

# 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 2017-18

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

University of North Texas

## **Educational Objectives**

#### Educational Objectives for the B.A. in Information Technology

#### Graduates will:

- Pursue graduate studies in information technology, computer science or related disciplines, and/or a career in a technology field utilizing skills from the information technology areas studied during the undergraduate program.
- Act responsibly and ethically in their professional conduct and successfully engage in lifelong learning.
- Work effectively in multi-disciplinary teams and exhibit the ability to communicate effectively.
- Complete professional work assignments that exhibit the ability to design, develop, manage, maintain and implement information systems while applying IT and computing principles and practices to the solution of real problems.

### INFORMATION TECHNOLOGY

Bachelor of Arts (B.A.) degree with a major in Information Technology

Department of Computer Science & Engineering Discovery Park F-201; (940) 565-2767 Faculty Advisors: Dr. Ryan Garlick, Mr. David Keathly ryan.garlick@unt.edu, david.keathly@unt.edu

**University Core** 

#### COMMUNICATION

3 Hours approved course

Grade of "C" or better is required.

#### **AMERICAN HISTORY**

- ☐ HIST 2610, U.S. History To 1865 (3 Hours)
- ☐ HIST 2620, U.S. History From 1865 (3 Hours)

#### **GOVERNMENT/POLITICAL SCIENCE**

- PSCI 2305, U.S Political Behavior & Policy (3 Hours)
- PSCI 2306, U.S. & Texas Constitution & Institution (3 Hours)

#### **CREATIVE ARTS**

■ 3 Hours approved course

#### LANGUAGE, PHILOSOPHY, & CULTURE

3 Hours approved course

#### **SOCIAL & BEHAVIORAL SCIENCE**

3 Hours approved course

#### **COMPONENT AREA**

3 Hours approved course

#### Major Requirements

Grades of C or better.

#### TECHANICAL COMMUNICATIONS

☐ TECM 2700, Technical Writing (3 Hours)

#### **MATHEMATICS**

- MATH 1710, Calculus I (4 Hours)
- MATH 1680 or MATH 1780, Probability (3 Hours)

#### **SCIENCES**

- PHYS 1710, Mechanics (3 Hours) & PHYS 1730, Mechanics Lab (1 Hour)
- ☐ CHEM 1410, General Chemistry I (3 Hours) & CHEM 1430, General Chemistry I Lab (1 Hour)

CHEM 1415, Chemistry for Engineers (3 Hours) & CHEM 1435, Chemistry for Engineers Lab (1 Hour)

BIOL 1710, Biology I (3 Hours) & BIOL 1760, Biology Lab (2 Hours) **Engineering Advising Office** Discovery Park A-101; (940) 565-4201 Academic Advisor: Heather Burrow, Beverly Wilks heather.burrow@unt.edu, beverly.wilks@unt.edu

#### **Major Requirements**

Grades of C or better.

#### **COMPUTER SCIENCE and ENGINEERING**

- □ CSCE 1030, Computer Science I (4 Hours)
- □ CSCE 1040, Computer Science II (3 Hours)
- ☐ CSCE 2100, Computing Foundations I (3 Hours)
- □ CSCE 2110, Computing Foundations II (3 Hours)
- ☐ CSCE 3055, IT Project Management (3 hours)
- ☐ CSCE 3220, Human Computer Interfaces (3 Hours)
- □ CSCE 3420, Internet Programming (3 Hours)
- □ CSCE 3530, Introduction to Computer Networks (3 Hours)
- ☐ CSCE 3535, Network Administration (3 Hours)
- ☐ CSCE 3600, Principles of Systems Programming (3 Hours)
- ☐ CSCE 3605, Systems Administration(3 Hours)
- ☐ CSCE 3615, Enterprise Systems Arch., Analysis & Design (3 Hours)
- ☐ CSCE 4010, Social Issues in Computing (3 Hours)
- □ CSCE 4350, Introduction to Database Systems Design (3 Hours)
- □ CSCE 4355, Database Administration (3 Hours)
- □ CSCE 4550, Introduction to Computer Security (3 Hours)
- □ CSCE 4905, Information Technology Capstone I (3 Hours)
- □ CSCE 4925, Information Technology Capstone II (3 Hours)

#### **SUPPORTING AREA**

- ☐ Course approved by an advisor (3 Hours)
- ☐ Course approved by an advisor (3 Hours)
- ☐ Course approved by an advisor (3 Hours)
- Course approved by an advisor (3 Hours)
- □ Course approved by an advisor (3 Hours)
- Course approved by an advisor (3 Hours)
- ☐ Course approved by an advisor (3 Hours)

