UNIVERSITY OF Nebraska NCTA

NEBRASKA COLLEGE OF TECHNICAL AGRICULTURE

College Catalog

2013–2014

Nebraska College of Technical Agriculture 2013 - 2014 Catalog

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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.

The Higher Learning Commission
30 North LaSalle St. Suite 2400
Chicago, IL 60602-2504
800-621-7440

It is with excitement that I welcome you to the Nebraska College of Technical Agriculture (NCTA), where we have been providing education for the agriculture sector since 1913.

We have dedicated faculty and staff that are here to help you be successful. Our students say it the best: “I’m here at NCTA because it is a school that really focuses on what I have the most interest in doing. Here you aren't a number you’re a person with a name, and that is what I really like about NCTA. It's a two year program that lets you get hands on.” I agree with Joe Brown.

You'll find excellent opportunities with us. You'll have the opportunity to select from four different majors - Agriculture Production Systems, Horticulture, Agribusiness Management Systems, and Veterinary Technology - along with extracurricular activities which allow you to develop leadership skills, while participating in everything from club activities, to sports, to student government.

At NCTA, we have highly qualified and caring faculty along with wonderful and dedicated staff. The people of NCTA are here to support and help you succeed.

When you select NCTA to further your education, you'll be positioned well for the global economy of tomorrow.

I look forward to meeting you in person, and remember you can discover your way at NCTA!

Respectfully,
Scott Mickelsen

Table of Contents

Academic Calendar 9

GENERAL INFORMATION
Mission Statement 11
Vision Statement 11
Value Statements 11
NCTA Goals 11
Accreditation 11
Location 11
Facilities 11
Computing at NCTA 12
Catalog 12

POLICIES INFORMATION
Student's Right to Know 12
Student's Rights and Responsibilities 12
Equal Educational Opportunity 13
Statement of Responsibility 13
Publicity of Rules Affecting Students 13
Admissions and Continued Enrollment Criteria 13
Academic Evaluation 13
Course Evaluation 13
Statements on Student Learning and Improvement – Philosophy of Student Learning Assessment 13
Student Records (Family Educational Rights and Privacy Act) 14
Kind of Information Maintained 14
Normal Access to Files 14
Challenge Procedures 14
Public or Directory Information 14
Nondiscrimination Policy 14
Clean Air Policy 15
Harassment Policy 15
Affirmative Action/Equal Opportunity Policy 16
Insurance 16
Parking Services 16

ADMISSIONS INFORMATION
Admission Requirements 17
Application Procedures 17
Campus Visitors 17

FEES INFORMATION
Residency Requirements 18
Financial Obligations 18
Student Fees 18

FINANCIAL ASSISTANCE
Satisfactory Academic Progress 19

Financial Planning and Assistance 20
Procedures for Applying for Financial Aid 20
Refund Policy 20
Rehabilitation Benefits 21
Selective Service Registration 21
Sources of Financial Assistance 21
Scholarships 22
Student Employment 22
Veterans Training 23

ACADEMIC INFORMATION

Academic Bankruptcy 23
Academic Responsibility 23
Academic Standards 22
Adding a Class 24
Attendance Policy 24
Audit Registration 24
Certificate Program 25
Code of Conduct 25
Commencement, Degrees and Certificates 25
Course Repeats 25
Credit Hours 25
Credit Transfer 25
Dean's List 25
Dropping a Class 25
Financial Obligations 26
Grades 26
Grade Appeals 26
Grade Point Average (GPA) Computation 26
Holds/Service Indicators 26
Honor Graduates 27
Incomplete ("I") Courses 27
Learning Communities 27
Pass/No Pass Policy 27
Student Eligibility 27
Standards of Eligibility 27
Withdrawal from NCTA 27

STUDENT ACTIVITIES AND ORGANIZATIONS

Aggie Rodeo Association 28
Athletics/College Wide Activities 28
Business Club 28
Churches in our Community 28
Collegiate Cattlemen's 28
Collegiate FFA 28
Collegiate 4-H Club 28
Dances 28
Farm Bureau Club 28
Horticulture Club 29
NCTA Aggie Varsity Teams 29
Intercollegiate Equestrian Team 29
Intercollegiate Livestock Judging 29
Phi Theta Kappa 29

Ranch Horse Team 29
Safari Club 30
Student Senate 30
S.T.V.M.A. 30
Women in Ag 30

CURRICULUM
GENERAL EDUCATION
ASSOCIATE OF APPLIED SCIENCE DEGREE
Outcomes and Objectives 31
Required Core Courses 32

ASSOCIATE OF SCIENCE DEGREE
Outcomes and Objectives 33
Required Core Courses – Associate of Applied Science 33

AGRIBUSINESS MANAGEMENT SYSTEMS
Program Objectives. 35
Career Opportunities. 35
Internship 35
Capstone 35

ASSOCIATE OF APPLIED SCIENCE DEGREE OPTIONS
Agribusiness Management Systems Core Courses 35
Management Option 36
Office Systems Option 37
Plus One Degree 38

ASSOCIATE OF SCIENCE DEGREE
Transfer Option 38

CERTIFICATE
AMS Minor 39
AMS Certificate 40

AGRICULTURE PRODUCTION SYSTEMS
Mission 41
Associate of Applied Science Options 41
Baccalaureate Transfer Options 41
Associate of Science Options (Transfer) 41
Farm/Ranch Ownership Program 41
100 Beef Cow Ownership Advantage Program 41
100 Acre Ownership Advantage Program 41
100 Beef Cow and 100 Acre Outreach Programs 41
Program Outcomes 41
Internship 42
Agronomy Scholars Program 42

ASSOCIATE OF APPLIED SCIENCE DEGREE OPTIONS
Agriculture Production Systems Core Courses 42

Agriculture Equipment Management Option 43
Agronomy Industry Management Option 44
Diversified Management Option 45
Equine Industry Management Option 46
Livestock Industry Management Option 47
Livestock Industry Management Option (Summer Internship) 49
Agriculture Production Systems Minor 50

BACCALAUREATE TRANSFER OPTIONS
Agriculture Education A to B Pre-Baccalaureate Program 50
Animal Science A to B Pre-Baccalaureate Program 50
Grazing Livestock Systems A to B Pre-Baccalaureate Program 51

ASSOCIATE OF SCIENCE DEGREE
Agronomy Transfer 52
Agriculture Education Transfer 53
Animal Science Transfer 53
Grazing Livestock Transfer 53

CERTIFICATE
Beef Production Emphasis Area 53
Crop Production Emphasis Area 53
Equine Care Emphasis Area 54
Diversified Agriculture Emphasis Area 54

HORTICULTURE SYSTEMS
Program Objectives 55
Career Opportunities 55
Internship 55
Capstone 55
Horticulture Systems Core Courses 55

ASSOCIATE OF APPLIED SCIENCE DEGREE OPTIONS
Turf and Landscape Management Option 55
Landscape Design Option 55
Production Option 58

ASSOCIATE OF SCIENCE DEGREE
Horticulture Transfer Option 59

CERTIFICATE
Horticulture Systems Certificate 59

VETERINARY TECHNOLOGY SYSTEMS
Associate of Applied Science Options 60
Agribusiness Management Systems Minor 60
Agriculture Production Systems Minor 60
Baccalaureate Transfer Options 60
Veterinary Technology Handbook 60
Veterinary Technician Option and Licensing 59
Associate of Applied Science – Veterinary Technician Option 60
Final Assessment 60

Program Outcomes for Veterinary Technician Option 60
Program Outcomes for Veterinary Assistant Option 61
Electives for Veterinary Technology Systems 61

ASSOCIATE OF APPLIED SCIENCE DEGREE
Veterinary Technician Option Entrance Requirements 62
Exit Exam 62
Veterinary Technician Option 62
Veterinary Assistant Option 63
Animal Husbandry Option 64
Equine Health Care Option 65
Animal Health Management Option 66
Veterinary Technology Course List 66

BACCALAUREATE TRANSFER PROGRAM (CAPSTONE)
Veterinary Technologist 67

CERTIFICATE
Animal Health Care Certificate 67

COURSE DESCRIPTIONS
General Education 68
Agribusiness Management Systems 70
Agriculture Production Systems 72
Horticulture 80
Veterinary Technology Systems 82

ADMINISTRATION AND FACULTY
Credentials 89

Nebraska College of Technical Agriculture
Academic Calendar

2013 - 2014

CALENDAR IS SUBJECT TO CHANGE

August 2013

24	Residence Halls open for fall semester at 10 am
24-25	Freshman Orientation
26	Late Registration Begins ($25 late registration fee assessed)
26	First Semester Classes Begin

September

2	**LABOR DAY (Student and Staff Holiday – NCTA Offices Closed)**
3	Last day to drop a full semester course and receive a 100% refund
6	Last day to drop a full semester course and receive a 75% refund
6	Last day to file a drop to remove course form student's record
7	All course withdrawals noted with a grade of "W" on academic record (through 12/2)
13	Last day to drop a full semester course and receive a 50% refund
12	**Last day to submit tuition and fees payment without penalty**
20	Last day to drop a full semester course and receive a 25% refund

October

1	December Degree Applications Due
3	Last day to **DROP** first 8-week course
18	**FIRST 8-WEEK FINAL EXAMS**
18	First 8-Week Session Ends
21-22	**FALL BREAK (Student Holiday – NCTA Offices Open)**
23	Second 8-Week Session Begins

November

11	**Registration Begins for Spring Semester 2014**
26	Residence Halls close for Thanksgiving at 5 pm
27	**STUDENT HOLIDAY (NCTA Offices Open)**
28-29	**THANKSGIVING VACATION (NCTA Offices Closed)**

December

1	Residence Halls reopen at 10 am
2	Last day to **DROP** second 8-week and 16-week courses
17-19	**FIRST SEMESTER FINAL EXAMS**
19	End of Fall Semester **(STUDENT HOLIDAY BREAK BEGINS)**
20	Residence Halls close for winter break at 12 pm
23	Holiday Closedown **(NCTA Offices Closed)**

January 2013

2	NCTA Opens from Holiday Closedown
12	Residence Halls reopen for spring semester at 10 am

13 Second Semester Classes Begin
13 Late Registration Begins ($25 late registration fee assessed)
20 MARTIN LUTHER KING JR. DAY (Student and Staff)
21 Last day to drop a full semester course and receive a 100% refund
24 Last day to drop a full semester course and receive a 75% refund
24 Last day to file a drop to remove a course from student's record
25 All course withdrawals noted with a grade of "W" on academic record (through 4/17)

February
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)
27 Last day to **DROP** first 8-week course

March
5 Registration Begins for Summer Session 2013
14 **FIRST 8-WEEK FINAL EXAMS**
14 First 8-Week Session Ends
17 Second 8-Week Session Begins
22 Residence Halls close for Spring Break at 5 pm
24-28 SPRING BREAK (STUDENT HOLIDAY – NCTA OFFICES ARE OPEN)
30 Residence Halls Reopen at 10 am

April
17 Last day to **DROP** second 8-week and 16-week courses
10 **Registration Begins for Fall Semester 2012**

May
2, 5-7 SECOND SEMESTER FINALS
8 End of Spring Semester
8 Residence Halls Closed for summer at 5 pm
8 GRADUATION!!
27 MEMORIAL DAY (NCTA OFFICES CLOSED)

June
9 Summer Session Begins

July
1 August Degree Applications Due
4 INDEPENDENCE DAY (NCTA OFFICES CLOSED)
24 Last day to **DROP** an 8-Week summer session course

August
8 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.

Mission Statement

The Nebraska College of Technical Agriculture (NCTA) is a two year public college of the University of Nebraska system first serving the students and people of Nebraska, but also the nation and the world. Since its founding in 1988, NCTA has evolved into a quality institution of higher education, committed to excellence in program offerings, responsive to a dynamically changing agricultural industry and aspirations of a diverse student population.

The Nebraska College of Technical Agriculture, an institution of higher learning, is dedicated to the development of innovative individuals for the agriculture industry and related sciences.

Vision Statement

NCTA leads rural community development through technical agriculture in a global economy.

Value Statements

1. NCTA values Nebraska's agriculture industry and its role in the global economy.
2. NCTA values the application of science through technology.
3. NCTA values entrepreneurship both on and off campus.
4. NCTA values the rural lifestyle and revitalizing rural communities.
5. NCTA values all people and their development.

Goals of NCTA

1. Develop Entrepreneurship as a principle theme throughout NCTA.
2. Develop new academic programming that enhances NCTA's mission.
3. NCTA will develop a model for sharing resources between NCTA and the West Central Research and Extension Center (WCREC).
4. During the next five years, NCTA student Services will increase its recruitment and retention rates while adding additional services important to the success of NCTA students.
5. NCTA will update the 2001 articulation and transfer agreements with the University of Nebraska-Lincoln-College of Agricultural Sciences and Natural Resources (UNL-CASNR).
6. NCTA will substantially improve the quality of the living and learning environment on campus over the next five years.

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.

The Higher Learning Commission
30 North LaSalle St., Suite 2400
Chicago, IL 60602-2504
800-621-7440

Location

The Nebraska College of Technical Agriculture is located in the community of Curtis with a population of approximately 800 people on the gentle rolling plains of southwest Nebraska, in the northwest part of Frontier County. Curtis is located 8 miles east of Highway 83 between the cities of North Platte and McCook. The trade area population is approximately 3,500. The Curtis area is primarily agricultural, devoted to the production of corn, wheat, milo, and livestock.

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 Agribusiness Management Systems major; General Education; the Bookstore; a Computer Laboratory/Classroom; the Offices of Recruitment and Admissions; Student Services, Administration, Business and Financial Aid). The Livestock Teaching Center, completed in 2000, includes livestock classrooms, lab facilities and an arena with 700-person seating capacity; the Education Center which houses an auditorium, state of the art laboratories and a computer lab Other

buildings include four permanent Residence Halls; Cafeteria; an Auditorium-Gymnasium; the Learning Resource Center; a Horticulture Systems complex (including two greenhouses, a high tunnel and a classroom building), an Agriculture Equipment complex (which includes two large equipment labs, a small engine lab, a welding lab and buildings for classroom, painting, storage and maintenance use); and a Veterinary Technology classroom and laboratory complex, plus an animal holding wing. A total of 200,000 square feet of instructional classroom and laboratory space is utilized in the educational majors.

The college also operates a 532 acre farm which serves as a field laboratory. The farm includes grain storage facilities, cattle growing and finishing facilities, and a completely diversified dry land and irrigated farming operation.

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 20).

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 2013-14 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

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 insure 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)

Statements on Student Learning and Improvement - Philosophy of Student Learning Assessment

The Nebraska College of Technical Agriculture believes that the college can influence how well and how much students learn. As an institution of higher learning, the mission of the Nebraska College of Technical Agriculture "is dedicated to the development of innovative individuals for the agriculture industry and related science."

Academic assessment provides systemic, routine processes that allow the faculty and students to determine the degree that students are achieving the stated student learning outcomes. The following questions guide the assessment process.

1. How are students learning?
2. Are our students learning?
3. How much are students learning?

4. To what extent are students learning?

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 Program Directors for compliance or concerns are: the Student Services and Dean's Office. Student concerns in regard to Title IX and 504 compliance may be submitted to the above offices or David Smith, Chair of the College's Affirmative Action Committee.

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.

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.

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. This tag must be visible at all times. Vehicles will be ticketed without a current 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 the violation. If the violation is not paid in 15 days, a hold is placed on the student's MyRed 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 five days to appeal the violation in writing to Linda Cole in Parking Services with justification for overturning the violation. Within five days of your written appeal the Judicial Officer 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 $200 and a report filed with the NCTA Judicial Officer.**

ADMISSIONS INFORMATION

Admission Requirements

A high school diploma or the equivalent and the ACT 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. All students who attend NCTA are required to take the ACT assessment test. Scores are used for scholarships, advising and guidance purposes.

