

COLLEGE OF ENGINEERING



2011 - 2012

Undergraduate Academic Guide

Admissions Requirements

In addition to UNT admissions requirements, you must also meet requirements for admission into your desired degree program (major) within the College of Engineering.

Freshman Applicants:

Must have a Math SAT score of 540 (or higher) or a Math ACT score of 22 (or higher).

Transfer Applicants:

Must be eligible to enroll in Math 1710 (Calculus I) by completion of MATH 1650 (Pre-Calculus) with a grade of "C" or better or equivalent; or in a math course at a higher level than MATH 1710.

Pre-engineering Admission:

If you do not meet the above requirements, admission will be granted to the pre-engineering program. You will be eligible to be admitted into your desired degree program (major) after you complete Math 1650 (Pre-Calculus) with a grade of "C" or better & you are in Academic Good Standing (UNT cumulative 2.0 GPA or higher).

Major Admission:

If you do meet the above requirements, admission will be granted into your desired degree program (major) after you have requested a degree audit. A degree audit is an official document that lists all the courses & requirements you need to complete your degree. It also shows the application of completed courses, credits, & requirements toward graduation. You must schedule a meeting with a faculty advisor in the department of your desired degree program (major) to initiate the degree audit creation. Please see below & on the next page for faculty advisor contact information.

Department of Computer Science & Engineering

Discovery Park F201; 940-565-2767

www.cse.unt.edu

Faculty Advisors: Dr. Ryan Garlick, Mr. David Keathly

Bachelor of Science: Computer Engineering

Designing, constructing, & operating computer systems. You can specialize in digital systems, operating systems, real-time & embedded systems, networks, micro-processors, or hardware. You will learn what you need to know to work with cell phones, PDAs, robotics, & biomedical devices.

Bachelor of Science: Computer Science

Software programming -- writing the detailed instructions that list in logical order the steps a computer must follow to organize data, solve a problem, or do some other task. You can specialize in game programming, information security, networks, database design, or artificial intelligence.

Bachelor of Arts: Information Technology

Applying modern technologies to the creation, management, & use of information. You will learn about programming, information systems, project management, networks, security, & IT systems.

Department of Electrical Engineering

Discovery Park B252; 940-891-6872

www.ee.unt.edu

Faculty Advisor: Dr. Murali Varanasi

Bachelor of Science: Electrical Engineering

Designing electrical & electronic systems & components in computers, household appliances, televisions, communications equipment, cars, airplanes, satellites, & the space shuttle. You'll learn about electronic circuits, measurement systems, digital signal processing, computer-aided design, microprocessors, & wireless communications.

Department of Engineering Technology

Discovery Park F115; 940-565-2022

www.etec.unt.edu

Faculty Advisor: Dr. Robert Hayes

Bachelor of Science in Engineering Technology: Construction Engineering Technology

Deals with structural design, project management, surveying, estimating, construction materials, computer applications, accounting, safety, & contract & business law.

Bachelor of Science in Engineering Technology: Electrical Engineering Technology

Deals with circuit analysis, digital systems, micro-processors, computers, circuit board designs, automatic control systems, & network analysis. It's similar to Electrical Engineering, but differs in that is more focused on application & less focused on theory & math.

Bachelor of Science in Engineering Technology: Mechanical Engineering Technology

Developing & constructing mechanical components or systems that may be used for a wide range of mechanical devices, machinery, & complete mechanical systems such as automobiles, power plants, steam/gas engines, robots, & spacecrafts. It's similar to Mechanical & Energy, but differs in that it's more focused on application & less focused on theory, math, energy, & thermal fluid sciences.

Department of Materials Science & Engineering

Discovery Park E132; 940-565-3260

www.mste.unt.edu

Faculty Advisor: Dr. Tom Scharf

Bachelor of Science: Materials Science & Engineering

Developing, changing, & using different processes to turn raw materials into useful substances. You can learn to create new materials, such as the material on the U.S. Air Force's stealth planes that makes them nearly invisible to radar, & work with materials like plastics, metals or ceramics.

Department of Mechanical & Energy Engineering

Discovery Park F101; 940-565-2400

www.mee.unt.edu

Faculty Advisor: Dr. Tae-Youl Choi

Bachelor of Science: Mechanical & Energy Engineering

Conceiving, designing, & building mechanical systems. You will learn about energy, dynamics, robotics, propulsion, manufacturing, & nanotechnology. Conventional ME programs are generalized, allowing specialization only in the final year whereas MEEN focuses on energy & thermal fluid sciences throughout the entire program, making graduates the most focused, qualified energy engineers.

College of Engineering Advising Office

Discovery Park C104; 940-565-4201

www.eng.unt.edu/advising & "UNT College of Engineering Advising Office" on facebook

Pre-Engineering & Major Advisors:

Nicole D'Alesandro, Virginia Fisher, Chris Heiden, Nancy Van Hoy

Advising by appointment only. No walk-ins. Please allow 2 weeks for an available appointment opening.

Discovery Park

Discovery Park is a 2nd campus located 4 miles north of the main campus. It is the location of all College of Engineering offices, classes, labs, & more. Information on free bus transportation routes/times & available student parking passes/locations can be found at www.unt.edu/transit.

Degree Requirements

The structure of engineering bachelor's degrees consists of 3-4 categories of requirements:

- *University Core Curriculum*: set of general education requirements common to all degrees at UNT.
- *Engineering Foundations*: set of requirements unique to engineering degrees.
- *Major*: set of requirements common to primary area of study.
- *Minor*: optional set of requirements for a secondary area of study; a "mini-major".
- *Electives*: set of freely chosen courses; may be optional; see your advisor for more information.

Courses

All UNT courses are documented using a four letter subject abbreviation & four digit number.

<i>Abbreviations:</i>	ENGL for English	<i>Numbers:</i>	Freshman	1000
	HIST for History		Sophomore	2000
	MATH for Mathematics		Junior	3000
			Senior	4000

Different types of courses at UNT:

- *Prerequisite* or "*Prereq*": course that must be completed to move onto another course in a sequence.
- *Corequisite* or "*Coreq*": course that must be taken in the same semester as another course.
- *Recitation* or "*Rec*": extra, required meeting time to cover homework, answer questions, etc..
- *Laboratory* or "*Lab*": required time that's an application of the information that you learn in class.
- *Advanced course*: junior or senior level course.
- *Restricted course*: course or section time that is restricted so that only certain students can enroll.
- *Internet course* or "*INET*": course in which the majority of instruction, assignments, & work is online.
- *Blended course*: course in which a portion of the instruction, assignments, & work is online.

Credit Hours

Number of units assigned to each class. Tells you approximately how many hours per week you'll be in class & approximately how many hours per week you'll need to study for that course.

How many hours do I earn for each class?

Depends on the course. Usually 3 – 4 hours but courses can range from 1 to 5 hours.

