



## NORTH CENTRAL TEXAS COLLEGE

### *Instructional Division*

#### NCTC Instructional Master Plan

Providing vision and focus for the Instructional Division of North Central Texas College (NCTC) is the primary benefit of an Instructional Master Plan, which serves as a roadmap to be used by faculty and administration in making decisions impacting the college's future. Having this clearly-defined and well-developed resource available will help ensure that NCTC's role, scope and mission are fulfilled in accordance with the college's values.

The framework upon which the Instructional Master Plan is built is S.I.M.P.L.E., or Strategic Instructional Mission, Purpose, Leadership & Expectations. The use of this particular acronym may seem risky, but it is definitely not intended to imply that the academic rigor at NCTC is simplistic. It is intended to communicate that how we do what we do is indeed relatively straightforward – yet NOT at all easy!

#### Strategic

In our efforts to be strategic in our thinking and doing, we must incorporate the following concepts into our everyday language:

- Smarter . . . Not Harder
- By Design . . . Not Default
- On Purpose . . . Not Pointless

#### Instructional

Instruction at NCTC emanates from a cohesive group of professionals using their collective talents, gifts and experiences to accomplish a shared mission and purpose.

#### Mission

The mission of the instructional division is to grow and graduate students and to enrich their lives by nurturing their potential through meaningful education.

#### Purpose

The purpose of the instructional division is to create an exemplary and inspiring learning environment that provides students with the education they need and the chance to believe in themselves and their future.

#### Leadership

As leaders of the instructional division:

- We will work collectively, collaboratively, creatively and collegially.

- We will honor practical, purposeful, and proactive communication and decision making within and between each instructional department.
- We will transform meetings into time that is productive, focused and energizing.

#### Expectations

- Everyone will purposefully and intentionally communicate among instructional circles to promote awareness of college initiatives and activities.
- Everyone will collaborate within their departments as well as between departments, division and campuses for the overall benefit of our students.
- Everyone will bring their best everyday along with a commitment to being better. Everyone will actively identify areas of needed improvement. Everyone will participate in professional development. Everyone will seek and implement best practices and be willing to make changes as necessary.

With *student learning* as the paramount goal, our single tactic is “*take a class.*” The essence of everything we do is done to get potential students to take a class or current students to take another class. Recruiting, offering dual credit courses, expanding on-line course offerings, scheduling courses, participating in professional develop-

ment, providing student loans and financial aid, applying for grants, offering tutoring services, contracting with businesses for specific training ...everything we do we do to get students to take a class. This tactic is the foundation upon which the Instructional Master Plan is built. Seven strategies support the “take a class” tactic.

- Strategy #1: Build the best team of faculty and staff available in North Texas.
- Strategy #2: Grow eLearning into the college’s 4th campus.
- Strategy #3: Initiate new instructional programs and courses to meet changing expectations of students and service area demands.
- Strategy #4: Adapt existing programs to ensure currency in our offerings and compliance with Texas Higher Education Coordinating Board (THECB) and Southern Association of Colleges and Schools (SACS) requirements.
- Strategy #5: Ensure collegiate level learning environment in all our classrooms and other educational settings.
- Strategy #6: Provide easier access to courses.
- Strategy #7: Provide learning resources for faculty and students.

**Instructional Division Organization**

The Instructional Division at NCTC is made up of 4 major instructional areas: Arts & Sciences, Advanced and Applied Technologies, Health Sciences and Lifelong Learning. Also included in the Instructional Division is the Library, and eLearning.

**Arts & Sciences**

Associate of Arts (AA), Associate of Science (AS) and the Associate of Art in Teaching AAT degrees are offered through the Arts & Sciences area, under the leadership of the Dean of Arts & Sciences and Department Chairs. The instructional programs are organized according to major subject areas or disciplines, as follows:

**Department of English, Speech & Foreign Language:**

- English
- Foreign Language
- Speech

**Department of Fine Arts:**

- Art
- Dance
- Drama
- Music

**Department of Mathematics & Physics:**

- Math
- Physics

**Department of Science:**

- Biology
- Chemistry

**Department of Physical Education/Athletics**

**Department of Teaching (AAT)**

- Education
- Early Childhood Education

**Department of Social Science**

- Economics
- History
- Government
- Humanities
- Philosophy
- Psychology
- Sociology

*Also under the Division of Arts & Sciences is the Department of College Preparatory Studies.*

**Department of College Preparatory Studies**

As a comprehensive community college, NCTC is committed to offering quality instruction for a wide range of ability levels. College Preparatory Studies offer help to those students who need further development or who wish to review fundamentals of mathematics, reading and writing. Sequences of College Preparatory courses have been designed to prepare students for college-level academic course work. The recommendation to enroll in college preparatory courses is made on the basis of diagnostic testing. Although these courses do not satisfy any degree requirement, they are designed to assure reasonable student success in the College curriculum. College Preparatory Studies exists to remediate deficiencies, in order that students may excel in their chosen careers.

**Advanced & Applied Technologies**

Associate of Applied Science (AAS) degrees and certifications are offered through the Advanced & Applied Technologies area, under the leadership of the instructional dean and program coordinators. The instructional programs, as listed, are organized according to major subject areas.

- Accounting
- Agriculture
- Business Management

- Computer Aided Manufacturing
- Computer Information Systems & Technology
- Computer Science
- Drafting & Design
- Equine Science
- Farm & Ranch Management
- Horticulture
- Office Systems Technology
- Oil & Gas Production Technologies
- Precision Machining

### Health Sciences

Associate degrees and certifications are offered through the Health Sciences area, under the leadership of the instructional dean and program coordinators. The instructional programs, as listed below, are organized according to major subject areas. Degree plans for these programs are listed starting on page 99.

- Associate Degree Nursing
- Cosmetology
- Esthetician
- Nail Technician
- Emergency Medical Technology
- Law Enforcement
- Licensed Vocational Nursing
- Radiological Technology
- Surgical Technology

### Lifelong Learning

The Division of Lifelong Learning at North Central Texas College provides non-credit learning options in workforce education and personal enrichment. In order to address the needs of an increasingly diverse student population, courses are scheduled during morning, afternoon, evening and weekend slots in Cooke, Denton and Montague County.

Occupational training programs are a mainstay in the lifelong learning division. Working hand-in-hand with employers and workforce development boards, NCTC develops curriculum to support ever-changing labor pool needs. With the understanding that many individuals need to prepare for a career change while in the workforce, the number of comprehensive workforce and certification programs offered entirely on-line has increased to 500+ topics.

Want to take a semester-hour college technical course under the non-credit option? We have the perfect solution. You'll attend class with credit students – same course content, schedule, instructor, and completion requirements – but earn CEUs. This opportunity offers skill upgrade needed in the workplace or an introductory experience in a given field, allowing the student to explore career possibilities. Those choosing this alternative need not complete any admission documents or take the THEA placement exam. If you decide later that you'd like to count the course for credit towards a certificate or degree, you can ask that your grade be converted. Look for these courses in the credit schedule marked with an asterisk (\*). For more details, simply contact Lifelong Learning.

NCTC is viewed as a customized training provider of choice in the region, working with employers to identify and implement specialized training objectives. Subsequent results prompt increased efficiency and employee retention, groom workers for upward mobility and improve the competitive stance of the organization. Additionally, professionals who require mandatory professional education look to NCTC to polish competencies.

Cultural/personal enrichment courses range from art, fitness, and gardening, to home décor, music, financial management, and language studies. Topics are modified regularly in alignment with popular trends. Students may even opt to pursue their personal interests using the distance education venue.

Low-cost computer classes teach basic technology skills, specific business applications, and trendy subjects such as digital photography and QuickBooks. In response to student requests, NCTC added a series of single day computer boot camps.

Language courses encompass English as a Second Language, Spanish, and Sign Language. Several other options, such as French, are available in an on-line format.

Informational schedules are available each semester and may be viewed on the college web site, [www.nctc.edu](http://www.nctc.edu), under the Lifelong Learning link. Non-credit course registration is on-going throughout the year and encouraged at least seven business days prior to the class start.

### **Lifelong Learning Frequently Asked Questions**

- The majority of lifelong learning courses do not mandate prerequisites. However, some courses may be taken only by those students who meet age restrictions or pre-designated experience or licensure. Any specific eligibility criteria will be reflected on the lifelong learning schedule/website.

- Enrollment in all course topics is based upon a first-come, first-serve basis.

- All course topics require minimum enrollment for implementation.

- Continuing Education Units (CEUs), the nationally recognized means of recording and accounting for the various continuing education activities a person accumulates, are awarded for completion of courses. One (1) is awarded for every 10 contact hours of organized continuing adult education.

### **Lifelong Learning Registration**

Enrollment forms for Lifelong Learning may be found in the course schedule or sent to students upon request. Registration can be conducted in person, by phone, fax or mail. Payment is required at the time of registration. Note: Lifelong Learning does offer a payment plan for certain occupational preparation courses.

#### **Gainesville Campus**

Lifelong Learning Division  
1525 W. California Street  
Gainesville, TX 76240  
(940) 668-4272 or fax (940) 668-6049

#### **Corinth Campus**

1404 N. Corinth Street, Suite 307  
Corinth, TX, 76208  
(940) 498-6270 or fax (940) 498-6401

#### **Bowie Campus**

810 S. Mill Street  
Bowie, Texas 76230-1247  
(940) 872-4002 or fax (940) 872-3065

### **LEARNING RESOURCE/ LIBRARY SERVICES**

The Learning Resource Centers/Libraries at NCTC contain 47,000+ books, 2,000+ pieces of audiovisual items, 100+ current periodical subscriptions, and a growing number of electronic resources. Electronic resources, available from any workstation on the College's intranet, include the World Wide Web, periodical databases (index and full-text collections), newspaper archives, 25,000+ e-books, and other reference materials. Many of these resources are also accessible remotely.

#### **Online, Web-Accessible Catalog**

An on-line public access catalog (OPAC) is accessible from any NCTC workstation—as well as via the Internet from NCTC's home page—and provides access to books and audiovisual materials in the collection. Circulating materials check out upon presentation of a photo identification card. Students who are unable to locate specific research materials in the NCTC Learning Resource Center/Library are encouraged to inquire at the Circulation Desk for reference assistance, interlibrary loan services, and TexShare services.

#### **Hours of Operation**

Hours may vary by campus and between semesters. Learning Resource Center/Library hours and variations are posted at the main entrance to the Learning Resource Center/Library at each campus and on the Learning Resource Center/Library website. **General Access Computer Labs** for NCTC students are located in the Library at the Gainesville Campus, in Room 366 at the Corinth Campus and in the Learning Resource Center at the Bowie Campus. Lab hours are posted in the respective buildings. Although NCTC students have priority, a limited number of public access workstations are available in the Learning Resource Center/Library at each campus so that the residents of Cooke, Denton, and Montague County can access library resources. (County residents may inquire at the NCTC Library Circulation Desk in their respective community for log-in information.)

#### **Other Resources & Programs**

Photocopiers, audiocassette tape players, and videocassette/DVD players and monitors are available to students for In-Library Use Only in the Learning Resource Center/Library. The Library sponsors various programs, such as the Gainesville

Campus Brown Bag Book Review, throughout the academic year. Announcements of the monthly Brown Bag Book Review and other public programs are posted on the Learning Resource Center/Library's webpage and/or on bulletin boards at each campus.