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 and mail an Application for Admission/Scholarship form to:

   NEBRASKA COLLEGE OF TECHNICAL AGRICULTURE
   OFFICE OF STUDENT SERVICES
   404 EAST 7TH STREET
   CURTIS, NE 69025-9502

- The Application for Admission/Scholarship form must be accompanied by a $25.00 nonrefundable matriculation fee. Upon receipt of the deposit, additional enrollment forms will be sent for completion.

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. Complete steps one and two in the Application Procedures to enroll at NCTA.
   d. Fill out the class registration form.
   e. Return all forms to NCTA.

Campus Visitors

Prospective students and any other interested people are invited and encouraged to visit the Nebraska College of Technical Agriculture Monday through Friday from 9 a.m. to 4 p.m. Campus tours, as well as appointments with Faculty and/or the Financial Aid Office, 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 MyRed 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.

2013-2014 Tuition

Nebraska Resident per credit hour	$116
Non-Resident per credit hour	$232

Fees

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

Special Fees

Continuing Ed. Course Delivery Fee (per credit)	$25
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 and applications are 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 2012 tax returns electronically.
- File the 2013-14 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 MyRed 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:

Withdrawal Time, Percentage of Tuition and Fees Refunded

16 Week Sessions (Fall and Spring Semesters)

1st Week	100%
2nd Week	75%
3rd Week	50%
4th Week	25%

No refund after the end of the 4th week

8 Week Session

Prorated

Summer Session

1st Week	Prorated

No refund after the end of the 1st week

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 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 $4,000 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;

LISTED BELOW ARE SPONSORS OF VARIOUS SCHOLARSHIPS GIVEN TO NCTA STUDENTS:

- Arrow Seed Company
- Curtis Aggie NCTA Scholarship – Berdean Worley
- CHS
- Career's in Ag. Scholarship
- Chandra Castle Memorial Scholarship
- DR CL and Lydia Miller Memorial Scholarship – Vet Tech
- Don Ringstmeyer Memorial Scholarship
- Education Quest Foundation Educational Award Fund – NCTA
- Engberg Memorial
- Francis Jorgensen Estate Scholarship
- Federated Garden Clubs of Nebraska (Horticulture Students)
- Floyd Hecht Memorial
- Fred & Edna Hecht Scholarship
- Gudmundsen NCTA Scholarship
- Jack McCaffery Memorial Scholarship
- Jean Sullivan & Richard Rawson Scholarship
- Jepsen Memorial
- Lancaster County Farm Bureau
- Middle Republican Natural Resources District
- Midwest Messenger
- Nebraska College of technical Agriculture Scholarship
- Nebraska college of Technical Agriculture – Veterinary Technology
- NCTA 100 Beef cow Program Scholarship
- NCTA Scholarship
- Nebraska Association of Nurserymen (Horticulture Students)
- Nebraska Cooperative Council
- Nebraska Florists Society (Horticulture Students)
- Nebraska Seed Trade Association
- Rocky Mountain Agribusiness Association
- Sylvia Clawson by Ted English
- Tim Sheehan Memorial
- UNSTA/NCTA Alumni Association Memorial
- Walther Memorial
- Samuel S and Ruth S Kamino DVM Scholarship

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 31 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 consist of 30 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 nonrefundable 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 accumulative 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 21 hours with a maximum credit hour overload of 24 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 MyRed and complete the check-out 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

NCTA grade table:

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

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.

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 Assistant 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.

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

Weeks/Session	16	8
Full Time (credit hours)	12	6
¾ Time (credit hours)	9	4.5
½ Time (credit hours)	6	3

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 MyRed. 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, roping club events, and help sponsor a high school rodeo.

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. The Great Plains Region includes 2 and 4 year colleges from North and South Dakota, Nebraska, Iowa, Minnesota, and Wisconsin. This region usually sanctions 10 rodeos per school year, with points earned counting toward the college finals held in Casper, Wyoming, each June.

Athletics/College Wide Activities

General activities are provided on a regular basis for the enjoyment and social development of NCTA students. A gymnasium, weight room, and athletic field are provided for an adequate recreational program which includes sports such as basketball, volleyball, and 6 person football. Intramural programs are open to all students regardless of ability. Anyone interested in Varsity athletics may join the NCTA Aggie Basketball and Volleyball teams.

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's Association, Nebraska Cattlewomen, 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 US. 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 the 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.

NCTA Aggie Varsity Teams

Competition is scheduled with other independent colleges and primarily non-scholarship schools. A full schedule of both volleyball and basketball games are played each season. Several tournaments in each sport have been added to improve the level of competition for the squads. Traveling to South Dakota, Kansas, and Colorado to compete with comparable schools is a fringe benefit to the teams.

Intercollegiate Equestrian Team

The Intercollegiate Horse Show Association (IHSA) was developed to allow student riders of any skill level or economic background to be able to compete and succeed at their own levels of skill and experience. There are classes designed on specific experience levels from Beginner Walk-Trot to Open, in four disciplines - hunter equitation, equitation over fences, western horsemanship and reining. College horse shows are like "meets," with all teams from the region invited to compete against each other simultaneously. The national average region includes about eleven colleges, 225 total riders and competes in 8.6 horse shows per year. There are now 23 regions and 8 zones, encompassing 44 states, 5000 riders and 250 teams.

Teams do not move horses to shows. Riders from all colleges ride horses provided by the host college, drawing lots for mounts. Riders utilize whatever tack happens to be on the horse they've drawn. There is no schooling time; riders mount, adjust stirrups and ride in before the judge.

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 three 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.

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) (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. Membership and participation is required to be in the Vet Tech Program.

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.

GENERAL EDUCATION

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 and creative thinking, promotes open-mindedness and understanding of different points of view, gives confidence and inquisitiveness to 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: Students will develop intellectual and practical skills, including proficiency in written, oral, and visual communication; critical and creative thinking; quantitative applications, information assessment, teamwork; and problem solving. Students will build knowledge of the natural and physical world through the study of mathematics and sciences. Students will develop individual and social responsibilities through study and application of ethical principles, reasoning, and engagement with global issues.

OBJECTIVES:

1. **Written Communication:** Demonstrate written communication skills by writing texts for purposes and audiences through reasoned thinking, analysis, use of stages in the writing process, and relevant stylistic conventions.
2. **Oral Communication:** Demonstrate oral communication skills by researching and utilizing supporting materials, organizing information, and creating visual information to deliver speeches or presentations in various forms.
3. **Mathematics & Statistics:** Demonstrate formal reasoning and knowledge of mathematical or statistical concepts to draw inferences, determine reasonableness, and solve problems.
4. **Natural Sciences:** Demonstrate knowledge of the natural and physical world and apply scientific methods and reasoning processes through inquiry, interpretation, analysis, and making inferences.
5. **Computers & Technology:** Demonstrate proficiency in using computers for acquiring, interpreting, evaluating, processing, and communicating information and solving problems.
6. **Leadership & Personal Development:** Develop interpersonal, leadership, and team building skills for achieving education and professional goals; analyze, evaluate, and interpret personal experiences, develop personal strengths; and identify areas for personal growth and development of interpersonal skills.

General Education Courses
Required for Associate of Applied Science Degree
(18-19 Credit Hours Required)

WRITTEN COMMUNICATION (3 hours required)

Course		Credit Hours
ENG 1503	Business & Technical Writing	3
Or		
ENG 1903	College Composition	3
	Total	**3**

ORAL COMMUNICATION (3 hours required)

Course		Credit Hours
SPC 1103	Sales Communication	3
Or		
SPC 1113	Speech	3
	Total	**3**

MATHEMATICS & STATISTICS (3 hours required)

Course		Credit Hours
MTH 1203	Intermediate Algebra	3
Or		
MTH 1403	Agricultural Math	3
Or		
MTH 1503	College Algebra	3
Or		
MTH 2203	Elements of Statistics	3
Or		
MTH 2253	Trigonometry	3
Or		
VTS 1313	Math for Vet Techs	3
	Total	**3**

NATURAL SCIENCES (3-4 hours required)

Course		Credit Hours
BIO 1313	Plant Science and	3
BIO 1321	Plant Science Lab or	1
BIO 1331	Horticulture Science Lab	1
Or		
ASI 1024	Fundamentals Of Animal Biology	4
Or		
BIO 1104	General Biology	4
Or		
BIO 1114	Microbiology	4
Or		
CHM 1003	Agricultural Chemistry	3
Or		
CHM 1104	General Chemistry	4
	Total	**3-4**

COMPUTERS (2 hours required)

Course		Credit Hours
AIT 1092	Computers II	2
	Total	**2**

LEADERSHIP & PERSONAL DEVEOLOPMENT (4 hours required)

Course		Credit Hours
PSY 1011	Learning Communities	1
PSY 1103	Human Relations	3
	Total	**4**

ASSOCIATE OF SCIENCE DEGREE

OUTCOMES: Students will develop intellectual and practical skills, including proficiency in written, oral, and visual communication; critical and creative thinking, quantitative applications, information assessment, teamwork; and problem solving. Students will build knowledge of human diversity and cultures and of the natural and physical world through the study of mathematics, sciences and technologies, humanities, and social and behavior sciences. Students will develop individual and social responsibilities through study and application of ethical principles, reasoning, and engagement with global issues.

OBJECTIVES:

1. **Written Communication:** Demonstrate written communication skills by writing texts for purposes and audiences through reasoned thinking, analysis, use of stages in the writing process, and relevant stylistic conventions.
2. **Oral Communication:** Demonstrate oral communication skills by researching and utilizing supporting materials, organizing information, and creating visual information to deliver speeches or presentations in various forms.
3. **Mathematics & Statistics:** Demonstrate formal reasoning and knowledge of mathematical or statistical concepts to draw inferences, determine reasonableness, and solve problems.
4. **Natural Sciences:** Demonstrate knowledge of the natural and physical world and apply scientific methods and reasoning processes through inquiry, interpretation, analysis, and making inferences.
5. **Humanities & Social & Behavioral Sciences:** Demonstrate civic and social awareness through knowledge and theories of social, cultural, economic, global, political, literary, or historical perspectives appropriate in shaping human thought and behavior.
6. **Fine Arts & Aesthetics:** Demonstrate knowledge and understanding of theories or methods appropriate to the arts to understand their context and significance.

General Education Courses Required for Associate of Science Degree

(25-26 Credit Hours Required)

WRITTEN COMMUNICATION (6 hours required)

Course		Credit Hours
ENG 1503	Business & Technical Writing	3
Or		
ENG 1903	College Composition	3
ENG 2203	Advance Composition	3
	Total	**6**

ORAL COMMUNICATION (3 hours required)

Course		Credit Hours
SPC 1113	Speech	3
	Total	**3**

MATHEMATICS & STATISTICS (3 hours required)

Course		Credit Hours
MTH 1503	College Algebra	3
Or		
MTH 2203	Elements of Statistics	3
Or		
MTH 2253	Trigonometry	3
	Total	**3**

NATURAL SCIENCES (7-8 hours required)

Course		Credit Hours
	Life Sciences	
	Take one of the following	
BIO 1313	Plant Science and	3
BIO 1321	Plant Science Lab or	1
BIO 1331	Horticulture Science Lab	1
Or		
ASI 1024	Fund. Of Animal Biology	4
Or		
BIO 1104	General Biology	4
	Physical Sciences	
	Take one of the following	
CHM 1104	General Chemistry	4
Or		
ASTR 103	Descriptive Astronomy (UNL Independent Study)	3
	Total	**7-8**

HUMANITIES & SOCIAL & BEHAVIORAL SCIENCES (3 hours required)

Course		Credit Hours
	Economics and Sociology	
ECN 1203	Microeconomics	3
Or		
ECN 1303	Macroeconomics	3
Or		
SOCI 101	Intro to Sociology (UNL Independent Study)	3
	English	
ENG 2103	Short Stories	3
	History	
HTY 1303	American History After 1877	3
Or		
HIST 100	Western Civ. To 1715 (UNL Independent Study)	3
Or		
HIST 101	Western Civ. Since 1715 (UNL Independent Study)	3
	International Studies	
ECN 1403	Economics of World Food and Agriculture	3
Or		
POLS 160	International Relations (UNL Independent Study)	3
	Total	**3**

FINE ARTS & AESTHETICS (3 hours required)

Course		Credit Hours
ENG 2223	Intro to Creative Writing	3
Or		
HSL 1053	Landscape Appreciation	3
Or		
AHIS 101	Art & Art History (UNL Independent Study)	3
	Total	**3**

AGRIBUSINESS MANAGEMENT SYSTEMS

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: Paul Clark, Asst. Professor

Faculty: Jeremy Sievers, Asst. Professor
Jennifer McConville, 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.

Course		Credit Hours
ABM 2004	Internship (P)	4
ABM 2911	Seminar	1
ACT 1103	Accounting I	3
ECN 1303	Macroeconomics	3
MGT 2103	Management Concepts	3
MTH 1203	Intermediate Algebra	3
Or		
MTH 1503	College Algebra	3
PHL 1103	Critical Thinking	3
Approved Science Courses:		
(Select 3 hours not already in core)		
ASI 1024	Fund. Of Animal Bio.	4
BIO 1104	General Biology	4
CHM 1003	Ag. Chemistry	3
CHM 1104	General Chemistry I	4
	Total	**23-24**

Management Option

Associate of Applied Science

	Credit Hours
Associate of Applied Science Core	**18-19**
Agribusiness Mgt. Systems Core	**23-24**
Management Option Courses	
ABM 2103 Personal Finance Or ABM 2403 Ag. Finance	3 3
ABM 2503 Ag. Decision Analysis	3
ABM 2854 Farm & Ranch Mgt.	4
ABM 2903 Entrepreneurship	3
ACT 1203 Accounting II	3
ECN 1303 Macroeconomics	3
MGT 2503 Human Resource Mgt.	3
MKT 2203 Ag. Marketing	3
Total	**25**
Electives	**3**

Total Credit Hours for Degree 69-71

Suggested Sequence of Study

First Semester (Fall)

Course	Credit Hours
ACT 1103 Accounting I	3
AIT 1092 Computers II*	2
ECN 1203 Microeconomics	3
ENG 1503 Business & Technical Writing Or ENG 1903 College Composition	3 3
PSY 1103 Human Relations*	3
PSY 1011 Learning Communities*	1
Total	**15**

Second Semester (Spring)

Course	Credit Hours
ACT 1203 Accounting II	3
ECN 1303 Macroeconomics	3
MTH 1203 Intermediate Algebra Or MTH 1503 College Algebra	3 3
SPC 1103 Sales Communication Or SPC 1113 Speech	3 3
ASI 1024 Fund. Of Animal Bio.* and Fund. Of Animal Bio. Lab* Or	4
BIO 1104 General Biology and General Biology Lab Or BIO 1313 Plant Science and BIO 1321 Plant Science Lab Or CHM 1003 Ag. Chemistry and Ag. Chemistry Lab Or CHM 1104 General Chemistry and General Chemistry Lab	4 3 1 3 4
Total	**15-16**

Summer

Course	Credit Hours
ABM 2004 Internship	4
Total	**4**

Third Semester (Fall)

Course	Credit Hours
ABM 2403 Ag. Finance	3
ABM 2854 Farm & Ranch Mgt.	4
ABM 2911 Seminar	1
MGT 2503 Human Resource Mgt.	3
BIO 1313 Plant Science and BIO 1321 Plant Science Lab Or CHM 1003 Ag. Chemistry and Ag. Chemistry Lab Or CHM 1104 General Chemistry and General Chemistry Lab	3 1 3 4
Electives (AMS)	3
Total	**17-18**

Fourth Semester (Spring)

