Department of Computer Science and Engineering

BA in Information Technology

• Advising Information
• Core Curriculum
• Course Descriptions
• Degree Plan Information

UNT Discovery Park (NTDP) F201
(940) 565-2767
www.cse.unt.edu

Valid only for those on Catalog Year 2013-14

ADVISING INFORMATION:
http://www.cse.unt.edu/site/node/418

University of North Texas
Information Technology

• A Minimum of 121 semester hours required for graduation.
• 42 advanced (3000-4000 level) hours required for degree (minimum of 24 must be taken at UNT).
• A minimum of 31 semester hours must be completed at UNT.

THIS IS A SIMPLIFIED GUIDE TO SELECTING COURSES – CHECK THE UNDERGRADUATE CATALOG FOR ALL COURSE OPTIONS

Math, Science, & Engineering Core

Must earn at least a “C” in all courses and a 2.5 GPA in this section

LABORATORY SCIENCES (8 Hours)
CHEM 1410 or 1415 & lab (4 hrs) ________________________
PHYS 1710-1730 (4 hrs) ________________________

MATHEMATICS (7 Hours)
Math 1710 – Calculus I (4 hrs) ________________________
Math 1680, 1681 or 1780 Probability (3 hrs) ________________________

ORAL / ADVANCED WRITTEN COMMUNICATIONS (3 Hours)
TECM 2700 – Tech Writing ______ (satisfies 2nd English)

CSE Department Required Courses

COMPUTER SCIENCE (46 Hours)

Group I. CSCE Required Courses
CSCE 1030 – Computer Science I (4 hr) ________________________
CSCE 1040 – Computer Science II (3 hr) ________________________
CSCE 2100 – Computing Foundations I (3 hr) ________________________
CSCE 2110 – Computing Foundations II (3 hr) ________________________
CSCE 3055 – IT Project Mgmt (3 hr) ________________________
CSCE 3220 – Human Computer Interf. (3 hr) ________________________
CSCE 3420 – Internet Programming (3 hr) ________________________
CSCE 3530 – Intro to Comp. Networks (3 hr) ________________________
CSCE 3600 – Systems Programming (3 hr) ________________________
CSCE 4010 – Social Issues in Computing (3 hr) ________________________
CSCE 4350 – Intro to Database Sys. (3 hr) ________________________
CSCE 4444 – Software Engineering (3 hr) ________________________
CSCE 4550 – Intro. To Comp. Security (3 hr) ________________________
CSCE 4905 – Capstone I (3 hr) ________________________
CSCE 4925 – Capstone II (3 hr) ________________________

Group II. CS Concentration Area (9 hours) – see next page
(3 Hrs.) ________________________ (advanced)
(3 Hrs.) ________________________ (advanced)
(3 Hrs.) ________________________ (advanced)

CSCE courses most closely aligned with the supporting area

Supporting Area (21 hrs to support the CS Concentration Area)
- these courses may NOT be used to fulfill a minor -
(3 Hrs.) ________________________
(3 Hrs.) ________________________
(3 Hrs.) ________________________
(3 Hrs.) ________________________
(3 Hrs.) ________________________
These credits may come from the community college technology courses under certain conditions. Please check with an advisor. Pre-requisites required for Concentration & Supporting Areas can also be used in those areas.

University Core

ENGLISH (3 Hours)
ENGL 1310,1311,1312, or 1313 ________________________
Grade of “C” or better required
Second English fulfilled by TECM 2700

UNITED STATES HISTORY (6 Hours)
HIST 2610 ________________________
HIST 2620 (4260 or 4700 recommended) ________________________

NOTE: Honors equivalents or History 4700 (Texas History) or any advanced US-Topic History course(s) may substitute for either of the US History survey courses.

POLITICAL SCIENCE (6 Hours)
PSCI 1040 ________________________
PSCI 1050 ________________________

NOTE: If you are transferring credit for either PSCI course, please check with your advisor. Do not assume that your “first” course elsewhere is the same as PSCI 1040. An out-of-state American Government course cannot be equivalent to PSCI 1040 but may be equivalent to PSCI 1050. Any advanced US-Topic Political Science course may substitute for PSCI 1050 only.