#### **Courier Learning Resources/Library Services**

A courier delivers and returns materials daily between the Gainesville and the Corinth Campus, between the Gainesville and the Bowie Campus, and between the Corinth and the Bowie Campus. In addition, the TexShare program provides two-day weekly courier services for interlibrary loan items. NCTC students and employees may inquire at the Circulation Desk on their respective campus to learn more about the interlibrary loan service.

#### **Virtual College of Texas (VCT) Learning Resources/Library Services**

Students enrolled *only* in VCT courses are encouraged to contact the librarian at the Gainesville campus to obtain information about resources and services available.

#### **eCampus**

NCTC is committed to meeting the educational needs of its diverse student population and strives to accommodate the wide range of student schedules and learning styles. NCTC eCampus provides students the opportunity to attend classes at a time and place of their choosing. Students can expect the same high-quality courses as those taught in the classroom. The content and transferability is identical to courses offered on campus. eCampus students follow the same admissions and registration procedures as on-campus students. A student may complete the core curriculum through online courses, and many technical program courses are available online. Over 80 courses are currently offered online with more being added every semester.

Online courses require students to have an Internet connection to complete coursework. Students may use a personal computer from home (or other location), or they may use NCTC General Access Lab computers on-campus. (Check lab schedules.) NCTC uses the ANGEL Learning Management System for all online courses. Students are assigned a password-protected ANGEL account and required to change their pre-set password upon first login.

An online course is one in which 80-100% of course content is provided using the Internet. Most online courses are conducted totally online; however, some do require students to come to campus for testing, etc. (Students should check specific course information by visiting: <http://NCTCeCampus.info> and clicking Online Courses.)

A hybrid course is one in which 50% of course content is provided using the Internet. Hybrid courses require some on-campus time, yet offer the flexibility of fewer trips to campus. Generally, the hybrid class meets on campus one day a week attend lab or classroom instruction. The rest of instruction is delivered online. Students should check specific course information by visiting: <http://NCTCeCampus.info> and clicking Online Courses.)

All students enrolled for the first time in an NCTC online or hybrid course are required to complete the Orientation for Online Students. Upon completion of the Orientation course, students will gain access to their online and hybrid courses. A \$50 per course distance education fee will be charged for each course in which a student enrolls that is offered online, hybrid or through the Virtual College of Texas.

Please visit our website at: <http://NCTCeCampus.info> for more information.

## NCTC Core Curriculum for 2009 - 2010

To complete the 43 - 45 hour Core Curriculum, a student must earn the required number of semester credit hours according to the parameters described below.

### Communication (2 courses)

6 credit hours - Take each course listed below.

English 1301 - Grammar & Composition  
English 1302 - Literature & Composition

### Additional Communication (1 course)

3 credit hours - Select one course from the list below.

Speech 1311 - Introduction to Speech Communication  
Speech 1315 - Public Speaking  
Speech 1318 - Interpersonal Communication  
Speech 1321 - Business & Professional Speech

### Mathematics (1 course)

3 - 4 credit hours - Select one course from the list below.

Math 1314 - College Algebra  
Math 1316 - Trigonometry  
Math 1324 - Mathematics for Business Analysis  
Math 1325 - Business Calculus  
Math 1332 - College Mathematics  
Math 1342 - Elementary Statistics  
Math 2412 - Pre-calculus Mathematics  
Math 2413 - Calculus I  
Math 2414 - Calculus II

### Natural Science (2 courses)

8 credit hours - Select two courses from the list below.  
Some courses require a prerequisite course.

Biology 1408 - General Biology  
Biology 1411 - General Botany  
Biology 1413 - General Zoology  
Biology 2401 - Human Anatomy & Physiology I  
Biology 2402 - Human Anatomy & Physiology II  
Biology 2406 - Environmental Biology  
Biology 2420 - Microbiology  
Chemistry 1411 - General Chemistry I  
Chemistry 1412 - General Chemistry II  
Chemistry 1413 - Chemistry for the Health Sciences  
Chemistry 2423 - Organic Chemistry I  
Chemistry 2425 - Organic Chemistry II  
Horticulture 1401 - Horticulture  
Physics 1401 - General Physics I  
Physics 1402 - General Physics II  
Physics 1412 - Descriptive Astronomy  
Physics 1415 - Physical Science  
Physics 2425 - Engineering Physics I  
Physics 2426 - Engineering Physics II

### Humanities (1 course)

3 credit hours - Select one course from the list below.

French 2312 - Intermediate French II  
English 2307 - Creative Writing  
English 2322 - British Literature I  
English 2323 - British Literature II  
English 2327 - American Literature I  
English 2328 - American Literature II  
English 2332 - World Literature I  
English 2333 - World Literature II  
English 2341 - Forms of Literature (Fiction, Film, Poetry, or Drama)  
English 2342 - Forms of Literature I (Classical Backgrounds)  
English 2343 - Forms of Literature II (Classical Backgrounds)  
Italian 2312 - Intermediate Italian II  
Philosophy 1301 - Introduction to Philosophy  
Spanish 2312 - Intermediate Spanish II

### Visual and Performing Arts (1 course)

Select one 3 SCH course or three 1 SCH courses from the list below; 1 SCH courses should not all be taken during the same semester or term.

Arts 1301 - Art Appreciation  
Arts 1303 - Art History I  
Arts 1304 - Art History II  
Arts 1311 - Design I  
Arts 1316 - Drawing I  
Arts 2316 - Painting I  
Arts 2326 - Sculpture I  
Arts 2341 - Jewelry & Metalworking I  
Arts 2346 - Ceramics I  
Dance 1151 - Dance Performance I  
Dance 1152 - Dance Performance II  
Dance 2151 - Dance Performance III  
Dance 2152 - Dance Performance IV  
Dance 2303 - Dance Appreciation I  
Dance 2304 - Dance Appreciation II  
Drama 1310 - Introduction to the Theatre  
Drama 1330 - Stagecraft I  
Drama 1351 - Acting I  
Drama 1352 - Acting II  
Drama 2331 - Stagecraft II  
Drama 2366 - Introduction to Film  
Music 1131 - Wind Ensemble  
Music 1141 - North Central Texas Chorus  
Music 1154 - College Singers  
Music 1171 - Jazz Band  
Music 1301 - Music Fundamentals  
Music 1306 - Music Appreciation

**History (2 courses)**

6 credit hours - Take each course listed below.

History 1301 - U.S. History to 1865  
History 1302 - U.S. History from 1865

**Government (2 courses)**

6 credit hours - Take each course listed below.

Government 2305 - American National Government  
Government 2306 - American, State & Local Government

**Social and Behavioral Sciences (1 course)**

3 credit hours - Select one course from the list below.

Anthropology 2351 - Cultural Anthropology  
Anthropology 2346 - General Anthropology  
Economics 2301 - Principles of Economics (Macro)  
Economics 2302 - Principles of Economics (Micro)  
History 2301 - Texas History  
History 2321 - History of Civilization  
History 2322 - History of Civilization  
Psychology 2301 - Introduction to Psychology  
Psychology 2306 - Human Sexuality  
Psychology 2314 - Developmental Psychology  
Psychology 2315 - Psychology of Adjustment  
Sociology 1301 - Introduction to Sociology  
Sociology 1306 - Contemporary Social Problems  
Sociology 2301 - Marriage & Family Relations  
Sociology 2319 - Cultural Diversity

**Institutionally Designated Option**

2 - 3 credit hours - Wellness

Biology 1322 - Nutrition  
Or Physical Education 1338 - Concepts of Physical Fitness  
Or 2 physical activity PHED courses for one credit hour each  
Or 2 Dance Technique courses for one credit hour each from the list below:  
Dance 1141 - Ballet I  
Dance 1142 - Ballet II  
Dance 1145 - Modern Dance I  
Dance 1146 - Modern Dance II  
Dance 1147 - Jazz Technique I  
Dance 1148 - Jazz Technique II

## *Planning to transfer? Do it the SMART way!*

If you're thinking of transferring from NCTC to a university, here are two great tips on how to do it the really SMART way:

**1** Don't be in too big a hurry—stay at NCTC and complete your Core Curriculum. Completion of these 43 semester credit hours of Core courses is a requirement at all public colleges and universities in Texas, so if you don't do it at NCTC, you'll have to do it after transferring. The smart thing to do is complete your Core courses here where it's much less costly, where classes are smaller, where you'll get more individual attention from professors and so on.

Keep in mind that this Core transfers as a block ONLY if you complete it, but the good news is that if you complete it at NCTC, it *transfers entirely* to any other public university in Texas (UNT, A&M, UT, you

name it) no questions asked. Check the current NCTC Catalog or talk to your advisor or a counselor to learn more about NCTC's Core Curriculum courses.

**2** Stay at NCTC and complete your Associate of Arts or Associate of Science degree! So many students (to their great regret later) transfer lacking only a few courses to complete degree requirements. Yes, your goal is a Bachelor's Degree (or higher), but what if something happens to delay or prevent your attaining that 4-year degree?

In today's workplace, an Associate Degree is valuable. Completing that degree says something important about you to potential employers. And consider this—if you'll be working while seeking your 4-year degree, that AA or AS can help you land a much better job. Be smart—complete your Associate Degree at North Central Texas College before transferring.

## Individual Academic Transfer Programs Suggested Curricula Guide by Major Field of Study

*Before selecting electives students should request a degree plan of their chosen Major Field of Study from the university they wish to transfer to.*

**IMPORTANT:** Suggested Transfer Electives generally fulfill basic university elective requirements for a given Major Field of Study. Recommended Electives generally transfer, but they may not meet university elective requirements for a given Major Field of Study. Either Transfer or Recommended electives meet NCTC elective requirements for degree completion.

| Major Field of Study | Credit Hours |
|----------------------|--------------|
|----------------------|--------------|

### **Agriculture**

|  |       |
|--|-------|
| Minimum Required .....   | 62    |
| AA Core Curriculum & Requirements.....                               | 45-49 |
| Recommended Electives (may not meet university major requirements):  |       |
| AGRI 1131, 1309, 1325, 1413, 1419, 2301, 2303, 2317 • HORT 1401..... | 25    |

### **Art**

|   |        |
|---|--------|
| Minimum Required .....  | 62     |
| AA Core Curriculum & Requirements.....                                      | 45- 49 |
| Transfer Electives (generally meet university major requirements):          |        |
| ARTS 1311, 1312, 1316, 1317.....  | 12     |
| Recommended Electives (may not meet university major requirements):         |        |
| ARTS 1303, 1304, 2316, 2317, 2326, 2327, 2341, 2342, 2346, 2347, 2366 ..... | 39     |

### **Biology**

|   |       |
|---|-------|
| Minimum Required .....  | 62    |
| AS Core Curriculum & Requirements .....                             | 45-49 |
| Transfer Electives (generally meet university major requirements):  |       |
| BIOL 2406, 2420 • CHEM 1411, 1412 .....                             | 16    |
| Recommended Electives (may not meet university major requirements): |       |
| MATH 2412 & 2413.....   | 6     |