Course	Credit Hours
ABM 2503 Ag. Decision Analysis	3
ABM 2903 Entrepreneurship	3
MGT 2103 Management Concepts	3
MKT 2203 Ag. Marketing	3
MTH 1503 College Algebra Or MTH 2203 Elements of Statistics	3 3
PHL 1103 Critical Thinking	3
Total	**18**

Office Systems Option

Associate of Applied Science

	Credit Hours
Associate of Applied Science Core	**18-19**
Agribusiness Mgt. Systems Core	**23-24**
Office Systems Option Courses	
ABM 2203 Office Practices	3
ABM 2103 Personal Finance Or ABM 2403 Ag. Finance	3 3
ABM 2903 Entrepreneurship	3
ABM 2963 Farm, Ranch, & Small Business Recordkeeping	3
ACT 1203 Accounting II	3
ECN 1303 Macroeconomics	3
MGT 2503 Human Resource Mgt.	3
MKT 2103 Retail Marketing	3
Total	**24**
Electives	**3**

Total Credit Hours for Degree 68-70

Suggested Sequence of Study

First Semester (Fall)

Course	Credit Hours
ACT 1103 Accounting I	3
AIT 1092 Computers II*	2
ECN 1203 Microeconomics	3
ENG 1503 Business & Technical Writing Or ENG 1903 College Composition	3 3
PSY 1103 Human Relations*	3
PSY 1011 Learning Communities*	1
Total	**15**

Second Semester (Spring)

Course	Credit Hours
ACT 1203 Accounting II	3
ECN 1303 Macroeconomics	3
MTH 1203 Intermediate Algebra Or MTH 1503 College Algebra	3 3
SPC 1103 Sales Communications Or SPC 1113 Speech	3 3
ASI 1024 Fund. Of Animal Bio.* and Fund. Of Animal Bio. Lab*	4
Or BIO 1104 General Biology and General Biology Lab	4
Or BIO 1313 Plant Science and BIO 1321 Plant Science Lab	3 1
Or CHM 1003 Ag. Chemistry and Ag. Chemistry Lab	3
Or CHM 1104 General Chemistry and General Chemistry Lab	4
Total	**15-16**

Summer

Course	Credit Hours
ABM 2004 Internship	4
Total	**4**

Third Semester (Fall)

Course	Credit Hours
ABM 2403 Ag. Finance	3
ABM 2963 Farm, Ranch, & Small Business Recordkeeping	3
ABM 2911 Seminar	1
MGT 2503 Human Resource Mgt.	3
MKT 2103 Retail Marketing	3
BIO 1313 Plant Science and BIO 1321 Plant Science Lab	3 1
Or CHM 1003 Ag. Chemistry and Ag. Chemistry Lab	3
Or CHM 1104 General Chemistry and General Chemistry Lab	4
Total	**16-17**

Fourth Semester (Spring)

Course	Credit Hours
ABM 2903 Entrepreneurship	3
ABM 2203 Office Practices	3
MGT 2103 Management Concepts	3
MTH 1503 College Algebra Or MTH 2203 Elements of Statistics	3 3
PHL 1103 Critical Thinking	3
Electives (AMS)	3
Total	**18**

Plus One Option

Associate of Applied Science

Suggested Sequence of Study

First Semester (Fall)

Course		Credit Hours
ABM 2403	Ag. Finance	3
ABM 2911	Seminar	1
ABM 2963	Farm, Ranch, & Small Business Recordkeeping	3
ACT 1103	Accounting I	3
ECN 1203	Microeconomics	3
MGT 2103	Management Concepts	3
MGT 2503	Human Resource Mgt.	3
	Total	**19**

****If one of these courses has previously been completed, then select another course:**

AIT 1072 Intro to Data Base (2)
ABM 2203 Office Practices (3)
ABM 2993 Independent Study (3)
ABM 2854 Farm and Ranch Management (4)
MKT 2103 Retail Marketing (3)

Second Semester (Spring)

Course		Credit Hours
ABM 2103	Personal Finance	3
ABM 2503	Ag. Decision Analysis	3
ABM 2903	Entrepreneurship	3
ACT 1203	Accounting II	3
ECN 1303	Macroeconomics	3
ECN 1403	Economics of World Food & Agriculture	3
Or		
PHL 1103	Critical Thinking	3
	Total	**18**

****If one of these courses has previously been completed, then select another course:**

ABM 2993 Independent Study (3)
MKT 2203 Ag. Marketing (3)

Transfer Option

Associate of Science

		Credit Hours
Associate of Science Core		**25-26**
AMS Required Courses		
ABM 2403	Ag Finance	3
ABM 2903	Entrepreneurship	3
ACT 1103	Accounting I	3
ACT 1203	Accounting II	3
ECN 1203	Microeconomics	3
ECN 1303	Macroeconomics	3
MGT 2503	Human Resource Mgt.	3
MKT 2203	Ag. Marketing	3
	Total	**24**

Select 12 hours from the following or by Advisor approval
(At least six must be AMS courses)

		Credit Hours
ABM 2004	Internship	4
ABM 2854	Farm & Ranch Mgt.	4
AGR 1103	Crop Science	3
AGR 2404	Crop Management	4
ASI 1303	Animal Management	3
ASI 2303	Range Management	3
ASI 2513	Meat Science	3
MKT 2103	Retail Marketing	3
MTH 2203	Elements of Statistics	3
	Total	**12**

Total Credit Hours for Degree 61-62

Suggested Sequence of Study

First Semester (Fall)

Course		Credit Hours
ACT 1103	Accounting I	3
ECN 1203	Microeconomics	3
SPC 1113	Speech	3
ENG 1503	Business & Technical Writing	3
Or		
ENG 1903	College Composition	3
BIO 1114	Microbiology	4
Or		
BIO 1313	Plant Science	4
BIO 1321	Plant Science Lab	
Or		

BIO 1331	Horticulture Science Lab	
Or		
CHM 1104	General Chemistry General Chemistry Lab	4
PSY 1011	Learning Communities*	1
	Total	**17**

Second Semester (Spring)

Course		Credit Hours
ACT 1203	Accounting II	3
ECN 1303	Macroeconomics	3
ENG 2203	Advanced Composition	3
MTH 1503	College Algebra	3
ASI 1024	Fund. Of Animal Bio.* and Fund. Of Animal Bio. Lab*	4
Or		
BIO 1104	General Biology and General Biology Lab	4
Or		
CHM 1104	General Chemistry and General Chemistry Lab	4
Or		
ASTRI 103	Descriptive Astronomy (UNL Independent Study)	3
	Total	**15-16**

Third Semester (Fall)

Course		Credit Hours
ABM 2403	Ag. Finance	3
ABM 2854	Farm & Ranch Mgt.	4
MGT 2503	Human Resource Mgt.	3
ECN 1403	Economics of World Food & Agriculture	3
Or		
ENG 2103	Short Stories	3
Or		
HIS 100	Western Civ. To 1715 (UNL Independent Study)	3
Or		
HIS 101	Western Civ. Since 1715 (UNL Independent Study)	3
Or		
HTY 1303	American History after 1877	3
Or		
POLS 160	International Relations (UNL Independent Study)	3
Or		
SOCI 101	Introduction to Soc. (UNL Independent Study)	3
Electives (AMS)		3
	Total	**16**

Fourth Semester (Spring)

Course		Credit Hours
ABM 2903	Entrepreneurship	3
ENG 2223	Intro to Creative Writing	3
MKT 2203	Ag. Marketing	3
Electives (AMS)		3
	Total	**12**

Minor

Required AMS Minor Courses

		Credit Hours
ACT 1103	Accounting I	3
ECN 1203	Microeconomics	3
Or		
ECN 1303	Macroeconomics	3
MGT 2103	Management Concepts	3
	Total	**9**

As well as 12 additional hours of Agribusiness Management Courses
(Six must be 2000 level courses)

Course		Credit Hours
ABM 2103	Personal Finance	3
ABM 2203	Office Practices	3
ABM 2403	Ag. Finance	3
ABM 2503	Ag. Decision Analysis	3
ABM 2854	Farm and Ranch Mgt.	4
ABM 2903	Entrepreneurship	3
ABM 2911	Seminar	1
ABM 2963	Farm, Ranch, & Small Business Recordkeeping	3
ACT 1103	Accounting I	3
ECN 1403	Economics of World Food & Agriculture	3
MGT 2503	Human Resource Mgt.	3
MKT 2103	Retail Marketing	3
MKT 2203	Ag. Marketing	3
PHL 1103	Critical Thinking	3
SPC 1103	Sales Communication	3
	Total	**12**

Total Credit Hours for Minor 21

Certificate

AMS Certificate Core Courses

(Select 6 Hours)

		Credit Hours
ENG 1503	Business & Technical Writing	3
Or		
ENG 1903	College Composition	3
SPC 1203	Sales Communication	3
Or		
SPC 1113	Speech	3
PSY 1103	Human Relations*	3
	Total	**9**

Additional AMS Courses

(Select 21 Hours)

Course		**Credit Hours**
ABM 2103	Personal Finance	3
ABM 2203	Office Practices	3
ABM 2403	Ag. Finance	3
ABM 2503	Ag. Decision Analysis	3
ABM 2854	Farm & Ranch Mgt.	4
ABM 2903	Entrepreneurship	3
ABM 2911	Seminar	1
ABM 2963	Farm, Ranch, & Small Business Recordkeeping	3
ACT 1103	Accounting I	3
ACT 1203	Accounting II	3
ECN 1403	Economics of World Food & Agriculture	3
ECN 1203	Microeconomics	3
ECN 1303	Macroeconomics	3
MGT 2503	Human Resource Mgt.	3
MGT 2103	Management Concepts	3
MKT 2103	Retail Marketing	3
MKT 2203	Ag. Marketing	3
PHL 1103	Critical Thinking	3
	Total	**21**

Total Credit Hours for Certificate 30

AGRICULTURE PRODUCTION SYSTEMS

Division Chair: Dr. Doug Smith, Asst. Professor

Faculty: Terri Jo Bek, Professor
Dr. Brad Ramsdale, Asst. Professor
Joanna Hergenreder, Asst. Professor
Dustin Zitek, Asst. Professor

MISSION

The Agriculture Production Systems division is dedicated to the development of innovative individuals for equine, livestock, agronomy and ag. equipment disciplines.

The Agriculture Production Systems 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

Agriculture Equipment Management
Agronomy Industry Management
Diversified Management
Equine Industry Management
Livestock Industry Management

BACCALAUREATE TRANSFER OPTIONS

Agriculture Education/Extension A to B
Agronomy A to B
Animal Science A to B
Grazing Livestock Systems A to B

ASSOCIATE OF SCIENCE OPTIONS (TRANSFER)

Agriculture Education/Extension
Agronomy
Animal Science
Grazing Livestock Systems

MINOR

CERTIFICATE

FARM/RANCH OWNERSHIP PROGRAMS

These programs are designed to assist students in obtaining their own farm or ranch operation. The outcome of these programs is a beginning farm/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

100 Acre Farm Ownership Advantage Program

- Enroll in the Agronomy Industry Management or the Diversified Management Option
- Additional required courses:
  - AGR 1001 Ownership Advantage Seminar I
  - AGR 1501 Ownership Advantage Seminar II
  - AGR 2001 Ownership Advantage Seminar III

100 Beef Cow and 100 Acre Outreach Programs

These ownership advantage programs are designed for individuals unable to attend NCTA as a full-time student. Required components include:

- NCTA 100 Beef Cow – 100 Acre Farm Kickoff
- Nebraska Ranch Practicum or West Central Cropping System and Beef Practicum
- NCTA Farm and Ranch Management Course

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.

5. Learning outcomes specific for Agronomy Industry Management Option.
   - Students will be able to apply economically sound and environmentally sustainable agricultural crop production practices in the Great Plains.

6. Learning outcomes specific to Agriculture Equipment Management Option.
   - Students will be able to safely operate and maintain agriculture equipment.

7. Learning outcomes specific to Livestock Industry Management and Equine Industry Management Options.
   - Students will be knowledgeable in the areas of modern livestock husbandry and management practices.

8. 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.

INTERNSHIP:

Students within the APS 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 2.0 CGPA.

AGRONOMY SCHOLARS PROGRAM:

The Agronomy Scholars program is a partnership between NCTA with All Points Cooperative, Ag Valley Coop, Frenchman Valley Coop, and Cargill. Students accepted into the program will be eligible for a tuition and fee reimbursement up to $2100 each semester. To receive the reimbursement, students must maintain a 2.5 GPA while attending NCTA and sign an internship agreement to work for a partnering Cooperative during the 2 year program.

Students must apply and be accepted through an interview with the participating cooperatives. Only students planning on enrolling in the APS Agronomy or Diversified Option are eligible to be interviewed.

Ag Production Systems Core Courses

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

Course		Credit Hours
AGR 2943 Or ABM 2903	APS Capstone Entrepreneurship	3
ABM 2963 Or ACT 1103	Farm Records Accounting I	3
ABM 2853	Farm and Ranch Mgmt.	3
ECN 1203	Microeconomics	3
AGR 2906	Internship	6
	Total	**18**

Agriculture Equipment Management

Learning outcomes specific to Agriculture Equipment Management Option.

- Students will be able to safely operate and maintain agriculture equipment.

		Credit Hours
Associate of Applied Science Core		**18-19**
Ag Production Systems Core		**18**
Equipment Management Courses		**Choose 20**
AEQ 1153	Equipment Principles	3
AEQ 1171	Farm Equipment Safety	1
AEQ 1203	Welding	3
AEQ 2211	Hydraulics	1
AEQ 2213	Advanced Welding	3
AEQ 2303	Equipment Preventative Main.	3
AEQ 1503	DC Circuit Analysis	1
AEQ 2323	Precision Farming Tech.	3
AEQ 2413	Diesel Engines	3
AGR 1203	Principles of Soils	3
AGR 1201	Soils Lab	1
AGR 2303	Soil Fertility	3
AGR 2383	Irrigation Management	3
AGR 2354	Pest Management	4
MKT 2103	Retail Marketing	3
MKT 2203	Ag Marketing	3
Electives		**19-20**

Total Credit Hours for Degree 76

Suggested Sequence of Study

First Semester (Fall)

Course		Credit Hours
AEQ 1171	Farm Equipment Safety	1
AEQ 1203	Welding	3
AEQ 1153	Equipment Principles	3
AGR 1103	Crop Science	3
MTH 1403 Or MTH 1203	Ag Mathematics Intermediate Algebra	3
PSY 1011	Learning Communities	1
SPC 1103	Sales Communication	3
	Total	**17**

Second Semester (Spring)

Course		Credit Hours
AEQ 2303	Equipment Preventative Main.	3
AEQ 2213	Advanced Welding	3
CHM 1003	Agriculture Chemistry	3
AGR 1203	Principles of Soils	3
AGR 1201	Soils Lab	1
AIT 1092	Computers II	2
PSY 1103	Human Relations	3
	Total	**18**

Summer

Course		Credit Hours
AGR 2906	Internship	6
	Total	**6**

Third Semester (Fall)

Course		Credit Hours
ABM 2963 Or ACT 1103	Farm Records Accounting I	3 3
ABM 2853	Farm and Ranch Mgt.	3
AEQ 1103 Or AGR 2103	Small Engines Building Construction	3 3
ENG 150	Business and Technical Writing	3
AGR 2383 Or AGR 2303	Irrigation Management Soil Fertility	3 3
ECN 1203	Microeconomics	3
	Total	**18**

Fourth Semester (Spring)

Course		Credit Hours
AEQ 2323	Precision Farming Tech.	3
AEQ 2413	Diesel Engines	3
AEQ 2211 Or AEQ 1503	Hydraulics DC Circuit Analysis	1 3
AGR 2354	Pest Management	4
AGR 2943 Or ABM 2903	APS Capstone Entrepreneurship	3 3
MKT 2103 Or MKT 2203	Retail Marketing Ag Marketing	3 3
	Total	**17**

Total Credit Hours for Degree 76

Agronomy Industry Management

Learning outcomes specific for Agronomy Industry Management Option.