SOCIAL AND BEHAVIORAL SCIENCES (3 Hours)

VITAL / PERFORMANCE ARTS (3 Hours) ________________________
(MUMH 3000 or 3010 recommended)

HUMANITIES (3 Hours)

DISCOVERY (3 Hours)

CAPSTONE (3 Hours) CSCE 4010 Satisfies

TAKE UPPER DIVISION (3xx & 4xx) COURSES WHERE POSSIBLE

NOTE: You must maintain a 2.75 GPA in all upper division CSCE courses.

Completing CSCE 3530, CSCE 4550, and CSCE 4560 earns a certificate from the Committee on National Security Systems.

Completing CSCE 4210, 4215, 4220, and 4250 earns the Certificate in Game Programming.

A maximum of 6 hours of credit can be received in CSCE 4890, 4920, 4940, or 4950.

Check with your advisor concerning elective courses and eligible Concentration and Supporting Area courses.

In case of conflicting information, the catalog (catalog.unt.edu) prevails. This guide is for catalog year 2013-14 and does not apply to other catalog years.
Bachelor of Arts Major in Information Technology

Sample Focus Areas

Students are encouraged to consult their advisor concerning transferability of courses. The focus area does not appear on your diploma.

Focus areas involve a clearly defined set of courses in the Concentration and Supporting Areas. These courses may not be used as part of a minor.

Concentration area courses must be CSCE. Supporting area courses can be CSCE or from other disciplines. Approved courses and their pre-requisites will work for the Concentration / Supporting Areas.

These are just a few samples of the many options available to you. Please consult your advisor.

<table>
<thead>
<tr>
<th>Game Development</th>
<th>Suggested Supporting Area Courses</th>
</tr>
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<tbody>
<tr>
<td>CS Concentration Area Courses (9 Hours)</td>
<td>Math 2700 Linear Algebra</td>
</tr>
<tr>
<td>CSCE 4210 Game Programming I</td>
<td>CSCE 4230 Intro. to Computer Graphics</td>
</tr>
<tr>
<td>CSCE 4220 Game Programming II</td>
<td>CSCE 4310 Intro to Artificial Intelligence</td>
</tr>
<tr>
<td>CSCE 4215 Programming Math &amp; Physics for Games</td>
<td>CSCE 4890.716 Directed Study in Game Dev</td>
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<tr>
<td></td>
<td>CSCE 4250 Topics in Game Development</td>
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<td></td>
<td>Advanced Digital Art / Modelling Courses</td>
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<thead>
<tr>
<th>Business (Pre-MBA)</th>
<th>Suggested Supporting Area Courses</th>
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<tbody>
<tr>
<td>CS Concentration Area Courses (9 Hours)</td>
<td>ACCT 2010</td>
</tr>
<tr>
<td>CSCE 4310 Intro. To Artificial Intelligence</td>
<td>ACCT 2020</td>
</tr>
<tr>
<td>CSCE 4560 Secure Electronic Commerce</td>
<td>FINA 3770</td>
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<tr>
<td>CSCE 4520 Wireless Networks and Protocols</td>
<td>MKTG 3650</td>
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<td>MGMT 3820</td>
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<td>BLAW 3430</td>
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<td></td>
<td>Any 3000-4000 level College of Business course</td>
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<thead>
<tr>
<th>Security &amp; Networking</th>
<th>Suggested Supporting Area Courses</th>
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<tbody>
<tr>
<td>CS Concentration Area Courses (9 Hours)</td>
<td>CSCE 4520 Wireless Networks and Protocols</td>
</tr>
<tr>
<td>CSCE 3110 Data Structures</td>
<td>CSCE 4050 Applications of Cryptography</td>
</tr>
<tr>
<td>CSCE 4560 Secure Electronic Commerce</td>
<td>CSCE 3510 Introduction to Wireless Comm.</td>
</tr>
<tr>
<td>CSCE 4050 Cryptography</td>
<td>Advanced BCIS Security or e-Commerce</td>
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<td></td>
<td>CSCE 4890 Directed Study in Security</td>
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<td></td>
<td>Advanced BCIS Security or e-Commerce</td>
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<td>Advanced CJUS Course</td>
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<table>
<thead>
<tr>
<th>Pre-Law</th>
<th>Suggested Supporting Area Courses</th>
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<tbody>
<tr>
<td>CS Concentration Area Courses (9 Hours)</td>
<td>Choose 21 hours from the following courses depending on legal focus area</td>
</tr>
<tr>
<td>CSCE 3110 Data Structures</td>
<td>Political Sci. 3200, 3210, 4200, 4210, 4220, 4810</td>
</tr>
<tr>
<td>CSCE 4560 Secure Electronic Commerce</td>
<td>Criminal Justice 3201, 4250, 2100, 3210, 3700</td>
</tr>
<tr>
<td>CSCE 4890 Directed Study in Security</td>
<td>Business Law 2000, 3430, 4200, 4430, 4450, 4480, 4600, 4770</td>
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</table>