How many credits is full-time?

12 hours (approximately 4 courses). UNT bills the same for 12 – 15 hours.

How many hours can I take each semester?

19 hours in the fall/spring semesters & 18 hours in the summer. You can receive overload approval to take more hours if you meet have:

- At least a 3.0 GPA on a minimum 15 hour UNT residence load for the semester just completed.
- At least a 3.0 GPA on a minimum 12 hour UNT residence load for the summer terms just completed.
- At least a 3.0 GPA on all work completed at UNT & a minimum 24 hours of credit in residence.

Do I have to be a full-time student?

No, UNT doesn't require you to be a full-time student but if you are an international student, an athlete, receiving financial aid, scholarships, or insurance coverage from your parents, then yes.

Classification

Classification is based on the number of earned credit hours after semester grade/credit posting. Classification dictates your registration appointment each semester & may impact your eligibility for scholarships, financial aid, etc.

<i>Freshman:</i>	0 - 29 hours	<i>Junior:</i>	60 - 89 hours
<i>Sophomore:</i>	30 - 59 hours	<i>Senior:</i>	90+ hours

Grade Point Average (GPA)

Grades have a point value & courses are worth a certain amount of credit hours. GPA is calculated by dividing the number of grade points earned by the number of attempted hours. Attempted credit hours are used in calculating GPA. Credit hours earned by AP, CLEP, or IB & courses dropped "W" don't count as attempted hours & don't average into your GPA.

Careful! Grades of "F" & "WF" are still attempted hours and count heavily against your GPA!

How do grades convert to grade points?

- A = 4 points x # of credit hours course is worth
- B = 3 points x # of credit hours course is worth
- C = 2 points x # of credit hours course is worth
- D = 1 points x # of credit hours course is worth
- F = 0 points x # of credit hours course is worth

How to Calculate Your GPA:

- Determine grade points for each course using the conversion above
- Total your number of grade points
- Total your number of attempted hours
- Divide total grade points by total attempted hours
- Number that results = your GPA

Different types of GPAs:

- *Semester (or Term) GPA*: the GPA you earned for the semester just enrolled.
- *UNT GPA*: the cumulative GPA you earn in all UNT courses. A minimum 2.0 GPA is required.
- *Overall GPA*: GPA you earn in all courses (UNT & transfer). A minimum 2.0 GPA is required.
- *Engineering Foundations GPA*: GPA you earn in foundations courses. A minimum 2.5 GPA is required.
- *Major GPA*: the GPA you earn in courses in your major. See the requirement guide for your major.

Grade Point Average (GPA): Honors

Semester Honors:

Semester honors is determined from your fall or spring semester GPA & is documented on your UNT transcript. You must complete at least 12 hours to be recognized for honors. Summer GPA is not recognized for honors. Candidates for a 2nd bachelor's degree are not eligible for semester honors.

President's List: 4.000
Dean's List: 3.500 – 3.999

Graduation with Honors:

Graduation with honors is determined by your overall (UNT & transfer) GPA & is documented on your UNT transcript. Candidates for a 2nd bachelor's degree are not eligible for graduation honors.

Cum laude: 3.500 – 3.699
Magna cum laude: 3.700 – 3.899
Summa cum laude: 3.900 – 4.000

Grade Point Average (GPA): Academic Status

Academic Good Standing:

Standing if you earn at least a cumulative 2.0 UNT GPA.

Academic Alert:

Standing if you are a freshmen & your UNT GPA falls below 2.0 for the 1st time. You can only be placed on alert once. You must raise your UNT GPA to 2.0 or higher during the alert semester or you will be placed on probation.

Academic Probation:

Standing if you are not eligible for alert & your UNT GPA falls below 2.0. You must raise your UNT GPA to 2.0 to return to good standing or earn a semester GPA of at least 2.25 to remain on probation.

Academic Suspension:

Standing if you fail to raise your UNT GPA to a 2.0 or earn a 2.25 semester GPA while on probation. A 1st suspension is for 1 long semester, a 2nd suspension is for 2 long semesters, & a 3rd suspension is for 4 long semesters. You **may** be allowed to return to UNT after completing your suspension period.

Incompletes

An "I" or "Incomplete" grade is a pending grade on your record which does not affect your GPA. An "I" may be granted by the professor if you meet all the following conditions:

- The final drop & withdraw deadlines for the semester/term have passed.
- You experience an emergency situation that prohibits you from completing remaining work.
- You have been earning a passing grade to the point of the emergency situation.
- You can complete & submit outstanding work within one year after the grade of "I" is granted.

Professors are not required to grant an "I" even if you meet the conditions. Each professor may use his or her discretion when deciding whether or not to grant an "I". Incompletes must be completed within 12 months or an automatic grade of "F" will be posted on your transcript.

Pass/No Pass Grading Option

You may elect to take a course under the Pass/No Pass Grading Option. Certain criteria must be met & you must obtain approval from your advisor. Refer to www.unt.edu/catalog for more information & www.unt.edu/registration for deadlines.

Retaking Courses: Course Duplications

If your transcript(s) contains the same course more than once, the 1st course/grade will be treated as a duplication & deleted from your GPA. Any additional courses/grades will be calculated into the GPA. This includes transfer courses/grades.

Please note that only the last attempt/grade will be used in certifying eligibility for graduation. Contact your advisor to confirm how your GPA or graduation eligibility will be affected if you take a course more than once.

Dropping or Withdrawing

Dropping refers to removing yourself from one or more courses for the semester/term (but remain in at least one course for the semester/term). You must follow the procedures & deadlines listed at www.unt.edu/registration. A "W" or "WF" may be recorded on your transcript.

Only 6 drops are allowed during your academic career unless you began college before the fall semester of 2007. Once the 6 drop limit is reached, no additional drops are approved.

Withdrawing refers to dropping all courses for the semester/term. You must follow the procedures & deadlines listed at www.unt.edu/registration. A "W" or "WF" may be recorded on your transcript.

Registration & Payment

You will be using MyUNT to register for classes each semester/term. You can access the system at www.my.unt.edu. You will need your EUID & password to log on. Instructional guides for using MyUNT are available on the login page under the myHelp link.

Information on registration issues, problems, or concerns can be located at the following: www.unt.edu/registration

You must register during open enrollment periods & pay by the deadline listed in MyUNT or www.unt.edu/registration. Failure to pay will result in the cancellation of your entire schedule of classes.

Taking Courses at Another Institution: Concurrent Enrollment

You may take courses at another institution to apply at UNT if you meet the following conditions:

- You have been preapproved by your advisor.
- You meet course load approval & residency requirements at UNT.
- You are not graduating the same semester/term in which you will be concurrently enrolled.

Graduation

You must make an appointment with the Advising Office the semester before you plan to graduate to confirm that you are on track for graduation.