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

		Credit Hrs
Associate of Applied Science Core		**18-19**
Ag Production Systems Core		**18**
Agronomy Industry Core		**24**
AGR 1103	Crop Science	3
AGR 1203	Principles of Soils	3
AGR 1201	Soils Lab	1
AGR 2303	Soil Fertility	3
AGR 2383	Irrigation Mgt.	3
AGR 2354	Pest Management	4
AGR 2404	Crop Management	4
MKT 2203	Ag Marketing	3
Agronomy Specialization Courses		**Choose 9**
ABM 2403	Finance	3
ABM 2903	Entrepreneurship	3
ACT 1203	Accounting II	3
AEQ 1153	Equipment Principles	3
AEQ 1203	Welding	3
AEQ 2303	Equipment Prevent. Main.	3
AEQ 2323	Precision Farming Tech.	3
AEQ 2413	Diesel Engines	3
AGR 1213	Natural Resource Mgt.	3
ASI 2303	Range Management	3
Electives		**6-7**

Total Credit Hours for Degree 76

Suggested Sequence of Study

First Semester (Fall)

Course		Credit Hrs
AGR 1103	Crop Science	3
AEQ 1153	Equipment Principles	3
AIT 1092	Computers II	2
BIO 1313	Plant Science	3
BIO 1321	Agronomic Plant Sci. Lab	1
ECN 1203	Microeconomics	3
MTH 1403 Or	Ag Mathematics	3
MTH 1203	Intermediate Algebra	3
PSY 1011	Learning Communities	1
	Total	**19**

Second Semester (Spring)

Course		Credit Hrs
AEQ 2323	Precision Farming Tech.	3
AEQ 2303 Or	Equipment Prevent. Main.	3
AGR 1213	Natural Resource Mgt.	3
AGR 1203	Principles of Soils	3
AGR 1201	Soils Lab	1
AGR 2354	Pest Management	4
PSY 1103	Human Relations	3
	Total	**17**

Summer

Course		Credit Hrs
AGR 2906	Internship	6
	Total	**6**

Third Semester (Fall)

Course		Credit Hrs
ABM 2963 Or	Farm Records	3
ACT 1103	Accounting I	3
ABM 2853	Farm and Ranch Mgt.	3
AGR 2303	Soil Fertility	3
AGR 2383	Irrigation Management	3
ENG 1503	Business and Technical Writing	3
SPC 1103	Sales Communications	3
	Total	**18**

Fourth Semester (Spring)

Course		Credit Hrs
AEQ 2413	Diesel Engines	3
AEQ 2301 Or	Pesticide Certification	1
AGR 2201	Commercial Ag Carrier (CDL)	1
AGR 2002	Wildlife Habitat Mgt.	2
AGR 2404	Crop Management	4
AGR 2943 Or	APS Capstone	3
ABM 2903	Entrepreneurship	3
MKT 2203	Ag Marketing	3
	Total	**16**

Total Credit Hours for Degree 76

Diversified Management

Learning outcomes specific for the Diversified Management Option.

- Students will be able to apply economically sound and environmentally sustainable agricultural crop production practices in the Great Plains.
- Students will be knowledgeable in the areas of modern livestock husbandry and management practices.

		Credit Hours
Associate of Applied Science Core		**18-19**
Ag Production Systems Core		**18**
Diversified Management Core		**9**
AGR 1103	Crop Science	3
ASI 1303	Animal Management	3
MKT 2203	Ag Marketing	3
Diversified Specialization Courses		**18**
Choose from AGR, AEQ, and ASI subjects		
Electives		**12-13**

Total Credit Hours for Degree 76

Suggested Sequence of Study

First Semester (Fall)

Course		Credit Hours
AGR 1103	Crop Science	3
AEQ 1153	Equipment Principles	3
Or		
AEQ 1203	Welding	3
AGR 2303	Soil Fertility	3
Or		
AGR 2383	Irrigation Management	3
ASI 1011	Intro to Animal Science	1
BIO 1321	Agronomic Plant Sci. Lab	1
ECN 1203	Microeconomics	3
MTH 1403	Ag Mathematics	3
Or		
MTH 1203	Intermediate Algebra	3
PSY 1011	Learning Communities	1
	Total	**18**

Second Semester (Spring)

Course		Credit Hours
AIT 1092	Computers II	2
AEQ 2303	Equipment Prevent. Main.	3
Or		
AEQ 2323	Precision Farming Tech.	3
Or		
AGR 1203	Principles of Soils	3
AGR 2201	Commercial Ag Carrier (CDL)	1
AGR 2404	Crop Management	4
CHM 1003	Agriculture Chemistry	3
PSY 1103	Human Relations	3
	Total	**16**

Summer

Course		Credit Hours
AGR 2906	Internship	6
	Total	**6**

Third Semester (Fall)

Course		Credit Hours
ABM 2963	Farm Records	3
Or		
ACT 1103	Accounting I	3
ABM 2853	Farm and Ranch Mgt.	3
ASI 1303	Animal Management	3
ASI 1253	Nutrition	3
ASI 1213	Livestock/Carcass Eval.	3
Or		
ASI 2353	Livestock Breeding	3
ENG 1503	Business and Technical Writing	3
	Total	**18**

Fourth Semester (Spring)

Course		Credit Hours
AGR 2943	APS Capstone	3
Or		
ABM 2903	Entrepreneurship	3
ASI 1351	AI of Beef Cattle	1
ASI 1203	Feedlot Operations	4
ASI 2774	Beef Prod. Systems	4
MKT 2203	Ag Marketing	3
SPC 1103	Sales Communications	3
	Total	**18**

Total Credit Hours for Degree 76

Equine Industry Management

Learning outcomes specific to Livestock Industry Management and Equine Industry Management Options.

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

		Credit Hours
Associate of Applied Science Core		**18-19**
Ag Production Systems Core		**18**
Equine Industry Core		**28**
ASI 1011	Introduction to Animal Science	1
ASI 1161	Introduction to Horsemanship Seminar (P)	1
ASI 1253	Nutrition	3
ASI 1262	Basic Equitation (P)	2
ASI 1303	Animal Management	3
ASI 1432	Equine Care	2
ASI 1442	Equine Practicum I	2
ASI 1501	Equine Safety	1
ASI 2203	Feeds & Feeding (P)	3
ASI 2262	Equine Nutrition	2
ASI 2433	Equine Industry Management I	3
ASI 2442	Equine Practicum II	2
ASI 2443	Equine Industry Management II	3

Equine Industry Core (Select 7 hours)

Courses		Credit Hours
ASI 2313	Ration Formulation (P)	3
ASI 2362	Advanced Equitation (P)	2
ASI 2384	Large Animal Diseases & Pharmacology (P)	4
Or		
VTE 2733	Large Animal Diseases	3
ASI 2412	Equine Marketing Techniques	2
ASI 2462	Colt Starting	2
ASI 2604	Livestock Anatomy and Physiology	4
Or		
VTS 1404	Anatomy and Physiology	4
ASI 2611	Equine AI	1
MGT 2103	Management Concepts	3
MKT 2103	Retail Marketing	3

Total Credit Hours for Degree 76

Suggested Sequence of Study

First Semester

Course		Credit Hours
MTH 1403	Ag Math	3
Or		
MTH 1203	Int. Algebra	3
Or		
MTH 1503	College Algebra	3
ECN 1203	Economics	3
ASI 1011	Intro. To Animal Science	1
ASI 1253	Nutrition	3
ASI 1303	Animal Management	3
ASI 1442	Equine Practicum I	2
ASI 1501	Equine Safety	1
ASI 1161	Intro to Horsemanship**	1
PSY 1011	Learning Communities*	1
	Total	**17-18**

Second Semester (Spring)

Course		Credit Hours
AIT 1092	Computers II	2
SPC 1103	Sales Communications	3
Or		
SPC 1113	Speech	3
BIO 1104	General Biology	4
BIO 1024	Fundamentals of Animal Biology	4
PSY 1103	Human Relations	3
ASI 1432	Equine Care	2
ASI 2203	Feeds and Feeding	3
ASI 2262	Equine Nutrition	2
ASI 1262	Basic Equitation**	2
	Total	**19-20**

Summer

ASI 2906	Internship	6
ASI 1462	Competitive Equitation	2
	Total	**6-8**

Third Semester (Fall)

Course		Credit Hours
ACT 1103	Accounting I	3
Or		
ABM 2963	Farm Records	3
ASI 2853	Farm & Ranch Mgmt.	3
ASI 2433	Equine Industry Management I	3
ASI 2442	Equine Practicum II	2
ASI 2353	Livestock Breeding	3
Or		
ASI 2384	Large Animal Diseases & Pharmacology	4
Or		
ASI 2462	Colt Starting	2
Or		
ASI 2412	Equine Marketing Techniques	2
Or		
ASI 2362	Advanced Equitation	2
	Total	**19**

Fourth Semester (Spring)

Courses		Credit Hours
ENG 1503	Business & Technical Writing	3
Or		
ENG 1903	College Composition	3
AGR 2943	APS Capstone	3
Or		
ABM 2903	Entrepreneurship	3
ASI 2443	Equine Industry Management II	3
ASI 2611	Equine AI	1
Or		
ASI 2462	Colt Starting	2
	Total	**15-17**

Total Credit Hours for Degree 76

Livestock Management

Learning outcomes specific to Livestock Industry Management and Equine Industry Management Options.

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

Courses		Credit Hours
Associate of Applied Science Core		**18-19**
Ag Production Systems Core		**18**
Livestock Industry Management Core		**21**
ASI 1011	Introduction to Animal Science	1
ASI 1203	Feedlot Operations(P)	4
Or		
ASI 2774	Beef Production Systems (P)	4
ASI 1213	Livestock & Carcass Evaluation	3
ASI 1253	Nutrition	3
ASI 1303	Animal Management	3
ASI 2384	Large Animal Diseases & Pharmacology (P)	4
MKT 2203	Ag Marketing	3
Livestock Industry Specialization (Select 11)		**11**
ABM 2403	Finance (P)	3
ABM 2903	Entrepreneurship (P)	3
ACT 1203	Accounting II (P)	3
AEQ 1153	Equipment Principles	3
AEQ 2303	Equipment Preventative Maintenance	3
AGR 2383	Water Management	3
ASI 1111	Introduction to Animal Marketing	1
ASI 1222	Advanced Livestock Evaluation & Judging (P)	2
ASI 1312	Livestock Judging I (P)	2
ASI 1351	Artificial Insemination of Beef Cattle	1
ASI 1432	Equine Care	2
ASI 2203	Feeds and Feeding (P)	3
ASI 2303	Range Management	3
ASI 2312	Livestock Judging II (P)	2
ASI 2313	Ration Formulation (P)	3
ASI 2352	Livestock & Animal Sales Management (P)	2
ASI 2353	Livestock Breeding	3
ASI 2412	Equine Marketing	2

	Techniques	
ASI 2452	Seedstock Preparation and Marketing	2
ASI 2513	Meat Science (P)	3
ASI 2604 Or VTS 1404	Livestock Anatomy & Physiology Anatomy and Physiology	4 4
ASI 2773	Advanced Reproductive Physiology	3
MGT 2103	Management Concepts	3
MGT 2503	Human Resource Management(P)	3

Total Credit Hours for Degree 76

Spring Internship
Associate of Applied Science
Suggested Sequence of Study

First Semester (Fall)

Course		Credit Hours
MTH 1403 Or MTH 1203 Or MTH 1503	Ag Math Int. Algebra College Algebra	3 3 3
ECN 1203	Economics	3
ASI 1011	Intro To Animal Science	1
ASI1253	Nutrition	3
ASI 1303	Animal Management	3
ASI 1213	Livestock and Carcass Evaluation	3
AIT 1092	Computers II	2
PSY 1011	Learning Communities *	1
	Total	**19**

Second Semester (Spring)

Course		Credit Hours
ASI 2906	Internship	6
SPC 1103	Sales Communications	3
PSY 1103	Human Relations	3
ASI 2203	Feeds and Feeding	3
ASI 1024	Fundamentals of Animal Biology	4
ASI 1312	Livestock Judging I**	2
	Total	**19-21**

Third Semester (Fall)

Course		Credit Hours
ACT 1103 Or ABM 2963	Accounting Farm Records	3 3
ASI 2853	Farm and Ranch Management	3
ASI 2384	Large Animal Diseases	4
ASI 2353	Livestock Breeding**	3
ASI 2303	Range Management**	3
ASI 2312	Livestock Judging II**	2
ASI 2604	Livestock Anatomy & Physiology**	4
	Total	**13-19**

Fourth Semester (Spring)

Course		Credit Hours
ENG 1503 Or ENG 1903	Business and Technical Writing College Composition	3 3
AGR 2943	APS Capstone	3
ASI 1204 Or ASI 2774	Feedlot Operations Beef Productions Systems	4 4
MKT 2203	Ag Marketing	3
ASI 2313	Ration Formulation**	3
ASI 1351	Artificial Insemination of Beef Cattle**	1
ASI 1432	Equine Care**	2
ASI 2513	Meat Science**	3
ASI 2773	Advanced Reproductive Physiology**	3
	Total	**19**

Total Credit Hours for Degree 76

Livestock Management

Summer Internship

Associate of Applied Science

Suggested Sequence of Study

First Semester (Fall)

Course		Credit Hours
MTH 1403	Ag Math	3
Or		
MTH 1203	Intermediate Algebra	3
Or		
MTH 1503	College Algebra	3
ECN 1203	Economics	3
ASI 1011	Intro. To Animal Science	1
ASI 1252	Nutrition	3
ASI 1303	Animal Management	3
ASI 1213	Livestock & Carcass Eval	3
AIT 1092	Computers II	2
PSY 1011	Learning Communities*	1
	Total	**17**

Second Semester (Spring)

Course		Credit Hours
SPC 1113	Speech	3
Or		
SPC 1103	Sales Communications	3
PSY 1103	Human Relations	3
ASI 2203	Feeds and Feeding	3
ASI 1024	Fundamentals of Animal Biology	4
Or		
BIO 1104	General Biology	4
Or		
CHM 1104	General Chemistry	4
Or		
CHM 1003	Ag Chemistry	3
ASI 1312	Livestock Judging I**	2
AEQ 1203	Welding**	3
	Total	**16**

Summer

ASI 2906	Internship	6
	Total	**6**

Third Semester (Fall)

Course		Credit Hours
ACT 1103	Accounting I	3
Or		
ABM 2963	Farm Records	3
ASI 2853	Farm and Ranch Management	3
ASI 2384	Large Animal Disease & Pharmacology	4
ASI 2353	Livestock Breeding**	3
ASI 2303	Range Management**	3
ASI 2312	Livestock Judging II**	2
ASI 2604	Livestock Anatomy & Physiology	4
Total		**18**

Fourth Semester (Spring)

Course		Credit Hours
ENG 1503	Business and Technical Writing	3
Or		
ENG 1903	College Composition	3
AGR 2943	APS Capstone	3
ASI1204	Feedlot Operations	4
Or		
ASI 2774	Beef Production Systems	4
MKT 2203	Ag Marketing	3
ASI 2313	Ration Formulation**	3
ASI 1351	Artificial Insemination of Beef Cattle**	1
ASI 1432	Equine Care**	2
ASI 2513	Meat Science**	3
ASI 2773	Advanced Reproductive Physiology**	3
ASI 2332	Livestock Judging III**	2
	Total	**19**

