farm Records or
ACT 1103 Accounting I............................... 3 credits

Choose 1 of the following courses:
MGT 2103 Management Concepts or
ABM 2854 Farm and Ranch Mgmt.. 3-4 credits

Choose 1 of the following courses:
ABM 2903 Entrepreneurship or
AGR 2943 Farm Capstone......................... 3 credits

Total 15-16

AGRICULTURAL EQUIPMENT MANAGEMENT OPTION
✚ Students will be able to safely operate, troubleshoot and maintain agricultural equipment.

Associate of Applied Science Core....... 19-21
Agronomy-Ag Mechanics Core.......... 15-16
Equipment Management Courses .......... 20
Choose 20 credits from below
AEQ 1103 Small Engines .................... 3 credits
AEQ 1153 Equipment Principles .......... 3 credits
AEQ 1203 Welding .............................. 3 credits
AEQ 1303 Intermediate Welding ............ 3 credits
AEQ 2211 Hydraulics ......................... 1 credit
AEQ 2214 Advanced Welding ............... 4 credits
AEQ 2303 Equi. Preventative Maint. 3 credits
AEQ 1503 DC Circuit Analysis ............... 3 credits
AEQ 1513 AC Circuit Analysis ............... 3 credits
AEQ 2404 Mechanized Irrigation Sys.. 4 credits
AEQ 2413 Diesel Engines ...................... 3 credits

Advisor Guided Electives ......................... 13-16

Total Credit Hours for Degree 70

Ag Equipment Suggested Sequence of Study
✚ First Semester (Fall)
AEQ 1103 Small Engines .................... 3 credits
AEQ 1153 Equipment Principles .......... 3 credits
AEQ 1203 Welding .............................. 3 credits
AEQ 2211 Hydraulics ......................... 1 credit
AIT 1092 Intro to Spreadsheets ............ 2 credits
ECN 1203 Microeconomics .................. 3 credits
PSY 1011 Learning Communities............... 1 credit

Total 16

✚ Second Semester (Spring)
ABM 2963 Farm Records ...................... 3 credits
AEQ 1172 Industrial Safety .................... 2 credits
AEQ 1303 Intermediate Welding ............ 3 credits
AEQ 2303 Equip Prevent Main ............... 3 credits
MTH 1403 Ag Mathematics .................. 3 credits
PSY 1103 Human Relations .................. 3 credits

Total 17

✚ Summer
AGR 2903 Internship .............................. 3 credits

Total 3

✚ Third Semester (Fall)
BIO 1313 Plant Science ....................... 3 credits
BIO 1321 Agronomic Plant Sci Lab ....... 1 credit
AEQ 1503 DC Circuit Analysis ............... 3 credits
AEQ 1513 AC Circuit Analysis ............... 3 credits
MGT 2103 Management Concepts .......... 3 credits
SPC 1103 Sales Communications ........... 3 credits

Total 16

✚ Fourth Semester (Spring)
ABM 2903 Entrepreneurship ................ 3 credits
AEQ 1172 Industrial Safety .................... 2 credits
AEQ 2214 Advanced Welding ................ 4 credits
<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AEQ 2323</td>
<td>Precision Farming Tech.</td>
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<tr>
<td>AEQ 2413</td>
<td>Diesel Engines</td>
<td>3</td>
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<tr>
<td>ENG 1503</td>
<td>Business &amp; Tech Writing</td>
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**CROP PRODUCTION OPTION**

+ Students will be able to apply economically sound and environmentally sustainable agricultural crop production practices in the Great Plains.

**Associate of Applied Science Core**........ 19-21
**Agronomy-Ag Mechanics Core**............... 15-16
**Crop Production Option Core**.............. 25

See below:

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>AGR 1091</td>
<td>Crop Practicum I</td>
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<tr>
<td>AGR 1591</td>
<td>Crop Practicum II</td>
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<tr>
<td>AGR 2091</td>
<td>Crop Practicum III</td>
<td>1</td>
</tr>
<tr>
<td>AGR 1203</td>
<td>Principles of Soil</td>
<td>3</td>
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<tr>
<td>AGR 1201</td>
<td>Soils Lab</td>
<td>1</td>
</tr>
<tr>
<td>AGR 2304</td>
<td>Soil Fertility</td>
<td>4</td>
</tr>
<tr>
<td>AGR 2354</td>
<td>Pest Management</td>
<td>4</td>
</tr>
<tr>
<td>AGR 2383</td>
<td>Irrigation Management</td>
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<td>AGR 2404</td>
<td>Crop Management</td>
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**Crop Production Specialization**................... 6

Choose 6 credits from below:

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<tr>
<td>AEQ 1153</td>
<td>Equipment Principles</td>
<td>3</td>
</tr>
<tr>
<td>AEQ 1203</td>
<td>Welding</td>
<td>3</td>
</tr>
<tr>
<td>AEQ 2303</td>
<td>Equip. Prevent. Main.</td>
<td>3</td>
</tr>
<tr>
<td>AEQ 2323</td>
<td>Precision Farming Tech</td>
<td>3</td>
</tr>
<tr>
<td>AEQ 2413</td>
<td>Diesel Engines</td>
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<tr>
<td>AGR 1213</td>
<td>Natural Resource Mgt.</td>
<td>3</td>
</tr>
<tr>
<td>AGR 1891</td>
<td>Crops Judging I</td>
<td>1</td>
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<tr>
<td>AGR 2892</td>
<td>Crops Judging II</td>
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| Advisor Guided Electives                      | 2-5 credits |

**Total Credit Hours for Degree** 70

**Crop Production Sequence of Study**

+ **First Semester (Fall)**

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<thead>
<tr>
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<tr>
<td>BIO 1313</td>
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<td>BIO 1321</td>
<td>Agronomic Plant Sci. Lab</td>
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<td>AEQ 1171</td>
<td>Farm Equipment Safety</td>
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<tr>
<td>AGR 1091</td>
<td>Crop Practicum I</td>
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<tr>
<td>AGR 1203</td>
<td>Principles of Soil</td>
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<tr>
<td>AGR 1201</td>
<td>Soils Lab</td>
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<tr>
<td>AIT 1092</td>
<td>Intro to Spreadsheets</td>
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<tr>
<td>ECN 1203</td>
<td>Microeconomics</td>
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<tr>
<td>PSY 1011</td>
<td>Learning Communities</td>
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</table>

**Total 16**

+ **Second Semester (Spring)**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ABM 2963</td>
<td>Farm Records</td>
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<tr>
<td>AGR 1591</td>
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<td>AGR 2304</td>
<td>Soil Fertility</td>
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<td>AEQ 2323</td>
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**Total 17**

+ **Summer**

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<tr>
<td>AGR 2903</td>
<td>Internship</td>
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**Total 3**

+ **Third Semester (Fall)**

<table>
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<tbody>
<tr>
<td>ABM 2854</td>
<td>Farm and Ranch Mgmt</td>
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<tr>
<td>AEQ 1651</td>
<td>Harvest Operations</td>
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<td>AGR 2091</td>
<td>Crop Practicum III</td>
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<td>AGR 2354</td>
<td>Pest Management</td>
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<td>AGR 2383</td>
<td>Irrigation Management</td>
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<tr>
<td>SPC 1103</td>
<td>Sales Communication</td>
<td>3</td>
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</table>

**Total 16**

**Fourth Semester (Spring)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AEQ 2303</td>
<td>Equip. Prevent. Main.</td>
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<tr>
<td>AGR 2002</td>
<td>Wildlife Habitat Mgmt</td>
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<tr>
<td>AGR 2404</td>
<td>Crop Management</td>
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</tr>
<tr>
<td>AGR 2943</td>
<td>Farm Capstone</td>
<td>3</td>
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</table>
### Diversified Agriculture Suggested Sequence of Study

**First Semester (Fall)**
- BIO 1313 Plant Science .......................... 3 credits
- BIO 1321 Agronomic Plant Sci. Lab .... 1 credit
- AGR 1203 Principles of Soil ............... 3 credits
- AGR 1201 Soils Lab .............................. 1 credit
- AIT 1092 Intro to Spreadsheets ............ 2 credits
- ASI 1303 Animal Management ............... 3 credits
- ECN 1203 Microeconomics .................. 3 credits
- PSY 1011 Learning Communities ............ 1 credit

Total 17 credits

**Second Semester (Spring)**
- ABM 2963 Farm Records ..................... 3 credits
- AGR 2304 Soil Fertility ....................... 4 credits
- ASI 1203 Feedlot Operations ............... 3 credits
- MTH 1403 Ag Mathematics .................. 3 credits
- PSY 1103 Human Relations .................. 3 credits

Total 16 credits

**Summer**
- AGR 2903 Internship .......................... 3 credits

Total 3 credits

**Third Semester (Fall)**
- ABM 2854 Farm and Ranch Mgt ............. 4 credits
- AGR 2354 Pest Management .................. 4 credits
- ASI 1203 Feedlot Operations ............... 3 credits
- ASI 1253 Nutrition ............................. 3 credits
- SPC 1103 Sales Communications .......... 3 credits

Total 17 credits

**Fourth Semester (Spring)**
- AGR 2404 Crop Management ............... 4 credits
- AGR 2943 Farm Capstone ..................... 3 credits
- ASI 2774 Beef Production .................... 3 credits
- ENG 1503 Business & Tech Writing .......... 4 credits
- MKT 2203 Ag Marketing ....................... 3 credits

Total 17 credits

---

**Diversified Agriculture Option**

Students will be able to apply economically sound and environmentally sustainable agricultural crop production practices in the Great Plains.

**Associate of Applied Science Core** 19-21

**Agronomy-Ag Mechanics Core** 15-16

**Diversified Agriculture Core** 7

See below:

- AGR 1203 Principles of Soils .............. 3 credits
- AGR 1201 Soils Lab .......................... 1 credit
- ASI 1303 Animal Management ............... 3 credits

**Diversified Agriculture Specialization** 12-16

Choose 2 of these Agronomy Courses:
- AGR 2304 Soil Fertility ....................... 4 credits
- AGR 2354 Pest Management .................. 4 credits
- AGR 2383 Irrigation Management .......... 3 credits
- AGR 2404 Crop Management ............... 4 credits
- AEQ 2323 Precision Farming Tech .......... 3 credits

Choose 2 of these Animal Science Courses:
- ASI 1253 Nutrition ........................... 3 credits
- ASI 1213 Livestock & Carcass Eval ........ 3 credits
- ASI 1204 Feedlot Operations ............... 4 credits
- ASI 2353 Livestock Breeding ............... 3 credits
- ASI 2774 Beef Production .................... 3 credits

**Advisor Guided Electives** 10-17

Total Credit Hours for Degree 70
ASSOCIATE OF SCIENCE DEGREE OPTION (TRANSFER)

+ Students will demonstrate a basic knowledge in the areas of biology, chemistry, mathematics, and oral/written communication along with a basic understanding of agriculture consistent with standards set for baccalaureate degrees.

**Agronomy Option**

**Associate of Science Core**...............................26-28
**Agronomy Specialization**.................................24

Choose 24 credits from below

AGR 1203 Principles of Soils ....................3 credits
AGR 1201 Soils Lab ................................ 1 credit
AGR 2304 Soil Fertility..............................4 credits
AGR 2404 Crop Management ......................4 credits
ASI 2303 Range Management .....................3 credits
ACT 1103 Accounting I.........................3 credits
ABM 2854 Farm and Ranch Mgt .................4 credits
ECN 1203 Microeconomics .......................3 credits
ECN 1303 Macroeconomics .......................3 credits
MKT 2203 Ag Marketing .........................3 credits

**Advisor Guided Electives** ............................ 12-14

Total Credit Hours for Degree 64

**Second Semester** (Spring)

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<tr>
<td>ACT 1103</td>
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<td>ECN 1303</td>
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<td>ENG 1903</td>
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<td>MTH 1503</td>
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Total 16

**Third Semester** (Fall)

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<tr>
<td>ABM 2854</td>
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<td>AGR 2354</td>
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<tr>
<td>ASI 2303</td>
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<td>HSL 1053</td>
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<td>PSY 1103</td>
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Total 17

**Fourth Semester** (Spring)

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>AGR 2404</td>
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<td>CHM 1104</td>
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<td>ENG 2203</td>
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<td>MKT 2203</td>
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Total 14

**Agronomy Transfer Suggested Sequence of Study**

+ **First Semester** (Fall)

<table>
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<th>Course</th>
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<tr>
<td>BIO 1313</td>
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<td>BIO 1321</td>
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<td>AGR 1203</td>
<td>3</td>
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<td>AGR 1201</td>
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<td>PSY 1011</td>
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<tr>
<td>SPC 1113</td>
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Total 17
**HORTICULTURE OPTION**

**Associate of Science Core**.......................... 26-28

**Horticulture Specialization**........................ 24

Choose 24 credits from below:

- **AGR 1203** Principles of Soils ................... 3 credits
- **AGR 1201** Soils Lab ................................. 1 credit
- **AGR 2304** Soil Fertility............................. 4 credits
- **HLS 1053** Landscape Appreciation........ 3 credits
- **HSL 1073** Landscape Plants I.................. 3 credits
- **HSL 1103** Plant Propagation................... 3 credits
- **HSL 1173** Landscape Plants II.............. 3 credits
- **HSL 2283** Landscape Management.......... 3 credits
- **HST 1113** Fund. of Turfgrass Mgt.......... 3 credits
- **ECN 1203** Microeconomics..................... 3 credits
- **ACT 1103** Accounting I......................... 3 credits

**Advisor Guided Electives** ......................... 12-14

**Total Credit Hours for Degree 64**

**Horticulture Transfer Suggested Sequence of Study**

**First Semester (Fall)**

- **BIO 1313** Plant Science......................... 3 credits
- **BIO 1331** Horticultural Science Lab .... 1 credit
- **AIT 1092** Intro to Spreadsheets............. 2 credits
- **HLS 1053** Landscape Appreciation........ 3 credits
- **HSL 1073** Landscape Plants I.............. 3 credits
- **PSY 1011** Learning Communities............ 1 credit
- **SPC 1113** Speech ................................ 3 credits

**Second Semester (Spring)**

- **ACT 1103** Accounting I......................... 3 credits
- **ENG 1903** College Composition.............. 3 credits
- **HSL 1173** Landscape Plants II........... 3 credits
- **HSL 1103** Plant Propagation................. 3 credits
- **MTH 1503** College Algebra.................... 3 credits

**Total 16**

**Third Semester (Fall)**

- **AGR 1203** Principles of Soils ................... 3 credits
- **AGR 1201** Soils Lab ................................. 1 credit
- **ECN 1203** Microeconomics..................... 3 credits
- **HSL 2283** Landscape Management.......... 3 credits
- **HST 1303** Amer History after 1877...... 3 credits
- **PSY 1103** Human Relations..................... 3 credits

**Total 16**

**Fourth Semester (Spring)**

- **AGR 2304** Soil Fertility......................... 4 credits
- **CHM 1104** General Chemistry............... 4 credits
- **ENG 2203** Adv College Composition...... 3 credits
- **HST 1113** Fund of Turf Management...... 3 credits
- **MTH 2203** Elem of Statistics................ 3 credits

**Total 17**

**CERTIFICATES AND AREAS OF CONCENTRATION**

**AG CHEMICAL APPLICATION**

- Students will be able to mix and apply agricultural chemicals safely and efficiently.
- Students will be able to interact professionally with colleagues and clients.