Also, you must obtain & complete a graduation application at the beginning of your final semester. Refer to <http://essc.unt.edu/registrar/graduation.html> for more information & the application deadline.

COMPUTER ENGINEERING

This is an unofficial simplified guide effective Fall 2011

University Core

Major Requirements: Computer Engineering

ENGLISH

Grade of "C" or better is required.

UNITED STATES HISTORY

HIST 2610 _____
HIST 2620 _____

Honors equivalents, HIST 4700, or advanced US-Topic History course(s) may substitute for the courses above.

POLITICAL SCIENCE

PSCI 1040 _____
PSCI 1050 _____

If you are transferring credit for either PSCI course, check with your advisor. Do not make an assumption about the application of course(s) taken elsewhere.

SOCIAL AND BEHAVIORAL SCIENCES

VISUAL / PERFORMING ARTS

HUMANITIES

DISCOVERY

CAPSTONE

Engineering Foundations

MATH 1710 (4 Hours) _____
CHEM 1410-1430 (4 Hours) or _____
1415-1435(4 Hours) _____
PHYS 1710-1730 (4 Hours) _____
TECM 2700 (3 Hours) _____

Grades of "C" or better required. Needs 2.5 GPA.

MATHEMATICS & SCIENCE

PHYS 2220-2240 (4 Hours) _____
MATH 1720 (3 Hours) _____
MATH 1780 (3 Hours) _____
MATH 2700 (3 Hours) _____
MATH 2730 (3 Hours) _____
MATH 2770 (3 Hours) _____
Advanced Math or Science (3 Hours) _____

Choose a 3000 or 4000 level course from Math, Physics, Chemistry, Biology, Geology, Geography. Check with your advisor for approval.

ELECTRICAL ENGINEERING

EENG 2610 (3 Hours) _____
EENG 2710 (3 Hours) _____
EENG 3510 (3 Hours) _____

ADVANCED TECHNICAL ELECTIVES

Adv. Technical Elective (3 Hours) _____
Adv. Technical Elective (3 Hours) _____

Choose 3000 or 4000 level courses from the areas of Engineering, Business, Biology, Chemistry, Economics, Math, or Physics. Check with your advisor for approval.

COMPUTER SCIENCE and ENGINEERING

CSCE 1030 (4 Hours) _____
CSCE 1040 (3 Hours) _____
CSCE 2050 (3 Hours) _____
CSCE 2610 (3 Hours) _____
CSCE 3010 (3 Hours) _____
CSCE 3020 (3 Hours) _____
CSCE 3612 (3 Hours) _____
CSCE 3730 (3 Hours) _____
CSCE 4910 (3 Hours) _____
CSCE 4915 (3 Hours) _____
CSCE 4010 (2 Hours) _____

CSCE Specialty Elective (3 Hours) _____
CSCE Specialty Elective (3 Hours) _____
CSCE Specialty Elective (3 Hours) _____

Choose a specialty area & complete 3 approved courses below:

Specialization Area: Real-time and Embedded Systems

ELET 3750, CSCE 4440, 4610, 4620, 4730

Specialization Area: VLSI and Electronics

ELET 3750, PHYS 4500, CSCE 4610, 4730, 4750

Specialization Area: Communications and Networks

CSCE 3510, 3530, 4520, 4530, 4550, 4560

Specialization Area: Computer Systems

CSCE 3030, 3650, 4600, 4610, 4620

Grades of "C" or better required. Needs 2.75 GPA in CSCE courses.

ELECTIVE COURSES

You may need elective courses to help reach a minimum of 123 Total Hours & 45 Advanced Hours. Check with your advisor.

Bachelor of Science: Major in Computer Engineering

Sample Four-Year Schedule

FRESHMAN YEAR

FALL

CSCE 1030, Computer Science I	4
ENGL 1310 or 1313, College Writing I	3
HIST 2610 or 2620, United States History	3
MATH 1710, Calculus I	4
CHEM 1410 or 1415, Chemistry	3
CHEM 1430 or 1435, Chemistry Lab	<u>1</u>
Total Hours	18

SPRING

CSCE 1040, Computer Science II	3
TECM 2700, Technical Writing	3
Discovery course	3
MATH 1720, Calculus II	3
PHYS 1710, Mechanics	3
PHYS 1730, Mechanics Lab	<u>1</u>
Total Hours	16

SOPHOMORE YEAR

FALL

CSCE 2050, Computer Science III	3
EENG 2710, Digital Logic	3
PHYS 2220, Electricity and Magnetism	3
PHYS 2240, Electricity and Magnetism Lab	1
HIST 4700, Texas History	3
MATH 2770, Discrete Math	<u>3</u>
Total Hours	16

SPRING

EENG 2610, Circuits Analysis	3
MATH 2700, Linear Algebra	3
CSCE 2610, Computer Organization	3
MATH 2730, Multivariable Calculus	3
MATH 1780, Probability Models	<u>3</u>
Total Hours	15

JUNIOR YEAR

FALL

CSCE 3010, Signals and Systems	3
CSCE 3612, Embedded Systems Design	3
CSCE 3730, Reconfigurable Logic	3
PSCI 1040, American Government	3
Technical Elective (advanced)	<u>3</u>
Total Hours	15

SPRING

CSCE 3020, Communications Systems	3
EENG 3510, Electronics I	3
Social and Behavioral Science course	3
PSCI 1050, American Government	3
CSCE Specialty Area Elective	<u>3</u>
Total Hours	15

SENIOR YEAR

FALL

CSCE 4910, Computer Engineering Design I	3
CSCE Specialty Area Elective	3
Mathematics or Science Elective (advanced)	3
Visual and Performing Arts course	3
Humanities course	<u>3</u>
Total Hours	15

SPRING

CSCE 4915, Computer Engineering Design II	3
CSCE Specialty Area Elective	3
Technical Elective (advanced)	3
Capstone course (advanced)	3
CSCE 4010, Engineering Ethics	<u>2</u>
Total Hours	14

PLEASE NOTE:

This is an unofficial sample schedule.

Students should meet with their advisor each semester for individual scheduling, program decisions, etc. Engineering admissions requirements must be met & a degree audit must be created in order to transition from pre-engineering to full major to progress in the program.

COMPUTER SCIENCE

This is an unofficial simplified guide effective Fall 2011

University Core

Major Requirements: Computer Science cont'd

ENGLISH

Grade of "C" or better required.

UNITED STATES HISTORY

HIST 2610 _____
 HIST 2620 _____

Honors equivalents, HIST 4700, or advanced US-Topic History course(s) may substitute for the courses above.

POLITICAL SCIENCE

PSCI 1040 _____
 PSCI 1050 _____

If you are transferring credit for either PSCI course, check with your advisor. Do not make an assumption about the application of course(s) taken elsewhere.