<table>
<thead>
<tr>
<th>Teaching Certification</th>
<th>Suggested Supporting Area Courses</th>
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</thead>
<tbody>
<tr>
<td>CS Concentration Area Courses (9 Hours)</td>
<td>TNTX 1100, TNTX 1200, PHIL 2600, EDSE 3500, EDSE 4000, EDSE 4500, EDSE 4608, EDSE 4618, EDSE 4628</td>
</tr>
<tr>
<td>Course suggestions based on teaching area:</td>
<td>Must have these 22 hours, a 2.5 GPA and be recommended for certification. Students should contact the Teach North Texas program office for more information.</td>
</tr>
<tr>
<td>Theory: CSCE 3110, 4110, 4115</td>
<td>All state certification requirements and information on required examinations is available on the web site of the State Board for Educator Certification (SBEC), <a href="http://www.tea.state.tx.us">www.tea.state.tx.us</a>.</td>
</tr>
<tr>
<td>Security: CSCE 4050, 4240, 4560</td>
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</tbody>
</table>
Prerequisite Structure
BA in Information Technology

See Undergraduate catalog for requirements

Elective credit only

Pre-reqs vary with course selections

A clearly defined focus of courses in the Concentration (CSCE) and Supporting Areas (may be non-CSCE). See an advisor for approval

Special Problems / Directed Study
See Undergraduate catalog for requirements

Maximum 6 hours credit in these courses

See math department for placement before registering for your first math course

Required for BA-IT

Recommended

Optional

Pre-reqs vary with course selections

A clearly defined focus of courses in the Concentration (CSCE) and Supporting Areas (may be non-CSCE). See an advisor for approval
# Course Offering for UNT Core Requirements

## ENGLISH COMPOSITION (3 Hours)
- ENGL 1310, College Writing I
- ENGL 1311, Honors Composition I
- ENGL 1313, Computer Assisted College Writing
- ENGL 1315, Writing about Literature I
- TECM 1312, Gram. & Comp. For International Students
- TECM 1700, Intro. to Professional, Science, & Tech. Writing

## UNITED STATES HISTORY (6 Hours)
- HIST 2610, US to 1865
- HIST 2675, Honors US History to 1865
- HIST 2620, US from 1865
- HIST 2685, Honors US History from 1865
- HISI 4700, Texas History Advanced (3*** or 4****) level U.S. History (Group A)

## POLITICAL SCIENCE (6 Hours)
- PSCI 1040, American Government
- PSCI 1041, Honors Am. Government
- PSCI 1050, American Government
- PSCI 1051, Honors Am. Government

## SOCIAL & BEHAVIORAL SCIENCES (3 Hours)
- AGER 4560, Minority Aging
- AGER 4800, Social Context of Aging
- ANTH 1010, Intro. to Anthropology
- ANTH 2300, Culture and Society
- BEHV 2300, Behavior Principles I
- CJUS 2100, Crime and Justice in the U.S.
- COMM 2020, Interpersonal Comm.
- DFST 1013, Human Development
- EADEP 4050, Special Pop. in Disasters
- ECON 1100, Microeconomics
- ECON 1110, Macroeconomics
- HLTH 2200, Family Life & Human Sexuality
- JOUR 1210, Mass Comm. & Society
- MKTG 2650, Princ. of Global Marketing
- PADM 2100, Diversity in Urban Gover.
- PSYC 1630, General Psychology I
- PSYC 1650, General Psychology II
- RHAB 3100, Disability & Society
- SOCI 1510, Individuals in Society
- SOCI 2100, Crime & Justice in the U.S.