**Ag Chemical Application Area of Concentration**

- **AEQ 1153** Equipment Principles............. 3 credits
- **AEQ 2103** Ag Chemical Application........ 3 credits
- **AEQ 2301** Pesticide Certification.......... 1 credit
- **AEQ 2303** Equipment Prevent Main........ 3 credits
- **AEQ 2323** Precision Farming Tech......... 3 credits
- **AGR 2201** Commercial Ag Carrier......... 1 credit
- **AGR 2354** Pest Management.................. 4 credits
- **MTH 1403** Ag Mathematics.................... 3 credits
- **SPC 1113** Sales Communication............. 3 credits
- **PSY 1011** Learning Communities.......... 1 credit
- **PSY 1103** Human Relations.................... 3 credits
- **Advisor Guided Electives**..................... 6 credits

**Total Credit Hours for Degree 34**
Irrigation Technician

+ Students will gain a foundational knowledge in electricity and mechanized irrigation systems in order to effectively and safely service, repair, troubleshoot, and install center-pivot systems.

+ Students will be able to interact professionally with colleagues and clients.

Irrigation Technician Area of Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AEQ 1501</td>
<td>Intro to Electric Code</td>
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<td>AEQ 1503</td>
<td>DC Circuit Analysis</td>
<td>3 credits</td>
</tr>
<tr>
<td>AEQ 1513</td>
<td>AC Circuit Analysis</td>
<td>3 credits</td>
</tr>
<tr>
<td>AEQ 2404</td>
<td>Mechanized Irrigation Sys.</td>
<td>4 credits</td>
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<tr>
<td>AEQ 1172</td>
<td>Industrial Safety</td>
<td>2 credits</td>
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<tr>
<td>AEQ 1203</td>
<td>Welding</td>
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</tr>
<tr>
<td>MTH 1403</td>
<td>Ag Mathematics</td>
<td>3 credits</td>
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<tr>
<td>SPC 1113</td>
<td>Sales Communication</td>
<td>3 credits</td>
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<tr>
<td>PSY 1011</td>
<td>Learning Communities</td>
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<tr>
<td>PSY 1103</td>
<td>Human Relations</td>
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</table>

Advisor Guided Electives ................................ 8

Total Credit Hours for Concentration 34

Welding

+ Students will be able to perform welding and fabrication technical skills.

+ Students will be able to interact professionally with colleagues and clients.

Welding Area of Concentration

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AEQ 1172</td>
<td>Industrial Safety</td>
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</tr>
<tr>
<td>AEQ 1203</td>
<td>Welding</td>
<td>3 credits</td>
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</table>

AEQ 1303   Intermediate Welding                  | 3 credits|
AEQ 2214   Advanced Welding                      | 4 credits|
AEQ 2604   Welding Apprenticeship                | 4 credits|
PSY 1011   Learning Communities                 | 1 credit

Choose 2 courses from below:

AEQ 1103   Small Engines                         | 3 credits|
AEQ 1153   Equipment Principles                 | 3 credits|
AEQ 2303   Equipment Prevent Main               | 3 credits|
AEQ 1503   DC Circuit Analysis                  | 3 credits|
AEQ 2413   Diesel Engines                       | 3 credits|

Choose 2 courses from below:

MTH 1403   Ag Mathematics                        | 3 credits|
PSY 1103   Human Relations                       | 3 credits|
SPC 1113   Sales Communication                  | 3 credits|

Total Credit Hours for Certificate 16

CROP PRODUCTION CERTIFICATE

+ Students will gain a foundational knowledge in crop production related principles and practices.

Required General Education Credits ........... 6

Crop Production Emphasis ............................ 18

Choose 18 credits from below:

AEQ 1153   Equipment Principles                 | 3 credits|
AEQ 1203   Welding                               | 3 credits|
AEQ 2303   Equipment Prevent Main               | 3 credits|
AEQ 2323   Precision Farming Tech                | 3 credits|
AGR 1203   Principles of Soils                   | 3 credits|
AGR 1201   Soils Lab                             | 1 credit|
AGR 2304   Soil Fertility                        | 4 credits|
AGR 2354   Pest Management                       | 4 credits|
AGR 2383   Irrigation Management                 | 3 credits|

Advisor Guided Electives ............................ 6

Total Credit Hours for Certificate 30
DIVERSIFIED AGRICULTURE CERTIFICATE

Students will gain a foundational knowledge in crop and livestock production principles and practices.

Required General Education Credits ........... 6
Diversified Agriculture Emphasis .............. 12

Choose 12 credits from AGR, AEQ, ASI, or HSL courses

Advisor Guided Electives ......................... 12

Total Credit Hours for Certificate 30

HORTICULTURE CERTIFICATE

Students will gain a foundational knowledge in horticultural principles and practices.

Required General Education Credits ........... 6
Horticulture Emphasis .............................. 12

Choose 12 credits from below:

AEQ 1103  Small Engines ......................... 3 credits
AGR 1203  Principles of Soils .................... 3 credits
AGR 1201  Soils Lab ................................ 1 credit
HLS 1053  Landscape Appreciation .......... 3 credits
HSL 1073  Landscape Plants I .................... 3 credits
HSL 1103  Plant Propagation ..................... 3 credits
HSL 1173  Landscape Plants II ................. 3 credits
HSL 2283  Landscape Management .......... 3 credits
HST 1113  Fund of Turfgrass Mgmt .......... 3 credits

Advisor Guided Electives ......................... 12

Total Credit Hours for Certificate 30
VETERINARY TECHNOLOGY SYSTEMS

DIVISION CHAIR:
Barbara Berg, LVT, Assistant Professor

FACULTY:
Ricky Sue Barnes Wach, D.V.M, Professor
Judy Bowmaster Cole, LVT, Assistant Professor
Glenn Jackson, D.V.M., Assistant Professor

VETERINARY TECHNOLOGY MISSION
The Veterinary Technology Systems division is dedicated to the development of innovative individuals for careers in the animal health industry. The focus of the Veterinary Technology Associate of Applied Science degree is to provide the hands-on skills and academic background needed for graduates to accept and be successful in career opportunities within the animal health industry, be lifelong learners and involved community members. NCTA maintains a wide variety of animals to provide the students with a consistent and broad background of experience.

ASSOCIATE OF APPLIED SCIENCE DEGREE OPTIONS
Veterinary Technician Option
✚ Eligible to sit for the Veterinary Technician National Exam (VTNE) and become a licensed Veterinary Technician.

Veterinary Assistant Option
Animal Husbandry Option
Animal Health Management Option
Equine Health Care Option

CERTIFICATES
Animal Health Care Certificate
Laboratory Animal Care Certificate
✚ This curriculum helps prepare you to become a certified laboratory animal technician, caring for animals and supporting professionals at institutions looking to solve a multitude of medical problems, like cancer and diabetes, that affect millions of people and animals all over the world.

BACCALAUREATE TRANSFER OPTIONS
Veterinary Technologist Transfer Option
✚ Capstone with UNL Veterinary Science

Associate of Applied Science-Veterinary Technician Option:
The focus of NCTA’s Associate of Applied Science, Veterinary Technician Option is to provide the hands-on skills and academic background needed to accept career opportunities as an entry level veterinary technician. The program is American Veterinary Medical Association (AVMA) accredited with the curriculum based around the AVMA essential tasks and skill list. Veterinary Technology – Technician Option graduates are qualified to sit for the VTNE and become a licensed Veterinary Technician. NCTA maintains a wide variety of animals to provide the
students with a consistent and broad background of experience. This option recommends 80 hours of observation in a veterinary clinic. The program requirements include 76 credit hours of structured classes covering AVMA essential skills, an 8 week internship, passing the exit exam and a CGPA of 80%.

**Veterinary Technician Option Entrance Requirements:**

An ACT Score (the Veterinary Technician or equivalent) of 18 or higher is recommended to enroll in and complete the Veterinary Technician Option Honors Program in two years. With an ACT score of less than 18, it is recommended that students plan to complete the program in 3 years.

The Animal Husbandry, Equine Health Care, Veterinary Assistant and Animal Health Management Option are open to all students and can be completed in 2 years.

**Veterinary Technologist:**

A baccalaureate degree as a Veterinary Technologist can be pursued through a collaborative effort with NCTA’s Veterinary Technician Option Degree and the University of Nebraska-Lincoln. Students interested should inform their advisor of their intent upon initial registration.

**Final Assessment – Veterinary Technician Option - Exit Exam:**

The Exit Exam is one required criteria for the Veterinary Technician Option. At the end of the student’s last spring semester, the Veterinary Technician Exit Exam is offered. To be eligible to take this exam the Vet Tech student must be able to have successfully completed (with the exception of internship) the 76 required credit hours by the end of the semester. The entire comprehensive examination must be passed with an average grade of 70% or better and each section must be passed with a minimum grade of 60% or better. A maximum of two sections may be repeated during the provided repeat time. Each student must complete the required 76 credit hours of classes, have a CGPA of 80% and pass the Exit Exam to graduate with the Veterinary Technician Option.

**Final Assessment - Veterinary Technology**

Animal Husbandry, Veterinary Assistant, Animal Health Care Mgt, Equine Health Care

The Final Assessment Exam is one required criteria for the Veterinary Technology Options. At the end of the student’s last spring semester, the Veterinary Technology Final Assessment Exam is offered. To be eligible to take this exam the Vet Tech student must be able to have successfully completed (with the exception of internship) the required credit hours by the end of the semester. The 200 question written comprehensive final assessment is administered the last week in April each year.

Each student must complete the required credit hours of classes, have a CGPA of 70% and take the final assessment exam to graduate from the Animal Husbandry, Veterinary Assistant, Animal Health Mgt or Equine Health Care Option.

**Veterinary Technology Handbook:**

All Veterinary Technology students should read the Veterinary Technology Student Handbook that can be found on the NCTA web page.

**Veterinary Technician Option and Licensing:**

Graduation with the Veterinary Technician Option requires 76 credit hours, an exit exam, and a CGPA of 3.0. To be eligible to work as or to refer to yourself as a veterinary technician in Nebraska, one must graduate from an AVMA accredited Veterinary Technology Program (Technician Option), pass the VTNE, and become licensed with the state.

Each student must complete the required credit hours of classes, have a CGPA of 80% and pass the exit exam to graduate with the Veterinary Technician Option.

**PROGRAM OUTCOMES FOR VETERINARY TECHNICIAN OPTION:**

1. Upon completion of the Veterinary Technician Option, students will be able to demonstrate proficiency in the essential skill tasks outlined by the American Veterinary Medical Association. The list represents the complex role of the veterinary
technician and encourages instruction in motor skills, critical thinking, entrepreneurship, and clinical application at the veterinary technician entry level in the following areas.

- Office and Hospital Procedures
- Pharmacy and Pharmacology
- Nursing Skills
- Anesthesia
- Radiology
- Surgical Prep & Nursing
- Parasitology, Hematology, and Clinical Pathology
- Animal Husbandry, Handling, Behavior, and Restraint
- Anatomy and Physiology

2. Upon completion of the Veterinary Technician Option, students will be able to demonstrate the academic background needed to pass a national veterinary technician licensing exam.

**PROGRAM OUTCOMES FOR VETERINARY ASSISTANT OPTION:**

1. Upon successful completion of the Veterinary Assistant Option, students will be able to demonstrate proficiency in motor skills, critical thinking, entrepreneurship, and clinical application skills at the veterinary assistant entry level.