### **Business – Accounting/Economics/Finance/Management/Marketing**

|   |       |
|---|-------|
| Minimum Required .....  | 62    |
| AS Core Curriculum & Requirements .....                             | 45-49 |
| Transfer Electives (generally meet university major requirements):  |       |
| ACCT 2301, 2302 • ECON 2301, 2302 .....                             | 12    |
| Recommended Electives (may not meet university major requirements): |       |
| MATH 1324 & 1325.....   | 6     |

### **Chemistry**

|  |       |
|--|-------|
| Minimum Required .....   | 62    |
| AS Core Curriculum & Requirements .....                            | 45-49 |
| Transfer Electives (generally meet university major requirements): |       |
| CHEM 2423, 2425 • MATH 2413, 2414 • PHYS 2425, 2426 .....          | 12    |

*Continued On Next Page*

**Computer Science**

Minimum Required ..... 62  
 AS Core Curriculum & Requirements ..... 45-49  
 Transfer Electives (generally meet university major requirements):  
     BCIS 1305, COSC 2425..... 8

**Drama**

Minimum Required ..... 62  
 AA Core Curriculum & Requirements..... 45-49  
 Transfer Electives (generally meet university major requirements):  
     DRAM 1310, 1330, 1351, 1352, 2331 ..... 9  
 Recommended Electives (may not meet university major requirements):  
     DRAM 1323, 2336, 2351, 2352, 1120, 1121, 2120, 2121 ..... 19

**English**

Minimum Required ..... 62  
 AA Core Curriculum & Requirements..... 45-49  
 Transfer Electives (generally meet university major requirements):  
     ENGL 2322, 2323, 2332, 2333 ..... 12  
 Recommended Electives (may not meet university major requirements):  
     Intermediate Foreign Language..... 6

**Kinesiology – Physical Education**

Minimum Required ..... 62  
 AA Core Curriculum & Requirements..... 45-49  
 Recommended Electives (may not meet university major requirements):  
     BIOL 1322, 2401, 2402..... 14

**Social Sciences – Geography/Government/History/Pre-Law**

Minimum Required ..... 62  
 AA Core Curriculum & Requirements..... 45-49  
 Transfer Electives (generally meet university major requirements):  
     HIST 2321, 2322 ..... 6  
 Recommended Electives (may not meet university major requirements):  
     PHIL 1301 • Intermediate Foreign Language..... 9

**Mathematics**

Minimum Required ..... 62  
 AS Core Curriculum & Requirements ..... 45-49  
 Transfer Electives (generally meet university major requirements)  
     MATH 2413, 2414, 2415 • PHYS 2425, 2426..... 20

*Continued On Next Page*

**Music**

Minimum Required ..... 62  
 AA Core Curriculum & Requirements..... 45-49  
 Transfer Electives (generally meet university major requirements):  
     MUSI 1311, 1312, 2311, 2312 ..... 12  
 Recommended Electives (may not meet university major requirements):  
     MUSI 1116, 1117, 1159, 1262, 1300, 1301, 1306, 1308, 1309, 2116, 2117, 2262 ..... 36

**Physics**

Minimum Required ..... 62  
 AS Core Curriculum & Requirements ..... 45-51  
 Transfer Electives (generally meet university major requirements):  
     MATH 2413, 2414, 2415 • PHYS 2425, 2426 ..... 20

**Pre-Architecture**

Minimum Required ..... 62  
 AS Core Curriculum & Requirements ..... 45-51  
 Transfer Electives (generally meet university major requirements):  
     MATH 2413, 2414, 2415 • PHYS 1401, 1402 ..... 20

**Pre-Engineering**

Minimum Required ..... 62  
 AS Core Curriculum & Requirements ..... 45-51  
 Transfer Electives (generally meet university major requirements):  
     Mechanical/Technology Engineering: MATH 2413, 2414, 2415 • PHYS 2425, 2426 .... 20  
     Computer Science Engineering: MATH 2413, 2414, 2415 ..... 12

**Pre-Medical/Pre-Dental/Pre-Veterinarian**

Minimum Required ..... 62  
 AS Core Curriculum & Requirements ..... 45-49  
 Transfer Electives (generally meet university major requirements):  
     BIOL 2401, 2402, 2420 • CHEM 1411, 1412, 2423, 2425 • MATH 2413  
     PHYS 1401, 1402 ..... 40

**Pre-Pharmacy**

Minimum Required ..... 62  
 AS Core Curriculum & Requirements ..... 45-49  
 Transfer Electives (generally meet university major requirements):  
     BIOL 2420 • CHEM 1411, 1412, 2423, 2425 • MATH 2413 • PHYS 1401, 1402..... 32

**Psychology**

Minimum Required ..... 62  
 AA Core Curriculum & Requirements..... 45-49  
 Transfer Electives (generally meet university major requirements):  
     PSYC 2301, 2314 ..... 6  
 Recommended Electives (may not meet university major requirements):  
     PSYC 2306, 2315, 2371 • Intermediate Foreign Language ..... 15

*Continued On Next Page*

**Secondary Education**

Minimum Required .....62  
 Core Curriculum ..... 43-45  
 Transfer Electives  
     EDUC 1301 and EDUC 2301.....6  
 Recommended Electives  
     SPAN 2311 and SPAN 2312 .....6

NOTE: Students who wish to teach high school: Math, Social Studies, English, or Science need to major in the discipline they wish to teach. In addition, students need to follow a degree plan that includes teacher certification.

**\*Core classes are specific to the major and university in which the student seeks transfer.**

Students seeking advisement for this degree plan should bring a transfer guide from the university where they intend to graduate.

**Sociology**

Minimum Required ..... 62  
 AA Core Curriculum & Requirements..... 45-49  
 Transfer Electives (generally meet university major requirements):  
     SOC 1301, 1306..... 6  
 Recommended Electives (may not meet university major requirements):  
     SOC 2301, 2340, 2371 • Intermediate Foreign Language ..... 12

**Speech**

Minimum Required ..... 62  
 AA Core Curriculum & Requirements..... 45-49  
 Recommended Electives (may not meet university major requirements):  
     SPCH 1315, 1318, 1321 • Intermediate Foreign Language..... 18





## NORTH CENTRAL TEXAS COLLEGE

### *Associate of Arts in Teaching*

The Associate of Arts in Teaching (AAT) degree offers the first two years of classes towards initial teacher certification. This degree is approved by the Texas Higher Education Coordinating Board approved collegiate degree program consisting of lower division courses intended for transfer to baccalaureate programs that lead to initial Texas teacher certification. North Central Texas College has particular transfer agreements for this degree program with the University of North Texas, Texas Woman's University and Midwestern State University. Early Childhood—Grade 6 degree program is designed to help teacher aides who must earn college credit hours to comply with the *No Child Left Behind Act*. The Early Childhood—Grade 6 degree program can also be used by paraprofessionals who seek college credit hours to comply with the *No Child Left Behind Act*. Substitute teachers would also benefit from the education courses offered in the degree program.

Complete the core requirements on pages 74-75. In addition to the core, students seeking this associates degree need to complete the following field of study and additional math's and science. All of these courses lead to initial teacher certification programs at the four year university. Students are strongly encouraged to seek advisement in this program.

Most university teacher education programs require a 2.75 overall GPA and a 3.0 or higher in field of study courses. Each school also specifies a required minimum THEA score for entrance to the college of education.

*See **Early Childhood to Grade 6 (EC - 6), Grades 4 - 8, and Secondary** field of study options on following pages.*

*\*NOTE: The education curriculum at North Central Texas College is designed for transfer to four-year institutions. It is recommended that all students seek advisement from the university/college of their choice to determine if all courses recommended by North Central Texas College are the best choice for transfer to that institution's College of Education.*

**NORTH CENTRAL TEXAS COLLEGE**

---

Complete the core requirements on pages 74-75. In addition to the core, students seeking this associates degree need to complete the following field of study and additional math and science. All of these courses lead to initial teacher certification programs at the four year university. Students are strongly encouraged to seek advisement in this program.

| <b>Early Childhood to Grade 6 (EC - 6)</b> |                                       |   |
|--|---------------------------------------|---|
| <b>Component Area</b>                      | <b>Required Semester Credit Hours</b> | <b>To Be Selected From</b>  |
| Fundamentals of Math I and II              | 6                                     | Select EACH of the following:<br>MATH 1350, 1351<br>Prerequisites: requires a minimum of a C in MATH 1314   |
| Additional Lab Science                     | 4                                     | One class cannot be completed to fulfill two areas. BIOL 1408, 1411, 1413, 2401, 2402, 2406, 2420<br>CHEM 1411, 1412 , 1413, 2423, 2425<br>PHYS 1415, 2425, 2426<br>BIOL 1408, BIOL 2406, PHYS1415 are preferred courses by area universities |
| Field of Study                             | 6                                     | EDUC 1301, EDUC 2301  |
| Total Hours with Core                      | 62-66*                                |   |

This degree is appropriate for students who seek teacher certification in the following areas:

EC-Grade 6 Certification Areas, EC-6 Generalist, EC-6 Bilingual Generalist, EC-6 ESL Generalist, and EC-6 other content area teaching fields/academic disciplines/interdisciplinary majors.

In addition, students need to be aware that TECA 1303, TECA 1311, and TECA 1318 require passing a criminal background check and completing 16 observation hours in a classroom setting. Details are given the first week of class.

*\*See NOTE on page 81.*

Complete the core requirements on pages 74-75. In addition to the core, students seeking this associates degree need to complete the following field of study and additional math and science.

All of these courses lead to initial teacher certification programs at the four year university.

Students are strongly encouraged to seek advisement in this program.

| <b>Grades 4-8</b>                                       |                                       |  |
|---|---------------------------------------|--|
| <b>Component Area</b>                                   | <b>Required Semester Credit Hours</b> | <b>To Be Selected From</b>   |
| Education Field of Study                                | 6                                     | Select EACH of the following:<br>EDUC 1301, 2301<br>Prerequisite: ENGL 1301  |
| Fundamentals of Math I and II                           | 6                                     | Select EACH of the following:<br>MATH 1350, 1351.<br>Prerequisites: requires a minimum of a C in MATH 1314   |
| Additional Lab Science                                  | 4                                     | One class cannot be completed to fulfill two areas. BIOL 1408, 1411, 1413, 2401, 2402, 2406, 2420<br>CHEM 1411, 1412 , 1413, 2423, 2425<br>PHYS 1415, 2425, 2426<br>BIOL 1408, BIOL 2406, PHYS 1415 are preferred courses by area universities |
| Total Hours Field of Study                              | 16                                    | Students must complete a minimum of 60 hours to graduate with this degree  |
| Total Hours with Core                                   | 60-66*                                |  |
| In Addition these courses may be completed for transfer | 6                                     | TECA 1354 and<br>Electives selected from academic discipline   |
| Hours allowed to transfer                               | 72                                    |  |

This degree is appropriate for students who seek teacher certification in the following areas: Grades 4-8 Certification Areas, Grades 4-8 Generalist, 4-8 Bilingual Generalist, 4-8 ESL Generalist, 4-8 English Language Arts, 4-8 English Language Arts and Reading, 4-8 English Language Arts, and Reading and Social Studies, 4-8 Mathematics, 4-8 Science, 4-8 Mathematics and Science, 4-8 Social Studies and 4-8 other content area teaching fields/academic disciplines/interdisciplinary majors.

In addition, students need to be aware that EDUC 1301 and EDUC 2301 require passing a criminal background check and completing 16 observation hours in a classroom setting and 16 hours in a lab setting. Details are given the first week of class.