SOCIAL AND BEHAVIORAL SCIENCES

VISUAL / PERFORMING ARTS

HUMANITIES

DISCOVERY

CAPSTONE

Engineering Foundations

MATH 1710 (4 Hours) _____
 PHYS 1710-1730 (4 Hours) _____
 CHEM 1410-1430 (4 Hours) or _____
 1415-1435 (4 Hours) _____
 TECM 2700 (3 Hours) _____

Grades of "C" or better required. Needs 2.5 GPA.

Major Requirements: Computer Science

ADVANCED TECHNICAL WRITING

1 course (3 Hours) chosen from TECM 4180, 4190, or 4250

Completion of 3 courses earns a certificate in Technical Writing.

MATHEMATICS & SCIENCE

PHYS 2220-2240 (4 Hours) _____
 BIOL 1710-1730 (4 Hours) or _____
 1720-1740 (4 Hours) _____
 MATH 1720 (3 Hours) _____
 MATH 1780 (3 hours) _____
 MATH 2700 (3 Hours) _____

ELECTRICAL ENGINEERING

EENG 2710 (3 Hours) _____

COMPUTER SCIENCE and ENGINEERING

CSCE 1030 (4 Hours) _____
 CSCE 1040 (3 Hours) _____
 CSCE 2100 (3 Hours) _____
 CSCE 2110 (3 Hours) _____
 CSCE 2610 (3 Hours) _____
 CSCE 3110 (3 Hours) _____
 CSCE 3600 (3 Hours) _____
 CSCE 4010 (2 Hours) _____
 CSCE 4110 (3 Hours) _____

3 CSCE courses (9 Hours) chosen from:

CSCE 3650 (3 Hours) _____
 CSCE 4115 (3 Hours) _____
 CSCE 4410 (3 Hours) _____
 CSCE 4430 (3 Hours) _____
 CSCE 4600 (3 Hours) _____
 CSCE 4610 (3 Hours) _____
 CSCE 4999 (3 Hours) _____

3 CSCE courses (9 Hours) chosen from:

CSCE 3530 (3 Hours) _____
 CSCE 4210 (3 Hours) _____
 CSCE 4230 (3 Hours) _____
 CSCE 4310 (3 Hours) _____
 CSCE 4350 (3 Hours) _____
 CSCE 4444 (3 Hours) _____
 CSCE 4901 (3 Hours) _____

3 CSCE courses (9 Hours) chosen from electives:

CSCE 3*** or 4*** (3 Hours) _____
 CSCE 3*** or 4*** (3 Hours) _____
 CSCE 3*** or 4*** (3 Hours) _____

Maximum of 6 hours may be applied from CSCE 4890, 4920, 4940, or 4950. Consult your faculty advisor.

CSCE 2nd language course (3 Hours) _____

Consult your faculty advisor for approved language course.

Completion of CSCE 3530, 4550, & 4560 earns a certificate from the Committee on National Security Systems. Completion of CSCE 4210, 4215, 4220, & 4250 earns a certificate in Game Programming.

Grades of "C" or better required. Needs 2.75 GPA in CSCE courses.

ELECTIVE COURSES

You may need elective courses to help reach 121 Total Hours & 42 Advanced Hours. Check with your advisor concerning elective courses.

Bachelor of Science: Major in Computer Science

Sample Four-Year Schedule

FRESHMAN YEAR

FALL

CSCE 1030, Computer Science I	4
ENGL 1310 or 1313, College Writing I	3
PSCI 1040, American Government	3
MATH 1710, Calculus I	4
CHEM 1410 or 1415, Chemistry	3
CHEM 1430 or 1435, Chemistry Lab	<u>1</u>
Total Hours	18

SPRING

CSCE 1040, Computer Science II	3
TECM 2700, Technical Writing	3
MATH 1720, Calculus II	3
PHYS 1710, Mechanics	3
PHYS 1730, Mechanics Lab	1
Visual and Performing Arts course	<u>3</u>
Total Hours	16

SOPHOMORE YEAR

FALL

CSCE 2100, Computing Foundations I	3
EENG 2710, Digital Logic	3
PHYS 2220, Electricity and Magnetism	3
PHYS 2240, Electricity and Magnetism Lab	1
MATH 2700, Linear Algebra	3
HIST 2610 or 2620, United States History	<u>3</u>
Total Hours	16

SPRING

CSCE 2610, Computer Organization	3
CSCE 2110, Computing Foundations II	3
MATH 1780, Introduction to Statistical Analysis	3
BIOL 1710 or 1720, Principles of Biology	3
BIOL 1730 or 1740, Principles of Biology Lab	1
Humanities course	<u>3</u>
Total Hours	16

JUNIOR YEAR

FALL

CSCE 3600, Principles of Systems	3
CSCE 3110, Data Structures	3
TECM 4180 or 4190 or 4250	3
CSCE course	3
Discovery course	<u>3</u>
Total Hours	15

SPRING

CSCE course	3
CSCE course	3
CSCE course	3
CSCE course	3
HIST 4700, Texas History	<u>3</u>
Total Hours	15

SENIOR YEAR

FALL

CSCE 4110, Analysis of Algorithms	3
CSCE 4010, Engineering Ethics	2
CSCE course	3
CSCE course	3
PSCI 1050, American Government	<u>3</u>
Total Hours	15

SPRING

CSCE course	3
CSCE course	3
CSCE course	3
Social and Behavioral Sciences course	3
Capstone (advanced) course	<u>3</u>
Total Hours	15

PLEASE NOTE:

This is an unofficial sample schedule.

Students should meet with their advisor each semester for individual scheduling, program decisions, etc. Engineering admissions requirements must be met & a degree audit must be created in order to transition from pre-engineering to full major to progress in the program.

CONSTRUCTION ENGINEERING TECHNOLOGY

This is an unofficial simplified guide effective Fall 2011

University Core

Major Requirements: Construction Engr. Tech.

ENGLISH

Grade of "C" or better required.

UNITED STATES HISTORY

HIST 2610 _____
 HIST 2620 _____

Honors equivalents, HIST 4700, or advanced US-Topic History course(s) may substitute for the courses above.

POLITICAL SCIENCE

PSCI 1040 _____
 PSCI 1050 _____

If you are transferring credit for either PSCI course, check with your advisor. Do not make an assumption about the application of course(s) taken elsewhere.

SOCIAL AND BEHAVIORAL SCIENCES

ECON 1100 is recommended as it is a prereq for a major required course (ACCT 2010).

VISUAL / PERFORMING ARTS

HUMANITIES

DISCOVERY

Please note that ENGR 1030 is a Major Requirement & double-dips for this category.

CAPSTONE

Please note that CNET 4790 is a Major Requirement & double-dips for this category.

Engineering Foundations

MATH 1710 (4 Hours) _____
 PHYS 1710-1730 (4 Hours) _____
 CHEM 1410-1430 (4 Hours) or _____
 1415-1435 (4 Hours) _____
 TECM 2700 (3 Hours) _____

Grades of "C" or better required. Needs 2.5 GPA.