2. Upon successful completion of the Veterinary Assistant Option, students will be able to demonstrate proficiency in the skills and tasks in the following areas:

- Office and Hospital Procedures
- Parasitology, Hematology, and Clinical Pathology
- Animal Husbandry, Handling, Behavior, and Restraint
- Anatomy and Physiology
- Surgical Prep and Nursing
- Pharmacy and Pharmacology
- Nursing Skills
- Anesthesia
- Radiology

### Electives for VTS Options:

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>VTE 1021</td>
<td>Basic Dog Grooming</td>
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<tr>
<td>VTE 1611</td>
<td>Concepts in Bits</td>
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<tr>
<td>VTE 1621</td>
<td>Calving Rotation I</td>
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<tr>
<td>VTE 2621</td>
<td>Calving Rotation II</td>
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<td>VTE 1633</td>
<td>Equine Diseases and Pharmacology</td>
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<td>Licensing Prep</td>
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<td>VTE 2032</td>
<td>The World of Work</td>
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<td>VTE 2041</td>
<td>Making a Difference</td>
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<td>VTE 2101</td>
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<td>VTE 2121</td>
<td>Adv. Dog Obedience</td>
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<td>VTE 2322</td>
<td>Intro to the Vet Office</td>
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<td>VTE 2342</td>
<td>Spanish for the Vet Tech</td>
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<td>VTE 2422</td>
<td>Hills Small Animal Nutrition</td>
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<td>VTE 2423</td>
<td>Canine and Feline Nutrition</td>
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<td>VTE 2532</td>
<td>Avian Behavior and Training</td>
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<td>VTE 2522</td>
<td>Exotic Pet Selection and Care</td>
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<td>VTE 2542</td>
<td>Walk on the Wild Side</td>
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<td>Exotic Animal Care</td>
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<td>Safari</td>
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<td>VTE 2743</td>
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<td>VTE 2811</td>
<td>Ultra Sound</td>
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<td>Radiation Safety</td>
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<td>VTE 2933</td>
<td>Pain Management</td>
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</table>

**VETERINARY TECHNICIAN OPTION**

**Associate of Applied Science Option**

2 year Honors program

Associate of Applied Science Core ............... 19 credits
Veterinary Technology Courses ................. 54 credits
Internship .................................................. 3 credits

Total Credit Hours for Degree 76

**Sequence of Study**

**First Semester (1st Fall)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ASI 1011</td>
<td>Intro to Animal Science ............... 1 credit</td>
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<tr>
<td>PSY 1011</td>
<td>Learning Communities ................. 1 credit</td>
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<tr>
<td>VTS 1313</td>
<td>Math for Vet Techs or</td>
</tr>
<tr>
<td>MTH 1503</td>
<td>College Algebra or</td>
</tr>
</tbody>
</table>
**MTH 1203** Intermediate Algebra ................ 3 credits
**VTS 1301** Medical Terminology .................. 1 credit
**VTS 1513** Animal Care ................................ 3 credits
**VTS 1404** Anatomy & Physiology ................... 4 credits
**VTS 1542** Facility Management I ................... 2 credits
**VTS 2563** Fur and Feather ........................... 3 credits

**Total 18**

**Second Semester (1st Spring)**

**ASI 1024** Fundamentals of Animal Biology or
**BIO 1104** General Biology or
**CHM 1004** Ag Chemistry or
**CHM 1104** General Chemistry .................... 4 credits
**VTS 1521** Production Animals (P) ................ 1 credit
**VTS 1713** Pharmacology & Anesthesia ............ 3 credits
**VTS 1822** Radiology I (P) ......................... 2 credits
**VTS 2583** Nursing I (P) ............................... 3 credits
**VTS 1603** Intro to Laboratory Science ............ 3 credits
**SPC 1103** Sales or
**SPC 1113** Speech ..................................... 3 credits

**Total 19**

**1st Summer**

**VTS 2823** Radiology II (P) ......................... 3 credits
**VTE 2623** Feeding Equine Patients or
**ASI 2262** Equine Nutrition or
**ASI 1253** Livestock Nutrition or
**VTE 2423** Canine & Feline Nutrition ............ 2-3 credits
**VTS 2652** Parasitology ............................... 2 credits
**AIT 1092** Intro to Spreadsheets .................... 2 credits

**Total 9-10**

**Third Semester (2nd Fall)**

**VTS 2532** Large Animal Techniques (P) .... 2 credits
**VTS 2593** Nursing II (P) .............................. 3 credits
**VTS 2933** Anesthesiology (P) ....................... 3 credits
**VTS 2733** Diseases of Veterinary Medicine (P) .... 3 credits
**VTS 2331** Clinical Practices (P) ................. 1 credit

**VTS 2662** Hematology ............................... 2 credits
**ENG 1503** Business & Technical Writing or
**ENG 1903** College Composition ................... 3 credits

**Total 17**

**Fourth Semester (2nd Spring)**

**VTS 2241** Career Strategies (P) .................. 1 credit
**VTS 2672** Clinical Pathology (P) ................... 2 credits
**VTS 2953** Surgery Prep (P) ........................... 3 credits
**VTS 2521** Lg Animal Clinical Rotation or
**VTE 1621** Calving Rotation I ......................... 1 credit
**PSY 1103** Human Relations ........................... 3 credits
**VTS 2243** Internship .................................... 3 credits

**Total 13**

**VETERINARY TECHNICIAN OPTION**

**Associate of Applied Science**

**Suggested 3 year program**

Associate of Applied Science Core ................. 19 credits
Veterinary Technology Courses ..................... 54 credits
Internship .............................................. 3 credits

**Total Credit Hours for Degree 76**

**First Semester (1st Fall)**

**ASI 1011** Intro to Animal Science ............... 1 credit
**PSY 1011** Learning Communities .................. 1 credit
**VTS 1313** Math for Vet Techs ....................... 3 credits
**VTS 1301** Medical Terminology .................... 1 credit
**VTS 1513** Animal Care ................................ 3 credits
**VTS 2563** Fur and Feather ........................... 3 credits

**Total 12**
**Second Semester (1st Spring)**
- VTS 1542 Facility Management.............. 2 credits
- ASI 1024 Fundamentals of Animal Biology or
- BIO 1104 General Biology or
- CHM 1004 Ag Chemistry or
- CHM 1104 General Chemistry.............. 4 credits
- VTS 1521 Production Animals (P)........... 1 credit
- SPC 1103 Sales or
- SPC 1113 Speech.......................... 3 credits
- VTS 1603 Intro to Laboratory Science..... 3 credits

**1st Summer**
No classes

**Third Semester (2nd Fall)**
- VTS 1404 Anatomy & Physiology............ 4 credits
- VTS 2532 Large Animal Techniques (P).... 2 credits
- VTS 2733 Diseases of Veterinary Medicine (P)

  .......................... 3 credits
- PSY 1103 Human Relations................. 3 credits

**Fourth Semester (2nd Spring)**
- ENG 1503 Business & Technical Writing or
- ENG 1903 College Composition............. 3 credits
- AIT 1092 Intro to Spreadsheets............. 2 credits
- VTS 1713 Pharmacology & Ax (P).......... 3 credits
- VTS 1822 Radiology I (P).................. 2 credits
- VTS 2583 Nursing I (P)..................... 3 credits

**2nd Summer**
- VTS 2823 Radiology II (P).................. 3 credits
- VTS 2652 Parasitology..................... 2 credits

**Fifth Semester (3rd Fall)**
- VTS 2593 Nursing II (P).................... 3 credits
- VTS 2933 Anesthesiology (P).............. 3 credits
- VTS 2662 Hematology...................... 2 credits

**Sixth Semester (3rd Spring)**
- ASI 2262 Equine Nutrition or
- VTE 2623 Feeding Equine Patients or
- ASI 1253 Livestock Nutrition or
- VTE 2422 Hills Small Animal Nutrition or
- VTE 2423 Canine & Feline Nutrition...... 2-3 credits
- VTS 2331 Clinical Practices (P)........... 1 credit

**Veterinary Assistant Option**
Students follow the same course flow as the Veterinary Technician Option with 72 credit hours being required.

**Animal Husbandry Option**
Associate of Applied Science
- Associate of Applied Science Core........... 19
- Veterinary Technology Courses............. 32
- Veterinary Technology or Animal Science Industry Classes.......................... 15
- Open Electives................................. 15
- VTS 2243 VT Internship...................... 3 credits

**Suggested Sequence of Study**
**First Semester (First Fall)**
- Veterinary Technology Courses........... 2-6 credits
- Veterinary Technology or
Animal Science Industry.................................. 2-4 credits  
**Second Semester (First Spring)**
Veterinary Technology Courses .................. 2-6 credits  
Veterinary Technology or  
Animal Science Industry.................................. 2-4 credits
**Third Semester (Second Fall)**
Veterinary Technology Courses .................. 2-6 credits  
Veterinary Technology or  
Animal Science Industry.................................. 2-4 credits
**Fourth Semester (Second Spring)**
Veterinary Technology Courses .................. 2-6 credits  
Veterinary Technology or  
Animal Science Industry.................................. 2-4 credits

EQUINE HEALTH CARE OPTION

Associate of Applied Science  
Associate of Applied Science Core ............ 19
VTS & VTE Courses & Internship ............... 41
ASI Courses ............................................ 9
Electives .................................................. 3
Total Credit Hours for Degree .................... 72

Suggested Sequence of Study  
**First Semester (First Fall)**
ASI 1011 Intro to Animal Science .............. 1 credit  
PSY 1011 Learning Communities ............... 1 credit  
VTS 1313 Math for Vet Techs ................... 3 credits  
VTS 1301 Medical Terminology .................. 1 credit  
VTS 1404 Anatomy & Physiology ............... 4 credits  
ASI 1501 Equine Safety ......................... 1 credit  
ASI 1442 Equine Practicum ...................... 2 credits  
VTE 1643 Equine Health Records ............... 3 credits  

Total 16

**Second Semester (First Spring)**
VTS 1521 Production Animals ................... 1 credit  
VTS 1713 Pharmacology & Anesthesia .......... 3 credits  
VTS 1822 Radiology I ............................... 2 credits  
VTS 1603 Intro to Lab Science ................... 3 credits  
VTE 2612/ASI 2612 Equine Reproduction ...... 2 credits  
ASI 1432 Equine Care .............................. 2 credits  
PSY 1103 Human Relations ..................... 3 credits  
Electives .................................................. 2 credits  

Total 18

**First Summer**
VTE 2623 Feeding Equine Patients .......... 3 credits  
AIT 1092 Intro to Spreadsheets ............. 2 credits  
VTS 2241 Career Strategies ................... 1 credit  
VTE 1631 Practical Skills ....................... 1 credit  

Total 7

**Third Semester (Second Fall)**
VTS 2532 Lg Animal Techniques ............... 2 credits  
ENG 1503 Business & Tech Writing or  
ENG 1903 English Composition ............... 3 credits  
VTE 1633 Equine Diseases ...................... 3 credits  
VTE 1623 Equine Lab Diagnostics ............. 3 credits  
ACT 1103 Accounting I .......................... 3 credits  
ASI 2433 Equine Industry Management .. 3 credits  

Total 17

**Fourth Semester (Second Spring)**
VTE 2613 Equine Anesthesia & Surgery .... 3 credits  
VTE 2643 Equine Nursing ....................... 3 credits  
ASI 1024 Fundamentals of Animal Biology .. 4 credits  
Electives .................................................. 1 credit  
VTS 2244 Internship ............................... 4 credits  

Total 15
### ANIMAL HEALTH MANAGEMENT

**Associate of Applied Science**

**Associate of Applied Science Core**...... 19  
Veterinary Technology, Animal Science, Ag Business Classes........................................... 54  
**VTS 2243 Internship**........................................... 3  

Total Credit Hours for Degree 76

### Suggested Sequence of Study

**First Semester (First Fall)**

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<td>VTS 1301</td>
<td>Medical Terminology</td>
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<td>ASI 1501</td>
<td>Equine Safety</td>
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<td>VTS 1314</td>
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<td>VTS 1603</td>
<td>Intro to Laboratory Science</td>
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Total 15-22

**Second Semester (First Spring)**

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<tr>
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<td>Radiology I</td>
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Total 18-25

**Third Semester (Second Fall)**

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<td>Management Concepts</td>
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<td>MGT 2503</td>
<td>Human Resource Mgt.</td>
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<td>PSY 1103</td>
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<td>Intro to the Vet Office</td>
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Total 17-23

**Fourth Semester (Second Spring)**

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<td>ASI 1253</td>
<td>Livestock Nutrition</td>
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<td>VTE 2422</td>
<td>Hills Small Animal Nutrition</td>
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<td>VTE 2423</td>
<td>Canine &amp; Feline Nutrition</td>
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<td>VTS 2241</td>
<td>Career Strategies (P)</td>
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<td>BIO 1104</td>
<td>General Biology</td>
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<td>CHM 1004</td>
<td>Agriculture Chemistry</td>
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<td>CHM 1104</td>
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**Choose one of the following**

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Total 14-22

**First and Second Summer**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VTS 2244</td>
<td>Internship</td>
<td>4</td>
</tr>
</tbody>
</table>

Total 4

### Veterinary Technology Course List

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VTS 1404</td>
<td>Anatomy &amp; Physiology</td>
</tr>
<tr>
<td>VTE 1403</td>
<td>Anatomy &amp; Physiology</td>
</tr>
<tr>
<td>VTS 1513</td>
<td>Animal Care</td>
</tr>
</tbody>
</table>
VTS 1521  Production Animals
VTS 2321  Clinical Practices
VTS 1713  Pharmacology & Anesthesiology
VTS 2823  Diseases of Veterinary Medicine (P)
VTS 2563  Fur & Feather
VTS 2652  Clinical Pathology I
VTE 1021  Basic Dog Grooming
VTE 2041  Making a Difference
VTE 2423  Canine & Feline Nutrition
VTE 2342  Spanish for the Vet Clinic
VTE 2553  Exotic Animal Care
VTE 2522  Exotic Pet Selection and Care
VTE 2743  Vet Tech Overview
VTE 2811  Ultrasound

ABM, ECN, AIT, ASI, MKT Course List
ABM 2103  Personal Finance
ABM 2303  Business Law & Real Estate
ABM 2403  Agriculture Finance
ABM 2503  Agriculture Decision Analysis
ECN 1203  Microeconomics
ECN 1303  Macroeconomics (P)
AIT 2103  Graphic Design
AIT 2153  Web Page Design
AIT 2503  Public Relations
ASI 2853  Farm & Ranch Management
ABM 2903  Entrepreneurship
MKT 2103  Retail Marketing
ASI 1011  Intro to Animal Science
ASI 2861  Brand Inspection & Safety
ASI 2862  Feedlot Cattle Safety Seminar

BACCALAUREATE TRANSFER PROGRAM (CAPSTONE)

NCTA/UNL TRANSFER PROGRAM (CAPSTONE)

VETERINARY TECHNOLOGIST B.S. DEGREE

Students may elect to pursue a baccalaureate degree program as a Veterinary Technologist via an integrated capstone program through NCTA and UNL. This major requires the completion of the Associate of Applied Science with the Veterinary Technician Option at NCTA and completion of the required UNL classes on the Lincoln campus. Students selecting this major requires the competition of an Associate of Applied Science Degree in Veterinary Technology – Technician Option at Curtis, pass the Veterinary Technician National Exam and complete the required classes and Capstone Program at the University of Nebraska-Lincoln. Students may begin their course of study on either the Lincoln or Curtis campus. Veterinary Technologist options available are Business, Science and Veterinary Science.