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 1101	Crop Science Lab	1
AGR 1103	Crop Science	3
Or		
ASI 1303	Animal Management	3

Twelve (12) additional hours of Agriculture Production Systems courses must be taken. VTS 1713 Pharmacology and Anesthesiology (3) and VTE 2733 Large Animal Diseases (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		**18**
ABM 2903	Entrepreneurship (P)	3
Or		
AGR 2943	APS Capstone (P)	3
ACT 1103	Accounting I	3
AGR 2906	Internship	6
ASI 2853	Farm & Ranch Management (P)	3
MGT 2103	Management Concepts	3
Or		
ABM 2963	Farm, Ranch & Small Business Record Keeping	3
	Total	**18**
Agriculture Education Curriculum Core		
ASI 1101	Introduction to Animal Science	1
ASI 1303	Animal Management	3
	Total	**4**
Agriculture Education Specialization Courses		
(Select 20 hours)		
AED 1101	Early Field Experience	1
AED 1103	Agricultural Education, Journalism & Leadership Careers	3
AED 1233	Planning Leadership & Experiential Programs	3
AED 2103	Youth Programs	3
AED 2503	Livestock Practicum	3
AGR 1103	Crop Science	3
AGR 1201	Principles of Soils Lab	1
AGR 1203	Principles of Soils	3
AGR 2303	Soil Fertility	3
AGR 2354	Pest Management	4
AGR 2383	Water Management	3
AGR 2404	Crop Management	4
ASI 2513	Meat Science (P)	3
ECN 1203	Microeconomics	3
ENG 2202	Advanced College Composition	3
MKT 2203	Ag Marketing	3
	Total	**20**
Advisor Guided Electives		**15-16**

Total Credit Hours for Degree 76

ANIMAL SCIENCE A TO B PRE-BACCALAUREATE PROGRAM

Associate of Applied Science Core		**18-19**
APS Major Core		
ABM 2903	Entrepreneurship (P)	3
Or		
AGR 2943	APS Capstone (P)	3
ACT 1103	Accounting I	3
ASI 2853	Farm & Ranch Management (P)	3
ASI 2906	Internship	6
MGT 2103	Management Concepts	3
Or		
ABM 2906	Farm, Ranch and Small Business Record Keeping	3
	Total	**18**
Animal Science Curriculum Courses		
ASI 1011	Introduction to Animal Science	1
ASI 1213	Livestock & Carcass Evaluation	3
ASI 1253	Nutrition	3
ASI 1303	Animal Management	3
	Total	**10**
Animal Science Specialization		

Focus Courses		
(Select 18 hours)		
ABM 2403	Finance (P)	3
ACT 1203	Accounting II (P)	3
ASI 1024	Fundamentals of Animal Biology	4
ASI 2203	Feeds & Feeding (P)	3
ASI 2384	Large Animal Diseases & Pharmacology	4
ASI 2513	Meat Science (P)	3
ASI 2604	Livestock Anatomy & Physiology	4
ECN 1203	Microeconomics*	3
ENG 2203	Advanced College Composition	3
MGT 2503	Human Resource Management	3
MTH 2203	Elements of Statistics (P)	3
MTH 2253	Trigonometry (P)	3
	Total	**18**
Advisor Guided Electives		**11-12**
	Total Credit	**76**

GRAZING LIVESTOCK SYSTEMS A TO B PRE BACCALAUREATE PROGRAM

Associate of Applied Science Core		**18-19**
APS Major Core		
ABM 2903 Or AGR 2943	Entrepreneurship (P) APS Capstone (P)	3 3
ACT 1103	Accounting I	3
ASI 2853	Farm & Ranch Management (P)	3
ASI 2906	Internship	6
MGT 2103 Or ABM 2906	Management Concepts Farm, Ranch and Small Business Record Keeping	3 3
	Total	**18**
Grazing Livestock Systems Curriculum Courses		
ASI 1011	Introduction to Animal Science	1
ASI 1213	Livestock & Carcass Evaluation	3
ASI 1253	Nutrition	3
ASI 1303	Animal Management	3
ASI 2303	Range Management	3
	Total	**13**
Grazing Livestock Systems Specialization Focus Courses		
(Select 18 hours)		
ABM 2403	Finance (P)	3
ACT 1203	Accounting II (P)	3
AGR 1103	Crop Science	3
AGR 1201	Principles of Soils Lab	1
AGR 1203	Principles of Soils	3
ASI 1024	Fundamentals of Animal Biology	4
ASI 2203	Feeds & Feeding (P)	3
ASI 2513	Meat Science (P)	3
ASI 2604	Livestock Anatomy & Physiology	4
CHM 2104	General Chemistry II	4
ECN 1203	Microeconomics	4
ENG 2203	Advanced College Composition	3
MGT 2503	Human Resource Management(P)	3
MTH 2203	Elements of Statistics (P)	3
MTH 2253	Trigonometry (P)	3
	Total	**18**
Advisor Guided Electives		**8-9**
	Total Credit	**76**

ASSOCIATE OF SCIENCE DEGREE

AGRONOMY 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.

		Credit Hours
Associate of Science Core		**25-26**
Agronomy Specialization		**24**
ACT 1103	Accounting II	3
ACT 1203	Accounting II	3
AGR 1103	Crop Science	3
AGR 1203	Principles of Soils	3
AGR 1201	Soils Lab	1
AGR 1213	Natural Resource Mgt.	3
AGR 2303	Soil Fertility	3
AGR 2404	Crop Management	4
ECN 1203	Microeconomics	3
ECN 1303	Macroeconomics	3
MKT 2203	Ag Marketing	3
PHL 1103	Critical Thinking	3
Advisor Guided Electives		**14-15**

Total Credit Hours for Degree 64

Suggested Sequence of Study

First Semester (Fall)

Course		Credit Hours
ACT 1103	Accounting I	3
AGR 1103	Crop Science	3
BIO 1313	Plant Science	3
BIO 1321	Agronomic Plant Sci. Lab	1
ECN 1203	Microeconomics	3
ENG 1903	College Composition	3
PSY 1011	Learning Communities	1
	Total	**17**

Second Semester (Spring)

Course		Credit Hours
AEQ 2323	Precision Farming Tech.	3
AGR 1213	Natural Resource Mgt.	3
AGR 1203	Principles of Soils	3
AGR 1201	Soils Lab	1
MTH 1503	College Algebra	3
SPC 1113	Speech	3
	Total	**16**

Third Semester (Fall)

Course		Credit Hours
ABM 2853	Farm and Ranch Mgt.	3
AGR 2303	Soil Fertility	3
CHM 1104	General Chemistry	4
HSL 1053	Landscape Appreciation	3
HTY 1303	Amer. History After 1877	3
	Total	**16**

Fourth Semester (Spring)

Course		Credit Hours
AGR 2002	Wildlife Habitat Mgt.	2
AGR 2404	Crop Management	4
ECN 1303	Macroeconomics	3
ENG 2203	Adv. English Composition	3
MKT 2203	Ag Marketing	3
	Total	**15**

Total Credit Hours for Degree 64

ASSOCIATE OF SCIENCE DEGREE AGRICULTURE EDUCATION

Associate of Science Core		**25-26**
Agriculture Education Specialization Focus Courses		
(Select 24 hours)		
ACT 1103	Accounting I	3
ACT 1203	Accounting II	3
AED 1101	Early Field Experience	1
AED 1103	Agricultural Education, Journalism & Leadership Careers	3
AED 1233	Planning Leadership & Experiential Programs	3
AED 2103	Youth Programs	3
AED 2503	Livestock Practicum	3
AEQ 1103	Small Engines	3
AEQ 1203	Welding	3
AGR 1201	Principles of Soils Lab	2
AGR 1203	Principles of Soils	3
ASI 1011	Intro to Animal Science	1
ASI 1213	Livestock & Carcass Evaluation	3
ASI 1303	Animal Management	3

ASI 2513	Meat Science	3
ECN 1203	Microeconomics	3
ECN 1303	Macroeconomics	3
PHL 1103	Critical Thinking	3
	Total	**24**
Advisor Guided Electives		**14-15**

Total Credit Hours for Degree 64

ASSOCIATE OF SCIENCE DEGREE
ANIMAL SCIENCE

Associate of Science Core		**25-26**
Animal Science Specialization Focus		
(Select 24 hours)		
ABM 2403	Finance (P)	3
ACT 1103	Accounting I	3
ACT 1203	Accounting II	3
ASI 1011	Introduction to Animal Science	1
ASI 1024	Fundamentals of Animal Biology	4
ASI 1213	Livestock & Carcass Evaluation	3
ASI 1253	Nutrition	3
ASI 1303	Animal Management	3
ASI 2203	Feeds and Feeding (P)	3
ASI 2384	Large Animal Diseases & Pharmacology	4
ASI 2513	Meat Science (P)	3
ASI 2604	Livestock Anatomy & Physiology	4
ECN 1203	Microeconomics	3
ECN 1303	Macroeconomics	3
MGT 2103	Management Concepts	3
MGT 2503	Human Resource Management (P)	3
PHL 1103	Critical Thinking	3
	Total	**24**
Advisor Guided Electives		**14-15**

Total Credit Hours for Degree 64

ASSOCIATE OF SCIENCE DEGREE
GRAZING LIVESTOCK

ASSOCIATE OF SCIENCE CORE		**25-26**
GRAZING LIVESTOCK SYSTEMS SPECIALIZATION FOCUS		
(Select 24 hours)		
ACT 1103	Accounting I	3
AGR 1201	Principles of Soils Lab	1
AGR 1203	Principles of Soils	3
ASI 1303	Animal Management	3
ASI 2303	Range Management	3
ASI 2513	Meat Science (P)	3
ASI 2604	Anatomy & Physiology	4
ECN 1203	Microeconomics	3
ECN 1303	Macroeconomics	3
MGT 2103	Management Concepts	3
PHL 1103	Critical Thinking	3
	Total	**24**
Electives		**14-15**

Total Credit Hours for Degree 64

CERTIFICATES

BEEF PRODUCTION EMPHASIS

TOTAL REQUIRED CORE COURSES		**6**
Emphasis Area (Select 12 hours)		
ASI 1011	Introduction to Animal Science	1
ASI 1213	Livestock & Carcass Evaluation	3
ASI 1253	Nutrition	3
ASI 1303	Animal Management	3
ASI 2203	Feeds and Feeding	3
ASI 2303	Range Management	3
ASI 2353	Livestock Breeding	3
ASI 2384	Livestock Diseases & Pharmacology	4
	Total	**12**
Electives		**12**

Total Credit – Certificate Hours 30

CROP PRODUCTION

TOTAL REQUIRED CORE COURSES		**6**
Crop Production Emphasis Area (Select 18 hours)		
AEQ 1153	Equipment Principles	3
AEQ 1203	Welding	3
AEQ 2303	Equipment Prevention Maintenance	3
AEQ 2323	Precision Farming Techniques	3
AEQ 2413	Diesel Engines	3
AGR 1101	Crop Science Lab	1
AGR 1103	Crop Science	3

AGR 1201	Principles of Soils Lab	1
AGR 1203	Principles of Soils	3
AGR 2303	Soil Fertility	3
AGR 2354	Pest Management	4
AGR 2383	Water Management	3
	Total	**18**
Electives		**6**

Total Credit – Certificate Hours 30

EQUINE CARE

TOTAL REQUIRED CORE COURSES		**6**
Emphasis Area (Select 12 hours)		
ASI 1011	Introduction to Animal Science	1
ASI 1161	Introduction to Horsemanship Seminar (P)	1
ASI 1253	Nutrition	3
ASI 1262	Basic Equitation (P)	2
ASI 1303	Animal Management	3
ASI 1432	Equine Care	2
ASI 1501	Equine Safety	1
ASI 2262	Equine Nutrition	2
ASI 2362	Advanced Equitation (P)	2
ASI 2383	Large Animal Diseases (P)	3
ASI 2411	Equine Marketing	1
ASI 2412	Equine Marketing Techniques	2
ASI 2433	Equine Industry Management I	3
ASI 2443	Equine Industry Management II	3
Electives		**12**

Total Credit – Certificate Hours 30

DIVERSIFIED AG CERTIFICATE

TOTAL REQUIRED CORE COURSES	**6**
Diversified Emphasis Area (Select 12 hours of ASI, AEQ or AGR classes)	**12**
Electives	**12**

Total Credit – Certificate Hours 30

IRRIGATION TECHNICIAN

REQUIRED COURSES		
AEQ 1501	Intro to Electric Code	1
AEQ 1503	DC Circuit Analysis	3
AEQ 1513	AC Circuit Analysis	3
AEQ 1523	Industrial Electricity	3
AEQ 2404	Mech. Irrigation Systems	4
AEQ 1172	Industrial Safety	2
AEQ 1203	Welding	3
MTH 1403	Ag Mathematics	3
SPC 1113	Sales Communications	1
PSY 1011	Learning Communities	3
PSY 1103	Human Relations	3
Electives		**5**

Total Credit – Certificate Hours 34

HORTICULTURE SYSTEMS

The **Horticulture Systems** major prepares students for careers in diverse areas of horticulture. The NCTA greenhouse and high tunnel, Nebraska Statewide Arboretum affiliate site and campus ground, and the surrounding community including Arrowhead Meadows Golf Course allow students to combine hands-on experience with classroom learning.

Faculty: Tee Bush, Assistant Professor

ASSOCIATE DEGREE OPTIONS
Turf and Landscape Management
Production
Landscape Design

BACCALAUREATE TRANSFER OPTIONS
Horticulture Transfer

PROGRAM OUTCOMES:

1. Demonstrate the skill and academic background needed to be successful in an above-entry level production, landscape design or turn and landscape management position.
2. Develop and demonstrate effective written, computer, and oral communication skills as related to the field of horticulture.
3. Perform the technical and mechanical skills necessary to be a successful horticulturist.
4. Demonstrate essential propagation and establishment techniques for various plant species.
5. Learn field, greenhouse, and high tunnel production techniques.
6. Identify pests and problems and be able to make management decisions based on observations.
7. Upon completion of the Turf and Landscape Management Option students will demonstrate proficiency in the competencies outlines in the Sports Turf Management Association, Golf Course Superintendents Associate of America and/or the Nebraska Nursery and Landscape Association.
8. Upon completion of the Production or Landscape Design options students will demonstrate proficiency in the competencies outline by the Nebraska nursery and Landscape Association.

Career Opportunities:
Graduates may consider employment as golf course superintendents, residential or commercial landscape managers, production supervisors, landscape designers or self-employment through entrepreneurship.

Internship:
An internship will be required for completion of the Horticulture Systems program. The internship will be a 4 credit hour course and should include 10-12 weeks of on-site training in an area of interest for the student.

Capstone:
A capstone course must be completed by the student prior to graduation the capstone will include a resume, a landscape design or management plan, and a portfolio or business plan. The capstone will be based around the student's career objectives and must include a real-life client and/or site.