*\*See NOTE on page 81.*

## NORTH CENTRAL TEXAS COLLEGE

Complete the core requirements on pages 74-75. In addition to the core, students seeking this associates degree need to complete the following field of study and additional math and science.

All of these courses lead to initial teacher certification programs at the four year university.

Students are strongly encouraged to seek advisement in this program.

| <b>Secondary</b>                         |                                |  |
|--|--------------------------------|--|
| Component Area                           | Required Semester Credit Hours | To Be Selected From  |
| Education<br>Field of Study              | 6                              | Select EACH of the following:<br>EDUC 1301, 2301<br>Prerequisite: ENGL 1301  |
| Additional Lab<br>Science                | 4                              | BIOL 1408, 1411, 1413, 2401, 2402, 2406, 2420<br>CHEM 1411, 1412, 1413, 2423, 2425<br>PHYS 1415, 2425, 2426<br>BIOL 1408, BIOL 2406, PHYS 1415 are preferred courses by area universities.<br>*No single course may be used to satisfy the requirements in more than one area. |
| Total Hours Field of Study               | 10                             | Students must complete a minimum of 60 hours to graduate with this degree.   |
| Total Hours with Core                    | 53                             | Must take at minimum of 7 hours from the courses listed below.   |
| Mathematics Teachers<br>AAT.MATH.8-12    | 12                             | Select 12 hours from the following:<br>Math 1316, 1342, 1348, 2412, 2413, 2414, 2415   |
| Foreign Language<br>AAT.FL.8-12          | 6                              | Select EACH of the following:<br>SPAN 2311, 2312   |
| Science Teachers<br>AAT.SCI.8-12         | 12                             | BIOL 1408, 1411, 1413, 2401, 2402, 2406, 2420;<br>CHEM 1411, 1412, 1413, 2423, 2425<br>PHYS 1415, 2425, 2426<br>*No course may be used to satisfy more than one area.  |
| History Teachers<br>AAT.HIST.8-12        | 9                              | Select 9 hours from the following:<br>HIST 2301, 2321, 2322  |
| Electives                                |                                | If a student needs hours to complete the degree, please consider the following electives: (please check with the receiving institution)<br>HIST 2301 Texas History and/or<br>PSYC 2314 Developmental Psychology  |
| Total minimum required hours to graduate | 61*                            | Need between 60-66 total credit hours<br>Allowed to transfer 72 hours  |

This degree is appropriate for students who seek teacher certification in the following areas:

Grades 6-12, Math, Science, Foreign Language, Speech, ESL, and Bilingual.

In addition, students need to be aware that in order to successfully complete EDUC1301 and EDUC2301 they will be required to pass a criminal background check and complete 16 observation hours in a classroom setting and 16 hours in a lab setting. Details are given the first week of class.

*\*See NOTE on page 81.*



## NORTH CENTRAL TEXAS COLLEGE

### *Saturday College*

Saturday College at North Central Texas College is designed to fit the busy lifestyle of students who want to complete a college degree. The Saturday College reflects NCTC's commitment to the education of students of diverse ages and backgrounds by allowing students to earn credits toward four degree options by attending classes only one day a week.

Courses that require class attendance will be offered outside traditional teaching hours in blocks of time on Saturday. The courses will be delivered in such a way as to concentrate the learning experience using the facilities and staff of NCTC to offer the opportunity to complete a degree in the traditional classroom setting combined with online courses.

The Saturday College classes fulfill general education requirements for the state of Texas. Many courses will transfer with full credit between and among all public state-supported institutions of higher education within the state. Special articulation agreements between NCTC and the major universities in this region ensure the student that their coursework will provide the step up to a higher degree if they wish. Students are advised to meet with their academic advisor prior to enrolling in the Saturday College so they can be assured that the courses they take meet their educational goals.

Saturday College classes are available at NCTC's Corinth campus, 1500 North Corinth Street, Corinth, Texas. The same objectives and requirements that apply to the courses regularly taught on campus during the week also apply to Saturday College. Although the delivery methods vary, the content does not. Full-time faculty members and adjunct faculty who teach during the week also teach Saturday College courses. It is possible to complete the requirements for an associate degree by taking classes on Saturday. We offer four degree options, Associate of Applied Science in Business

Management, Associate of Arts in Teaching, Associate of Arts and Associate of Science.

Students may find it possible to complete degree requirements in two years, but must commit to going to class each weekend and also enroll for several online classes. Attending summer sessions will most likely be required in order to complete a degree in two years. Missing one class in Saturday College can put the student behind and it will be difficult to make up the missed work. Tuition and fees are the same as in the regular session credit program. Saturday College courses also use the same books as weekday credit courses. Saturday College offers a full complement of student services at the Corinth campus. Library services and open computer labs are available to weekend students.

#### **ASSOCIATE OF APPLIED SCIENCE DEGREE IN BUSINESS MANAGEMENT**

The Business Management Associate of Applied Science degree is designed to articulate with four-year baccalaureate programs who offer a Bachelor of Applied Arts and Science (BAAS) degree.

A minimum of 63 semester hours is required for graduation with an Associate of Applied Science, Business Management Degree. Equivalent courses may be substituted with permission from the program faculty or designate. BUSG2380 Cooperative Education - Business General is a capstone experience and may not be substituted. It should be taken the last semester before graduation.

Classes meet on Saturday morning from 9:00 to 11:50 AM and on Saturday afternoon from 1:00 to 3:50 PM for Spring and Fall semesters. Summer session classes meet on Saturday mornings from 8:00 AM until 12:50 PM and Saturday afternoons from 1:30 to 6:20 PM.





**NORTH CENTRAL TEXAS COLLEGE**

*Curricula – Technical*

To earn either an Associate of Applied Science Degree or a Certificate, students must achieve an overall grade point average of at least 2.0 and complete the minimum number of semester hours specified for each program. Eighteen of the semester hours required for completion of the degree/certification must be taken at NCTC. Refer to each individual program section in the following pages for requirements specific to those programs. For additional information, contact the Department Chair, Program Coordinator, or the Dean of Advanced and Applied Technologies.

**Award of Tech-Prep Credit**

Technical graduates from area high schools may be eligible for college credit. For information, contact the Tech-Prep office at 940-668-7731, ext. 4384.

**AGRICULTURE MANAGEMENT  
(Certificate\*)**

The following are required for certification. (Equivalent courses may be substituted for any of the classes below with permission from the program faculty or designate.)

| <b>First Semester</b>                   | <b>Credit Hours</b> |
|---|---------------------|
| AGRI1309 Computers in Agriculture ..... | 3                   |
| AGRI1419 Animal Science.....            | 4                   |
| AGRI1407 Agronomy .....                 | 4                   |
| AGCR1441 Pasture Management.....        | 4                   |
| AGAH2301 Animal Health .....            | 4                   |
| <b>Total Hours 19</b>                   |                     |

| <b>Second Semester</b>                       | <b>Credit Hours</b> |
|--|---------------------|
| AGRI1131 The Agriculture Industry.....       | 1                   |
| AGRI1325 Marketing of Agriculture Products.. | 3                   |
| AGRI2317 Agriculture Economics .....         | 3                   |
| AGAH2313 Feeds and Feeding.....              | 3                   |
| AGCR1419 Soil Science.....                   | 4                   |
| AGMC2401 Agriculture Chemicals.....          | 4                   |
| <b>Total Hours 18</b>                        |                     |

| <b>Summer Semester</b>                | <b>Credit Hours</b> |
|---------------------------------------|---------------------|
| AGMG2480* Cooperative Education ..... | 4                   |
| <b>Total Hours 4</b>                  |                     |
| <b>GRAND TOTAL HOURS 41</b>           |                     |

*\*AGMG2480 will constitute the capstone experience.*

**BUSINESS MANAGEMENT (Degree)**

This program is designed to equip students with knowledge and skills directly applicable to a career in management or supervision, as well as to update and sharpen personal management skills. It is also aimed at providing quality workforce education for positions of managerial responsibility in business and industry. In addition to providing classroom-based course work, the College works with local and area employers to provide on-the-job training experiences to bridge the gap between theory and practice.

All students are to conduct themselves in a manner appropriate to a professionally oriented learning atmosphere. Each student is expected to respect the rights of others. Because students may be in contact with business professionals from outside the college, it is imperative that performance in and out of the classroom reflect the student's desire to become a part of the business professional community. In addition to behavior, dress in the classroom should be appropriate.

**Graduation Requirements:** A minimum of 63 semester hours is required for graduation with an Associate of Applied Science, Business Management Degree. Equivalent courses may be substituted with permission from the program faculty or designate. BUSG 2380 Cooperative Education – Business General is a capstone experience and

*Continued On Next Page*

**NORTH CENTRAL TEXAS COLLEGE**

may not be substituted. It should be taken the last semester before graduation.

**FIRST YEAR**

| <b>First Semester</b>                      | <b>Credit Hours</b> |
|--|---------------------|
| ENGL1301 Composition I.....                | 3                   |
| MATH1342 Elementary Statistics.....        | 3                   |
| BUSG1301 Introduction to Business.....     | 3                   |
| BMGT1307 High Performance Work Teams ..... | 3                   |
| MRKG1301 Customer Relations.....           | 3                   |
| <b>Total Hours</b>                         | <b>15</b>           |

| <b>Second Semester</b>  | <b>Credit Hours</b> |
|---|---------------------|
| ENGL1302 Composition II.....                                      | 3                   |
| IBUS1305 Introduction to International<br>Business and Trade..... | 3                   |
| ARTS1301 Art Appreciation.....                                    | 3                   |
| BMGT1327 Principles of Management .....                           | 3                   |
| BMGT2309 Leadership.....  | 3                   |
| BMGT1345 Communication Skills for<br>Managers .....               | 3                   |
| <b>Total Hours</b>  | <b>18</b>           |

**SECOND YEAR**

| <b>First Semester</b>                         | <b>Credit Hours</b> |
|---|---------------------|
| SPCH1321 Business and Professional Speech ... | 3                   |
| ACCT2301 Principles of Accounting.....        | 3                   |
| BUSG1304 Personal Finance .....               | 3                   |
| HRPO2301 Human Resources Management .....     | 3                   |
| MRKG1311 Principles of Marketing.....         | 3                   |
| <b>Total Hours</b>                            | <b>15</b>           |

| <b>Second Semester</b>                                       | <b>Credit Hours</b> |
|--|---------------------|
| ECON2301 Principles of Economics.....                        | 3                   |
| ACCT2302 Principles of Accounting II .....                   | 3                   |
| BCIS1305 Business Computer Information<br>Systems.....       | 3                   |
| BUSG2305 Business Law/Contracts .....                        | 3                   |
| BUSG2380* Cooperative Education -<br>Business, General ..... | 3                   |
| <b>Total Hours</b>   | <b>15</b>           |