Agribusiness Management Minor
See Business section of College Catalog.

Agriculture Productions Systems Minor
See Agriculture Production section of College

CERTIFICATE

Animal Care
12 hours Required
Select 12 hours from the following
VTS 1513  Animal Care or
VTE 1512  Animal Care........................................2-3 credits
VTS 1403  Anatomy and Physiology ........3 credits
VTS 1404  Anatomy and Physiology ........4 credits
VTS 1603  Intro to Laboratory Science........3 credits
VTS 1301  Medical Terminology.......................1 credit
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VTS 1542</td>
<td>Facility Management I</td>
<td>1 credit</td>
</tr>
<tr>
<td>VTS 1313</td>
<td>Math for Vet Techs</td>
<td>3 credits</td>
</tr>
<tr>
<td>ASI 1011</td>
<td>Intro to Animal Science</td>
<td>1 credit</td>
</tr>
<tr>
<td>ASI 1501</td>
<td>Equine Safety</td>
<td>1 credit</td>
</tr>
<tr>
<td>ASI 1161</td>
<td>Intro to Horsemanship</td>
<td>1 credit</td>
</tr>
<tr>
<td>VTE 1021</td>
<td>Canine Grooming</td>
<td>1 credit</td>
</tr>
<tr>
<td>VTE 2101</td>
<td>Dog Obedience</td>
<td>1 credit</td>
</tr>
<tr>
<td>VTE 2322</td>
<td>Intro to the Vet Office</td>
<td>2 credits</td>
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<td><strong>TOTAL</strong></td>
<td><strong>12</strong></td>
</tr>
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</table>

**CERTIFICATE**

**Laboratory Animal Care – 20 credit hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>VTS 1301</td>
<td>Medical Terminology</td>
<td>1 credit</td>
</tr>
<tr>
<td>VTS 1262</td>
<td>Lab Animal Internship</td>
<td>2 credits</td>
</tr>
<tr>
<td>VTS 2563</td>
<td>Fur and Feather</td>
<td>3 credits</td>
</tr>
<tr>
<td>VTS 1603</td>
<td>Intro to Laboratory Science</td>
<td>3 credits</td>
</tr>
<tr>
<td>VTS 1313</td>
<td>Math for Vet Techs</td>
<td>3 credits</td>
</tr>
<tr>
<td>VTS 1113</td>
<td>Lab Animal Medicine I</td>
<td>3 credits</td>
</tr>
<tr>
<td>VTS 1122</td>
<td>Lab Animal Medicine II</td>
<td>2 credits</td>
</tr>
<tr>
<td>VTS 1133</td>
<td>Lab Animal Management</td>
<td>3 credits</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

GENERAL EDUCATION

BIO 1104 General Biology 4 Hrs
Examination of fundamental principles of plant and animal biology including cell biology, genetics, development, diversity, and ecology.

BIO 1114 Microbiology 4 Hrs
(Pre req: Biology or permission of instructor) This class is designed for non-biology majors or veterinary technician students. Topics to be covered will include a study of the basic types of microorganisms and their common pathogenic mechanisms, host defense methods (including immune response), epidemiology of animal diseases, use of anti-microbial agents, and control of pathogens in the environment.

BIO 1313 Plant Science 3 Hrs
Biology of plants grown for food, fiber, fun, or fuel. Plant life cycles in managed ecosystems and their role in global carbon and water cycles. Mechanisms plants use to drive and control their growth, propagate, and change to compete with other organisms in their environment.

BIO 1321 Plant Science Laboratory 1 Hr
Growth, development, morphology and staging of annual and perennial monocot and dicot plants produced for grain, forage and grazing. Evaluation of seed, grain and forage quality for plants of agronomic importance.

BIO 1331 Introduction to Horticulture Science Laboratory 1 Hr
Introduction to and practical experience in the production and usage of horticultural plants.

CHM 1004 Agricultural Chemistry 4 Hrs
Basic concepts of chemistry will be studied and then applied to properties of chemical bonding of water, soil, pH, and structure functions of organic compounds. Emphasis, in turn, will be placed on agricultural applications of these concepts to fertilizer, nutritional and physiological cycles, and environmental relationships.

CHM 1104 General Chemistry I 4 Hrs
(Pre req: Two years of high school algebra and one year of high school chemistry OR two years of high school algebra and CHM 1003 OR permission of instructor) The first semester of a comprehensive year course in chemistry that includes the principles and theories of modern chemistry. This course is designed for students who need a good theoretical background in chemistry, and it is the prerequisite for advanced chemistry courses.

CHM 2104 General Chemistry II 4 Hrs
(Pre req: CHM 1104 or permission of instructor) The second semester of the comprehensive year course in chemistry.

ENG 0080 Basic Reading 3 Hrs
This course allows students who have not achieved minimum placement scores in reading (18 ACT in Reading) an opportunity to develop skills in reading before attempting the required English courses. This course does not satisfy degree requirements, it is not an elective, and it does not transfer.

ENG 0090 Basic Writing 3 Hrs
This course allows students who have not achieved minimum placement scores in writing (18 ACT in English) an opportunity to develop skills in writing before attempting the required English courses. This course does not satisfy degree requirements, it is not an elective, and it does not transfer.

ENG 1503 Business & Technical Writing 3 Hrs
(Pre req: 18 ACT Reading & 18 ACT English or ENG 0080/0090 equivalent or permission through English placement process) This course emphasizes the principles and strategies of written communication about technical subject matter using various media. It is designed to prepare the student to present technical and scientific documents in a clear and informative manner.

ENG 1903 College Composition 3 Hrs
(Pre req: 18 ACT Reading & 18 ACT English or ENG 0080/0090 equivalent or permission through English
placement process) A refinement of writing skills and critical reading, emphasizing the relationship between purpose and form, clarity, accuracy of expression, the development of the writer’s voice and style, the elements of critical thinking, and the development of the research paper to prepare for university studies.

ENG 2103 Short Stories 3 Hrs
A survey of literature through reading, analyzing and writing about short fiction. The course will emphasize close critical reading and discussion of selected short stories by a range of authors. Student will be introduced to the historical context, criticism, and interpretation of short fiction.

ENG 2203 Advanced College Composition 3 Hrs
(Pre req: English 1503 or 1903) A course for students seeking advanced work in reading and writing expository prose and in methods of research.

ENG 2223 Intro to Creative Writing 3 Hrs
Introduction to the writing of poetry, fiction, and screenplays. Lectures and discussions emphasize the principles, processes, and techniques of creative writing. Students develop their ability to respond to literature and scripts through workshops, discussions, and written assignments requiring them to analyze professional and peer works. Emphasis on literary (as opposed to “slick”) writing.

HON 1001 – Honors Seminar I 1 Hr
The first of 2 courses for students accepted into NCTA’s Honor’s Program. Various learning activities will be provided to enhance the student’s leadership and critical thinking skills. Students will develop an Honor’s Project that is either a research project or creative activity in the student’s area of interest. A faculty member at NCTA and perhaps WCREC will be selected to advise the Honor’s Project.

HON 2001 – Honors Seminar II 1 Hr
The second of 2 courses for students accepted into NCTA’s Honor’s Program. Various learning activities will be provided to enhance the student’s leadership and critical thinking skills. Students will complete the Honor’s Project developed during Honors Seminar I. A written report and oral presentation of the project will be given to NCTA faculty. Presentation or written report of the project to relevant professional societies is encouraged.

HTY 1303 American History After 1877 3 Hrs
Examines the economic, political, social, and cultural development of the United States from the end of the Reconstruction era through the modern era. Through lectures, readings, assignments, and discussion, students will be asked to interpret and critically evaluate historical documents, perspectives, concepts, and events.

MTH 1103 Basic Math 3 Hrs
A study of the fundamentals of math with a review of fractions, decimals, ratio proportions, and percentages. Basic algebra, geometry, and statistics will be covered as they apply to the agriculture industry.

MTH 1203 Intermediate Algebra 3 Hrs
Properties of real numbers, factoring, exponents and radicals, linear and fractional equations, linear and nonlinear inequalities, quadratic equations, and functions and graphs. This course may not be accepted in transfer toward the general education requirement for a baccalaureate degree.

MTH 1403 Agricultural Mathematics 3 Hrs
A study of mathematics, geometry and algebra that are utilized in the agricultural industry. Problems will include examples from crop production, horticulture, livestock management and agricultural business.

MTH 1503 College Algebra 3 Hrs
Functions, inverse functions, graphing of linear and quadratic functions, the conic sections, polynomial functions, rational functions, exponential and logarithmic functions, systems of equations, determinants and matrices, and higher degree equations.

MTH 2203 Elements of Statistics 3 Hrs
Frequency distributions, elementary probability theory, measures of dispersion and central tendency, normal distributions, confidence intervals, hypothesis testing, regression, and correlation.
MTH 2253 Trigonometry 3 Hrs
Designed for students who plan further study at the calculus level. Numerical trigonometry, trigonometric analysis, inverse trigonometric functions, and complex numbers.

PAE 1011 Fitness Center 1 Hr
This course provides students the opportunity to pursue individual fitness goals. Emphasis is placed on fitness as a lifelong pursuit of wellness. Minimum of 1 hour per week is required.

PHL 1103 Critical Thinking 3 Hrs
Living in the information age, it is imperative to be able to process, sort and analyze information, not just for usefulness but also for accuracy. This course is designed to equip students with the tools necessary to work with the amount of information available today and to make good decisions based on sound solutions in an ever-changing workplace.

PSY 1011 Learning Communities 1 Hr
The Learning Community is designed to increase a student’s success in college by fostering relationships between peers, faculty and the extended community in which they live. In addition, skills are taught that will be necessary for students to reach educational objectives.

PSY 1103 Human Relations 3 Hrs
This course studies the psychology of humans and their relationships with others. Emphasis is placed on one’s ability to get along with others in a working relationship.

SOC 1103 Introduction to Sociology 3 Hrs
Introduction to the sociological study of human behavior, especially social organization, culture, and the social institutions that comprise society. Attention to social change, differentiation and inequality, and other social issues.

SPA 1115 Beginning Spanish I 5 Hrs
Emphasis on development of comprehension of written and spoken Spanish; reading of simple texts dealing primarily with the Spanish-speaking world and with cultural and historical background of Spanish civilization; oral and aural drill supplemented by practice in pronunciation laboratory.

SPC 1113 Speech 3 Hrs
This course contains a study of the methods of developing and presenting oral communications. It includes techniques in speech making and other methods of communicating orally in the business world.

AGRIBUSINESS MANAGEMENT SYSTEMS

ABM 1011 Business Builder Seminar I 1 Hr
This seminar is required for 2nd semester students in the Business Builder Program. Topics to be explored include: Risk management, business ownership models, financing, and records management.

ABM 1103 Rural Community Career Development 3 Hrs
The Rural Community Career Development course is designed to aid students in their investigation of career possibilities that exist in their hometown. Topics include the “rural ethic”, family legacy, demographics, enterprise ownership, partnerships or mentorships, available resources, career planning and the development of an initial business plan with partnership or mentorship agreement.

ABM 2004 Internship 4 Hrs
(Pre req: Approval by Division Chair, students are required to have a minimum CGPA of 2.0 before being allowed to go out on internship and must have completed two semesters) Internship includes a mandatory 8-week job placement experience at an approved work location. Agreements are entered into between the student, the employer and the college.

ABM 2011 Business Builder Seminar II 1 Hr
This seminar is required for 3rd semester students in the Business Builder Program. Topics to be explored include: Business transitions, legal documents for the business organization, and working with senior partners.
ABM 2103 Personal Finance  3 Hrs
(Pre req: ACT 1103, MTH 1203, MTH 1503) This course is to develop understanding of personal finance. Topics include basic financial planning, money management, insurance, investments and current events related to personal finance.

ABM 2203 Office Practices  3 Hrs
A computer-assisted study of major office functions. This would include such functions as: accounting systems for payroll, credit and collections, business costs and other financial and tax reports, and general records management.

ABM 2403 Ag Finance  3 Hrs
(Pre req: ACT 1103, MTH 1203, MTH 1503) An in-depth study of financial analysis and the financial institutions which serve agricultural businesses. For each particular type of financial institution, this course will study its sources of capital, its general loan criteria used to evaluate loan requests, and its financial performance. For ag borrowers, this course will also examine their financial condition, their projected cash flow and the importance of risk management.

ABM 2503 Ag Decision Analysis  3 Hrs
(Pre req: AIT 1092) Introduction to quantitative decision-making methods for effective agribusiness management, emphasis on problem identification, model formulation and solution, interpretation and presentation of results.

ABM 2551 Cooperatives in Today’s World  1 Hr
(Pre req: Permission of instructor) This course is offered in the spring semester and is intended for those students with a business interest. With the help of the instructor, students plan a trip to the annual College Conference on Cooperatives to learn about the history, organization, and modern applications of the Cooperative structure. A presentation of these concepts will be given to the Management Concepts classes after the experience. Enrollment is by instructor selection only.

ABM 2854 Farm and Ranch Management  4 Hrs
(Pre req: ACT 1103 or ABM 2963, ECN 1203) Business management concepts which are involved in the decision–making process when organizing and operating a farming/ranching operation. Includes production economics, record keeping systems, financial budgets and analysis, crop and livestock enterprise analysis, depreciation, cash flow planning, equity, and production efficiency indicators.

ABM 2903 Entrepreneurship  3 Hrs
(Pre req: ACT 1103, MGT 2103, ACT 1203 or enrolled in ACT 1203) This course includes the skills and attitudes necessary for starting and maintaining a successful business: personal (self) assessment, government regulations, financing and marketing options, and writing a business plan.

ABM 2911 Seminar  1 Hr
(Pre req: Fall before graduation) In their last semester before graduation, majors will be required to research, write and report on an agribusiness issue that pertains to their Option, and complete a presentation on their internship.

ABM 2963 Farm, Ranch, and Small Business Recordkeeping  3 Hrs
Business record systems for farming and ranching. Manual and computerized record keeping techniques to aid farm and ranch managers and small business owners in making management and production decisions and preparing tax returns.