You must choose a supporting area (21 Hours) & complete approved courses. Check with your advisor concerning approved classes. Suggestions include, but are not limited to:

Security **Health Professions** 

Networking Pre-Med/Pre-Vet/Pre-Dental

Information Systems Pre-Law

Software/Web Development Education/Teach North Texas

Game Development Pre-MBA Business Criminology/Forensics General Business Technical Communications Management

Microsoft/Oracle/Cisco Cert. Logistics

Graphic/Communications Design Geographic Information Systems (GIS)

Completion of CSCE 2610, CSCE 4560, & CSCE 4600 toward a Supporting Area in Security and/or Networking also earns a Security Certificate from the National Security Agency and Department of Homeland Security. CSCE 2610 requires EENG 2710 or ENGR 2720/2730 as prerequisité.

A maximum of 6 hours may be taken for the Supporting Area from CSCE 4890, 4920, 4930, 4940, or 4950.

### INFORMATION TECHNOLOGY

Sample Four-Year Schedule
Required prerequisite(s) indicated in parentheses & notes

FRESHMAN YEAR							
FALL MATH 1710, Calculus I (see note 1) CHEM 1410 or 1415 or BIOL 1710 (see note 2) CHEM 1430 or 1435 or BIOL 1760 (see note 2) CSCE 1030, Computer Science I (see note 3) Communication Core course Total Hours	4 3 1 4 3 15	SPRING  MATH 1680 or MATH1780, Probability (MATH 1710) PHYS 1710, Mechanics (MATH 1710) PHYS 1730, Mechanics Lab (MATH 1710) CSCE 1040, Comp. Science II (CSCE 1030, MATH 1710) TECM 2700, Technical Writing (Communication Core) University Core course Total Hours	3 3 1 3 3 3 16				
	SOPHOMORE YEA	AR					
FALL CSCE 2100, Computing Foundations I (CSCE 1040) Supporting Area course (see note 4) University Core course University Core course University Core course Total Hours	3 3 3 3 3 15	SPRING CSCE 2110, Computing Foundations II (CSCE 2100) CSCE 3600, Systems Programming (CSCE 2100) Supporting Area course (see note 4) University Core course University Core course Total Hours	3 3 3 3 3				
	JUNIOR YEAR						
FALL CSCE 3055, IT Project Management (CSCE 2100) CSCE 3220, Human Computer Interfaces (CSCE 2110) CSCE 3420, Internet Programming (CSCE 2110) CSCE 3530, Computer Networks (CSCE 3600) Supporting Area course (nee note 4) Total Hours	3 3 3 3 3 15	SPRING CSCE 4010, Social Issues (CSCE 3600) CSCE 3605, Systems Administration (CSCE 3600) CSCE 3615, Enterprise Systems Arch. (CSCE 2100) CSCE 4350, Database Systems (CSCE 2110) University Core course Total Hours	3 3 3 3 3				
	SENIOR YEAR						
FALL CSCE 3535, Network Administration (CSCE 3530) CSCE 4355, Database Administration (CSCE 4350) CSCE 4550, Computer Security (CSCE 3600) CSCE 4905, Capstone I (CSCE 3055, CSCE 3615) Supporting Area course (see note 4) Total Hours	3 3 3 3 3	SPRING CSCE 4925, Capstone II (CSCE 4905) Supporting Area course (see note 4) Supporting Area course (see note 4) Supporting Area course (see note 4) University Core course Total Hours	3 3 3 3 3				