Horticulture Systems Core Courses

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

Course		Credit Hours
HSL/HST	Internship (P)	4
AEQ 1103	Small Engines	3
AGR 1201	Principles of Soils Lab	1
AGR 1203	Principles of Soils	3
HSL 1001	Careers in Horticulture	1
HSL 1053	Landscape Appreciation	3
HSL 1073	Landscape Plants I	3
HSL1103	Plant Propagation	3
HST 1214	Fund. of Turfgrass Mgmt.	4
HSL 1253	Irrigation Systems Mgmt.	3
HSL 2143	Landscape Construction	3
HST 2353	Pest Management	3
HSL 2211	Capstone	1
	Total	**35**

Turf and Landscape Management
Associate of Applied Science

	Credit Hours
Associate of Applied Science Core	**18-19**
Horticulture Systems Core	**35**
Turf & Landscape Mgt. Option Courses	
AEQ 1213 Turf Equip. Maintenance	3
HSL 2044 Intro to Landscape Design Or HSL 2314 Greenhouse & Nursery Prod.	4 4
AGR 2303 Soil Fertility	3
AEQ 1503 DC Circuit Analysis	3
HSL 2283 Landscape Management	3
Electives	**6-7**

Total Credit Hours for Degree 76

Suggested Sequence of Study

First Semester (Fall)

Course		Credit Hours
AEQ 1103	Small Engines	3
HSL 1001	Careers in Horticulture	1
HSL 1053	Landscape Appreciation	3
HSL 1073	Landscape Plants I	3
BIO 1313	Plant Science	3
BIO 1331	Intro to Hort. Science Lab	1
HST 1214	Fund. Of Turfgrass Mgt.	4
PSY 1011	Learning Communities	1
	Total	**19**

Second Semester (Spring)

Course		Credit Hours
AEQ 1213	Turf Equip. Maintenance	3
AIT 1092	Computers II	2
AGR 1201	Principles of Soils Lab	1
AGR 1203	Principles of Soils	3
HSL 1103	Plant Propagation	3
HSL 1253	Irrigation Systems Mgt.	3
SPC 1103	Sales Communications	3
	Total	**18**

Summer

Course		Credit Hours
HST 2004	Internship	4
	Total	**4**

Third Semester (Fall)

Course		Credit Hours
ACT 1103	Accounting I	3
AEQ 1503	DC Circuit Analysis	3
AGR 2303	Soil Fertility	3
HSL 2044 Or HSL 2314	Intro to Landscape Design Greenhouse & Nursery Production	4 4
HSL 2143	Landscape Construction	3
HST 2353	Pest Management	3
	Total	**19**

Fourth Semester (Spring)

Course		Credit Hours
ENG 1503 Or ENG 1903	Business & Tech. Writing College Composition	3 3
HSL 2211	Capstone	1
HSL 2283	Landscape Management	3
MTH 1203 Or MTH 1403 Or MTH 1503	Intermediate Algebra Agricultural Math College Algebra	3 3 3
PSY 1103	Human Relations	3
General Electives		4
	Total	**16**

Landscape Design

Associate of Applied Science

	Credit Hours
Associate of Applied Science Core	**18-19**
Horticulture Systems Core	**35**
Landscape Design Option Courses	
HSL 1022 Graphic Design	2
HSL 1173 Landscape Plants II	3
ACT 1103 Accounting I	3
HSL 2044 Intro to Landscape Design	4
HSL 2102 Computer-Aided Landscape Design	2
HSL 2283 Landscape Mgt.	3
MGT 2103 Management Concepts	3
Electives	2-3

Total Credit Hours for Degree 76

Suggested Sequence of Study

First Semester (Fall)

Course	Credit Hours
AEQ 1103 Small Engines	3
HSL 1001 Careers in Horticulture	1
HSL 1053 Landscape Appreciation	3
HSL 1073 Landscape Plants I	3
BIO 1313 Plant Science	3
BIO 1331 Intro to Hort. Science Lab	1
HST 1214 Fund. Of Turfgrass Mgt.	4
PSY 1011 Learning Communities	1
Total	**19**

Second Semester (Spring)

Course	Credit Hours
AGR 1201 Principles of Soils Lab	1
AGR 1203 Principles of Soils	3
AIT 1903 Computers II	2
HSL 1022 Intro to Art	2
HSL 1103 Plant Propagation	3
HSL 1173 Landscape Plants II	3
HSL 1253 Irrigation Systems Mgt.	3
Total	**17**

Summer

Course	Credit Hours
HSL 2004 Internship	4
Total	**4**

Third Semester (Fall)

Course	Credit Hours
ACT 1103 Accounting I	3
HSL 2044 Intro to Landscape Design	4
HSL 2143 Landscape Construction	3
HST 2352 Pest Management	3
PSY 1103 Human Relations	3
SPC 1103 Sales Communications	3
Total	**19**

Fourth Semester (Spring)

Course	Credit Hours
ENG 1503 Business & Tech. Writing	3
Or	
ENG 1903 College Composition	3
HSL 2102 Computer-Aided Landscape Design	2
HSL 2211 Capstone	1
HSL 2283 Landscape Management	3
MGT 2103 Management Concepts	3
MTH 1203 Intermediate Algebra	3
Or	
MTH 1403 Agricultural Math	3
Or	
MTH 1503 College Algebra	3
General Elective	2
Total	**17**

Production

Associate of Applied Science

	Credit Hours
Associate of Applied Science Core	**18-19**
Horticulture Systems Core	**35**
Landscape Design Option Courses	
HSL 1173 Landscape Plants II	3
HSL1253 Irrigation Systems Mgt.	3
ACT 1103 Accounting I	3
HSL 2304 Greenhouse & Nursery Prod.	4
HSL 2283 Landscape Mgt.	3
HSL 2322 Organic Horticulture	2
MGT 2103 Management Concepts	3
Electives	1-2

Total Credit Hours for Degree 76

Suggested Sequence of Study

First Semester (Fall)

Course	Credit Hours
AEQ 1103 Small Engines	3
HSL 1001 Careers in Horticulture	1
HSL 1053 Landscape Appreciation	3
HSL 1073 Landscape Plants I	3
BIO 1313 Plant Science	3
BIO 1331 Intro to Hort. Science Lab	1
HST 1214 Fund. of Turfgrass Mgt.	4
PSY 1011 Learning Communities	1
Total	**19**

Second Semester (Spring)

Course	Credit Hours
AIT 1092 Computers II	2
AGR 1201 Principles of Soils Lab	1
AGR 1203 Principles of Soils	3
ENG 1503 Business & Tech. Writing	3
Or	
ENG 1903 College Composition	3
HSL 1103 Plant Propagation	3
HSL 1173 Landscape Plants II	3
HSL 1253 Irrigation Systems Mgt.	3
Total	**18**

Summer

Course	Credit Hours
HSL 2004 Internship	4
Total	**4**

Third Semester (Fall)

Course	Credit Hours
ACT 1103 Accounting I	3
HSL 2143 Landscape Construction	3
HSL 2304 Greenhouse & Nursery Production	4
HST 2332 Pest Management	3
PSY 1103 Human Relations	3
SPC 1103 Sales Communications	3
Total	**19**

Fourth Semester (Spring)

Course	Credit Hours
HSL 2211 Capstone	1
HSL 2283 Landscape Management	3
HSL 2322 Organic Horticulture	2
MGT 2103 Management Concepts	3
MTH 1203 Intermediate Algebra	3
Or	
MTH 1403 Agricultural Math	3
Or	
MTH 1503 College Algebra	3
General Electives	4
Total	**16**

Horticulture Transfer Option

Associate of Science

	Credit Hours
Associate of Science Core	**26**
HSL/HST Internship (P)	4
AEQ 1103 Small Engines	3
AGR 1201 Principles of Soils Lab	1
AGR 1203 Principles of Soils	3
HSL 1001 Careers in Horticulture	1
HSL 1073 Landscape Plants I	3
HSL1103 Plant Propagation	3
HST 1214 Fund. of Turfgrass Mgmt.	4
HSL 1253 Irrigation Systems Mgmt.	3
HSL 2143 Landscape Construction	3
HST 2353 Pest Management	3
HSL 2211 Capstone	1
MGT 2103 Management Concepts	3
ACT 1103 Accounting I	3

Total Credit Hours for Degree 64

Suggested Sequence of Study

First Semester (Fall)

Course	Credit Hours
AEQ 1103 Small Engines	3
BIO 1313 Plant Science	3
BIO 1331 Intro to Hort. Science Lab	1
HSL 1001 Careers in Horticulture	1
HSL 1053 Landscape Appreciation	3
HSL 1073 Landscape Plants I	3
PSY 1011 Learning Communities	1
Total	**15**

Second Semester (Spring)

Course	Credit Hours
AGR 1201 Principles of Soils Lab	1
AGR 1203 Principles of Soils	3
CHM 1104 General Chemistry	4
ENG 1903 College Composition	3
HSL 1103 Plant Propagation	3
Total	**14**

Summer

Course	Credit Hours
HSL 2004 Internship	4
Total	**4**

Third Semester (Fall)

Course	Credit Hours
HSL 2143 Landscape Construction	3
HST 1214 Fund. of Turfgrass Mgt.	4
HST 2353 Pest Management	3
ECN 1203 Microeconomics	3
Or	
ECN 1303 Macroeconomics	3
SPC 1113 Speech	3
Total	**16**

Fourth Semester (Spring)

Course	Credit Hours
ACT 1103 Accounting I	3
ENG 2203 Adv. College Composition	3
HSL 1253 Irrigation Systems Mgt.	3
HSL 2211 Capstone	1
MGT 2103 Management Concepts	3
MTH 1503 College Algebra	3
Total	**16**

Horticulture Certificate

Course	Credit Hours
Select 6 hours from below:	
ENG 1503 Business & Tech. Writing	3
Or	
ENG 1903 College Composition	3
PSY 1103 Human Relations	3
SPC 1103 Sales Communications	3
Or	
SPC 1113 Speech	3
Select 12 hours from below:	
AEQ 1103 Small Engines	3
HSL 1001 Careers in Horticulture	1
HSL 1053 Landscape Appreciation	3
HSL 1073 Landscape Plants I	3
HSL 1103 Plant Propagation	3
HSL 1173 Landscape Plants II	3
HSL 1253 Irrigation Systems Mgt.	3
HSL 2044 Intro. To Landscape Design	4
HSL 2143 Landscape Construction	3
HSL 2283 Landscape Management	3
HSL 2322 Organic Horticulture	4
HSL 2304 Greenhouse & Nursery Production	4
HST 1214 Fund. of Turfgrass Mgt.	4
HST 2352 Pest Management	3
Advisor Guided Electives	**12**

Total Credit Hours 30

VETERINARY TECHNOLOGY SYSTEMS

Division Chair: Barbara Berg, Assistant Professor

Faculty: Ricky Sue Barnes Wach D.V.M., Professor
Judy Bowmaster Cole, Assistant Professor
Steve Krull D.V.M., Lecturer
Cory Heath D.V.M., Assistant Professor

ASSOCIATE OF APPLIED SCIENCE DEGREE OPTIONS

Veterinary Technician Option
- Eligible to sit for the National Veterinary Technician Exam and become a Licensed Veterinary Technician

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

Agribusiness Management Minor
See Business section of College Catalog.

Agriculture Productions Systems Minor
See Agriculture Production section of College

BACCALAUREATE TRANSFER OPTIONS

Veterinary Technologist Transfer Option
- Capstone with UNL Veterinary Science

Veterinary Technology Transfer Option
- Associate of Science

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.

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 & Licensing:
Graduation with the Veterinary Technician Option requires 80 credit hours, exit exam, and a CGPA of 3.0. 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 (Veterinary Technical National Exam), and become licensed with the state.

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 Veterinary Technician National Licensing Exam 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 credit hours of observation in a veterinary clinic, 80 credit hours of structured classes covering AVMA essential skills, a 12 week internship, passing the exit exam, and a CGPA of 80%.**

Final Assessment:
There is a final assessment for each college wide option. It is offered the end of each student's last semester.

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

Course Information is accurate at the time of publishing and may be subject to change. For more information, contact admissions at 308-367-5243.

Electives for VTS Options:

Course	
VTE 1021	Basic Dog Grooming
VTE 1611	Concepts in Bitting
VTE 1621	Calving Rotation
VTE 2621	Calving Rotation II
VTE 1633	Equine Diseases & Pharmacology
VTE 2001	Licensing Prep
VTE 2011	Lifelong Learning I
VTE 2081	Lifelong Learning II
VTE 2021	Special Interest
VTE 2031	Emergency Medicine
VTE 2032	The World of Work
VTE 2041	Making a Difference
VTE 2101	Dog Obedience
VTE 2121	Adv. Dog Obedience
VTE 2322	Intro to the Vet Office
VTE 2342	Spanish for the Vet Tech
VTE 2422	Hills Small Animal Nutrition
VTE 2423	Canine and Feline Nutrition
VTE 2522	Exotic Pet Selection & Care
VTE 2542	Walk on the Wild Side
VTE 2553	Exotic Animal Care
VTE 2573	Safari
VTE 2611	Equine Reproduction
VTE 2631	Eq. Dentistry as a Business
VTE 2632	Equine Dentistry II
VTE 2634	Equine Dentistry
VTE 2743	Vet Tech Overview
VTE 2811	Ultrasound
VTE 2821	Radiation Safety
VTE 2933	Pain Management

Veterinary Technician Option

Associate of Applied Science

Veterinary Technician Option Entrance Requirements:

An ACT Score (or equivalent) of 18 or higher is necessary to enroll in the Veterinary Technician Option. Successful transfer students who do not have an ACT score, with division permission may enroll in any of the 5 options. The Animal Husbandry, Equine Health Care, Veterinary Assistant and Animal Health Management Option are open to all students. If desired, one may switch to the Veterinary Technician Option after 36 successful (2.5 CGPA) credit hours in one of the other Veterinary Technology Options.

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 Technology 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 80 required credit hours by the end of the semester. The exit exam is administered the last week in April each year.

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

Each written section is 50-100 questions in length. Tests are taken during designated times. Results will be posted by ID number by 9:00 a.m. on the repeat test day.

		Credit Hours
Associate of Applied Science Core		**18-19**
Veterinary Technology Courses		**58**
VTS 2244	Internship	4

Total Credit Hours for Degree 80

Suggested Sequence of Study

First Semester (Fall)

Course		Credit Hours
ASI 1011	Intro to Animal Science	1
PSY 1011	Learning Communities	1
VTS 1301	Medical Terminology	1
MTH 1203	Intermediate Algebra	3
Or		
MTH 1503	College Algebra	3
Or		
VTS 1314	Math for Vet Techs	4
VTS 1404	Anatomy & Physiology	4
VTS 1513	Animal Care	3
VTS 1542	Animal Facility Mgt.	2
VTS 1603	Intro to Microbiology	3
	Total	**18-19**

Second Semester (Spring)

Course		Credit Hours
AIT 1092	Computers II	2
ASI 1024	Fund. Of Animal Biology	4
Or		
BIO 1104	General Biology	4
Or		
CHM 1003	Agriculture Chemistry	3
Or		
CHM 1104	General Chemistry	4
VTS 1521	Production Animals (P)	1
VTS 1713	Pharmacy & Anesthesia	3
VTS 1822	Radiology I	2
VTS 2583	Nursing I	3
VTS 2652	Clinical Pathology	2
	Total	**20-21**

Summer

Course		Credit Hours
VTS 1532	Large Animal Clinicals	2
VTS 2823	Radiology II	3
VTS 2563	Fur & Feather	3
	Total	**8**

Third Semester (Fall)

Course		Credit Hours
PSY 1103	Human Relations	3
VTS 2532	Large Animal Techniques	2
VTS 2541	Biosecurity & Disease Prevent.	1
VTS 2593	Nursing II (P)	3
VTS 2662	Clinical Pathology II (P)	2
VTS 2733	Diseases of Vet Med & Necropsy	3
VTS 2933	Anesthesiology (P)	3
VTS 2331	Clinical Practices	**1**
	Total	**17-18**

Fourth Semester (Spring)

Course		Credit Hours
ASI 2262	Equine Nutrition	2
Or		
ASI 1253	Livestock Nutrition	3
Or		
VTE 2422	Hills Small Animal Nutrition	2
Or		
VTE 2423	Canine & Feline Nutrition	3
VTS 2241	Career Strategies (P)	1
VTS 2672	Clinical Pathology III (P)	2
VTS 2953	Surgery Prep (P)	4
ENG 1503	Business & Technical Writing	3
Or		
ENG 1903	College Composition	3
SPC 1103	Sales Communications	3
Or		
SPC 1113	Speech	3
VTS 2331	Clinical Practices	1
Choose an Elective		1
	Total	**17-18**