ABM 2991 Independent Study  1-3 Hrs
(Pre req: Approval of project by Instructor, Advisor, and Division Chair) This course consists of elective individual or group projects. Projects may include research, continuing education programs, and group tours. The project is developed under the supervision and evaluation of a department faculty member who is willing and available to contract with the student. This class requires a written paper, and may require a presentation (up to the discretion of the supervising faculty member). Students may enroll in this course a maximum of 3 times, for a total of 3 credit hours.

ACT 1103 Accounting I  3 Hrs
(Pre req: Enrolled in MTH 1103, MTH 1203, or MTH 1503) This course is a study in the fundamentals of accounting concepts and procedures. Concepts include financial reporting and analysis.
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<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACT 1203</td>
<td>Accounting II</td>
<td>3 Hrs</td>
<td>Continuation of Accounting I with emphasis given to financial statement analysis, costing systems, and the budgeting process. The managerial uses of accounting information for decision making are introduced.</td>
</tr>
<tr>
<td>AIT 1052</td>
<td>Introduction to MS Word</td>
<td>2 Hrs</td>
<td>This course will introduce the student to the basics of word processing using Microsoft Word.</td>
</tr>
<tr>
<td>AIT 1062</td>
<td>Introduction to MS PowerPoint</td>
<td>2 Hrs</td>
<td>This course will introduce the student to the basics of presentations using Microsoft PowerPoint.</td>
</tr>
<tr>
<td>AIT 1073</td>
<td>Introduction to Databases</td>
<td>3 Hrs</td>
<td>(Pre req: AIT 1092) This course will introduce the student to the basics of relational databases using Microsoft Access. Students will learn the basics of database creation and management. Creating and manipulating databases adds an additional information management tool to the business manager’s tool kit.</td>
</tr>
<tr>
<td>AIT 1083</td>
<td>Introduction to Desktop Publishing and Web Design</td>
<td>3 Hrs</td>
<td>This course will introduce the student to the basics of desktop publishing and web design.</td>
</tr>
<tr>
<td>AIT 1092</td>
<td>Introduction to Spreadsheets</td>
<td>2 Hrs</td>
<td>Introduction to the spreadsheet application, Microsoft Excel. Students will be learning to apply formatting, work with formulas and functions, and create graphs and charts, in addition to creating, saving, revising, and printing documents.</td>
</tr>
<tr>
<td>ECN 1203</td>
<td>Microeconomics</td>
<td>3 Hrs</td>
<td>This course is designed to introduce the student to basic economic concepts and to the role of agriculture in today’s business environment. Emphasis is placed on supply, demand, production costs, consumption, utility, various types of competition, and consumer/producer behavior in various markets.</td>
</tr>
<tr>
<td>ECN 1303</td>
<td>Macroeconomics</td>
<td>3 Hrs</td>
<td>(Pre req: ECN 1203) A study of how economic variables interact in the U.S. and the world. Course materials will include analysis of aggregate economic variables, such as national income, consumption, saving, inflation, employment, investment, international variables, price indices, money, and interest.</td>
</tr>
<tr>
<td>ECN 1403</td>
<td>Economics of World Food and Agriculture</td>
<td>3 Hrs</td>
<td>(Pre req: ECN 1203) Explores global food and agricultural issues with a focus on hunger, chronic malnutrition, and diets of people in developing countries. Introduces basic economic concepts pertinent to understanding and analyzing global food markets and prices and to evaluating government policies designed to reduce food insecurity, enhance diets, and promote agricultural development.</td>
</tr>
<tr>
<td>MGT 2103</td>
<td>Management Concepts</td>
<td>3 Hrs</td>
<td>(Pre req: ECN 1203, ACT 1103 or ABM 2963) This course is a study of the basic principles of management decision-making as applied to agricultural business operations. Emphasis will be placed on the importance of relevant data (such as business costs and returns, cash flow, income statement and balance sheet) in making informed business decisions. Differences in management goals will also be explored.</td>
</tr>
<tr>
<td>MGT 2503</td>
<td>Human Resource Management</td>
<td>3 Hrs</td>
<td>(Pre req: MGT 2103) This course includes a study of the recruitment, selection, training and utilization of human resources, including recruitment, worker’s compensation, unemployment insurance, benefits and safety in the work place.</td>
</tr>
<tr>
<td>MKT 2103</td>
<td>Retail Marketing</td>
<td>3 Hrs</td>
<td>This course is designed to provide the student with a basic understanding of the functions necessary in the retail marketing of products and services. The advantages of understanding the complex marketing system is emphasized.</td>
</tr>
<tr>
<td>MKT 2203</td>
<td>Ag Marketing</td>
<td>3 Hrs</td>
<td>(Pre req: ECN 1203) This class deals largely with all the risk management aids available to the agricultural producer. Topics include the use of commodity markets, storing, computer programs, market information, and government programs.</td>
</tr>
</tbody>
</table>
SPC 1103 Sales Communications 3 Hrs
This course will instruct students in retail and service salesmanship, emphasizing the purpose of selling, the characteristics and functions of the salesperson, sales promotion, locating and qualifying prospects, and the steps in making a sale. Students are required to select a product, develop a sales manual and make a sales presentation.

ANIMAL SCIENCE/AG EDUCATION

AED 1101 Early Field Experience 1 Hr
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, extension education, agribusiness, journalism and leadership.

AED 1103 Agricultural Education, Journalism and Leadership Careers 3 Hrs
Explore the career opportunities available 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.

AED 1233 Planning Leadership & Experiential Programs 3 Hrs
Theory of experiential education to middle school and secondary agricultural education programs, especially leadership and career education. Development of Supervised Experience (SE), 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.

AED 2103 Youth Programs 3 Hrs
This course is designed to take a deeper look at youth programs across the country such as 4-H, FFA, FCCLA and many others. Students will learn the theory of experiential education with examples as development of an (SAE) Supervised Agricultural Experience, alumni activities and other community opportunities.

AED 2503 Livestock Practicum 3 Hrs
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.

ASI 1011 Introduction to Animal Science 1 Hr
A course that deals with current issues facing the livestock industry, production trends, terminology, animal growth, structure & selection, breeds, and development.

ASI 1024 Fundamentals of Animal Biology 4 Hrs
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.

ASI 1031 Rodeo Seminar-Rough Stock & Timed Events 1 Hr
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.

ASI 1161 Introduction to Horsemanship Seminar 1 Hr
(Pre req: ASI 1501 or permission) 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.

ASI 1204 Feedlot Operations 4 Hrs
(Pre req: ASI 1253 & ASI 1303). 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.
ASI 1213 Livestock and Carcass Evaluation 3 Hrs
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.

ASI 1222 Advanced Livestock Evaluation and Judging 2 Hrs
(Pre req: ASI 1213 or instructor permission) 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.

ASI 1241 Ranch Horse I 1 Hr
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.

ASI 1253 Nutrition 3 Hrs
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.

ASI 1263 Basic Equitation 3 Hrs
(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.

ASI 1303 Animal Management 3 Hrs
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 studied.

ASI 1312 Livestock Judging I 2 Hrs
(Pre req: ASI 1213 and ASI 1222) A continuation of ASI 1213.

ASI 1341 Ranch Horse II 1 Hr
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.

ASI 1351 Artificial Insemination of Beef Cattle 1 Hr
This course trains individuals in the techniques of artificial insemination of cattle.
ASI 1432 Equine Care 2 Hrs
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.

ASI 1442 Equine Practicum I 2 Hrs
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.

ASI 1462 Competitive Equitation 2 Hrs
This course is designed to enhance the equitation skills developed in both basic and advanced equitation classes. The emphasis will be towards perfecting a competitive edge in the show ring for both Western and English disciplines.

ASI 1501 Equine Safety 1 Hr
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.

ASI 1991 Independent Study 1 Hr
(Pre req: Approval of project by Instructor, Division Chair, and Advisor) 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.

ASI 2031 Rodeo Seminar-Rough Stock & Timed Events 1 Hr
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.

ASI 2203 Feeds and Feeding 3 Hrs
(Pre req: ASI 1253 recommended) The study of feed-stuffs, feed processing, and feed additives. Lab will include feed evaluation, moisture determination and conversion, feed tag interpretation, ration evaluation, and balancing.

ASI 2262 Equine Nutrition 2 Hrs
(Pre req: ASI 1253) The class will introduce the student to the management of equine nutrition. The course will include discussion of demands on the modern equine and its nutritional requirements. The equine gastrointestinal tract will be explored. General feeding practices and feedstuffs will be discussed. Nutritional requirements for various age groups and performance areas will be included. Students will be introduced to a variety of feeds available and feed quality will be discussed as well as a general monitoring of herd health and food related toxicity.

ASI 2303 Range Management 3 Hrs
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.

ASI 2312 Livestock Judging II 2 Hrs
(Pre req: ASI 1312) A continuation of ASI 1312.

ASI 2313 Ration Formulation 3 Hrs
(Pre req: ASI 1253, ASI 2203, AIT 1053 or permission) 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.

ASI 2332 Livestock Judging III 2 Hrs
(Pre req: ASI 2312) A continuation of ASI 2312.

ASI 2353 Livestock Breeding 3 Hrs
A course in the principles of genetics and hereditary characteristics applied to livestock production, including production records, selection, and design of mating systems.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ASI 2362</td>
<td>Advanced Equitation</td>
<td>2 Hrs</td>
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<td></td>
<td>(Pre req: ASI 1263 or permission, limited enrollment)</td>
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<tr>
<td></td>
<td>This class addresses the study and application of</td>
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<td></td>
<td>equine and rider maneuvers basic to performance</td>
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<td>excellence. Students will be expected to show</td>
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<td>satisfactory progress toward standards of excellence in</td>
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<td></td>
<td>Western and English disciplines.</td>
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<tr>
<td>ASI 2363</td>
<td>Intermediate Training</td>
<td>3 Hrs</td>
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<td></td>
<td>Students will acquire skills in intermediate horseman-</td>
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<td>ship (including equitation and training techniques)</td>
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<td>and greenbreaking. Students, with the aid of the</td>
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<td>instructor, will set and achieve individual objectives.</td>
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<tr>
<td>ASI 2403</td>
<td>Monitoring Techniques &amp; Data Analysis</td>
<td>3 Hrs</td>
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<tr>
<td></td>
<td>This course emphasizes the importance of keeping</td>
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<td></td>
<td>accurate range production records and how to gather,</td>
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<td>store and utilize data. It, also, includes an in-depth</td>
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<td>use of current monitoring techniques used to gather</td>
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<td>data on rangelands.</td>
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<tr>
<td>ASI 2463</td>
<td>Advanced Performance Training</td>
<td>3 Hrs</td>
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<td>Students will acquire skills in the correction of bad</td>
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<td>habits and advanced training techniques leading toward</td>
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<td>an area of specialization. Students, with the aid of</td>
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<td>the instructor, will set and achieve individual</td>
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<td>objectives.</td>
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<tr>
<td>ASI 2384</td>
<td>Large Animal Diseases &amp; Pharmacology</td>
<td>4 Hrs</td>
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<tr>
<td></td>
<td>Students study the etiologies of animal disease as it</td>
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<td>relates to the major classes of domestic livestock.</td>
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<td>The study includes investigation of specific livestock</td>
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<td></td>
<td>diseases, disease control measures and basic sanitation</td>
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<td>parasite management, pharmacological principles,</td>
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<td>antibiotics, and fundamental immunology in domestic</td>
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<td>animals. Important zoonoses are covered along with</td>
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<td>the principles of Beef Quality Assurance.</td>
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<tr>
<td>ASI 2412</td>
<td>Equine Marketing Techniques</td>
<td>2 Hrs</td>
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<tr>
<td></td>
<td>This class is designed to give students the experience</td>
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<td></td>
<td>of creating a sale from start to finish. It includes</td>
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<td>working with horses to creating the sale catalog.</td>
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<tr>
<td>ASI 2433</td>
<td>Equine Industry Management I</td>
<td>3 Hrs</td>
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<tr>
<td></td>
<td>A study of the light horse production with emphasis on</td>
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<td></td>
<td>nutrition, reproduction, management, and principle</td>
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<td>usage of light horses. Courses such as horse production,</td>
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<td></td>
<td>Equine care, Advertising and Merchandising opens doors</td>
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<td></td>
<td>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>2 Hrs</td>
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<td></td>
<td>This course will introduce second year Equine Industry</td>
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<td></td>
<td>Management students to hands-on equine activities</td>
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<td>of care, feeding, grooming, and supervisory barn</td>
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<td>management. Students enrolled in this course will</td>
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<td>work at the horse barn with the NCTA horses.</td>
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<td>ASI 2452</td>
<td>Seedstock Preparation and Marketing</td>
<td>2 Hrs</td>
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<td></td>
<td>This course is designed to prepare students to address</td>
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<td></td>
<td>preparation of livestock to be marketed through seed-</td>
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<td>stock and other marketing programs.</td>
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<tr>
<td>ASI 2462</td>
<td>Colt Starting</td>
<td>2 Hrs</td>
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<td>(By Permission) This course is an application in basic</td>
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<td>colt starting principles for the advanced rider. Basic</td>
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<td>young horse handling practices and safety issues will</td>
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<td>be studied and applied.</td>
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<td>ASI 2443</td>
<td>Equine Industry Management II</td>
<td>3 Hrs</td>
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<td>This course of study is designed for students who</td>
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<td></td>
<td>wish to pursue a career in horse production. The</td>
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<td>curriculum involves both classroom and applied study</td>
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<td>primarily aimed at the production aspect of the horse</td>
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<td>industry. At the end of the program students will be</td>
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<td>tested to demonstrate competencies needed for success</td>
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<td>in the chosen area of horse production.</td>
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<tr>
<td>ASI 2513</td>
<td>Meat Science</td>
<td>3 Hrs</td>
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<td></td>
<td>(Pre req: ASI 1303) This course covers physical and</td>
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<td>chemical aspects associated with structure and</td>
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<td>composition of meat. Conversion of muscle to meat and</td>
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<td>principles relative to fresh and processed meats,</td>
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<td>storage, microbiology, palatability, and nutritive</td>
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<td>values will be discussed in depth. Hormonal influence</td>
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<td>on growth, development, and final product will also</td>
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<td>be covered.</td>
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<td>ASI 2604</td>
<td>Livestock Anatomy and Physiology</td>
<td>4 Hrs</td>
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<td>Livestock Anatomy and Physiology is a combined</td>
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<td>lecture and laboratory course dealing with the anatomy</td>
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<td>and physiology of common domestic livestock. The</td>
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<td>course studies basic tissues utilizing a systems</td>
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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.