**GRAND TOTAL HOURS 63**

*\* BUSG 2380 will constitute the capstone experience.*

**BUSINESS MANAGEMENT (Certificate)**

**FIRST YEAR**

| <b>First Semester</b>                      | <b>Credit Hours</b> |
|--|---------------------|
| ACCT2301 Principles of Accounting I .....  | 3                   |
| BUSG1304 Personal Finance .....            | 3                   |
| HRPO2301 Human Resource Management .....   | 3                   |
| BUSG1301 Introduction to Business .....    | 3                   |
| BMGT1307 High Performance Work Teams ..... | 3                   |
| <b>Total Hours</b>                         | <b>15</b>           |

| <b>Second Semester</b>                                       | <b>Credit Hours</b> |
|--|---------------------|
| ACCT2302 Principles of Accounting II .....                   | 3                   |
| BMGT1345 Communication Skills for<br>Managers .....          | 3                   |
| IBUS1305 Intro to International Business<br>& Trade.....     | 3                   |
| BMGT1327 Principles of Management .....                      | 3                   |
| BMGT2309 Leadership .....                                    | 3                   |
| BUSG2380* Cooperative Education -<br>Business, General ..... | 3                   |
| <b>Total Hours</b>   | <b>18</b>           |

**GRAND TOTAL HOURS 33**

*\* BUSG 2380 will constitute the capstone experience.*

**BUSINESS MANAGEMENT-NON-PROFIT  
MANAGEMENT (Certificate)**

**FIRST YEAR**

| <b>Fall Semester</b>   | <b>Credit Hours</b> |
|--|---------------------|
| ACNT1303 Introduction to Accounting I .....                      | 3                   |
| BMGT1307 High Performance Work Teams .....                       | 3                   |
| MRKG1313 Public Relations.....                                   | 3                   |
| HRPO 2301 Human Resources Management .....                       | 3                   |
| BMGT1191*Special Topics in Business Adm. &<br>Mgt. General ..... | 1                   |
| <b>Total Hours</b>   | <b>13</b>           |

| <b>Mini-'Mester</b>            | <b>Credit Hours</b> |
|--------------------------------|---------------------|
| BMGT1341 Business Ethics ..... | 3                   |
| <b>Total Hours</b>             | <b>3</b>            |

| <b>Spring Semester</b>  | <b>Credit Hours</b> |
|---|---------------------|
| ACNT2330 Governmental and Not-For-Profit<br>Accounting.....         | 3                   |
| BMGT 1327 Principles of Management .....                            | 3                   |
| BMGT 2309 Leadership .....  | 3                   |
| BMGT1345 Communication Skills for<br>Managers .....                 | 3                   |
| BMGT1191*Special Topics in Business Adm. & ..<br>Mgt. General ..... | 1                   |
| <b>Total Hours</b>  | <b>13</b>           |

*Continued On Next Page*

**Mini'Mester**

|                                       |          |
|---------------------------------------|----------|
| MRKG1311 Principles of Marketing..... | 3        |
| <b>Total Hours</b>                    | <b>3</b> |

**Summer III 10-Week Session**

|   |          |
|---|----------|
| BUSG2380**Cooperative Education – Business,<br>General..... | 3        |
| <b>Total Hours</b>  | <b>6</b> |

**GRAND TOTAL HOURS 35**

*\*BMGT1191 is a Special Topics Course that was designed to be repeated multiple times to improve student proficiency. This class will meet 4 Saturdays during the semester on the Gainesville Campus.*

*\*\*BUSG2380 will constitute the capstone experience*

**COMPUTER INFORMATION SYSTEMS & TECHNOLOGY (Degree)**

The Computer Information Systems and Technology (CITE) curriculum is designed to prepare students for productive careers in the Information Technology field. The program is designed to meet the needs of the NCTC service area, with inputs from community leaders in the field.

The CITE program will provide the students with training in industry standard software and hardware. The course of instruction will give the students entry level skills in computer application, increase critical thinking skills, and provide an ethic foundation for the proper usage of telecommunications tools.

**Prerequisite:** There are no prerequisites for entry into the Computer Information Systems and Technology program.

**Graduation Requirements:** A minimum of 62 hours is required for graduation with an Associate of Applied Science Degree in Computer Information Systems and Technology. A minimum of 30 hours is required for graduation with a Certificate in Computer Information Systems and Technology.

**FIRST YEAR**

| <b>First Semester</b>                        | <b>Credit Hours</b> |
|--|---------------------|
| GAME1306 Design and Creation of Games.....   | 3                   |
| POFI2301 Word Processing.....                | 3                   |
| ITSC1316 Linux Installation & Configuration. | 3                   |
| IMED1345 Interactive Multimedia .....        | 3                   |
| IMED1316 Web Page Design I.....              | 3                   |
| ITNW1337 Intro to the Internet.....          | 3                   |
| <b>Total Hours</b>                           | <b>18</b>           |

**Second Semester**

|   | <b>Credit Hours</b> |
|---|---------------------|
| MATH1314 College Algebra OR                         |                     |
| MATH1332 College Mathematics .....                  | 3                   |
| ARTS1301 Art Appreciation OR                        |                     |
| MUSI1306 Music Appreciation.....                    | 3                   |
| GAME1343 Game and Simulation I<br>Programming ..... | 3                   |
| ITSE1302 Computer Programming.....                  | 3                   |
| POFI1349 Spreadsheets.....                          | 3                   |
| <b>Total Hours</b>                                  | <b>15</b>           |

**SECOND YEAR**

**First Semester**

|   | <b>Credit Hours</b> |
|---|---------------------|
| GRPH1359 Object Oriented Computer<br>Graphics ..... | 3                   |
| ENGL1301 Composition I.....                         | 3                   |
| ITSW1307 Introduction to Database.....              | 3                   |
| ITSC1325 Personal Computer Hardware.....            | 3                   |
| GOVT2305 American National Government ....          | 3                   |
| <b>Total Hours</b>                                  | <b>15</b>           |

**Second Semester**

|   | <b>Credit Hours</b> |
|---|---------------------|
| ITSC2331 Integrated Software Application III. | 3                   |
| EECT1300 Technical Customer Service .....     | 3                   |
| SPCH1321 Business and Professional Speaking.  | 3                   |
| ITSE2302 Intermediate Web Programming .....   | 3                   |
| ITSC2280* Cooperative Education .....         | 2                   |
| <b>Total Hours</b>                            | <b>14</b>           |
| <b>GRAND TOTAL HOURS</b>                      | <b>62</b>           |

*\*ITSC2280 will constitute the capstone experience.*

**COMPUTER INFORMATION SYSTEMS & TECHNOLOGY (Certificate)**

A minimum of 32 hours is required for graduation with a certificate in Computer Information Systems and Technology.

**First Semester**

|   | <b>Credit Hours</b> |
|---|---------------------|
| GRPH1359 Object Oriented Computer<br>Graphics ..... | 3                   |
| IMED1316 Web Page Design I.....                     | 3                   |
| ITNW1337 Introduction to the Internet.....          | 3                   |
| ITSW1307 Database .....                             | 3                   |
| GAME1306 Design and Creation of Games.....          | 3                   |
| ITSC1325 Personal Computer Hardware.....            | 3                   |
| <b>Total Hours</b>                                  | <b>18</b>           |

*Continued On Next Page*

## NORTH CENTRAL TEXAS COLLEGE

| Second Semester                            | Credit Hours |
|--|--------------|
| GAME1343 Game and Simulation I.....        | 3            |
| ITSE1302 Computer Programming.....         | 3            |
| EECT1300 Technical Customer Service.....   | 3            |
| ITSE2302 Intermediate Web Programming .... | 3            |
| ITSC2280* Cooperative Education .....      | 2            |
| <b>Total Hours</b>                         | <b>14</b>    |
| <b>GRAND TOTAL HOURS</b>                   | <b>32</b>    |

*\*ITSC2280 will constitute the capstone experience.*

### COMPUTER INFORMATION SYSTEMS & TECHNOLOGY GAME DESIGN (Certificate)

A minimum of 30 semester hours is required for graduation with a certificate in Computer Information Systems and Technology - Game Design.

| First Semester  | Credit Hours |
|---|--------------|
| GAME1306 Design and Creation of Games .....             | 3            |
| GAME1309 Introduction to Animation.....                 | 3            |
| GAME1303 Introduction to Game Design & Development..... | 3            |
| ITSW1307 Introduction to Database.....                  | 3            |
| IMED1345 Interactive Multimedia I.....                  | 3            |
| <b>Total Hours</b>                                      | <b>15</b>    |

| Second Semester                             | Credit Hours |
|---|--------------|
| GAME1343 Game and Simulation I.....         | 3            |
| GAME1359 Game and Simulation II.....        | 3            |
| GAME2342 Game Dev. Using C++.....           | 3            |
| GAME2303 AI Programming.....                | 3            |
| GAME2359*Game & Simulation Group Project. 2 |              |
| <b>Total Hours</b>                          | <b>15</b>    |
| <b>GRAND TOTAL HOURS</b>                    | <b>30</b>    |

*\*GAME2359 will constitute the capstone experience.*

### NETWORKING TECHNOLOGY (Degree) Network Operating Systems Major *Corinth Campus Only*

**Graduation Requirements:** A minimum of 61 semester hours is required for graduation with an Associate of Applied Science Degree in Networking Technology.

**Prerequisite:** Students in this program must be able to keyboard at a minimum rate of 30 words

per minute (WPM). Those who cannot meet this requirement must take a keyboarding class to improve their skills prior to enrollment.

#### FIRST YEAR

| First Semester  | Credit Hours |
|---|--------------|
| ITSC1316 Linux Installation & Configuration                       | 3            |
| POFI2301 Word Processing.....                                     | 3            |
| ITNW1358 Network+.....  | 3            |
| GOVT2305 American National Government ....                        | 3            |
| ITNW1308 Implementing & Supporting Client Operating Systems ..... | 3            |
| <b>Total Hours</b>  | <b>15</b>    |

| Second Semester   | Credit Hours |
|---|--------------|
| MATH1314 College Algebra OR                             |              |
| MATH1332 College Mathematics.....                       | 3            |
| ARTS1301 Art Appreciation OR                            |              |
| MUSI1306 Music Appreciation.....                        | 3            |
| ITNW1353 Supporting Network Server Infrastructure ..... | 3            |
| ENGL1301 Composition I.....                             | 3            |
| ITNW1354 Implementing and Supporting Server.....        | 3            |
| <b>Total Hours</b>                                      | <b>15</b>    |

#### SECOND YEAR

| First Semester  | Credit Hours |
|---|--------------|
| SPCH1321 Business and Professional Speaking.....        | 3            |
| ITSC1325 Personal Computer Hardware.....                | 3            |
| ITCC1401 Network Fundamentals (Cisco I) ....            | 4            |
| ITCC1404 Routing Protocols and Concepts (Cisco II)..... | 4            |
| <b>Total Hours</b>                                      | <b>14</b>    |

| Second Semester                                      | Credit Hours |
|--|--------------|
| ITCC2408 LAN Switching and Wireless (CISCO III)..... | 4            |
| ITCC2410 Accessing the WAN (CISCO IV) .....          | 4            |
| ITSY1342 Information Technology Security... 3        |              |
| EECT1300 Technical Customer Service .....            | 3            |
| ITSC2280* Cooperative Education .....                | 2            |
| <b>Total Hours</b>                                   | <b>16</b>    |
| <b>GRAND TOTAL HOURS</b>                             | <b>60</b>    |

*\*ITSC2280 will constitute the capstone experience.*

*Continued On Next Page*

**NETWORKING TECHNOLOGY (Certificate)**  
**Network Operating Systems Major**  
*Corinth Campus Only*

A minimum of 31 hours is required for graduation with a certificate in Networking Technology.