Summer

Course		Credit Hours
VTS 2244	Internship	4
	Total	**4**

Veterinary Assistant Option

Associate of Applied Science

		Credit Hours
Associate of Applied Science Core		**18-19**
Veterinary Technology Courses		**58**
VTS 2244	Internship	4

Suggested Sequence of Study

First Semester (Fall)

Course		Credit Hours
ASI 1011	Intro to Animal Science	1
PSY 1011	Learning Communities	1
VTS 1301	Medical Terminology	1
MTH 1203	Intermediate Algebra	3
Or		
MTH 1503	College Algebra	3
Or		
VTS 1314	Math for Vet Techs	4
VTS 1404	Anatomy & Physiology	4
VTS 1513	Animal Care	3
VTS 1542	Animal Facility Mgt.	2
VTS 1603	Intro to Microbiology	3
	Total	**18-19**

Second Semester (Spring)

Course		Credit Hours
AIT 1092	Computers II	2
ASI 1024	Fund. Of Animal Biology	4
Or		
BIO 1104	General Biology	4
Or		
CHM 1003	Agriculture Chemistry	3
Or		
CHM 1104	General Chemistry	4
VTS 1521	Production Animals (P)	1
VTS 1713	Pharmacy & Anesthesia	3
VTS 1822	Radiology I	2
VTS 2583	Nursing I	3
VTS 2652	Clinical Pathology	2
	Total	**20-21**

Summer

Course		Credit Hours
VTS 1532	Large Animal Clinicals	2
VTS 2823	Radiology II	3
VTS 2563	Fur & Feather	3
	Total	**8**

Third Semester (Fall)

Course		Credit Hours
PSY 1103	Human Relations	3
VTS 2532	Large Animal Techniques	2
VTS 2541	Biosecurity & Disease Prevent.	1
VTS 2593	Nursing II (P)	3
VTS 2662	Clinical Pathology II (P)	2
VTS 2733	Diseases of Vet Med & Necropsy	3
VTS 2933	Anesthesiology (P)	3
	Total	**17**

Fourth Semester (Spring)

Course		Credit Hours
ASI 2262	Equine Nutrition	2
Or		
ASI 1253	Livestock Nutrition	3
Or		
VTE 2422	Hills Small Animal Nutrition	2
Or		
VTE 2423	Canine & Feline Nutrition	3
VTS 2241	Career Strategies (P)	1
VTS 2672	Clinical Pathology III (P)	2
VTS 2953	Surgery Prep (P)	4
ENG 1503	Business & Technical Writing	3
Or		
ENG 1903	College Composition	3
SPC 1103	Sales Communications	3
Or		
SPC 1113	Speech	3
Choose an Elective		1
	Total	**16-17**

Summer

Course		Credit Hours
VTS 2244	Internship	4
	Total	**4**

Total Credit Hours for Degree 76

Animal Husbandry Option

Associate of Applied Science

	Credit Hours
Associate of Applied Science Core	**18-19**
Veterinary Technology Courses	**32-36**
Veterinary Technology or Ag Production Courses	14
Open Electives	7
VTS 2244 Internship	4

Total Credit Hours for Degree 76

Suggested Sequence of Study

First Semester (Fall)

Course		Credit Hours
VTS 1542 ASI 1442	Facility Mgt I or Equine Practicum I	2
PSY 1011	Learning Communities	1
VTS 1313 MTH 1203 MTH 1503	Math for Vet Techs or Intermediate Algebra or College Algebra	3
General Education Courses		2-4
Veterinary Technology Courses		2-4
Vet Tech or Ag Production Courses		2-4
Open Electives		2
	Total	**18**

Second Semester (Spring)

Course		Credit Hours
VTS 1822 VTE 2821	Radiology I or Radiation Safety	1-2
VTE 1542 VTE 2552 ASI 1442	Facility Mgt I or Facility Mgt II or Equine Practicum I	2
General Education Courses		2-4
Veterinary Technology Courses		2-4
Vet Tech or Ag Production Courses		2-4
Open Electives		2
	Total	**18**

Summer

Course		Credit Hours
VTE 1542 VTE 2552 ASI 1442	Facility Mgt I or Facility Mgt II or Equine Practicum I	2
Veterinary Technology Courses		2-4
OR VTS 2244	Internship	4
	Total	4-6

Third Semester (Fall)

Course		Credit Hours
VTE 1542 VTE 2552 ASI 1442	Facility Mgt I or Facility Mgt II or Equine Practicum I	2
General Education Courses		2-6
Veterinary Technology Courses		2-8
Vet Tech or Ag Production Courses		2-4
Open Electives		2
	Total	**18**

Fourth Semester (Spring)

Course		Credit Hours
VTE 1542 VTE 2552 ASI 1442	Facility Mgt I or Facility Mgt II or Equine Practicum I	2
General Education Courses		2-6
Veterinary Technology Courses		2-8
Vet Tech or Ag Production Courses		2-4
Open Electives		2
	Total	**18**

Summer

Course		Credit Hours
VTS 2244	Internship	4
	Total	**4**

Equine Health Care Option

Associate of Applied Science

		Credit Hours
Associate of Applied Science Core		**18-19**
VT Equine Health Care Courses		**54**
VTS 2244	Internship	4

Total Credit Hours for Degree 76

Suggested Sequence of Study

First Semester (Fall)

Course		Credit Hours
ASI 1011	Intro to Animal Science	1
ASI 1501	Equine Safety	1
BIO 1104 Or CHM 1003 Or CHM 1104	General Biology Agriculture Chemistry General Chemistry	4 3 4
MTH 1203 Or MTH 1503	Intermediate Algebra College Algebra	3 3
Or VTS 1314	Math for Vet Techs	3
PSY 1103	Human Relations	3
PSY 1011	Learning Communities	1
VTS 1301	Medical Terminology	1
VTS 1603	Intro to Microbiology	3
	Electives	**0-2**
	Total	**16-20**

Second Semester (Spring)

Course		Credit Hours
AIT 1092	Computers II	2
ASI 1432	Equine Care	2
ASI 1442	Equine Practicum	2
ASI 2262	Equine Nutrition	2
ENG 1503 Or ENG 1903	Business & Tech. Writing College Composition	3 3
SPC 1103 Or SPC 1113	Sales Communication Speech	3 3
VTS 1521	Production Animals	1
VTS 1822	Radiology I	2
	Electives	0-3
	Total	**16-20**

Summer

Course		Credit Hours
VTS 1532	Large Animal Clinicals	2
VTS 2823	Radiology II	3
	Electives	**1-4**
	Total	**6-10**

Third Semester (Fall)

Course		Credit Hours
ACT 1103	Accounting I	3
ASI 2433	Equine Industry Mgt	3
ASI 2442	Equine Practicum II	2
VTE 1613	Equine Lab Diagnostics	3
VTE 1633	Equine Diseases & Pharm.	3
Electives		2-6
	Total	**16-20**

Fourth Semester (Spring)

Course		Credit Hours
ASI 2233	Equine Law & Finance Mgt.	3
ASI 2443	Equine Industry Mgt. II	3
VTE 2611	Equine Reproduction	1
VTE 2612	Equine Emergency. Med & Nursing	2

VTE 2613	Eq. Ax & Surgery	3
VTS 2241	Career Strategies	1
	Electives	3-7
	Total	**16-20**

Summer

Course		Credit Hours
VTS 2244	Internship	4
	Total	**4**

Electives to Choose From

Course	Credit Hours
Intro to Horsemanship	1
Concepts in Bitting	1
Lg Animal Techniques	2
Biosecurity	1
Basic Equitation	2
Equine Dentistry (P)	4
Equine Industry Topics	2

Animal Health Management

Associate of Applied Science

	Credit Hours
Associate of Applied Science Core	**18-19**
Veterinary Technology Courses, Business and Ag Production Courses	**54**
VTS 2244 Internship	4

Total Credit Hours for Degree 76

Suggested Sequence of Study -

First Semester (Fall)

Course		Credit Hours
ACT 1103	Accounting I	3
PSY 1011	Learning Communities	1
VTS 1301	Medical Terminology	1
VTS 1603	Intro to Microbiology	3
ASI 1501	Equine Safety	1
Choose one of the following		
MTH 1203	Intermediate Algebra	3
MTH 1503	College Algebra	3
VTS 1314	Math for Vet Techs	3
VTS Course's		2-4
ABM, AIT, ECN, MKT Course's		2-4
APS, ASI, Course's		**0-3**
	Total	**16-20**

Second Semester (Spring)

Course		Credit Hours
AIT 1092	Computers II	2
ABM 2203	Office Practices	3
ENG 1903	College Composition	3
ACT 1203	Accounting II (P)	3
VTE 2821 VTS 1822	Radiation Safety or Radiology I	1-2
VTS Course's		2-4
ABM, AIT, ECN, MKT Course's		2-4
APS, ASI, Course's		**0-3**
	Total	**16-20**

Third Semester (Fall)

Course		Credit Hours
MGT 2103	Management Concepts	3
MGT 2503	Human Resource Mgt.	3
PSY 1103	Human Relations	3
VTE 2322	Intro to the Vet Office	2
VTS 2541	Biosecurity & Disease	1
VTS Course's		2-4
ABM, AIT, ECN, MKT Course's		2-4
APS, ASI, Course's		**0-3**
	Total	**16-20**

Fourth Semester (Spring)

Course		Credit Hours
Choose one of the following		
ASI 2262	Equine Nutrition	2
ASI 1253	Livestock Nutrition	3
VTE 2422	Hills Small Animal Nutrition	2
VTE 2423	Canine & Feline Nutrition	3
VTS 2241	Career Strategies	1
Choose one of the following		
ASI 1024	Fund. Of Animal Bio	4
BIO 1104	General Biology	4
CHM 1003	Agriculture Chemistry	3
OHM 1104	General Chemistry	4
Choose one of the following		
SPC 1103	Sales Communication	3
SPC 1113	Speech	3
VTS Course's		2-4
ABM, AIT, ECN, MKT Course's		2-4
APS, ASI, Course's		**0-3**
	Total	**16-20**

1st or 2nd Summer

Course		Credit Hours
VTS 2244	Internship	4
	Total	**4**

Veterinary Technology Course List

VTS 1404 Anatomy & Physiology
VTS 1513 Animal Care

VTS 1521	Production Animals
VTS 2321	Clinical Practices
VTS 1713	Pharmacology & Anesthesiology
VTS 2823	Diseases of Veterinary Medicine
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	Ultra Sound

ABM, ECN, AIT, ASI, 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
ASI 2223	Equine Law & Financial Mgt (P)
ABM 2903	Entrepreneurship
MKT 2103	Retail Marketing
ASI 1011	Intro to Animal Science
ASI 2861	Brand Inspection & Safety
ASI 2862	Feedlot Cattle Safety Seminar

CERTIFICATE
Animal Health Care

Course	Credit Hours
Select 6 hours from the following	
VTS 1314 Math for Vet Techs	**3**
PSY 1011 Learning Communities	**1**
AIT 1092 Computers II	**2**
ENG 1903 College Composition	**3**
SPC 1103 Sales Communications	**3**
SPC 1113 Speech	**3**
PSY 1103 Human Relations	**3**
CHM 1003 Ag Chemistry	**3**
BIO 1003 Biological Science	**3**
ABM Personal Finance	**3**
Select 12 hours from VTS or VTE Courses	
Select 12 advisor guided electives	
Total Credit Hours	**30**

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 1003 Agricultural Chemistry 3 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, one year of high school chemistry 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 contest, criticism, and interpretation of short fiction.

ENG 2203 Advanced College Composition 3 Hr
(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.

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, hypotheses 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.

PAE 1021 Golf 1 Hr
A course designed to introduce the student to the sport of golf. Emphasis will be placed on teaching fundamental skills, rules and history. Student will participate individually and as a team.

PAE 1031 Basketball 1 Hr
Credit for participation and competition in intercollegiate basketball.

PAE 1041 Volleyball 1 Hr
Credit for participation and competition in intercollegiate volleyball.

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.

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 2853 Farm and Ranch Management-3 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 2953 Nebraska EDGE 3 Hrs
Entrepreneurial training program designed to encourage the expansion of small businesses including agriculture operations. Concepts covered include feasibility of the business, industry research, marketing strategies, and financial statements. Students completing the course will draft a detailed business plan.

ABM 2963 Farm, Ranch, and Small Business Record Keeping 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.

ACT 1203 Accounting II 3 Hrs
(Pre req: ACT 1103) 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.

AIT 0080 Introduction to Computers I 1 Hr
An introduction to Windows, Word, Power Point, and the World Wide Web.

AIT 1072 Introduction to Databases 2 Hrs
(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.

AIT 1092 Computers II 2 Hrs
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.

AJT 1101 Creative Editing/Publishing 1 Hr
Practice in producing publications. Students will serve as writers, photographers, designers, illustrators, and editors to produce the NCTA Year in Review.

ECN 1203 Microeconomics 3 Hrs
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.

ECN 1303 Macroeconomics 3 Hrs
(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.

ECN 1403 Economics of World Food and Agriculture 3 Hrs
(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.

MGT 2103 Management Concepts 3 Hrs
(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.

MGT 2503 Human Resource Management 3 Hrs
(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.

MKT 2103 Retail Marketing 3 Hrs
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.

MKT 2203 Ag Marketing 3 Hrs
(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.

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.

AGRICULTURE PRODUCTION SYSTEMS

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.

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 3 Hrs
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 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 2906 Internship 6 Hrs

Students will be required to accept a 12-week intensive dealership experience.

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 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. **3 Hrs**

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 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 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 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 2303 Soil Fertility 3 Hrs

Fertility requirements of major, minor, and horticulture crops grown in Nebraska. Proper fertility management will be emphasized. Characteristics of the fertilizer material, rate calculations and effects on the soil will be studied. About 20% of the course will be in a laboratory setting.

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 the approved cultural practices for crops in the Midwest. Seed selection, production, drying, and storage will also be studied. Students will conduct their own enterprise evaluation. Lab will be approximately 20% of the course.

AGR 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.

AGR 2943 Agriculture Production Systems Capstone 3 Hrs
(Pre req: Second year students only in their last semester before graduation.) This is a Capstone course for students in APS. 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.

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
Ranch Horse Team is really just a horse training class. There are only about 5 fundamentals a horse needs to learn to be a good broke horse. You just combine these 5 fundamentals to be able to accomplish any maneuver no matter what discipline you want to ride in. We have a lecture and riding portion to our class. We show video from many different trainers showing their methods for teaching these 5 fundamentals. We don't endorse

any trainer 100%. What we do is encourage each student to take from all methods of training to establish their own method of training. You don't have to show to join Ranch Horse Team. You can join the team even if you don't have a horse of your own. NCTA can provide you with a school horse. 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. Right now 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.

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 1262 Basic Equitation 2 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

Ranch Horse Team is really just a horse training class. There are only about 5 fundamentals a horse needs to learn to be a good broke horse. You just combine these 5 fundamentals to be able to accomplish any maneuver no matter what discipline you want to ride in. We have a lecture and riding portion to our class. We show video from many different trainers showing their methods for teaching these 5 fundamentals. We don't endorse any trainer 100%. What we do is encourage each student to take from all methods of training to establish their own method of training. You don't have to show to join Ranch Horse Team. You can join the team even if you don't have a horse of your own. NCTA can provide you with a school horse. 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. Right now 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.

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 1471 Horse Show Team Seminar 1 Hr
This class is designed to help first year students build and perfect skills for the horse show arena. This course will focus on practice for specific events, horsemanship, video critiques, and guest clinicians. Both stock seat and hunt seat disciplines will be included in this class. This course is limited to IHSA Horse Show Team members in their first and second semesters at NCTA.