MATHEMATICS & SCIENCE

MATH 1720 (3 Hours) _____
 PHYS 2220-2240 (4 hours) _____

CONSTRUCTION ENGINEERING TECHNOLOGY REQUIREMENTS

CNET 1160 (3 Hours) _____
 CNET 2180 (4 Hours) _____
 CNET 2300 (2 Hours) _____
 CNET 3150 (2 Hours) _____
 CNET 3160 (3 Hours) _____
 CNET 3190 (3 Hours) _____
 CNET 3410 (3 Hours) _____
 CNET 3430 (3 Hours) _____
 CNET 3440 (3 Hours) _____
 CNET 3460 (3 Hours) _____
 CNET 3480 (3 Hours) _____
 CNET 4170 (3 Hours) _____
 CNET 4180 (3 Hours) _____
 CNET 4620 (3 Hours) _____
 CNET 4780 (1 Hours) _____
 CNET 4790 (3 Hours) _____

 ENGR 2301 (3 Hours) _____
 ENGR 2332 (4 Hours) _____

 MGMT 3830 (3 Hours) _____
 ACCT 2010 (3 Hours) _____
 BLAW 3430 (3 Hours) _____
 BLAW 4770 (3 Hours) _____

CSCE 1020 (4 Hours)

TECHINCAL ELECTIVES COURSE(S)

1-2 courses (4 Hours) _____

Choose course(s) from the areas of Engineering, Business, Biology, Chemistry, Economics, Math, or Physics. Check with your advisor for approval.

OTHER REQUIREMENTS

ENGR 1030 (3 Hours) _____
 ENGR 1060 (3 Hours) _____

Grades of "C" or better required. Needs 2.5 GPA in Construction Engineering Technology Requirement courses.

ELECTIVE COURSES

You may need elective courses to help reach 124 Total Hours & 42 Advanced Hours. Check with your advisor concerning elective courses.

Bachelor of Science in Engineering Technology: Major in Construction Engineering Technology

Sample Four-Year Schedule

FRESHMAN YEAR

FALL

CHEM 1410 or 1415, Chemistry	3
CHEM 1430 or 1435, Chemistry Lab	1
ENGL 1310 or 1313, College Writing I	3
MATH 1710, Calculus I	4
CNET 1160, Construction Methods & Mtls	3
ECON 1100, Microeconomics	<u>3</u>
Total Hours	17

SPRING

CNET 2180, Const Methods & Surveying	4
Visual & Performing Arts	3
MATH 1720, Calculus II	3
PHYS 1710, Mechanics	3
PHYS 1730, Mechanics Lab	1
HIST 2610, U.S. History to 1865	<u>3</u>
Total Hours	17

SOPHOMORE YEAR

FALL

ACCT 2010, Accounting Principles I	3
PHYS 2240, Electricity & Magnetism Lab	1
PHYS 2220, Electricity & Magnetism	3
CNET 2300, Architectural Drawing	2
ENGR 2301, Statics	3
TECM 2700, Tech Writing	<u>3</u>
Total Hours	15

SPRING

ENGR 2332, Mechanics of Materials	4
ENGR 1060, Communications & Ethics	3
CSCE 1020, Program Development	4
HIST 2620, US History since 1865	3
Elective (see advisor)	<u>2</u>
Total Hours	16

JUNIOR YEAR

FALL

CNET 3150, Const. Contract Documents	2
CNET 3160, Const. Cost Estimating	3
CNET 3410, Occupational Safety Liability	3
CNET 3430, Structural Analysis	3
PSCI 1040, American Government	<u>3</u>
Total Hours	14

SPRING

CNET 3190, Construction Scheduling	3
CNET 3440, Steel Structures	3
CNET 3460, Soils and Foundation	3
PSCI 1050, American Government	3
MGMT 3830, Operations Mgmt.	<u>3</u>
Total Hours	15

SENIOR YEAR

FALL

BLAW 3430, Legal & Ethical Environment	3
CNET 4170, Construction Management	3
CNET 3480, Structural Design w/Concrete	3
CNET 4780, Senior Design I	1
Humanities course	3
Technical Elective	<u>4</u>
Total Hours	16

SPRING

BLAW 4770, Real Estate Law	3
CNET 4180, Problems in Project Mgmt	3
CNET 4790, Senior Design II	3
CNET 4620, Adv Design in Cold-Formed Steel Structures	3
ENGR 1030, Technological Systems	<u>3</u>
Total Hours	15

PLEASE NOTE:

This is an unofficial sample schedule.

Students should meet with their advisor each semester for individual scheduling, program decisions, etc. Engineering admissions requirements must be met & a degree audit must be created in order to transition from pre-engineering to full major in the program.

ELECTRICAL ENGINEERING

This is an unofficial simplified guide effective Fall 2011

University Core

Major Requirements: Electrical Engineering

ENGLISH

Grade of "C" or better required.

UNITED STATES HISTORY

HIST 2610 _____

HIST 2620 _____

Honors equivalents, HIST 4700, or advanced US-Topic History course(s) may substitute for the courses above.

POLITICAL SCIENCE

PSCI 1040 _____

PSCI 1050 _____

If you are transferring credit for either PSCI course, check with your advisor. Do not make an assumption about the application of course(s) taken elsewhere.

SOCIAL AND BEHAVIORAL SCIENCES

VISUAL / PERFORMING ARTS

HUMANITIES

DISCOVERY

CAPSTONE

Engineering Foundations

MATH 1710 (4 Hours) _____

PHYS 1710-1730 (4 Hours) _____

CHEM 1410-1430 (4 Hours) or
1415-1435(4 Hours) _____

TECM 2700 (3 Hours) _____

Grades of "C" or better required. Needs 2.5 GPA.

MATHEMATICS & SCIENCE

PHYS 2220-2240 (4 Hours) _____

MATH 1720 (3 Hours) _____

MATH 2700 (3 Hours) _____

MATH 2730 (3 Hours) _____

MATH 3310 (3 Hours) _____

MATH 3680 (3 Hours) _____

Please note that completion of the above UNT Math courses will earn a minor in Mathematics.

ELECTRICAL ENGINEERING COURSES

EENG 2610 (3 Hours) _____

EENG 2620 (3 Hours) _____

EENG 2710 (3 Hours) _____

EENG 3410 (3 Hours) _____

EENG 3510 (3 Hours) _____

EENG 3520 (3 Hours) _____

EENG 3710 (3 Hours) _____

EENG 3810 (3 Hours) _____

EENG 4010 (3 Hours) _____

EENG 4010 (3 Hours) _____

EENG 4710 (3 Hours) _____

EENG 4810 (3 Hours) _____

EENG 4010 are topics courses. The content of 4010 varies for each section for each semester. Students must choose 2 separate topics to earn 6 hours of credit.