| <b>First Semester</b>   | <b>Credit Hours</b> |
|---|---------------------|
| ITSC1316 Linux Installation & Configuration                       | 3                   |
| ITSC1325 Personal Computer Hardware.....                          | 3                   |
| ITNW1358 Network+.....  | 3                   |
| SPCH1321 Business & Professional Speaking ...                     | 3                   |
| ITNW1308 Implementing & Supporting Client Operating Systems ..... | 3                   |
| <b>Total Hours 15</b>   |                     |

| <b>Second Semester</b>                                  | <b>Credit Hours</b> |
|---|---------------------|
| BMGT1307 High Performance Work Teams ..                 | 3                   |
| ITSY1342 Information Technology Security...             | 3                   |
| ITNW1353 Supporting Network Server Infrastructure ..... | 3                   |
| EECT1300 Technical Customer Service .....               | 3                   |
| ITNW1354 Implementing and Supporting Server.....        | 3                   |
| <b>Total Hours 15</b>                                   |                     |
| <b>GRAND TOTAL HOURS 30</b>                             |                     |

*Capstone for this course will consist of passing comprehensive departmental exams, or actual work experience.*

**NETWORKING TECHNOLOGY (Certificate)**  
**CISCO Major**  
*Gainesville & Corinth Campuses*

A minimum of 32 hours is required for graduation with a certificate in Computer Information Systems and Technology.

| <b>First Semester</b>                                   | <b>Credit Hours</b> |
|---|---------------------|
| ITSC1316 Linux Installation & Configuration             | 3                   |
| ITSC1325 Personal Computer Hardware.....                | 3                   |
| ITNW1358 Network+.....                                  | 3                   |
| ITCC1401 Network Fundamentals (CISCO I) ..              | 4                   |
| ITCC1404 Routing Protocols and Concepts (CISCO II)..... | 4                   |
| <b>Total Hours 17</b>                                   |                     |

| <b>Second Semester</b>                                  | <b>Credit Hours</b> |
|---|---------------------|
| ITNW1353 Supporting Network Server Infrastructure ..... | 3                   |
| ITSY1342 Information Technology Security...             | 3                   |
| ITCC2408 LAN Switching and Wireless (CISCO III).....    | 4                   |
| ITCC2410 Accessing the WAN (CISCO IV) .....             | 4                   |
| <b>Total Hours 14</b>                                   |                     |
| <b>GRAND TOTAL HOURS 31</b>                             |                     |

*Capstone for this course will consist of passing comprehensive departmental exams, or actual work experience.*

**DRAFTING TECHNOLOGY (Degree)**  
*Gainesville and Corinth Campuses*

**Graduation Requirements:** A minimum of 63 semester hours is required for graduation with an Associate of Applied Science Degree (Equivalent courses may be substituted with permission of program coordinator).

**FIRST YEAR**

| <b>First Semester</b>                       | <b>Credit Hours</b> |
|---|---------------------|
| ENGL1301 Composition I .....                | 3                   |
| MATH1314 College Algebra .....              | 3                   |
| DFTG2317 Descriptive Geometry .....         | 3                   |
| DFTG1305 Technical Drafting .....           | 3                   |
| DFTG1309 Basic Computer-Aided Drafting..... | 3                   |
| <b>Total Hours 15</b>                       |                     |

| <b>Second Semester</b>                             | <b>Credit Hours</b> |
|--|---------------------|
| ENGL1302 Composition II.....                       | 3                   |
| SPCH1315 Public Speaking .....                     | 3                   |
| DFTG2302 Machine Drafting.....                     | 3                   |
| DFTG1317 Architectural Drafting-Residential ...    | 3                   |
| DFTG2319 Intermediate Computer-Aided Drafting..... | 3                   |
| DFTG1333 Mechanical Drafting .....                 | 3                   |
| <b>Total Hours 18</b>                              |                     |

*Continued On Next Page*

**SECOND YEAR**

| <b>Second Semester</b>  | <b>Credit Hours</b> |
|---|---------------------|
| GOVT2305 American National Government ....                        | 3                   |
| DFTG2300 Intermediate Architectural<br>Drafting-Residential ..... | 3                   |
| DFTG2332 Advanced Computer-Aided<br>Drafting .....                | 3                   |
| DFTG2306 Machine Design .....                                     | 3                   |
| DFTG1391 Special Topic in Drafting.....                           | 3                   |
| <b>Total Hours 15</b>   |                     |

| <b>Second Semester</b>                         | <b>Credit Hours</b> |
|--|---------------------|
| DFTG2358 Advanced Machine Design .....         | 3                   |
| DFTG2330 Civil Drafting OR                     |                     |
| DFTG2323 Pipe Drafting .....                   | 3                   |
| DFTG2340 Solid Modeling/Design .....           | 3                   |
| DFTG1358 Electrical/Electronics Drafting ..... | 3                   |
| DFTG2338* Final Project .....                  | 3                   |
| <b>Total Hours 15</b>                          |                     |
| <b>GRAND TOTAL HOURS 63</b>                    |                     |

*\*DFTG2338 will constitute the capstone experience.*

**DRAFTING TECHNOLOGY (Certificate)**

The following are required for certification.

**FIRST YEAR**

| <b>First Semester</b>                            | <b>Credit Hours</b> |
|--|---------------------|
| DFTG1305 Technical Drafting .....                | 3                   |
| DFTG1309 Basic Computer-Aided Drafting.....      | 3                   |
| DFTG1333 Mechanical Drafting .....               | 3                   |
| DFTG2317 Descriptive Geometry .....              | 3                   |
| DFTG1317 Architectural Drafting-Residential .... | 3                   |
| <b>Total Hours 15</b>                            |                     |

| <b>Second Semester</b>                                 | <b>Credit Hours</b> |
|--|---------------------|
| DFTG2340 Solid Modeling/Design .....                   | 3                   |
| DFTG2319 Intermediate Computer-Aided<br>Drafting ..... | 3                   |
| DFTG2302 Machine Drafting.....                         | 3                   |
| DFTG2306 Machine Design .....                          | 3                   |
| DFTG2338* Final Project .....                          | 3                   |
| <b>Total Hours 15</b>                                  |                     |
| <b>GRAND TOTAL HOURS 30</b>                            |                     |

*\*DFTG2338 will constitute the capstone experience.*

**EQUINE SCIENCE (Degree)**

*Gainesville Campus*

The Equine Program is designed to give students hands-on experience, real industry application, and a well-rounded curriculum that includes science, business, riding, and training. Located in the heart of horse country, students not only work within the program but directly with many of the outstanding professionals and facilities in the area thereby gaining important work experience and contacts within the industry. The diverse student population encompasses individuals from many levels of experience, disciplines, and background including international students that come to study in the program.

**Important Notice:** Due to the nature of the program space is limited and students are encouraged to apply early. Students should also note that this is a very rigorous program that requires a large amount of time, significant class loads, and extra work experiences out side of class. Acceptance to the college does not guarantee acceptance into the Equine Program. Students must go through an interview process before acceptance will be considered.

**Graduation Requirements:** A minimum of 66 semester hours is required for graduation with an Associate of Applied Science Degree. (Equivalent courses may be substituted for any of those below with permission from the program faculty or designate).

**FIRST YEAR**

| <b>First Semester</b>                 | <b>Credit Hours</b> |
|---------------------------------------|---------------------|
| ENGL1301 Composition I .....          | 3                   |
| AGEQ1319 Horsemanship I OR            |                     |
| AGEQ1300 English Equitation I .....   | 3                   |
| AGEQ1411 Equine Science I.....        | 4                   |
| Core Science<br>(see page 74).....    | 4                   |
| Humanities/Visual & Performing Arts.. | 3                   |
| (select from list on pg. 74)          |                     |
| <b>Total Hours 17</b>                 |                     |

*Continued On Next Page*

| Second Semester                      | Credit Hours |
|--------------------------------------|--------------|
| AGEQ1315 Horse Evaluation I.....     | 3            |
| AGEQ1305 Enterprise Management.....  | 3            |
| AGRI2317 Intro to Ag Economics ..... | 3            |
| AGEQ2339 Horsemanship II.....        | 3            |
| GOVT2305 American National Govt. OR  |              |
| HIST1301 U.S. History to 1865.....   | 3            |
| <b>Total Hours</b>                   | <b>15</b>    |

**SECOND YEAR**

| First Semester                               | Credit Hours |
|--|--------------|
| AGRI1309 Computer in Ag .....                | 3            |
| AGEQ2310 Equine Business Management .....    | 3            |
| Approved Equine Elective.....                | 2            |
| MATH1314 College Algebra .....               | 3            |
| AGEQ1401 Equine Behavior and Training I..... | 4            |
| <b>Total Hours</b>                           | <b>15</b>    |

| Second Semester                    | Credit Hours |
|------------------------------------|--------------|
| AGEQ1450 Equine Reproduction ..... | 4            |
| Approved Equine Elective.....      | 2            |
| AGEQ2311 Equine Science II.....    | 3            |
| AGRI1419 Animal Science.....       | 4            |
| SPCH1315 Public Speaking.....      | 3            |
| <b>Total Hours</b>                 | <b>16</b>    |

| Summer Semester           | Credit Hours |
|---------------------------|--------------|
| AGEQ2386* Internship..... | 3            |
| <b>Total Hours</b>        | <b>3</b>     |
| <b>GRAND TOTAL HOURS</b>  | <b>66</b>    |

\*AGEQ2386 will constitute the capstone experience.

**EQUINE BUSINESS MANAGEMENT (DEGREE)**

| First Semester                     | Credit Hours |
|------------------------------------|--------------|
| ENGL1301* Composition I            | 3            |
| AGEQ1411* Equine Science I.....    | 4            |
| AGEQ1319* Horsemanship I.....      | 3            |
| ACCT2301* Intro Accounting I ..... | 3            |
| AGRI1309* Ag Computers .....       | 3            |
| <b>Total Hours</b>                 | <b>16</b>    |

| Second Semester                     | Credit Hours |
|-------------------------------------|--------------|
| AGEQ1305 Enterprise Management..... | 3            |
| Core Science (see page 74) .....    | 4            |
| BMGT1303 Princ. Of Management.....  | 3            |
| Approved Equine Elective.....       | 2            |
| Humanities/Performing Arts* .....   | 3            |
| <b>Total Hours</b>                  | <b>15</b>    |

| Third Semester                      | Credit Hours |
|-------------------------------------|--------------|
| AGEQ2310* Equine Business.....      | 3            |
| AGRI1325* Mrkt of Ag Products ..... | 3            |
| BUSG1304 Personal Finance .....     | 3            |
| AGRI2317* Ag Economics.....         | 3            |
| SPCH1315* Public Speaking .....     | 3            |
| GOVT2305* Government.....           | 3            |
| <b>Total Hours</b>                  | <b>18</b>    |

| Fourth Semester                     | Credit Hours |
|-------------------------------------|--------------|
| AGEQ1450* Equine Reproduction ..... | 4            |
| AGEQ2311* Equine Science II.....    | 3            |
| Math1314 College Algebra OR .....   |              |
| Other Approved Math Elective*.....  | 3            |
| AGEQ1315* Horse Evaluation I.....   | 3            |
| ACNT1329 Payroll and Tax Acct OR    |              |
| IBUS1305 International Trade .....  | 3            |
| <b>Total Hours</b>                  | <b>16</b>    |

|                          |           |
|--------------------------|-----------|
| AGEQ2386 Internship..... | 3         |
| <b>GRAND TOTAL HOURS</b> | <b>68</b> |

\* Courses may be transferable

**EQUINE SCIENCE – HORSE MANAGEMENT & TRAINING (Certificate)**

The following are required for certification.

| First Semester                             | Credit Hours |
|--|--------------|
| AGEQ1319 Horsemanship I OR                 |              |
| AGEQ1300 English Equitation I.....         | 3            |
| AGEQ1411 Equine Science I.....             | 4            |
| Approved Equine Elective.....              | 2            |
| AGEQ2310 Equine Business Management .....  | 3            |
| AGEQ1401 Equine Behavior & Training I..... | 4            |
| <b>Total Hours</b>                         | <b>16</b>    |

| Second Semester                     | Credit Hours |
|-------------------------------------|--------------|
| AGEQ1305 Enterprise Management..... | 3            |
| AGEQ1315 Horse Evaluation I.....    | 3            |
| AGEQ2311 Equine Science II.....     | 3            |
| Equine Elective.....                | 2            |
| AGEQ1450 Equine Reproduction .....  | 4            |
| <b>Total Hours</b>                  | <b>15</b>    |

| Summer Semester           | Credit Hours |
|---------------------------|--------------|
| AGEQ2386* Internship..... | 3            |
| <b>Total Hours</b>        | <b>3</b>     |
| <b>GRAND TOTAL HOURS</b>  | <b>34</b>    |

\*AGEQ2386 will constitute the capstone experience.