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 feedstuffs, 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.

ASI 2362 Advanced Equitation 2 Hrs
(Pre req: ASI 1262 or permission, limited enrollment) This class addresses the study and application of equine and rider maneuvers basic to performance excellence. Students will be expected to show satisfactory progress toward standards of excellence in Western and English disciplines **3 Hrs**

ASI 2384 Large Animal Diseases & Pharmacology 4 Hrs
Students study the etiologies of animal disease as it relates to the major classes of domestic livestock. The study includes investigation of specific livestock diseases, disease control measures and basic sanitation parasite management, pharmacological principles, antibiotics, and fundamental immunology in domestic animals. Important zoonoses are covered along with the principles of Beef Quality Assurance.

ASI 2412 Equine Marketing Techniques 2 Hrs
This class is designed to give students the experience of creating a sale from start to finish. It includes working with horses to creating the sale catalog.

ASI 2433 Equine Industry Management I 3 Hrs
A study of the light horse production with emphasis on nutrition, reproduction, management, and principle usage of light horses. Courses such as horse production, Equine care, Advertising and Merchandising opens doors to a variety of careers in the horse industry.

ASI 2442 Equine Practicum II 2 Hrs
This course will introduce second year Equine Industry Management students to hands-on equine activities of care, feeding, grooming, and supervisory barn management. Students enrolled in this course will work at the horse barn with the NCTA horses.

ASI 2452 Seedstock Preparation and Marketing 2 Hrs
This course is designed to prepare students to address preparation of livestock to be marketed through seedstock and other marketing programs.

ASI 2462 Colt Starting 2 Hrs
(By Permission) This course is an application in basic colt starting principles for the advanced rider. Basic young horse handling practices and safety issues will be studied and applied.

ASI 2443 Equine Industry Management II 3 Hrs
This course of study is designed for students who wish to pursue a career in horse production. The curriculum involves both classroom and applied study primarily aimed at the production aspect of the horse industry. At the end of the program students will be tested to demonstrate competencies needed for success in the chosen area of horse production.

ASI 2471 Horse Show Team Seminar 1 Hr
This class is designed to help second year students build and perfect skills for the horse show arena. This course will focus on practice for specific horse show events, both stock seat and hunt seat. The course will utilize video critiques, reviews, and guest clinicians. This course is limited to IHSA Horse Show Team members with a CGPA of 2.5 and above who have been IHSA members for more than two semesters.

ASI 2513 Meat Science 3 Hrs
(Pre req: ASI 1303) This course covers physical and chemical aspects associated with structure and composition of meat. Conversion of muscle to meat and principles relative to fresh and processed meats, storage, microbiology, palatability, and nutritive values will be discussed in depth. Hormonal influence on growth, development, and final product will also be covered.

ASI 2604 Livestock Anatomy and Physiology 4 Hrs
Livestock Anatomy and Physiology is a combined lecture and laboratory course dealing with the anatomy and physiology of common domestic livestock. The course studies basic tissues utilizing a systems approach to the organs of the body. Also a review of basic cellular biology with the intent of applying it to individual organ tissues is covered.

ASI 2611 Equine Reproduction 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.

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 2853 Farm and Ranch Management 3 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.

HORTICULTURE SYSTEMS

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 medias. 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 world-wide will be explored as well 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 1144 Horticulture Science 4 Hrs
An introductory course covering the scientific principles of plant growth and development. Lab activities involve practical application of scientific principles.

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 1253 Irrigation Systems Mgt. 3 Hrs
Class shall cover the basic fundamentals involved in irrigation system installation and maintenance. Emphasis shall be in designing a residential-commercial irrigation system that is efficient both for installation as well as for water conservation. Product choices, material options, and types of green industry equipment being used shall be covered. Principles of irrigation design, installation, maintenance, and drainage.
Specific information about selecting heads, pipes, pumps, hydraulics, and automated control systems.

HSL 2004 Internship 4 Hrs
(Pre req: Approval by Division Chair) The student's landscaping internship is typically taken during the first or second summer session and lasts a minimum of at least 8 forty-hour weeks (320 hours). Work experience location must be pre-approved. Before work begins, official agreements are entered into between the student, the employer, and the college. At the conclusion of the internship, the student will be expected to submit an hourly journal detailing their daily work assignments, a written report about their internship experience; and deliver a 20 minute PowerPoint presentation to NCTA faculty, staff, and students. The student and employee will also be asked to complete a survey at the conclusion of the internship. It is the responsibility of the student to secure an internship and submit the agreement for approval. Faculty will provide assistance when possible.

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 Landscaping 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 with the student. A student is expected to complete a minimum of 32 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 2211 Horticulture Capstone 1 Hr
An advanced course dealing with "Green Industry" career oriented subject matter that the student has special interests in. Subject matter will be supported by past academic studies, data/research materials, and outside Green Industry groups. Student shall be required to submit and report subject matter and research to others.

HSL 2262 Landscaping 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.

HST 1214 Fund of Turf Management 4 Hrs
Identification of grass plant species, culture and morphology; turf ecology with practical information on turf establishment, and cultural practices.

HST 2004 Internship 4 Hrs
(Pre req: Approval by Division Chair) The student's turf internship is typically taken during the first or second summer session and lasts a minimum of at least 8 forty-hour weeks (320 hours). Work experience location must be pre-approved. Before work begins, official agreements are entered into between the student, the employer, and the college. At the conclusion of the internship, the student will be expected to submit an hourly journal detailing their daily work assignments, a written report about their internship experience; and deliver a 20 minute PowerPoint presentation to NCTA faculty, staff, and students. The student and employee will also be asked to complete a survey at the conclusion of the internship.

HST 2181 Turf 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 with the student. A student is expected to complete a minimum of 32 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.

HST 2262 Turf 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.

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
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 1401 Anatomy & Physiology Lab 1 Hr
This class includes the clinical skills (labs) for VTE 1403 Anatomy. 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. Student must have a grade of at least 70% to use as a pre-requisite course.

VTE 1403 Anatomy & Physiology 3 Hrs
This on-line class studies basic body systems at the tissue, organ and system levels. Comparison of various species of common domestic animals is stressed. Student must have a grade of at least 70% in VTE 1403 and VTE 1301 to use as a pre-requisite course.

VTE 1511 Animal Care Clinical Skills 1 Hr
This lab course contains the clinical skills corresponding to VTE 1512 Animal Care. Both VTE 1512 and VTE 1511 must be taken and passed with a 70% to take Nursing I.

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 1611 Concepts in Biting 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
(Permission of advisor) 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 is 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 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 Obedience 1 Hr
This course includes principles and rationale of obedience training. Tools and equipment needed, an explanation of techniques and how to perform the basic commands are covered. Limited enrollment.

VTE 2121 Advanced Dog Obedience 1 Hr
(Pre req: Basic Dog Obedience) This course is a continuation of the Basic Dog Obedience Class. While structured to meet the needs of the dogs and handlers, the goal is to explore more advanced areas of obedience work such as agility training or stock dog training.

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
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. The course will be a synchronous, interactive Internet course with simultaneous audio in the classroom.

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 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 Advanced Exotic Animal Care 3 Hrs
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 Veterinary Technology students is Fur and Feather and Advanced Exotic Animal Care.) Other people can take this class with instructor permission. This course is intended for those with an exotic animal interest. With the guidance of the instructor, students plan a trip to learn more about exotics. Prior to the "safari" students set educational goals and perform research pertinent to their trip. An open to the public presentation is developed following the experience. Limited enrollment.

VTE 2611 Equine AI 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 GPVEC Calving Rotation II 1 Hr
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) 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) 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 2644 Equine Dentistry Short Course 4 Hrs
(Pre req: Must be a DVM, LVT, or a student who has completed 35 hours of an AVMA accredited program) In this summer short course, 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. The use of power tools is introduced. Equine restraint techniques for unsedated work as well as pharmacologically aided methods will be covered. This will provide necessary knowledge to test for an IAED Certification. Actual skill in floating requires dedicated practice that will need to continue beyond the scope of this course.

VTE 2811 Ultrasound 1 Hr
In this class the principles of ultrasound are studied. The student is introduced to basic procedures on small and large animals and basic equipment care.

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.

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 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.

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

VTS 1521 Production Animals 1 Hr
(Pre req: A grade of 70% or above in Intro to Animal Science.) 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

VTS 1532 Large Animal Clinicals 2 Hrs
(Pre req: A passing grade in Anatomy and Physiology, Production Animals, Pharmacy-Anesthesia) This course exposes the student to production animal and equine nursing and technical skills including restraint, preparatory procedures, and equipment necessary for completing surgeries, anesthetic procedures, treatments, and routine livestock processing. The Beef Quality Assurance program will also be discussed. The majority of labs for this class will take place at the local veterinary clinic. Student must have a grade of at least 70% to use as a pre-requisite

VTS 1542 Facility Management 2 Hrs
Students study the management of animal holding facilities including selection and use of disinfectants and the implementation of accepted animal welfare practices. Each student works in the Vet Tech hospital providing the opportunity to care for all animals involved in the veterinary technology program. This includes weekend care. Student must have a grade of at least 70% to use as a pre-requisite.

VTS 1603 Intro to Microbiology 3 Hrs
Through the application of fundamental biology, students will survey the biological world in association with production animals and human health. Topics include parasitology, hematology, bacteriology, virology and 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 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 1822 Radiology I 2 Hrs
(Pre req: 18 years of age, passing grade in 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.

VTS 2201 Licensing Prep 1 Hr
This class reviews material learned in the last two years and prepares Veterinary Technician Option students for the Veterinary Technician National Exam. In addition, the course prepares students for their upcoming internship. The course is available on-line for off campus students. This class must be passed with at least an 80% in order to take the Exit Exam.

VTS 2241 Career Strategies 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 2244 Internship for Vet Tech 4 Hrs
(Prereq: Passing grade in Career Strategies VTS 2241 and Division approval). The internship provides job experience in your field of study at an approved work location. The internship is for a period of twelve weeks. Internship may be done during school breaks that are of at least one week in length. Internship locations, agreements and supervisors must be approved by the Division. 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. The internship student is responsible for site selection.

VTS 2331 Clinical Practices 1 Hr
Provides preparation for working in a clinical setting. The students will be working in our Dr. Walter Long Veterinary Technician Teaching Clinic.

VTS 2532 Large Animal Techniques 2 Hrs
(Pre req: pass Large Animal Clinicals with at least a "C") This course is a continuation of Large Animal Clinicals.

VTS 2541 Biosecurity and Disease Prevention 1 Hr
This course will cover all aspects of biosecurity, including diseases of concern and making a biosecurity plan of action for different types of livestock facilities. This course will also cover immunology and disease prevention using vaccinations. Timing of vaccinations and reasons for vaccination failure will be covered.

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.

VTS 2583 Nursing I 3 Hrs
(Pre req: Animal Care with a 70% "C" or higher) This class includes basic animal nursing care that is so vital to the veterinary technician. In this course a large variety of skills are studied and practices, including such things as, preparing and administering medications and vaccines, wound management, the care of ill and injured animals, enemas, collecting blood and urine samples, and animal identification. Physical exams are performed, including first aid procedures, the application of bandages and splints are studied. Client education skills are practiced throughout the course. This class must be passed with a 70% (C) or above to take Nursing II.

VTS 2593 Nursing II 3 Hrs
(Pre req: 70% in Facility Mgt. and Nursing I) This course is a continuation of Nursing I.

VTS 2613 Equine Surgery & Anesthesia Hrs
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 Clinical Pathology I 2 Hrs
(Pre req: "C" – 70% in Intro to Microbiology. 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. The 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.

VTS 2672 Clinical Pathology II 2 Hrs
(Pre req: Pass Clin Path I with a "C" – 70%) This course will build upon the skills in laboratory procedures that were introduced in Clin Path I (parasitology and hematology). Students will continue laboratory testing in the areas of hematology (including blood chemistries); parasitology (including skin scraping analysis); bacteriological culturing, isolation and identification; urinalysis and sample submission.

VTS 2682 Clinical Pathology III 2 Hrs
(Pre req: Pass Clin Path II with at least a "C" – 70%) This course is a continuation of Clin. Path II. Students will continue laboratory testing in the areas of hematology (including blood chemistries); parasitology (including skin scraping analysis); bacteriological culturing, isolation and identification; urinalysis, sample submission and introduction to PCR testing.

VTS 2733 Diseases of Veterinary Medicine 3 Hrs
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 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
A continuation of Radiology I with emphasis placed on technique charts, contrast studies, automatic processors, dental, and equine radiographs.

VTS 2933 Anesthesiology 3 Hrs
(Pre req: Anatomy, Animal Care, Nursing I, Pharmacology, Clinical Pathology I) Principles of small animal 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 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, 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. The lab is an integral portion of this course.

NCTA ADMINISTRATION AND FACULTY ACADEMIC CREDENTIALS

SCOTT MICKELSEN, *Associate Dean/Registrar*
A.S., Brigham Young University 1992
A.S. (Spec), Brigham Young University 1992
B.S., Utah State University 1994
M.S., Utah State University 1999
Ph.D., Iowa State University 2001

DON ADAMS, *Associate Dean*
B.S., Utah State University 1976
M.S., Utah State University 1978
Ph.D., New Mexico State University 1980

TERRI JO BEK, *Professor*
A.A.S., Colby Community College 1974
B.S., Kearney State College 1989
M.S., University of Nebraska-Kearney 1993

BARBARA BERG, *Assistant Professor*
A.A.S., University of Nebraska School of Technical Agriculture 1973
B.S., University of Nebraska-Kearney 2000

JUDY BOWMASTER, *Assistant Professor*
A.A.S., Nebraska College of Technical Agriculture 1992
B.S., Bellevue University 1999

TRENTEE BUSH, *Assistant Professor*
B.S., University of Nebraska-Lincoln 2008
M.S., University of Nebraska-Lincoln 2010

PAUL CLARK, *Assistant Professor*
BGS, University of Nebraska at Omaha 1998
M.A., University of Nebraska at Omaha 2001
M.S., Kansas State University 2005

CORY HEATH, D.V.M., *Assistant Professor*
B.S., Washington State University 1994
D.V.M., Washington State University 1996

JOANNA HERGENREDER, *Assistant Professor*
A.A.S., Laramie County Community College 2004
A.S., Laramie County Community College 2005
B.S., University of Wyoming 2008
M.S., Colorado State University 2011

STEVE KRULL, D.V.M., *Lecturer*
D.V.M., Iowa State University 1984

BRAD RAMSDALE, *Assistant Professor*
B.S., Kansas State University 1992
M.S., Kansas State University 1995
Ph.D., North Dakota State University 2000

ERIC REED, *Assistant Professor*
B.A., University of Nebraska at Kearney 2002
M.A., University of Nebraska at Kearney 2003
M.A., University of Nebraska at Kearney 2006

JENNIFER McCONVILLE, *Assistant Professor*
A.A., Mid-Plains Community College 1998
B.S., Bellevue University 2006
M.B.A., University of Nebraska-Kearney 2011

JEREMY SIEVERS, *Assistant Professor/ Coach*
B.S., Wayne State College 1999
M.S.E., Wayne State College 2001
M.B.A., Eastern Illinois University 2005

DOUGLAS SMITH, *Assistant Professor*
B.S., Sam Houston University 1998
M.S., Sam Houston University 2003
Ph.D., Texas A & M 2008

RICKY SUE BARNES WACH, D.V.M., *Professor*
B.A., University of California–San Diego 1973
D.V.M., Colorado State University 1977

DUSTIN ZITEK*, Assistant Professor*
A.A.S., Northeastern Junior College 2003
A.A.S., Northeastern Junior College 2004