PROJECT COURSES

EENG 1910 (3 Hours) _____

EENG 1920 (2 Hours) _____

EENG 2910 (2 Hours) _____

EENG 2920 (2 Hours) _____

EENG 3910 (2 Hours) _____

EENG 3920 (2 Hours) _____

EENG 4910 (3 Hours) _____

EENG 4990 (3 Hours) _____

SUPPORT COURSES

CSCE 1020 (4 Hours) _____

MGMT 3830 (3 Hours) _____

MGMT 3850 (3 Hours) _____

Grades of "C" or better required. Needs 2.5 GPA in EENG courses.

ELECTIVE COURSES

You may need elective courses to help reach 128 Total Hours & 42 Advanced Hours. Check with your advisor concerning elective courses.

Bachelor of Science: Major in Electrical Engineering

Sample Four-Year Schedule

FRESHMAN YEAR

FALL

CHEM 1410 or 1415, Chemistry	3
CHEM 1430 or 1435, Chemistry Lab	1
ENGL 1310 or 1313, College Writing I	3
MATH 1710, Calculus I	4
EENG 1910, Project I	3
PSCI 1040, American Government	<u>3</u>
Total Hours	17

SPRING

TECM 2700, Technical Writing	3
EENG 2710, Digital Logic	3
PHYS 1710, Mechanics	3
PHYS 1730, Mechanics Lab	1
EENG 1920, Project II	2
MATH 1720, Calculus II	<u>3</u>
Total Hours	15

SOPHOMORE YEAR

FALL

CSCE 1020, Program Development	4
EENG 2610, Circuits Analysis	3
EENG 2910, Project III	2
MATH 3310, Differential Equations	3
PHYS 2220, Electricity & Magnetism	3
PHYS 2240, Electricity & Magnetism Lab	<u>1</u>
Total Hours	16

SPRING

HIST 2610, U.S. History to 1865	3
Discovery course	3
MATH 2730, Multivariable Calculus	3
EENG 2620, Signals and Systems	3
Visual and Performing Arts course	3
EENG 2920, Project IV	<u>2</u>
Total Hours	17

JUNIOR YEAR

FALL

PSCI 1050, American Government	3
EENG 3510, Electronics I	3
MATH 3680, Applied Statistics	3
HIST 2620, U.S. History from 1865	3
EENG 3410, Engr. Electromagnetics	3
EENG 3910, Project V	<u>2</u>
Total Hours	17

SPRING

EENG 3710, Computer Organization	3
EENG 3520, Electronics II	3
EENG 3810, Communication Systems	3
MATH 2700, Linear Algebra	3
EENG 3920, Project VI	2
Humanities course	<u>3</u>
Total Hours	17

SENIOR YEAR

FALL

EENG 4010, Technical Elective	3
EENG 4710, VSLI Design	3
EENG 4910, Project VII	3
Social and Behavioral Science course	3
MGMT 3830, Operations	<u>3</u>
Total Hours	15

SPRING

EENG 4010, Technical Elective	3
EENG 4810, Computer Networks	3
EENG 4990, Project VIII	3
Capstone course	3
MGMT 3850, Entrepreneurship	<u>3</u>
Total Hours	15

PLEASE NOTE:

This is an unofficial sample schedule.

Students should meet with their advisor each semester for individual scheduling, program decisions, etc. Engineering admissions requirements must be met & a degree audit must be created in order to transition from pre-engineering to full major to progress in the program.

Bachelor of Science in Engineering Technology:
ELECTRICAL ENGINEERING TECHNOLOGY

This is an unofficial simplified guide effective Fall 2011

University Core

Major Requirements: Electrical Engr. Tech.

ENGLISH

Grade of "C" or better required.

UNITED STATES HISTORY

HIST 2610 _____
 HIST 2620 _____

Honors equivalents, HIST 4700, or advanced US-Topic History course(s) may substitute for the courses above.

POLITICAL SCIENCE

PSCI 1040 _____
 PSCI 1050 _____

If you are transferring credit for either PSCI course, check with your advisor. Do not make an assumption about the application of course(s) taken elsewhere.

SOCIAL AND BEHAVIORAL SCIENCES

VISUAL / PERFORMING ARTS

HUMANITIES

DISCOVERY

Please note that ENGR 1030 is a Major Requirement & double-dips for this category.

CAPSTONE

Please note that ELET 4790 is a Major Requirement & double-dips for this category.

Engineering Foundations

MATH 1710 (4 Hours) _____
 PHYS 1710-1730 (4 Hours) _____
 CHEM 1410-1430 (4 Hours) or
 1415-1435 (4 Hours) _____
 TECM 2700 (3 Hours) _____

Grades of "C" or better required. Needs 2.5 GPA.

MATHEMATICS & SCIENCE

PHYS 2220-2240 (4 Hours) _____
 MATH 1720 (3 Hours) _____

ELECTRICAL ENGINEERING TECHNOLOGY REQUIREMENTS

ENGR 2405 (3 Hours) _____
 ENGR 2415 (1 Hour) _____
 ENGR 2720 (3 Hours) _____
 ENGR 2730 (1 Hour) _____
 ENGR 2750 (4 Hours) _____
 ELET 3700 (4 Hours) _____
 ELET 3720 (4 Hours) _____
 ELET 3740 (4 hours) _____
 ELET 3750 (4 Hours) _____
 ELET 3760 (4 Hours) _____
 ELET 4710 (4 Hours) _____
 ELET 4720 (4 Hours) _____
 ELET 4730 (4 Hours) _____
 ELET 4770 (4 Hours) _____
 ELET 4780 (1 Hour) _____
 ELET 4790 (3 Hours) _____
 MFET 4190 (3 Hours) _____

ADVANCED TECHNICAL ELECTIVE COURSES

1 advanced course (3 Hours); _____

Choose a 3000 or 4000 level course from the areas of Engineering, Business, Biology, Chemistry, Economics, Math, or Physics. Check with your advisor for approval.

TECHNICAL ELECTIVE COURSES

3-4 courses (12 Hours); _____

Choose courses from the areas of Engineering, Business, Biology, Chemistry, Economics, Math, or Physics. Check with your advisor for approval.

OTHER REQUIREMENTS:

ENGR 1030 (3 Hours) _____
 ENGR 1060 (3 Hours) _____

Grades of "C" or better required. Needs 2.5 GPA based on Electrical Engineering Technology & Technical Elective courses.

ELECTIVE COURSES

You may need elective courses to help reach 124 Total Hours & 42 Advanced Hours. Check with your advisor concerning elective courses.