ASI 2612 Equine Reproduction 2 Hrs
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.

ASI 2774 Beef Production Systems & Lab 4 Hrs
(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.

ASI 2773 Advanced Reproductive Physiology 3 Hrs
(Pre req: ASI 2604 or VTS 1404 or Instructor Permission) The objective of this course is to promote an understanding of reproductive processes in domestic animal. The students will understand the processes of reproduction in the various livestock species.

ASI 2854 Farm and Ranch Management 4 Hrs
(Pre req: ACT 1103, MGT 2103) Business management concepts which are involved in the decision-making process when organizing and operating a farming/ranching operation. Includes production economics, record keeping systems, financial budgets and analysis, crop and livestock enterprise analysis, depreciation, cash flow planning, equity, and production efficiency indicators.

ASI 2864 Nebraska Ranch Practicum 4 Hrs
(Pre req: Advisor permission only) 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.

ASI 2906 Internship 6 Hrs
(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. Full-time employment for 2 weeks is equivalent to 1 credit hour. A written journal plus an oral presentation required upon returning from internship.

ASI 2992 Independent Study 2 Hrs
(Pre req: Approval of project by Instructor, Division Chair, and Advisor) 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.

AG EQUIPMENT

AEQ 1103 Small Engines 3 Hrs
A complete course in gasoline engine operation. It consists of operational theory and nomenclature including the internal components and its air, fuel, lubrication, and cooling system. This course will emphasize small and multi-cylinder gas and diesel engines.

AEQ 1153 Equipment Principles 3 Hrs
Students will be exposed to the basic principles of agricultural equipment including power trains, hydraulics, fuel systems and electricity. Alternative devices will be studied.

AEQ 1171 Farm Equipment Safety 1 Hr
An orientation into the safe operation of tractors, combines, balers, skid loaders, and other common farm equipment. Students will be expected to demonstrate their ability to safely operate several types of equipment.

AEQ 1172 Industrial Safety 2 Hrs
Included are standard industry practices, job hazards, and emergency procedures. Students will prepare to pass the CPR/First aid exam and learn standard OSHA guidelines.

AEQ 1203 Welding 3 Hrs
Designed to acquaint students with basic skills and procedures of arc, oxyacetylene, and wire feed welding. Included will be hard surfacing, cutting and the welding of aluminum.

**AEQ 1213 Turf Equipment Maintenance**  
3 Hrs  
Students study turf management equipment with an emphasis on the diagnosis and repair of malfunctioning equipment. Topics also covered will be the study of the principles and practices of sharpening tools and equipment used in turf management operations. Emphasis will be placed on reel adjustments and grinding and lapping cutting blades for mowing equipment.

**AEQ 1501 Introduction to Electric Code**  
1 Hr  
Introduction to Nebraska state electrical law and the National Electric Code as they pertain to the working electrician.

**AEQ 1503 DC Circuit Analysis**  
3 Hrs  
Fundamentals of DC electricity as applied to series, parallel, and series-parallel circuits. Diagnosis and troubleshooting of circuits with test equipment.

**AEQ 1513 AC Circuit Analysis**  
3 Hrs  
Fundamentals of AC electricity including alternating current theory, waveform quantities and characteristics, and network analysis. Diagnosis and troubleshooting simple circuits with proper test equipment.

**AEQ 1523 Industrial Electricity**  
3 Hrs  
Electrical theory and application, electrical blueprints, power sources, panels control devices, motors, etc. Diagnosis and troubleshooting with proper test equipment.

**AEQ 1651 Harvest Operations**  
1 Hr  
The course will primarily focus on grain harvest operations. Grain combine setup and operation will be emphasized. Students will gain an understanding of factors influencing harvest efficiency including estimating harvest losses. Combine yield monitor operation will also be included.

**AEQ 1713 Carpentry**  
3 Hrs  
Learning basic tools and techniques of carpentry as it would pertain to a farm and ranch, including selection, use and maintenance of hand and power tools; selection of wood construction materials; construction of joints; application of finishes; and using these basic skills to follow a plan in the construction of a functional project.

**AEQ 2103 Ag Chemical Applicator**  
3 Hrs  
An introduction to the systems, major equipment and supporting components required for chemical application in agricultural production.

**AEQ 2211 Hydraulics**  
1 Hr  
Basic study of hydraulic concepts, applications, and operation as applied to power equipment systems. This class also includes study of the diagnosis of power equipment with the emphasis on hydraulic problems.

**AEQ 2213 Advanced Welding**  
3 Hrs  
(Pre req: college credit welding course or instructor permission) The students will build a metal project by using various welding, cutting, and lathe machining operations. Students will prepare a scaled blueprint, bill of materials, and an estimated cost. Instructor approval of the project is required.

**AEQ 2301 Pesticide Certification**  
1 Hr  
Students will prepare for certification as a commercial pesticide applicator. A foundation for the safe and effective use of pesticides will be emphasized. Upon completion, students will schedule and complete a certification testing session.

**AEQ 2303 Equip. Preventive Maintenance**  
3 Hrs  
A study of economic principles and principles of operation, adjustments, repair, maintenance, and tune-up of farm vehicles (automotive, tractors, and powered farm equipment vehicles).

**AEQ 2323 Precision Farming Technology**  
3 Hrs  
A course designed to acquaint students with the basic skills of farm map creation, GPS hardware components, software choices, decision making skills and application of GPS/GIS in the agriculture industry for improved crop management and protection of the environment.
AEQ 2333 Parts Management 3 Hrs
This course will emphasize the use of computers and microfiche in parts inventory systems along with the various parts ordering classifications and the effect on profitability.

AEQ 2404 Mechanized Irrigation Systems 4 Hrs
Fundamentals of mechanized irrigation systems focusing on center-pivot components. Technical service and operation will be emphasized. Application of industrial electrical components and controls.

AEQ 2413 Diesel Engines 3 Hrs
A study of cost effective maintenance programs for agriculture power equipment. Included is nomenclature, operational theory, adjustment and maintenance of agriculture gasoline and diesel engines. Lab includes the disassembly of a diesel engine.

AEQ 2604 Welding Apprenticeship 4 Hrs
(Pre req: approval by Division Chair) The apprenticeship 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. A written journal of daily work activities plus a 10 minute PowerPoint presentation are required upon completion. Students must submit a list of learning objectives prior to the apprenticeship and include discussion of these within their presentation. The student and employee will also complete a survey at the conclusion of the apprenticeship.

AGR 1001 Ownership Advantage Seminar I 1 Hr
An orientation course to the 100 Beef Cow and 100 Acre Farm Ownership Advantage Programs. Students will be introduced to USDA beginning farmer and rancher programs. Students will also develop their long term goals and layout their plan for reaching these goals. A PowerPoint will be developed to explain their plan in an oral presentation given to the class.

AGR 1091 Crop Practicum I 1 Hr
This is the first course of a 3-course 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.

AGR 1103 Crop Science 3 Hrs
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.

AGR 1112 Agriculture Applications Business Basics 2 Hrs
This course is designed to provide students enrolled in the Agriculture Application Certificate Option with basic skills required for managing personal and business finances. Topics covered include: managing personal finances, budgeting for a farm, ranch, or small business, basic record keeping for the farm, ranch or small business, or personal accounts; basic computer applications used in a business setting including MS Word and Excel.

AGR 1116 Ag Applications 6 Hrs
This course is designed for students to gain experience in handling conditions on the farm daily. Students will receive hands on experience.

AGR 1201 Principles of Soils Lab 1 Hr
Laboratory activities dealing with physical, biological and chemical properties of soils that support plant growth.

AGR 1203 Principles of Soils 3 Hrs
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.

AGR 1213 Natural Resource Management 3 Hrs
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.

**AGR 1501 Ownership Advantage Seminar II** 1 Hr
*(Pre req: AGR 1001 Ownership Advantage Seminar I)*
This course is intended for 2nd semester 100 Beef Cow and 100 Acre Farm Ownership Advantage Program students. Topics to be explored include: Farm/Ranch transitions, legal documents for the farm/ranch business organization, working with family members, and working with loaning institutions. Potential partners for their farm/ranch operation will be identified.

**AGR 1591 Crop Practicum II** 1 Hr
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.

**AGR 1891 Crops Judging I** 1 Hr
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.

**AGR 1991 Independent Study** 1 Hr
*(Pre req: Approval of project by Instructor, Division Chair, and Advisor)* 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.

**AGR 2001 Ownership Advantage Seminar III** 1 Hr
*(Pre req: AGR 1501 Ownership Advantage Seminar II)* This course is intended for 3rd semester 100 Beef Cow and 100 Acre Farm Ownership Advantage Program students. Concepts in marketing and farm/ranch business plan development will be emphasized.

Students will begin the process of developing a business plan to later be completed in the APS Capstone course. Students will also develop a plan to transition into their own farm/ranch operation.

**AGR 2002 Wildlife Habitat Management** 2 Hrs
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.

**AGR 2091 Crop Practicum III** 1 Hr
Prerequisite: AGR 1591 Crop Practicum II. This is the third course of a 3-course 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 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.

**AGR 2103 Building Construction** 3 Hrs
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.

**AGR 2153 Organic Food Production** 3 Hrs
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.

**AGR 2201 Commercial Agriculture Carrier Training** 1 Hr
*(Pre req: Must be a full time NCTA student)* 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.

**AGR 2203 Alternate Agriculture Enterprises 3 Hrs**

Discussion centered around development of alternative enterprises involving agriculture. Agri-tourism potential to various areas of Nebraska will be explored.

**AGR 2304 Soil Fertility 4 Hrs**

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.

**AGR 2354 Pest Management 4 Hrs**

Identification of plant pests, including morphology and life cycles of selected insects, weeds, and diseases. Pest control methods include chemical, physical, mechanical, cultural, and biological techniques. Issues such as pesticide laws and regulations, record keeping, labels, storage, and safety are discussed. Application of integrated pest management will be stressed.

**AGR 2383 Irrigation Management 3 Hrs**

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.

**AGR 2404 Crop Management 4 Hrs**

A study of cultural practices for crops in the Midwest to maximize productivity and sustainability. Seed selection, production, drying and storage will also be studied.

**AGR 2714 Farm Beginnings 4 Hrs**

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 financial management. In addition to learning first-hand from successful farmers, participants will develop their own business plan as they progress through the course.

**AGR 2892 Crops Judging II 2 Hrs**

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.

**AGR 2903 Internship 3 Hrs**

*(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 from internship. Students must submit a list of learning objectives prior to the internship and include discussion of these within their presentation. The student and employee will also complete a survey at the conclusion of the internship.

**AGR 2943 Farm and Ranch Capstone 3 Hrs**

*(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.

**AGR 2992 Independent Study 2 Hrs**

*(Pre req: Approval of project by Instructor, Advisor, and Division Chair)* 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.
HORTICULTURE

HSL 1001 Careers in Horticulture 1 Hr
Introductory course covering the many career paths available to students interested.

HSL 1022 Introduction to Art 2 Hrs
An introductory design course to explore the elements of design graphics as well as basic design terminology. Several graphics methods will be used to develop an understanding of different styles and media. The use of line, form, color, rhythm, repetition, scale, symmetry, and texture will be studied. Students will begin to build upon the larger design process for future landscape design courses.

HSL 1053 Landscape Appreciation 3 Hrs
An appreciation for the landscape from large to small will be discussed. Large players in landscape perceptions worldwide will be explored as well as the ways in which people historically have interacted with the landscape.

HSL 1073 Landscape Plants I 3 Hrs
Identification, characteristics and uses of woody ornamentals, including deciduous and evergreen trees and shrubs, as well as ground covers and vines. Selection of plant materials for selected sites included.

HSL 1103 Plant Propagation 3 Hrs
Hands on introductory course covering the scientific principles of the various types of plant propagation. Activities involve practical application of scientific principles and all students will be required to complete projects.

HSL 1173 Landscape Plants II 3 Hrs
Identification, characteristics and cultural requirements of greenhouse foliage plants, flowering plants, annuals, perennials, bulbs, ornamental grasses, and outdoor ferns. Flowerbed design principles and interior plantscaping concepts discussed and practiced.

HSL 1251 Irrigation Systems Mgt. 1 Hr
Class shall cover the basic fundamentals involved in irrigation system installation and maintenance. Specific information about selecting heads, pipes, pumps, hydraulics, and automated control systems.

HSL 2003 Internship 3 Hrs
(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 from internship. Students must submit a list of learning objectives prior to the internship and include discussion of these within their presentation. The student and employee will also complete a survey at the conclusion of the internship.

HSL 2044 Intro to Landscape Design 4 Hrs
(Pre req: HSL 1022) An introductory course to the elements and principles of landscape design and the landscape design process. Students will assess landscape plants for design requirements and develop graphic communication skills as they relate to landscape graphic presentation. Actual landscape problems will be considered. Students will prepare and present a design proposal for an actual residence.

HSL 2103 Computer-aided Landscape Design 2 Hrs
(Pre req: HSL 2044) An exploration of computer-aided drafting. Students will become familiar with the use of DynaScape Design and DynaScape Color programs, which use CAD as their drafting engine. Students will enhance design skills while taking advantage of computer-based design software.

HSL 2143 Landscape Construction 3 Hrs
Principles of landscape construction are covered as well as cost estimating and bidding. Issues such as design, planning, and installation will be emphasized for areas such as landscape beds, erosion control, retaining walls, cement borders/walks, fences and walls, and other general landscape projects.

HSL 2181 Independent Study 1 Hr
(Pre req: Approval of project by Instructor, Division Chair, and Advisor) Individual or group projects in research, literature review, or extension of course work under the supervision and evaluation of a faculty member who is willing and available to contract
HSL 2213 Horticulture Capstone 3 Hrs
(Pre req: Second year students only in their last semester before graduation) An advanced course dealing with “Green Industry” career oriented subject matter. Students will develop a capstone project that reflects their horticultural specialization. The project will be supported by past academic studies, data/research materials, and outside Green Industry groups; and will include a full management plan including financial analysis. Students are required to submit and report the completed project to an advisory panel selected by the capstone advisor.