**EQUINE SCIENCE – BREEDING  
FARM MANAGEMENT (Certificate)**

The following are required for certification.

| <b>First Semester</b>                      | <b>Credit Hours</b> |
|--|---------------------|
| AGRI1309 Computer in Ag .....              | 3                   |
| AGEQ2310 Equine Business Management .....  | 3                   |
| AGEQ1411 Equine Science I.....             | 4                   |
| AGEQ1401 Equine Behavior & Training I..... | 4                   |
| AGCR1441 Pasture Management.....           | 4                   |
| <b>Total Hours</b>                         | <b>18</b>           |

| <b>Second Semester</b>                      | <b>Credit Hours</b> |
|---|---------------------|
| AGEQ1315 Horse Evaluation I.....            | 3                   |
| AGEQ1305 Equine Enterprise Management ..... | 3                   |
| AGEQ1450 Equine Reproduction .....          | 4                   |
| AGEQ2311 Equine Science II.....             | 3                   |
| Approved Equine Elective.....               | 4                   |
| <b>Total Hours</b>                          | <b>17</b>           |

| <b>Summer Semester</b>    | <b>Credit Hours</b> |
|---------------------------|---------------------|
| AGEQ2386* Internship..... | 3                   |
| <b>Total Hours</b>        | <b>3</b>            |

**GRAND TOTAL HOURS 38**

*\*AGEQ2386 will constitute the capstone experience.*

**EQUINE SCIENCE ELECTIVES**

**Select from the list below:**

**EQUINE SCIENCE**

|  |
|--|
| AGEQ1291 Special Topics II                               |
| AGEQ1391 Special Topics III                              |
| AGEQ2215 Horse Evaluation II                             |
| AGEQ1322 Fundamentals of Riding<br>Instruction           |
| AGEQ1271 Reining   |
| AGEQ2401 Behavior and Training II                        |
| AGAH1402 Principles of Fitting and<br>Grooming Livestock |
| AGEQ2259 English Equitation II                           |
| AGEQ1371 Advanced Colt Training                          |

**FARM & RANCH MANAGEMENT (Degree)  
Gainesville Campus**

**Graduation Requirements:** A minimum of 63 semester hours is required for graduation with an Associate of Applied Science Degree. (Equivalent courses may be substituted for any of the classes below with permission from the program faculty or designate).

**FIRST YEAR**

| <b>First Semester</b>                  | <b>Credit Hours</b> |
|--|---------------------|
| ENGL1301 Composition I.....            | 3                   |
| AGRI1131 The Agriculture Industry..... | 1                   |
| AGRI1419 Animal Science.....           | 4                   |
| AGRI1407 Agronomy .....                | 4                   |
| AGAH2301 Animal Health.....            | 4                   |
| Electives.....                         | 2                   |
| <b>Total Hours</b>                     | <b>18</b>           |

| <b>Second Semester</b>               | <b>Credit Hours</b> |
|--------------------------------------|---------------------|
| MATH1332 College Mathematics .....   | 3                   |
| AGRI2317 Agricultural Economics..... | 3                   |
| AGAH2313 Feeds and Feeding.....      | 3                   |
| AGCR1419 Soil Science.....           | 4                   |
| SPCH1315 Public Speaking .....       | 3                   |
| <b>Total Hours</b>                   | <b>16</b>           |

**SECOND YEAR**

| <b>First Semester</b>   | <b>Credit Hours</b> |
|---|---------------------|
| GOVT2306 Amer. State & Local Govt. or<br>GOVT2305 Amer. Natl. Govt..... | 3                   |
| AGRI1309 Computers in Agriculture .....                                 | 3                   |
| AGCR1441 Pasture Management.....  | 4                   |
| AGCR2401 Agriculture Chemicals.....                                     | 4                   |
| Elective .....  | 2                   |
| <b>Total Hours</b>  | <b>16</b>           |

| <b>Second Semester</b>                       | <b>Credit Hours</b> |
|--|---------------------|
| Humanities/Fine Art elective from list ..... | 3                   |
| AGRI1325 Marketing of Agriculture Products.. | 3                   |
| AGMG2480* Cooperative Education .....        | 4                   |
| Elective .....                               | 3                   |
| <b>Total Hours</b>                           | <b>13</b>           |

**GRAND TOTAL HOURS 63**

*\*AGMG2480 will constitute the capstone experience.*

**FARM AND RANCH ELECTIVES**

**Select from list below:**

**FARM AND RANCH MANAGEMENT:**

|                                  |
|----------------------------------|
| AGAH1453 Beef Cattle Management  |
| AGAH1290 Artificial Insemination |

*Continued On Next Page*

|   |                               |
|---|-------------------------------|
| AGCR2401  | Agriculture Chemicals         |
| AGMG2301  | Ranch Business                |
| AGME1449  | Farm Power & Machinery        |
| RELE1331  | Farm & Ranch Real Estate      |
| <b>AGRICULTURE:</b>                             |                               |
| AGRI2221  | Livestock Judging             |
| AGRI1311  | Dairy Science                 |
| AGRI1415  | Horticulture                  |
| AGRI1327  | Poultry Science               |
| AGRI2301  | Ag. Power Units               |
| AGRI2330  | Wildlife Conservation & Mgmt. |
| <b>HUMANITIES/VISUAL &amp; PERFORMING ARTS:</b> |                               |
| (select from list on pg. 74)                    |                               |

|                        |                                 |
|------------------------|---------------------------------|
| <b>Second Semester</b> | <b>Credit Hours</b>             |
| HALT1422               | Landscape Design..... 4         |
| HALT2308               | Greenhouse Management..... 3    |
| AGRI1131               | The Agriculture Industry..... 1 |
| AGCR1419               | Soil Science..... 4             |
|                        | Horticulture Elective ..... 3   |
|                        | <b>Total Hours 15</b>           |

|                             |                               |
|-----------------------------|-------------------------------|
| <b>Summer Semester</b>      | <b>Credit Hours</b>           |
| HALT2480*                   | Cooperative Education ..... 4 |
|                             | <b>Total Hours 4</b>          |
| <b>GRAND TOTAL HOURS 36</b> |                               |

*\*HALT2480 will constitute the capstone experience.*

### HORTICULTURAL MANAGEMENT (Certificate)

The NCTC Horticulture Program is one of the few programs of its kind, providing a broad, technical education in the field of horticulture, emphasizing practical knowledge while preparing students to work in multiple facets of the industry, including landscaping, floristry, horticulture crop production and greenhouse management. Students learn a variety of horticultural techniques such as plant propagation, organic gardening, soil preparation, plant identification, and pest management. Courses are taught using a range of teaching methods consisting of hands-on labs, one-on-one instruction, fieldtrips, and lectures. A dynamic and diverse field, horticulture is among the few to bridge the gap between science, art, business, and technology. Horticulture is not only a multi-billion dollar industry that offers increasing job opportunities for students seeking careers in the area, but horticulture also offers countless opportunities for hobbyists.

The following courses are required for certification, although equivalent courses may be substituted with permission from program faculty. Please note that Floral Design and Advanced Floral Design each require a \$100 lab fee.

|                       |                                  |
|-----------------------|----------------------------------|
| <b>First Semester</b> | <b>Credit Hours</b>              |
| FMKT1301              | Floral Design ..... 3            |
| HALT1325              | Landscape Plant Material ..... 3 |
| HORT1401              | Horticulture..... 4              |
| AGCR2401              | Agriculture Chemicals..... 4     |
|                       | Horticulture Elective ..... 3    |
|                       | <b>Total Hours 17</b>            |

### HORTICULTURE ELECTIVES

*Select from list below:*

|          |  |
|----------|--|
| HALT1309 | Interior Plants ..... 3                                      |
| HALT1353 | Landscape Computer Design .... 3                             |
| HALT1301 | Principles of Horticulture<br>(Natural Horticulture) ..... 3 |
| HALT2302 | Greenhouse Crop Production ... 3                             |
| HALT2307 | Food Crops ..... 3   |
| FMKT2331 | Advanced Floral Design ..... 3                               |
| HALT2331 | Advanced Landscape Design..... 3                             |

### OFFICE SYSTEMS TECHNOLOGY (Degree)

The Office Systems Technology (OST) curriculum is designed to prepare students for a variety of careers related to office technology and to update and sharpen current skills. The program's flexibility allows the student to take classes over the Internet while continuing to work full-time. It is designed to equip students with the knowledge and skills directly related to their career and specifically targets existing occupational areas that are forecast by regional planning agencies to be growing ones.

The objectives of the OST program include preparing students to become employable through training in the occupational area; providing adequate information, learning opportunities, and hands-on practice to become proficient in using computer applications and office machines; and

*Continued On Next Page*

**NORTH CENTRAL TEXAS COLLEGE**

providing professional guidance and ethical foundations for the office environment.

**Prerequisite:** Use of the computer is essential for success in this program. Students enrolled in OST classes must be able to keyboard at a minimum rate of 30 words per minute (wpm), and they will be required to take a keyboarding test to verify that they meet this requirement. Those who cannot meet this requirement must take a keyboarding class to improve their skills prior to or concurrent with enrollment.

**Graduation Requirements:** A minimum of 62 semester hours is required for graduation with an Associate of Applied Science Degree in Office Systems Technology.