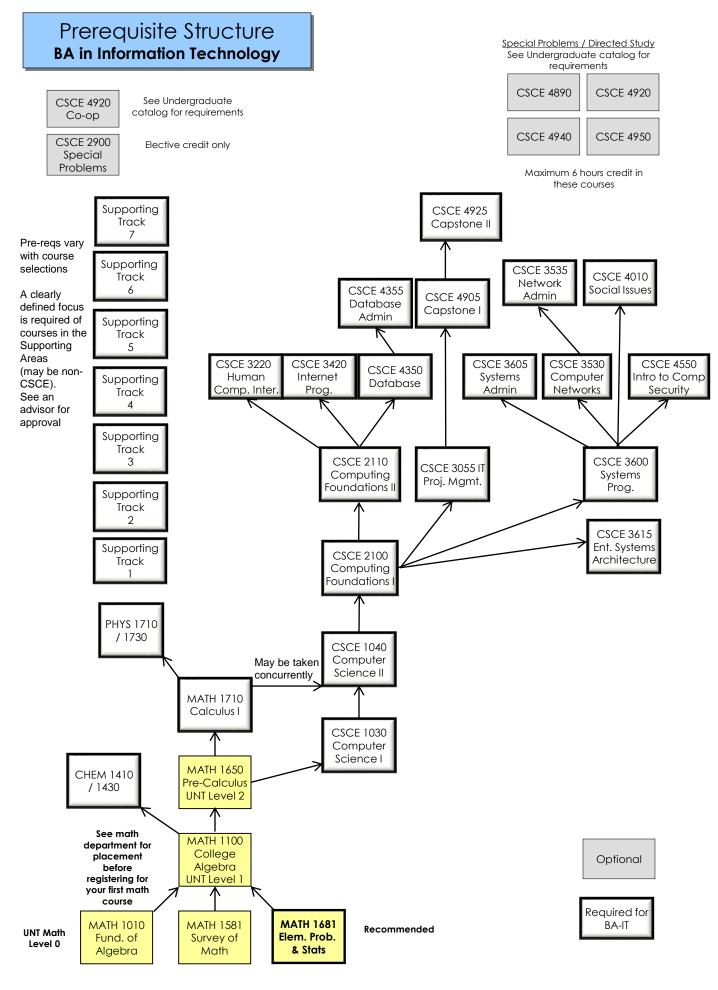
#### Notes:

- Note 1: MATH 1710 requires one of the following as prerequisite: completion of MATH 1650 with a grade of "C" or higher; or completion of MATH 1610 with a grade of "C" or higher; or Freshman Math Group Level 3; or approval authorized by score via mathematics testing; or earned credit for a math course at or above the MATH 1710 level.
- Note 2: BIOL 1710 & 1760 has no prerequisite. CHEM 1410 & 1430 requires MATH 1100, College Algebra (or higher) as prerequisite. CHEM 1415 & 1435 requires MATH 1650, Pre-Calculus (or higher) as prerequisite.
- Note 3: CSCE 1030 requires completion of or co-enrollment in MATH 1710, Calculus I(or higher) as prerequisite.
- Note 4: Must enroll in Supporting Area courses approved by an advisor & complete prerequisite(s) for approved courses.

Must earn at least a grade of "C" and a minimum 2.5 GPA in CSCE 1030, CSCE 1040, CSCE 2100, and MATH 1710 as foundations to enroll in advanced courses.

Must earn at least a grade of "C" in each course above except for most University Core courses.

This is an unofficial sample schedule. Requirements, prerequisites, etc. may change. Students should meet with an advisor each semester for individual scheduling, program decisions, etc. Engineering admissions requirements must be met & a degree audit must be created in order to progress in the program to a timely graduation.