HSL 2262 Independent Study 2 Hrs
(Pre req: Approval of project by Instructor, Division Chair and Advisor) Individual or group projects in research, literature review or extension of course work under the supervision and evaluation of a faculty member who is willing and available to contract with the student. A student is expected to complete a minimum of 64 hours of research, lab or field work (excluding homework and completion of assignment). At the instructor’s discretion, a student may also be required to keep a daily journal. At the conclusion of the independent study, the student will submit a written report detailing their research or learning experience. The student will also deliver a 20 minute PowerPoint presentation to NCTA faculty, staff, and students.

HSL 2283 Landscape Management 3 Hrs
A detailed discussion and practice of the maintenance tasks of trees, shrubs, ground covers, turf, roses, annual and perennial flowers as well as other seasonal management practices.

HSL 2314 Nursery and Greenhouse Production 4 Hrs
Covers principles of both greenhouse and nursery production and management as well as industry standards. Includes types of greenhouse structures, glazing materials, heating, cooling, and watering systems, cropping systems, soil media, fertilization, greenhouse environmental control systems, pest control, production schedules, crop handling, nursery stock care, garden center management, marketing, and laws. The commercial production of major bedding plant crops and nursery stock shall be promoted.

HSL 2322 Organic Horticulture 2 Hrs
An advanced production class focused on new and innovative ways to produce traditional horticulture crops. This course will look at existing methods of creative production and the challenges each of these may encounter. A focus will also be made on understanding how production demand follows cultural needs. The combination of the high tunnel, traditional field production, and many case studies will be used.

HSL 2324 Farmer’s Market 4 Hrs
An advanced course displaying production from farm to market. Business and entrepreneurial skills as well as production and marketing techniques will be learned. A Farmer’s Market will be an active portion of this course and actual products will be sold.

HST 1113 Fund of Turf Management 3 Hrs
Identification of grass plant species, culture and morphology; turf ecology with practical information on turf establishment, and cultural practices.

HST 2353 Pest Management 3 Hrs
Identification of plant pests, including morphology and life cycles of selected insects, weeds, and diseases. Pest control methods include chemical, physical, mechanical, cultural, and biological techniques. Issues such as pesticide laws and regulations, record keeping, labels, storage, and safety are discussed. Application of integrated pest management will be stressed.
VETERINARY TECHNOLOGY SYSTEMS

VTE 1021 Basic Dog Grooming 1 Hr
(Lab 1 hr) Basic Dog Grooming provides an introduction to professional grooming. The entire process will be demonstrated and practiced. It includes prepping, bathing, drying, grooming, cuts, and finishing. Creative grooming patterns for mixed breeds and purebreds are taught. An introduction to the dynamics of running a successful pet grooming business is included.

VTE 1403 Anatomy and Physiology (Lecture)
Basic body systems are studied at the tissue, organ and system levels. Comparison of various species of common domestic animals is stressed. There is no lab component to this class.

VTE 1512 Animal Care 2 Hrs
This on-line survey course introduces the student to canine and feline husbandry, including restraint, behavior, species and breed identification, basic technical techniques and the human-animal bond. Humane animal care and management is emphasized. The care, handling, feeding, basic nursing skills, normal values, administration techniques, basic grooming and sample collection are included. Both VTE 1512 and VTE 1511 must be taken and passed to take Nursing I.

VTE 1542 Facility Management I 2 Hrs
(2 hr field) Students study the management of animal holding facilities and the implementation of accepted animal welfare practices. Each student will participate in weekly kennel rotations providing the opportunity to care for all animals involved in the veterinary technology program. This includes weekend care and is a prerequisite for Nursing II.

VTE 1611 Concepts in Bits 1 Hr
Students explore theories and designs of bits in relation to mouth anatomy and discipline functions. History of bits to current industry trend will be explored with the goal of students gaining a thorough understanding of what a bits role is in riding.

VTE 1621 GPVEC Calving Rotation I 1 Hr
(Pre req: Permission of instructor and VTS 1404 Anatomy) Students observe and assist in calving or lambing (if available). Opportunities are available at a variety of sites. Necropsy and various other experiences may present themselves. Enrollment limited.

VTE 1633 Equine Diseases & Pharmacology 3 Hrs
In this course students study the causes of equine diseases and the principles of preventive veterinary medicine pertaining to equine. Study includes investigation of specific diseases and disease control measures as well as parasite management in the equine. Important zoonoses are covered. The course includes dosage calculations, and a survey of the common drug types used in equine medicine. Adverse drug reactions are discussed, labeling and packaging requirements, handling and storage of hazardous material and controlled drugs, preparing medications and vaccines, appropriate routes and methods of drug and vaccine administration are included.

VTE 2001 Licensing Prep 1 Hr
This class reviews material learned in the last two years and prepares Veterinary Technician Option students and graduates for the National Veterinary Technician Exam.

VTE 2011 Lifelong Learning I 1 Hr
Continuing education topics designed for Veterinary Technicians to meet continuing education licensing requirements. This class may be repeated for additional CE hours and can be taken by technicians, assistants, and veterinary technology students.

VTE 2031 Emergency Medicine 1 Hr
(Pre req: Nursing I with at least 80%) Students observe and assist in emergency care at an emergency clinic for a minimum of 40 hours.

VTE 2081 Lifelong Learning II 1 Hr
Continuing education topics designed for Veterinary Technicians to meet continuing education licensing requirements. This class may be repeated for additional CE hours and can be taken by technicians, assistants, and veterinary technology students.

VTE 2021 Special Interest 1 Hr
(Pre req: VT faculty permission) In this elective class,
the student pursues a subject of special interest to them. It may include but is not limited to research and/or group tours. The project is developed under the supervision and evaluation of a faculty member who is willing and available to contract with the student.

VTE 2032 The World of Work 2 Hrs
*(Pre req: VT faculty permission)* Course involves a minimum of 80 hours of field experience at an approved location. This study is tailored to the needs of an individual. Statement of objectives will be required and progress notes will be checked. This class is developed by the student and under the supervision and evaluation of a faculty member.

VTE 2041 Making a Difference 1 Hr
Make a difference in the lives of hundreds of unwanted animals. Do 40 hours of volunteer work at a humane society or animal shelter and receive college credit. Enrollment is limited.

VTE 2101 Dog Training 1 Hr
This course includes principles and rationale of canine training. Basic behavior, exploration of techniques and basic training goals are included. Limited enrollment.

VTE 2121 Advanced Dog Training 1 Hr
*(Pre req: Basic Dog Training)* This course is a continuation of the Basic Dog Training class. While structured to meet the needs of the dogs and handlers, the goal is to explore more advanced understanding of canine behavior and training for work such as agility, stock dog or service.

VTE 2322 Intro to the Vet Office 2 Hrs
This on-line class provides an introduction into the Veterinarian’s office and the knowledge essential for working in this position. It focuses on the terminology used in the clinic that is important for communication with clients, technicians, and veterinarians. Terminology expands into knowledge of areas such as infectious diseases, surgery, client relationships, animal care, and vaccinations.

VTE 2342 Spanish for the Vet Clinic 2 Hrs
A beginning Spanish course to become familiar with terms used when working with animals in agriculture and Veterinary Medicine.

VTE 2422 Hills Small Animal Nutrition 2 Hrs
This on-line course is an introductory course for students accepted in the veterinary technology program providing identification and function of nutrients, understanding pet food labels, and applications for wellness, life stage, and therapeutic nutrition (prescription foods) for dogs and cats.

VTE 2423 Canine & Feline Nutrition 3 Hrs
This on-line basic nutrition course takes into account the nutritional life cycles, diseases processes that diet can affect, feeding styles, nutritional excesses and deficiencies.

VTE 2522 Exotic Pet Selection and Care 2 Hrs.
This on-line course is designed to introduce students to the selection decisions and overall concerns of owning common exotic animal pets. Specifics about animal species, housing and nutrition requirements as well as expectations of pet behavior and interaction will be addressed within the course.

VTE 2532 Bird Behavior and Training Methods 2 Hrs
This course will introduce students to the basics of bird behavior that influences training methods. The goal of the course is to help students of veterinary technology practice the best care for birds coming into the clinic by providing birds with cooperative skills via training methods. The philosophy of training without force and utilizing reinforcement will be discussed and used within the class.

VTE 2542 Walk on the Wild Side 2 Hrs
*(Pre req: Enrollment in Veterinary Technology)* Learn about the untamed side of veterinary technician medicine. Discover the positive impact Zoos and Wildlife Rehab centers can make. Work with endangered and rescued animals. Observe the business side of these operations. Do 80 hours of volunteer work at a zoo or wildlife rehab center and receive college credit. Enrollment is limited.

VTE 2553 Exotic Animal Care 3 Hrs
*(2 hr lect & 1 hr lab)* This course is designed as a continuation in learning to care for exotic animals
that the veterinary technician may encounter in clinical practice, rehab centers or zoos. Species identification, housing requirements, nursing care, dietary needs, reproduction, and potential health problems and treatments will be discussed. Specific species studied varies depending on the interest of the class. Emphasis is usually placed on birds, reptiles, amphibians, small mammals, and alternative livestock species. The goal of this course is to provide the student with skills essential for entry-level positions as veterinary assistants and veterinary technicians working with non-domestic animals.

VTE 2573 Safari 3 Hrs
(Pre req for Vet Tech is Fur and Feather and Exotic Animal Care. Other divisions will select courses at the discretion of the area instructor)
This course of study is intended for students with a special interest in wildlife and/or exotic animals. Students from other divisions may contribute to a special design based on their department goals or interests. With the guidance of the instructor, students plan the study trip to expand their knowledge in topics outside the scope of college courses. Prior to the “safari”, students will set educational goals based on research pertinent to their trip. An open to the public presentation is developed following the experience and is intended to address their educational goals.

VTE 2611 Equine AI 1 Hr
(Lab 1 hr) This course trains individuals in the techniques of Equine artificial insemination, semen collection, semen handling and shipping, as well as record keeping and various breed association requirements.

VTE 2621 Calving Rotation II 1 Hr
(Pre req: Permission of instructor and VTS 1404 Anatomy). Students observe and assist in calving or lambing (if available). Opportunities are available at a variety of sites. Necropsy and various other experiences may present themselves. Enrollment limited.

VTE 2631 Equine Dentistry as a Business 1 Hr
Support information for equine dentistry. Topics covered will include: equine nutrition, record keeping, marketing, and book keeping. Prepares students to begin an equine dentistry business. (This course is taken concurrently with Equine Dentistry.)

VTE 2632 Equine Dentistry II 2 Hrs
(Pre req: VTE 2634) (1 hr lec & 1 hr lab) A continuation of Equine Dentistry with the introduction and use of power tools emphasized.

VTE 2634 Equine Dentistry 4 Hrs
(Pre req: Must be a DVM, LVT, or a student who has completed 35 hours of an AVMA accredited program) (1 hr lec and 3 hr lab) Students gain understanding in theories and techniques of equine dentistry through lecture and lab instruction. Dentistry methods from basic floating to complete mouth balancing using hand tools, and incisor work will be covered. Equine restraint techniques for unsedated work as well as pharmacologically aided methods will be covered.

VTE 2743 Vet Tech Overview 3 Hrs
This course is designed to provide a comprehensive review of the field of veterinary technology. It is intended for students that have completed the veterinary technology program and need to review specific areas before entering the work force or sitting for the national veterinary technician exam.

VTE 2811 Ultrasound 1 Hr
(Pre-Req VTS 1404 Anatomy) The principles of ultrasound are studied. The student is introduced to basic equipment care and use. Procedures are performed on small and large animals.

VTE 2821 Radiation Safety 1 Hr
This on-line course is designed for veterinary
assistants who are working in a private practice. Successful completion of this course will allow the individual to meet the State of Nebraska’s Radiation Safety requirements.

**VTE 2933 Pain Management 3 Hrs**
This short course covers physiology, assessment, ethical and social issues, farm animal issues, drug treatments, non-pharmacological treatments and alternative treatment all from the aspect of pain management. Training in the recognition and treatment of pain is key to the teaching of veterinary technicians to be effective advocates for their patients. The goal of this video course is to be a valuable resource in this accomplishment.

**VTL 1113 Laboratory Animal Medicine I 3 Hrs**
Lectures and journal article driven discussions will help students acquire knowledge of topics and skills used by animal research technicians. This course will explore a wide range of topics with the goal of helping prepare students for AALAS certification as an Assistant Laboratory Animal Technician (ALAT). Unique attributes of animal species that accommodate their involvement in particular research studies as models of human disease. Students will also gain an appreciation of animal welfare regulations, guidelines and accreditation standards for the care and use of laboratory animals in biomedical research.

**VTL1122 Laboratory Animal Medicine II 2 Hrs**
(Prereq: Lab Animal Med I) In this course, students will learn about principles important in animal research such as experimental design, research methodologies, rodent surgery, PCR, advanced imaging, and cell culture. Student further learn and implement many of these skills in a lab associated with the course. Finally, career options will be discussed as preparation for Internship. These topics will be explored with the goal of preparing students for AALAS certification as a Laboratory Animal Technician (LAT).

**VTL 1133 Lab Animal Management 3 Hrs**
This course addresses the unique aspects important in management of a research colony, such as personnel, quality control, emergency planning, and the management of animal use protocols. These topics will be explored with the goal of helping prepare students for AALAS certification as a Laboratory Animal Technologist (LAT).

**VTS 1262 Laboratory Animal Internship 2 Hrs**
(Prereq: Lab Animal Med II) This 4 week internship provides job experience in the laboratory animal medicine field at an approved work location. Internship may be done during school breaks that are of at least one week in length. Internship locations, agreements and objectives must be approved by the Division. Students will show progress toward completion of objectives through weekly reports and evaluations. Students are encouraged to carry their own medical, disability, and liability insurance.