Bachelor of Science in Engineering Technology: Major in Electrical Engineering Technology

Sample Four-Year Schedule

FRESHMAN YEAR

FALL

CHEM 1410 or 1415, Chemistry	3
CHEM 1430 or 1435, Chemistry Lab	1
ENGL 1310 or 1313, College Writing I	3
MATH 1710, Calculus I	4
PSCI 1040, American Government	3
HIST 2610, U.S. History to 1865	<u>3</u>
Total Hours	17

SPRING

PSCI 1050, American Government	3
TECM 2700, Technical Writing	3
ENGR 1030, Technological Systems	3
HIST 2620, U.S. History since 1865	3
MATH 1720, Calculus II	3
Social & Behavioral Science course	<u>3</u>
Total Hours	18

SOPHOMORE YEAR

FALL

ENGR 2405, Circuits Analysis	3
ENGR 2415, Circuits Analysis Lab	1
ENGR 2720, Digital Logic	3
ENGR 2730, Digital Logic Lab	1
ENGR 1060, Communication & Ethics	3
PHYS 1710, Mechanics	3
PHYS 1730, Mechanics Lab	<u>1</u>
Total Hours	15

SPRING

Technical Elective	3
ENGR 2750, Intro to Microprocessors	4
PHYS 2220, Electricity & Magnetism	3
PHYS 2240, Electricity & Magnetism Lab	1
Humanities course	<u>3</u>
Total Hours	14

JUNIOR YEAR

FALL

ELET 3700, Circuit Analysis	4
ELET 3720, Electronics I	4
ELET 3750, Digital Systems	4
Technical Elective	<u>3</u>
Total Hours	15

SPRING

ELET 3740, Electronics II	4
ELET 3760, Design of DSP Systems	4
Visual & Performing Arts course	3
Technical Elective	<u>3</u>
Total Hours	14

SENIOR YEAR

FALL

ELET 4720, Control Systems	4
ELET 4710, High Frequency Systems I	4
ELET 4730, Analog Mixed Signal Electronics	4
ELET 4780, Senior Design	1
Technical Elective	<u>3</u>
Total Hours	16

SPRING

ELET 4770, High Frequency Systems II	4
ELET 4790, Senior Design II	3
MFET 4190, Quality Assurance	3
Advanced Level Technical Elective	3
Elective (see advisor)	<u>2</u>
Total Hours	15

PLEASE NOTE:

This is an unofficial sample schedule.

Students should meet with their advisor each semester for individual scheduling, program decisions, etc. Engineering admissions requirements must be met & a degree audit must be created in order to transition from pre-engineering to full major to progress in the program.

INFORMATION TECHNOLOGY

This is an unofficial simplified guide effective Fall 2011

University Core

Major Requirements: Information Tech.

ENGLISH

Grade of "C" or better required.

UNITED STATES HISTORY

HIST 2610 _____
 HIST 2620 _____

Honors equivalents, HIST 4700, or advanced US-Topic History course(s) may substitute for the courses above.

POLITICAL SCIENCE

PSCI 1040 _____
 PSCI 1050 _____

If you are transferring credit for either PSCI course, check with your advisor. Do not make an assumption about the application of course(s) taken elsewhere.

SOCIAL AND BEHAVIORAL SCIENCES

VISUAL / PERFORMING ARTS

HUMANITIES

DISCOVERY

CAPSTONE

Engineering Foundations

MATH 1710 (4 Hours) _____
 PHYS 1710-1730 (4 Hours) _____
 CHEM 1410-1430 (4 Hours) or
 1415-1435 (4 Hours) _____
 TECM 2700 (3 Hours) _____

Grades of "C" or better required. Needs 2.5 GPA.

MATHEMATICS

MATH 1780 (3 Hours) _____
 MATH 2770 (3 Hours) _____

COMPUTER SCIENCE and ENGINEERING

CSCE 1030 (4 Hours) _____
 CSCE 1035 (3 Hours) _____
 CSCE 1040 (3 Hours) _____
 CSCE 1045 (3 Hours) _____
 CSCE 2050 (3 Hours) _____
 CSCE 2615 (3 hours) _____
 CSCE 3055 (3 Hours) _____
 CSCE 3535 (3 Hours) _____
 CSCE 3605 (3 Hours) _____
 CSCE 4010 (2 Hours) _____
 CSCE 4355 (3 Hours) _____
 CSCE 4905 (3 Hours) _____
 CSCE 4925 (3 Hours) _____

CSCE Adv. Concentration Elective (3 Hours) _____
 CSCE Adv. Concentration Elective (3 Hours) _____
 CSCE Adv. Concentration Elective (3 Hours) _____

SUPPORTING AREA

(3 Hours) _____
 (3 Hours) _____
 (3 Hours) _____
 (3 Hours) _____
 (3 hours) _____
 (3 Hours) _____

You must choose 1 concentration (9 Hours) & 1 supporting area (18 Hours). You must complete approved courses for each. Check with your advisor concerning approved classes. Suggestions include, but are not limited to:

- Game Development
- Information Security
- Networking
- Business (Pre-MBA)
- Pre-Law
- Pre-Med

A maximum of 6 hours can be applied to concentration and/or supporting area from CSCE 4890, 4920, 4940, 4950 or 4980.

Completion of CSCE 3530, 4550, & 4560 for concentration Electives and/or supporting areas earns a certificate from the Committee on National Security Systems.

Completion of CSCE 4210, 4215, 4220, & 4250 for concentration Electives and/or supporting area earns a certificate in Game Programming.

Grades of "C" or better required. Needs 2.75 GPA in CSCE courses.

ELECTIVE COURSES

You may need elective courses to help reach 121 Total Hours & 42 Advanced Hours. Check with your advisor concerning elective courses.

Bachelor of Arts: Major in Information Technology

Sample Four-Year Schedule

FRESHMAN YEAR

FALL

CSCE 1030, Computer Science I	4
ENGL 1310 or 1313, College Writing I	3
MATH 1710, Calculus I	4
CHEM 1410 or 1415, Chemistry	3
CHEM 1430 or 1435, Chemistry Lab	<u>1</u>
Total Hours	15

SPRING

CSCE 1040, Computer Science II	3
CSCE 1035, Information Systems I	3
TECM 2700, Technical Writing	3
PSCI 1050, American Government	3
PHYS 1710, Mechanics	3
PHYS 1730, Lab for Mechanics	<u>1</u>
Total Hours	16

SOPHOMORE YEAR

FALL

CSCE 2050, Computer Science III	3
CSCE 1045, Information Systems II	3
HIST 2610, United States History	3
Discovery course	3
MATH 2770, Discrete Math	<u>3</u>
Total Hours	15

SPRING

CSCE 2615, Ent. Architecture/Design	3
MATH 1780, Probability Models	3
HIST 2620, United States History	3
Humanities course	3
Social and Behavioral Sciences course	<u>3</u>
Total Hours	15

JUNIOR YEAR

FALL

CSCE 3055, IT Project Management	3
CSCE 4355, Database/Info. Int.	3
Supporting Area	3
Advanced elective	3
Visual and Performing Arts course	<u>3</u>
Total Hours	15

SPRING

CSCE 3535, Networks/Security Mgmt	3
CSCE Concentration Area	3
Supporting Area	3
Supporting Area	3
Capstone course (Advanced)	<u>3</u>
Total Hours	15

SENIOR YEAR

FALL

CSCE 3605, IT Systems/Mgmt	3
CSCE 4905, Capstone I	3
CSCE Concentration Area	3
Supporting Area (Advanced)	3
Supporting Area (Advanced)	<u>3</u>
Total Hours	15

SPRING

CSCE 4010, Engineering Ethics	2
CSCE 4925, Capstone II	3
CSCE Concentration Area	3
Supporting Area (Advanced)	3
PSCI 1040, American Government	3
Elective (see advisor)	<u>1</u>
Total Hours	15

PLEASE NOTE:

This is an unofficial sample schedule.