		ARI	1300, Art Appreciation, Nor
U	niversity Core Informatio	Majors CIS Business Info.	3615, Visual Display of
		BIOL	1000, Discover Life Science
<b>COMMUNICATION</b> (3 Hours)	LANGUAGE, PHIL. & CULTURE Cont'd (3 Hours)	BIOL	1750/1755, Intro. Research
ENGL 1310, College Writing I	ENGL 2210, World Literature to 1700	Lab I & II	
ENGL 1311, Honors College Writing I	ENGL 2211, Honors World Literature to 1700	BMEN	1300, Discover Biomedical
ENGL 1315, Writing about Literature I	ENGL 2220, World Literature from 1700	Engr.**	
TECM 1312, Intro. to Writing For	ENGL 2221, Honors World Lit. from 1700	BUSI	1340, Managing Business
International Students	FREN 3040, France Today	Enterprise	3 3
TECM 1700, Intro. to Professional,	FREN 4060, Studies in French Literature	CHEM	1400, Discover Chemistry
Science, & Tech. Writing	FREN 4310, Contemp. French Civilization	COMM 1010, In:	tro. to Communication
105 "11	GERM 3040, Topics in German Culture	COMM 1440, Ho	onors Classical Argument
AP English Language & Composition	GERM 3050, Topics in German Literature	COMM 2040, Pu	ublic Speaking
score of 3, 4 or 5	HDFS 2313, Courtship & Marriage	COMM 2140, Ad	dvocating in Public
IB English A: Language & Literature	HIST 1050, World History to 16 <sup>th</sup> Century	COUN	2620, Diversity & Cultural
score of 5, 6, or 7	HIST 1060, World History from 16 <sup>th</sup> Century	Awareness	
	ITAL 3040, Topics in Italian Culture	DANC	1100, Stress Reduct. Thru
	ITAL 3050, Comp. Italian Culture Thru Film	Movement	
AMERICAN HISTORY (6 Hours)	ITAL 3070, Intro. to Italian Literature	EENG 1910, Pr	oject 1: Learning to Learn
HIST 2610, US to 1865 <b>or</b>	JAPN 3020, Advanced Japanese I	ENGL	3000, Literary Analysis &
HIST 2675, Honors US History to 1865	MUET 3030, Music Cultures of the World	Interpretation	
HIST 2620, US from 1865 <b>or</b>	PHIL 1050, Introduction to Philosophy	ENGR	1030, Technological System
HIST 2685, Honors US History from 1865	PHIL 1400, Contemporary Moral Issues	FREN	1610, French Influence in
HIST 4700, Texas History	PHIL 2050, Introduction to Logic	North Am.	
	PHIL 2070, Great Religions	FREN	1620, French Language in
AP U.S. History score of 3, 4 or 5	PHIL 2100, Intro. To Judaism	Canada	
CLEP History of United States I	PHIL 2310, Intro. To Ancient Philosophy	GEOG	1500, Geospacial Tech. Urb
CLEP History of United Stated II	PHIL 2600, Ethics in Science	Areas	
CLL: Therety of ormed drafed in		HDFS	2033, Parenting in Diverse
	AP English Literature & Composition	Families	
<b>GOVT./POLITICAL SCIENCE</b> (6 Hours)	score of 3, 4 or 5	HDFS	3423, Family, Schools,
PSCI 2305, U.S Political Behav. & Policy <b>or</b>	AP World History score of 3, 4 or 5	Communities	
PSCI 2315, Honors U.S. Political Behav.	IB History score of 4 or higher*	HLTH	2000, Intro. to Public Health
PSCI 2306, U.S. & Texas <b>or</b>	IB Philosophy score of 5, 6, or 7	HMGT	1450, Principles of Nutrition
	IB English Language A: Literature	HNRS	1100, The Good Society
PSCI 2316, Honors U.S. & Texas	score of 5, 6, or 7	HNRS	1500, Intro. to Research
ADILC Care & Dalitica again of 2 days		INST	2100, Intro. to International
AP U.S. Gov. & Politics score of 3, 4 or 5	SOCIAL & BEHAVIORAL SCIENCE (3 Hours) AGER 4560, Minority Aging	Studies	
CLEP American Government		INST	2500, Global Perspectives
Fulfills PSCI 2305 or 2315	AGER 4800, Social Context of Aging ANTH 1010, Intro. to Anthropology	ITAL	1610, Italian Influences in th
	ANTH 2300, Culture and Society	U.S.	
CREATIVE ARTS (2 Hours)		JOUR	1210, Mass Communication
CREATIVE ARTS (3 Hours)  ART 1300, Art Appreciation	BEHV 2300, Behavior Principles I CJUS 2100, Crime and Justice in the U.S.	Society	
• • • • • • • • • • • • • • • • • • • •	COMM 2020, Interpersonal Comm.	LANG	1610, World Ling. Landscap
ART 1301, Honors Art Appreciation ART 2360, Art History Survey II	EADP 4050, Special Pop. in Disasters	LING	2050, Language of Now
COMM 2060, Performance of Literature	ECON 1100, Microeconomics	MATH	2000, Discrete Mathematics
DANC 1200, Appreciation of Dance	ECON 1110, Microeconomics	MDSE	2750, Consumers in a Globo
DANC 2800, Survey of Dance	GEOG 1200, Global Societies	Market	
MUMH 2040, Music Appreciation	HDFS 1013, Human Development	MEEN _	1000, Discover Mech. &
MUMH 3000, Nineteenth-Century Music	HLTH 2200, Family Life & Human Sexuality	Energy Engr.	
MUMH 3010, Twentieth-Century Music	JOUR 1210, Mass Comm. & Society	MGMT	3330, Communicating in
MUMH 3500, Music Hist. & Lit. to 1750	MDSE 2750, Consumers in Global Market	Business	
MUMH 3510, Music His. & Lif. 10 1750	MKTG 2650 Culture and Consumption	MKTG	2650, Culture & Consumption

2650 Culture and Consumption

3620, Developmental Psychology

2100, Crime & Justice in the U.S.

MAUG 1500 Occupational Health with Music

PADM 2100, Cultural Competency in Urban

1630, General Psychology I

1650, General Psychology II

3100, Disability & Society

1510, Intro to Sociology

AP Macroeconomics score of 3, 4 or 5

AP Microeconomics score of 3, 4 or 5

SOWK 1450, Intro. to Social Work

AP Psychology score of 3, 4 or 5

IB Economics score of 4 or higher\*

IB Geography score of 4 or higher\*

IB Psychology score of 4 or higher\*

CLEP Introductory Psychology

**CLEP Introductory Sociology** 

CLEP Human Growth & Development

**CLEP Macroeconomics** 

CLEP Microeconomics

**MKTG** 

MTSE

**PHED** 

PHIL

**PHIL** 

PHIL

PHIL

Society

RH5AB or 7.

course.