**VTS 1301 Medical Terminology 1 Hr**
Medical Terminology introduces the student to basic words and word structure that are essential in reading and writing medical literature. This course is essential for anyone seeking a better understanding of veterinary medical and scientific terms.

**VTS 1313 Math for Vet Techs 3 Hrs**
This course is specifically designed to prepare students for the mathematics used on a daily basis in veterinary nursing as well as on state and national certification board exams. It includes concepts needed for computations in chemistry and veterinary clinical practice classes. Major subject areas and exercises address conversions within a measurement system and between measurement systems. Computations taught in this course focus on single and multiple-step dosage problems and the diluting of stock solutions to desired concentrations.

**VTS 1404 Anatomy and Physiology (Lecture and Lab) 4 Hrs**
Basic body systems are studied at the tissue, organ and system levels. Comparison of various species of common domestic animals is stressed. Laboratory exercises include a study of the skeletal system and dissection of a typical mammal. This course is a prerequisite for many other Veterinary Technology courses.
VTS 1404 Anatomy & Physiology (On-Line) 4 Hrs
This on-line class is available only to off-campus students. Basic body systems are studied at the tissue, organ and system levels. Comparison of various species of common domestic animals is stressed. Laboratory exercises include a study of the skeletal system and dissection of dog and cat specimens. Availability of typical large animal organs for comparison is encouraged. The on-site instructor is responsible for lab instruction, grading of laboratory assignments and delivery of lab exams. The on-site instructor may develop an assignment (s) worth 50 points total to customize the class to their site. Exams over lecture material are delivered via blackboard. This course is best studied over a two semester time period. On-site instructor must feel comfortable with the material in order to assist students. Students cannot complete this course without an involved on-site instructor. Skeletal Lab, Dissection Lab and Lecture may be undertaken concurrently or one at a time. It is best to pursue lecture before Dissection Lab if not done concurrently. The Skeletal System power point may be helpful with the Skeletal Lab.

VTS 1513 Animal Care 3 Hrs
This course introduces the student to canine and feline husbandry, including restraint, behavior, species and breed identification, basic technical techniques and the human-animal bond. Humane animal care and management is emphasized. The care, handling, feeding, basic nursing skills, normal values, administration techniques, basic grooming and sample collection are included. Student must be able to lift and carry 50 lbs to take this class. This class includes a lecture and laboratory component.

VTS 1521 Production Animals 1 Hr
(Pre req: Intro to Animal Science.) (1 hr lab) Specific animal physiology of large and small farm animals is studied. The course includes an introduction to nursing procedures required in veterinary practice for farm animals. Safe and effective methods of controlling various kinds of animals are discussed and practiced in a combination lecture and hands-on laboratory format. Equine, bovine, caprine, poultry, and porcine are covered, as well as other species. Student must have a grade of at least 70% to use as a pre-requisite for Animal Management. There is a lecture and laboratory component to this class.

VTS 1542 Facility Management I 2 Hrs
(2 hr field) Students study the management of animal holding facilities and the implementation of accepted animal welfare practices. Each student will participate in weekly kennel rotations providing the opportunity to care for all animals involved in the veterinary technology program. This includes weekend care and is a prerequisite for Nursing II.

VTS 1522 Radiology I 2 Hrs
(Pre req: 18 years of age and Anatomy) (The student is presented with an overview of radiation safety, machine operation and maintenance, patient positioning, radiographic film exposure, manual developing, care of darkroom equipment, evaluation of x-ray quality, and correction in techniques for producing a film the veterinarian can use for diagnostic purposes. The laboratory portion is spent applying radiation safety principles and positioning of animals for radiography using various x-ray machines. Correct darkroom techniques are emphasized for manual development systems. This class includes a lecture and lab component.

VTS 1603 Introduction to Laboratory Science 3 Hrs
Through the application of fundamental biology, students will survey the biological world in association with production animals, companion animals and human health. Topics include parasitology, hematology, cytology, urinalysis, bacteriology, cytology and virology as an overview of laboratory procedures. The goal of this course is to provide students with an introduction to the world of microbes as a foundation for an integrated approach to understanding and managing for optimal, as well as economic, animal health decisions.

VTS 1713 Pharmacology & Anesthesia 3 Hrs
This course includes the study of pharmacokinetics, pharmacodynamics, dosage calculations, and a survey of the common drug types used in veterinary practice. Adverse drug reactions are discussed.

VTS 2001 Licensing Prep 1 Hr
This on-line class reviews material learned in the last two years and prepares Veterinary Technician Option students and graduates for the National Veterinary Technician Exam.
VTS 2241 Career Strategies (P) 1 Hr
This course provides preparation for future employment. Students will develop a cover letter and resume, review OSHA standards, and learn about types of performance reviews common in the work place. Goal setting skills will be sharpened by developing objectives and a way to accomplish them as well as a measure for recognizing success in each area chosen. Students will develop job seeking skills as they locate an internship site.

VTS 2243 Veterinary Technology Internship 3 Hrs
Pre req: Completion of or enrolled in Career Strategies and a CGPA of 2.0 or higher.
The internship is for a period of 8 weeks. Internship may be done during school breaks that are of at least one week in length or upon completion of all course work. Internship locations and agreements must be approved. For the Veterinary Technician Option internship must be done with a supervising veterinarian or veterinary technician designated by the veterinarian. Agreements may include more than one site. Official agreements are entered into between the student, the employer, and the college. Students identify learning objectives, design a methodology to accomplish them during the internship and must show substantial progress toward completion of these goals through weekly reports, pictures and evaluations. Students are encouraged to carry their own medical, disability, and liability insurance.

VTS 2331 Clinical Practices 1 Hr
In this class students will apply skills learned in other veterinary technology classes by working at the Dr. Walter Long Veterinary Technology Teaching Clinic. Duties will include scenario based scheduling, financial transactions, computerized record keeping, billing, client education, customer service, sales, sample collection, laboratory testing, basic grooming, immunization and deworming protocols, animal husbandry, nursing skills, and many other everyday clinical experiences including facility maintenance. Students will review OSHA standards, learn job seeking skills, and good employee practices.

VTS 2532 Large Animal Techniques 2 Hrs
(Pre-req: Production Animals with a grade of 70% (C) or above).
Specific animal psychology of production animals is studied. The course includes nursing procedures, radiology, and surgery for production animal and equine. Safe and effective methods of controlling various kinds of livestock are discussed and practiced in a combination of lecture and hands-on laboratory format. Equine, bovine, ovine, caprine, procine and poultry as well as other species may be covered.

VTS 2551 Large Animal Clinical Rotation 1 Hr
(Pre-req: grade of “C” or better in Large Animal Techniques) Students will have several extended days (32+ total hours) of experiential learning opportunities with various large animal clinics/operations in the area, where they will assist in physical exams, vaccinations, pregnancy checks, necropsies, surgeries, and other large animal procedures (as available).

VTS 2552 Facility Management II 2 Hrs
Students study and assist with the daily work flow and management of animal facilities utilizing accepted animal welfare practices and standard operating procedures. Front office skill may be practiced and students have the opportunity to provide daily and special care for a selection of animals involved in the veterinary technology program. The course may include some weekend care of animals and facilities. The class is tailored to the student’s interest and the division’s needs. This class is offered as needed by students and must be prearranged with the division and class sponsor.

VTS 2563 Fur and Feather 3 Hrs
This course is an introduction to the care of the smaller furred, feathered, and scaled animals that veterinary technicians may encounter in clinical practice. Species identification, housing requirements, dietary needs, reproduction, and potential health problems will be discussed. Emphasis will be placed on birds, rodents, small mammals, and reptiles housed at NCTA. This class includes a lecture and lab component.

VTS 2583 Nursing I 3 Hrs
(Pre req: Animal Care) Basic animal nursing skills that are vital to the veterinary technician career are introduced. A large variety of skills are studied and practiced. This class includes a lecture and lab...
component. This class is pre req for Nursing II.

**VTS 2593 Nursing II** 3 Hrs
*(Pre req: Facility Mgt. and Nursing I)* This course is a continuation of Nursing I. Advanced animal nursing skills are studied and practiced. This class includes a lecture and laboratory component. This class is a pre req for Surgery Prep.

**VTS 2613 Equine Surgery & Anesthesia** 3 Hrs
*(Prerequisite: Equine Diagnostics)* (1 hr lec and 2 hr lab) This course will teach an understanding of and basic skills for operating room protocols and anesthesia. The class will cover anesthesia from standing sedation, to basic and commonly used drugs and the anesthetist’s responsibilities from induction, through surgery and recovery. Local and general anesthesia techniques and principles will be covered. The surgery portion will cover identification of common instruments, how to prepare them for sterilization, surgical prep and surgery suite management. This information will be presented through lecture, lab and field trips.

**VTS 2652 Parasitology** 2 Hrs
*(Pre req: Intro to Laboratory Science with at least a 70 %)*
Students study of parasitic life cycles and parasite identification methods for both internal and external parasites of domestic animals, lab animals and birds. This class includes the collection and preparation of samples and diagnostic tests commonly used by veterinary technicians in the field and those available through commercial laboratory analysis. A survey of current therapy and products available for use will be included in this course.

**VTS 2672 Hematology** 2 Hrs
*(Pre req: Intro to Laboratory Science and Parasitology with at least 70%)*
Student will learn skills pertaining to the study of blood. Included in the class will be: principles of laboratory safety, proper operation and maintenance of clinical laboratory equipment (microscope, centrifuge, hemacytometer, refractometer, and hemoglobinometer) and preparation of microscopic slides (collection of samples, staining techniques, identification of blood elements, reporting of results, and identification of blood parasites). Correct techniques for performing total blood counts, hematocrits, differentials, reticulocyte counts, coagulation tests and hemoglobin determinations will also be included in this course.

**VTS 2682 Clinical Pathology** 2 Hrs
*(Pre req: Intro to Laboratory Science, Parasitology and Hematology with at least a 70 %)*
This course is a continuation of laboratory clinical Sciences. Students will continue laboratory testing in the areas of hematology (including blood chemistries); parasitology (including skin scraping analysis); bacteriological culturing, isolation and identification; urinalysis, cytology and sample submission.

**VTS 2733 Diseases of Veterinary Medicine** 3 Hrs
*(Prerequisite: Anatomy and Physiology and Intro to Microbiology)* Students study the causes of animal diseases and the principles of preventive veterinary medicine pertaining to livestock, dogs, cats and laboratory animals. Study includes investigation of specific diseases and disease control measures including biosecurity as well as parasite management in animals. Important zoonoses are covered as well. The necropsy lab provides students the opportunity to learn proper necropsy technique, sample collection and submission for diagnostic tests and appropriate disposal procedures.

**VTE 2743 Veterinary Technology Overview** 3 Hrs
This course is designed to provide a comprehensive review of the field of veterinary technology. It is intended for students that have completed the veterinary technology program and need to review specific areas before entering the work force or sitting for the national veterinary technician exam.

**VTS 2823 Radiology II** 3 Hrs
This course is a continuation of Radiology I with emphasis placed on principles governing x-ray generation, establishment of technique charts, automatic film development, computerized imaging, canine and feline radiographs, small exotic animals, contrast studies, and equine radiographs.
VTS 2933 Anesthesiology 3 Hrs
(Pre-requisites: Facility Mgt, Nursing I, Pharmacology and Clinical Pathology I) Principles of small animal inhalation anesthesia, pre-anesthetics, induction and maintenance anesthesia are covered in this class. Pre-surgical patient evaluations, risk classifications, monitoring techniques, equipment, inhalation machines, systems and safety are all studied in both a lecture and lab format. This class is a pre-requisite for Surgery Prep.

VTS 2953 Surgery Preparation 3 Hrs
(Pre req: Anesthesia, Nursing II, Radiology I, and Clinical Pathology II) The student is introduced to the proper preparation of the surgical theater, instruments, equipment and the animal for aseptic surgery. Students perform all the supporting operating room tasks including pre-surgical screening, anesthesia, patient preparation, surgical assisting, suite set-up, pack preparation and recovery. Correct pre-and post-operative care of the patient is stressed. This class includes a lecture and lab component.
OBJECTIVES
✚ To provide an enhanced and challenging learning opportunity for students of high quality.
✚ To provide further recognition for students with outstanding academic or leadership skills.

HONORS PROGRAM ELIGIBILITY REQUIREMENTS
✚ Completion of 30 credit hours (2 semesters) with a cumulative GPA above 3.5 at NCTA
✚ Completion of 30 credit hours (2 semesters) with a cumulative GPA above 3.0 at NCTA and nominated by an NCTA faculty member.

PROGRAM OVERVIEW
Eligible students will participate in the Honors Program during their 2nd year at NCTA. The program will consist of a 2 course sequence (each 1 credit hour), one course each semester of their 2nd year.

Fall Semester –
HON 1001 Honors Seminar I

Spring Semester –
HON 2001 Honors Seminar II

These courses will focus primarily on developing the student’s leadership and critical thinking skills. Course content will include guest speakers, round-table discussions, and various learning activities. Possible topics would include:
✚ Networking
✚ Enhanced people skills
✚ Dealing with media and promotion of agriculture
✚ Adding value to your product or business
✚ Making a difference in your community, state, nation, world
✚ Science and the Scientific Method
✚ Food, society, and environmental issues: local to global scale

A key part of the overall program will be the Honors Project. The project will be planned and developed during the first course in the fall and then completed by the end of the second course in the spring. A final presentation of project results will be given to faculty and students. The project must fall into one of two categories:

1) Research project. Conducting an experiment in the student’s area of interest. Ideally this project will be developed under co-advisors from NCTA and WCREC.
   • Example: compare the amount of spray drift from different nozzles using the wind-tunnel facility at WCREC.

2) Creative activity. The creative activity will be a project or event that is designed to promote the student’s primary area of interest.
   • Example: create a Youtube video to promote agriculture such as the “I’m Farming and I Grow It” one by the Peterson brothers.
NCTA ADMINISTRATION AND FACULTY ACADEMIC CREDENTIALS

RON ROSATI, Dean
A.A.S., Farmingdale Agricultural & Technical College 1978
B.S., Cornell University 1980
MAT, Cornell University 1981
Ph.D., Iowa State University, 1984

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