## VISUAL AND PERFORMING ARTS (3 Hours)
- ART 1300, Art Appreciation
- ART 1301, Honors Art Appreciation
- ART 2350, Art History Survey I
- ART 2360, Art History Survey II
- COMM 2060, Performance of Literature
- DANC 1200, Appreciation of Dance
- DANC 2800, Survey of Dance
- MUMH 1600, Music in Human Imagination
- MUMH 2040, Music Appreciation
- MUMH 3000, Nineteenth-Century Music
- MUMH 3010, Twentieth-Century Music
- THEA 1340, Aesthetics of the Theatre
- THEA 2340, Theater Appreciation
- THEA 3030, World Theatre to 1700
- THEA 3040, World Theatre from 1700

## HUMANITIES (3 Hours)
- AGER 2250, Images of Aging in Film & Lit.
- ENGL 2210, World Literature I
- ENGL 2211, Honors World Literature I
- ENGL 2220, World Literature
- ENGL 2221, Honors World Literature
- ENGL 2322, British Literature to 1780
- ENGL 2323, British Literature from 1780
- ENGL 2327, American Literature to 1870
- ENGL 2328, American Literature from 1870
- FREN 3040, Adv. Reading French Culture
- FREN 4070, French Culture & Lit. thru Film
- FREN 4310, Concepts of French Civilization
- MUSI 3030, Music Culture of the World
- PHIL 1800, Philosophy of Self
- PHIL 2070, Great Religions
- PHIL 2100, Intro. to Judaism
- PHIL 2230, Intro. to Ancient Philosophy
- PHIL 2400, Religion in American Society
- PHIL 2500, Contemp. Environ. Issues
- PHIL 2600, Ethics in Science

## CAPSTONE (3 Hours)
- ELET 4790, Senior Design II
- HNRS 4000, Honors Capstone Seminar
- MEET 4790, Senior Design II
- MUET 3020, Popular Music in Am. Culture
- PHIL 3700, Science, Technology & Society
- PHIL 3900, Philosophy of Food

*Additional courses will be added for the 2012-2013 curriculum. If your degree program doesn’t require a major course which double-dips for this core category, you should postpone completing a course until the updated curriculum is released.*

Revised April 15, 2011
The tables below indicate the University Core, College of Engineering and Departmental course requirements that are available to take at area community colleges before transferring to UNT Denton or UNT Dallas. Courses that are taken at area community colleges after transferring to UNT Denton or UNT Dallas must be approved from a UNT advisor and may be different than what is listed on these tables.

Core Classes

<table>
<thead>
<tr>
<th>UNT Course</th>
<th>Title</th>
<th>DCCCD</th>
<th>Collin</th>
<th>TCC</th>
<th>NCTC</th>
<th>Notes</th>
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<tr>
<td>ENGL 1310</td>
<td>Composition I</td>
<td>ENGL 1301</td>
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<td>TECM 2700</td>
<td>Technical Writing</td>
<td>ENGL 2311</td>
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<tr>
<td>HIST 2610</td>
<td>US History I</td>
<td>HIST 1301</td>
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<td>HIST 2620</td>
<td>US History II</td>
<td>HIST 1302</td>
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<tr>
<td>PSCI 1040</td>
<td>State and Local Govt.</td>
<td>GOVT 2301</td>
<td>GOVT 2301</td>
<td>GOVT 2306</td>
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<tr>
<td>PSCI 1050</td>
<td>US Govt.</td>
<td>GOVT 2302</td>
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<tr>
<td>Social &amp; Behavioral Science</td>
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<td>Visual/Performing Arts</td>
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<td>Humanities</td>
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<td>Discovery</td>
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Please see the College of Engineering Advisers in Discovery Park BEFORE enrolling in courses at another institution.
College of Engineering Core

Grades of ‘D’ are not accepted

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<tr>
<th>UNT Course</th>
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<tbody>
<tr>
<td>PHYS 1710/1730</td>
<td>Physics I – Mechanics</td>
<td>PHYS 2425</td>
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<tr>
<td>CHEM 1410/1430</td>
<td>Gen Chemistry I</td>
<td>CHEM 1411</td>
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<td>MATH 1710</td>
<td>Calculus I</td>
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<tr>
<td>MATH 1680 / 1681</td>
<td>Elem. Prob &amp; Statistics</td>
<td>MATH 2342</td>
<td>MATH 1342</td>
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Departmental Requirements

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<tr>
<td>CSCE 1030</td>
<td>Programming Fundamentals I</td>
<td>COSC 1436</td>
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<td>CSCE 1040</td>
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<td>CSCE 2100 or CSCE 2110 if CSCE 2100 complete</td>
<td>Foundations I</td>
<td>COSC 2436</td>
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<tr>
<td>CSCE 2100 or CSCE 2110 if CSCE 2100 complete</td>
<td>Foundations II</td>
<td>MATH 2305</td>
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