**FIRST YEAR**

| <b>First Semester</b>                            | <b>Credit Hours</b> |
|--|---------------------|
| ENGL1301 Composition I.....                      | 3                   |
| BCIS1305 Business Computer Application .....     | 3                   |
| POFT1329 Keyboarding & Document Formatting ..... | 3                   |
| POFI2301 Word Processing.....                    | 3                   |
| ACNT1303 Intro to Accounting I .....             | 3                   |
| <b>Total Hours 15</b>                            |                     |

| <b>Second Semester</b>                                  | <b>Credit Hours</b> |
|---|---------------------|
| POFI1349 Spreadsheets.....                              | 3                   |
| ENGL1302 Composition II.....                            | 3                   |
| ACNT1304 Introduction to Accounting II .....            | 3                   |
| POFT2312 Business Correspondance and Communication..... | 3                   |
| POFI2331 Desktop Publishing for the Office .            | 3                   |
| <b>Total Hours 15</b>                                   |                     |

**SECOND YEAR**

| <b>First Semester</b>                                 | <b>Credit Hours</b> |
|---|---------------------|
| ITSW1307 Intro to Database .....                      | 3                   |
| POFT1309 Administrative Office Procedures I.          | 3                   |
| MATH1332 College Mathematics OR                       |                     |
| MATH1314 College Algebra .....                        | 3                   |
| POFT1328 Business and Professional Presentations..... | 3                   |
| POFT1325 Business Math & Machine Application.....     | 3                   |
| <b>Total Hours 15</b>                                 |                     |

| <b>Second Semester</b>                            | <b>Credit Hours</b> |
|---|---------------------|
| SPCH1321 Business & Professional Speech OR        |                     |
| SPCH1318 Interpersonal Communication .....        | 3                   |
| ARTS1301 Art Appreciation OR                      |                     |
| MUSI1306 Music Appreciation.....                  | 3                   |
| ECON2301 Principles of Economics (Macro) ...      | 3                   |
| ITSW1313 Intro to Data Entry.....                 | 3                   |
| POFT1319 Records and Information Management ..... | 3                   |
| POFT2280* Cooperative Education .....             | 2                   |
| <b>Total Hours 17</b>                             |                     |
| <b>GRAND TOTAL HOURS 62</b>                       |                     |

*\*POFT2280 will constitute the capstone experience.*

**OFFICE SYSTEMS TECHNOLOGY (Certificate)**

**Graduation Requirements:** A minimum of 38 hours is required for graduation with a certificate of completion in Office Systems Technology.

| <b>First Semester</b>                                 | <b>Credit Hours</b> |
|---|---------------------|
| POFT1329 Keyboarding and Document Formatting .....    | 3                   |
| POFT1309 Administrative Office Procedures I.          | 3                   |
| POFT1328 Business and Professional Presentations..... | 3                   |
| ACNT1303 Introduction to Accounting I .....           | 3                   |
| POFT1325 Business Math & Machine Applications .....   | 3                   |
| POFI2301 Word Processing.....                         | 3                   |
| <b>Total Hours 18</b>                                 |                     |

| <b>Second Semester</b>                                  | <b>Credit Hours</b> |
|---|---------------------|
| POFT2312 Business Correspondence and Communication..... | 3                   |
| ACNT1304 Introduction to Accounting II.....             | 3                   |
| POFI1349 Spreadsheets .....                             | 3                   |
| POFI2331 Desktop Publishing for the Office ..           | 3                   |
| ITSW1313 Intro to Data Entry .....                      | 3                   |
| POFT1319 Records and Information Management .....       | 3                   |
| POFT2280* Cooperative Education .....                   | 2                   |
| <b>Total Hours 20</b>                                   |                     |
| <b>GRAND TOTAL HOURS 38</b>                             |                     |

*\*POFT2280 will constitute the capstone experience.*

*Continued On Next Page*

**OFFICE SYSTEMS TECHNOLOGY  
TECHNOLOGY MEDICAL (Certificate)**

**Graduation Requirements:** A minimum of 37 hours is required for graduation with a certificate of completion in Office Systems Technology.

*\*(Prior approval required before registration.*

*Orientation required. Contact Coordinator for instructions).*

| <b>First Semester</b>                               | <b>Credit Hours</b> |
|---|---------------------|
| POFT1329 Keyboarding and Document Formatting .....  | 3                   |
| POFI3201 Word Processing.....                       | 3                   |
| POFT1309 Administrative Office Procedures I .....   | 3                   |
| ACNT1303 Introduction to Accounting I .....         | 3                   |
| POFT1325 Business Math & Machine Applications ..... | 3                   |
| SRGT1201 Medical Terminology*.....                  | 2                   |
| <b>Total Hours 17</b>                               |                     |

| <b>Second Semester</b>                                 | <b>Credit Hours</b> |
|--|---------------------|
| POFI1349 Spreadsheets.....                             | 3                   |
| ACNT1304 Introduction to Accounting II .....           | 3                   |
| POFT2312 Business Correspondence & Communication ..... | 3                   |
| POFM1327 Medical Insurance.....                        | 3                   |
| ITSW1313 Intro to Data Entry.....                      | 3                   |
| POFT1319 Records and Information Management .....      | 3                   |
| POFT2280* Cooperative Education .....                  | 2                   |
| <b>Total Hours 20</b>                                  |                     |
| <b>GRAND TOTAL HOURS 357</b>                           |                     |

*\*POFT2280 will constitute the capstone experience.*

**OIL AND GAS PRODUCTION  
TECHNOLOGY (Degree)**

*Bowie Campus*

Degrees and Certificates in Oil and Gas Production Technology are designed to provide students the necessary curriculum for job in the Oil and Gas industry. Training and coursework provides a diversity of knowledge that can be applied in many areas of the Oil and Gas Industry. The Oil & Gas coursework will be a combination of core academic courses and highly specialized technical classes. The academic support courses for this program can be completed at any of our campuses— Gainesville, Corinth or Bowie. However, the technical courses will, initially, be taught at our Bowie Campus in newly expanded facilities, such as a vocational training area as well as a large multi-purpose classroom designed expressly for the Oil & Gas technical courses.

Safety training as designed and mandated by OSHA will be a major component. Other courses will address work teams, communication and leadership as well the experiential training for the oil and gas industries. These courses prepare students for entry-level careers as part of a production team charged with safe and efficient extraction and flow of product. Those currently in the field who combine education with experience will be able to seek progression into managerial jobs with higher wages. As its foundation, the program will introduce students to the industry, its rich history, and purposes/procedures in varied petroleum technologies: exploration, drilling, production, transportation, marketing, and refining. Introductory and advanced oil and gas specialty topics as recommended by industry partners are heavily entrenched in the curriculum content.

The program will be highly experiential, allowing students to gain knowledge from lecture and hands-on application of concepts both in the lab setting and in the field. Students will gain knowledge related to basic oil field equipment maintenance and repair and environmental and regulatory mandates. Computer literacy will be a program mainstay as the industry adapts to new technology field needs to expediently translate well data.

**Program Requirements:** In addition to the

*Continued On Next Page*

**NORTH CENTRAL TEXAS COLLEGE**

general requirements for admission to NCTC, entry into the Oil & Gas Production Technology program requires basic proficiency in English, Reading, and Math. (THEA requirement).

**Graduation Requirements:** A minimum of 64 semester hours is required for graduation with an Associate of Applied Science Degree.

**FIRST YEAR**

| <b>First Semester</b>                              | <b>Credit Hours</b> |
|--|---------------------|
| PTRT2359 Petroleum Computer Applications .....     | 3                   |
| PTRT 1301 Overview of Petroleum Industry.....      | 3                   |
| ENGL1301 Composition I.....                        | 3                   |
| OSHT 2401 OSHA Regulations - General Industry..... | 4                   |
| MATH1314 College Mathematics OR                    |                     |
| MATH1332 College Algebra.....                      | 3                   |
| <b>Total Hours</b>                                 | <b>16</b>           |

| <b>Second Semester</b>                    | <b>Credit Hours</b> |
|---|---------------------|
| ARTS1301 Art Appreciation OR              |                     |
| MUSI1306 Music Appreciation OR            |                     |
| DRAM1310 Intro to Theater.....            | 3                   |
| PTRT 1307 Recovery and Production.....    |                     |
| Methods .....                             | 3                   |
| PTRT 1313 Industrial Safety .....         | 3                   |
| PTRT 2323 Natural Gas Production .....    | 3                   |
| PTRT 1324 Petroleum Instrumentation ..... | 3                   |
| <b>Total Hours</b>                        | <b>15</b>           |

**SECOND YEAR**

| <b>First Semester</b>                          | <b>Credit Hours</b> |
|--|---------------------|
| SPCH1321 Business and Professional Speaking OR |                     |
| SPCH 1315 Public Speaking .....                | 3                   |
| PTRT 1321 Oil Field Hydraulics .....           | 3                   |
| PTRT 1309 Corrosion Basics.....                | 3                   |
| PTRT 2331 Well Completions. ....               | 3                   |
| PTRT 2332 Artificial Lift .....                | 3                   |
| <b>Total Hours</b>                             | <b>15</b>           |

| <b>Second Semester</b>                | <b>Credit Hours</b> |
|---------------------------------------|---------------------|
| <b>ELECTIVE:</b>                      |                     |
| PTRT 1317 Natural Gas Processing I OR |                     |
| PTRT 2341 Pipelining OR               |                     |
| PTRT 2343 Refining Methods OR.....    | 3                   |
| PTRT 2336 Well Workover .....         | 3                   |
| ECON2302 Micro Economics OR           |                     |

|   |           |
|---|-----------|
| GOVT 2305 American National Government OR     |           |
| HIST1301 U.S. History to 1865.....            | 3         |
| PTRT2340 Well Stimulation .....               | 3         |
| BMGT2309 Leadership .....                     | 3         |
| PTRT 2380 Cooperative Education: Petroleum .. |           |
| Technology/Technician* .....                  | 3         |
| <b>Total Hours</b>                            | <b>18</b> |
| <b>GRAND TOTAL HOURS</b>                      | <b>64</b> |

*\* PTRT 2380 will constitute the capstone experience. Students will complete, with an industry partner, an internship (cooperative education) to validate workplace competencies. Students successfully completing the program would be awarded the Associate of Applied Science degree in Oil & Gas Production Technology.*

**OIL & GAS PRODUCTION TECHNOLOGY (Certificate\*)**

*Bowie Campus*

**Program Requirements:** The Oil & Gas Production Technology certificate program is THEA exempt.

**Certification Requirements:** 31 semester hours is required for completion of the Oil & Gas Production Technology certificate. (Equivalent courses may be substituted with permission from the program coordinator and Dean).

| <b>First Semester</b>                               | <b>Credit Hours</b> |
|---|---------------------|
| PTRT1316 Petroleum Computer Applications.....       | 3                   |
| PTRT1301 Overview of Petroleum Industry .....       | 3                   |
| OSHT 2401 OSHA Regulations - General Industry ..... | 4                   |
| PTRT 1307 Production Methods.....                   | 3                   |
| PTRT 1318 Natural Gas Production.....               | 3                   |
| <b>Total Hours</b>                                  | <b>16</b>           |

| <b>Second Semester</b>                    | <b>Credit Hours</b> |
|---|---------------------|
| PTRT 1313 Industrial Safety .....         | 3                   |
| PTRT 1309 Corrosion Basics .....          | 3                   |
| PTRT 1324 Petroleum Instrumentation ..... | 3                   |
| PTRT 1321 Oil Field Hydraulics.....       | 3                   |
| PTRT 1317 Natural Gas Processing 1.....   | 3                   |
| <b>Total Hours</b>                        | <b>15</b>           |
| <b>GRAND TOTAL HOURS</b>                  | <b>31</b>           |