SOCI

SOWK

**Environmental Issues** 

MUMH 3500, Music Hist. & Lit. to 1/50 MUMH 3510, Music His. & Lit from 1750

PSYC

**PSYC** 

**PSYC** 

**RHAB** 

SOCI

SOCI

THEA 1340, Aesthetics of the Theatre 2340, Theater Appreciation 3030, World Theatre to 1700 THEA 3040, World Theatre from 1700

IB Dance score of 4 or higher\*

AP Art History score of 3, 4 or 5

ANTH

**LANGUAGE, PHIL. & CULTURE** (3 Hours) **AGER** 

2250, Aging in Film & Lit. ANTH 3101 American Culture & Society ANTH 3110, Indigenous People of N. Am. ANTH 3120, Indigenous Cultures of S.W.

3140, Latinos in the U.S. 3200, Latin American Cultures ANTH ANTH 3210, MesoAmerica ANTH 3220, Mayan Culture 3300, Peoples of the Pacific

ANTH **ANTH** 3400, Peoples of Africa 3500, Peoples of the Middle East ANTH ANTH 3700, Peoples of South Asian

3010, Professional Selling

1800, Philosophy of Self

2500, Contemp.

4150, Feminism

1000, Health Related Fitnes

2400, Religion in American

4200, Science, Technology,

3000, Microcounseling

4540, Human Diversity

2070, Race & Ethnic Relation

6

1100, Discover Materials

Sociotypletion of IB program, earned

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Please contact an engineering

advisor prior to enrollment in this

PHB-Diploma, & minapana bitosephry of rFood

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### BA in Information Technology University of North Texas

#### **Transfer Student Guide**

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

UNT Course	Title	DCCCD	Collin	TCC	NCTC	Notes
ENGL 1310	Composition	ENGL	ENGL	ENGL	ENGL	
	1	1301	1301	1301	1301	
TECM 2700	Technical	ENGL	ENGL	ENGL	ENGL	
	Writing	2311	2311	2311	2311	
HIST 2610	US History I	HIST 1301	HIST 1301	HIST 1301	HIST	
					1301	
HIST 2620	US History II	HIST 1302	HIST 1302	HIST 1302	HIST	
					1302	
PSCI 1040	State and	GOVT	GOVT	GOVT	GOVT	
	Local Govt.	2301	2301	2306	2306	
PSCI 1050	US Govt.	GOVT	GOVT	GOVT	GOVT	
		2302	2302	2305	2305	
Social &	From	From	From	From	From	
Behavioral	approved	approved	approved	approved	approved	
Science	list	list	list	list	list	
Creative Arts	From	From	From	From	From	
	approved	approved	approved	approved	approved	
	list	list	list	list	list	
Language,	From	From	From	From	From	
Philosophy &	approved	approved	approved	approved	approved	
Culture	list	list	list	list	list	
Discovery	From	From	From	From	From	
	approved	approved	approved	approved	approved	
	list	list	list	list	list	

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

UNT Course	Title	DCCCD	Collin	TCC	NCTC	Notes
PHYS 1710/1730	Physics I – Mechanics	PHYS 2425	PHYS 2425	PHYS 2425	PHYS 2425	
CHEM 1410/1430	Gen Chemistry I	CHEM 1411	CHEM 1411	CHEM 1411	CHEM 1411	
MATH 1710	Calculus I	MATH 2413	MATH 2413	MATH 2413	MATH 2413	
MATH 1680	Elem. Prob & Statistics	MATH 2342	MATH 1342	MATH 1342	MATH 1342	

#### Departmental Requirements

UNT Course	Title	DCCCD	Collin	TCC	NCTC	Notes
CSCE 1030	Programming Fundamentals I	COSC 1436	COSC 1436	COSC 1436	COSC 1436	
CSCE 1040	Programming Fundamentals II	COSC 1437	COSC 1437	COSC 1437	COSC 1437	
CSCE 2100 or CSCE 2110 if CSCE 2100 complete	Foundations I	COSC 2436	COSC 2436	COSC 2436	COSC 2436	
CSCE 2100 or CSCE 2110 if CSCE 2100 complete	Foundations II	MATH 2305	MATH 2305	MATH 2305	MATH 2305	