Students should meet with their advisor each semester for individual scheduling, program decisions, etc. Engineering admissions requirements must be met & a degree audit must be created in order to transition from pre-engineering to full major to progress in the program.

MATERIALS SCIENCE & ENGINEERING

This is an unofficial simplified guide effective Fall 2011

University Core

Major Requirements: Materials Sci. & Engr.

ENGLISH

Grade of "C" or better required.

UNITED STATES HISTORY

HIST 2610 _____
HIST 2620 _____

Honors equivalents, HIST 4700, or advanced US-Topic History course(s) may substitute for the courses above.

POLITICAL SCIENCE

PSCI 1040 _____
PSCI 1050 _____

If you are transferring credit for either PSCI course, check with your advisor. Do not make an assumption about the application of course(s) taken elsewhere.

SOCIAL AND BEHAVIORAL SCIENCES

VISUAL / PERFORMING ARTS

HUMANITIES

DISCOVERY

CAPSTONE

Engineering Foundations

MATH 1710 (4 Hours) _____
PHYS 1710-1730 (4 Hours) _____
CHEM 1410-1430 * (4 Hours) _____
TECM 2700 (3 Hours) _____

Grades of "C" or better. Needs 2.5 GPA.

MATHEMATICS & SCIENCE

CHEM 1420 (3 Hours) _____
PHYS 2220-2240 (4 Hours) _____
PHYS 3010 (3 Hours) _____
MATH 1720 (3 Hours) _____
MATH 2700 (3 Hours) _____
MATH 3310 (3 Hours) _____

MATERIALS SCIENCE & ENGINEERING REQUIREMENTS

MTSE 3010 (3 Hours) _____
MTSE 3020 (3 Hours) _____
MTSE 3030 (3 Hours) _____
MTSE 3040 (3 Hours) _____
MTSE 3050 (3 Hours) _____
MTSE 3060 (3 Hours) _____
MTSE 3070 (3 Hours) _____
MTSE 3080 (3 Hours) _____
MTSE 3090 (1 Hour) _____
MTSE 3100 (1 Hour) _____
MTSE 4010 (3 Hours) _____
MTSE 4030 (3 Hours) _____
MTSE 4050 (3 Hours) _____
MTSE 4060 (3 Hours) _____
MTSE 4090 (2 Hours) _____
MTSE 4100 (2 Hours) _____

MEEN 2130 (4 Hours) _____

ENGR 2332 (4 Hours) _____
ENGR 3450 (3 Hours) _____

Plus 3 hours :1 advanced level MTSE elective course

Grades of "C" or better required. Needs 2.5 GPA in MTSE courses.

ELECTIVE COURSES

You may need elective courses to help reach 120 Total Hours & 45 Advanced Hours. Check with your advisor concerning elective courses.

• Please note that CHEM 1415-1435 cannot be approved in substitution for CHEM 1410-1430 or 1420 for MTSE students.

Bachelor of Science: Major in Materials Science & Engineering

Sample Four-Year Schedule

FRESHMAN YEAR

FALL

CHEM 1410, General Chemistry	3
CHEM 1430, General Chemistry Lab	1
ENGL 1310 or 1313, College Writing I	3
MATH 1710, Calculus I	4
HIST 2610, U.S. History to 1865	<u>3</u>
Total Hours	14

SPRING

PHYS 1710, Mechanics	3
PHYS 1730, Mechanics Lab	1
TECM 2700, Tech Writing	3
HIST 2620, U.S. History since 1865	3
MATH 1720, Calculus II	3
CHEM 1420, General Chemistry II	<u>3</u>
Total Hours	16

SOPHOMORE YEAR

FALL

MATH 3310, Differential Equations	3
MEEN 2130, Statics & Dynamics	4
MATH 2700, Linear Algebra & Vector Geom.	3
PHYS 2220, Electricity & Magnetism	3
PHYS 2240, Electricity & Magnetism Lab	<u>1</u>
Total Hours	14

SPRING

Discovery course	3
ENGR 2332, Mechanics of Materials	4
PHYS 3010, Modern Physics	3
ENGR 3450, Engineering Materials	3
PSCI 1050, American Government	<u>3</u>
Total Hours	16

JUNIOR YEAR

FALL

MTSE 3010, Bonding & Structure	3
MTSE 3020, Micro & Characterization	3
MTSE 3030, Thermo & Phase Diagrams	3
MTSE 3040, Transport Phenomena	3
MTSE 3090, Materials Science & Engr. Lab I	1
PSCI 1040, American Government	<u>3</u>
Total Hours	16

SPRING

MTSE 3050, Mech Properties	3
MTSE 3060, Phase Transformations	3
MTSE 3070, Elect Opt & Mag Properties	3
MTSE 3080, Materials Processing	3
MTSE 3100, Materials Science & Engr. Lab II	1
Visual and Performing Arts course	<u>3</u>
Total Hours	16

SENIOR YEAR

FALL

MTSE 4010, Phys Metallurgy Principles	3
MTSE 4030, Ceramic Science & Engr.	3
MTSE 4050, Polymer Science & Engr.	3
MTSE 4090, Senior Research Project I	2
Humanities course	<u>3</u>
Total Hours	14

SPRING

MTSE Advanced Elective (4000 level)	3
Social & Behavioral Science course	3
Capstone course	3
MTSE 4060, Materials Selection & Perform.	3
MTSE 4100, Senior Research Project II	<u>2</u>
Total Hours	14

PLEASE NOTE:

This is an unofficial sample schedule.

Students should meet with their advisor each semester for individual scheduling, program decisions, etc. Engineering admissions requirements must be met & a degree audit must be created in order to transition from pre-engineering to full major to progress in the program.

MECHANICAL & ENERGY ENGINEERING

This is an unofficial simplified guide effective Fall 2011

University Core

Major Requirements: Mechanical & Energy Engr.

ENGLISH

Grade of "C" or better required.

UNITED STATES HISTORY

HIST 2610 _____
 HIST 2620 _____

Honors equivalents, HIST 4700, or advanced US-Topic History course(s) may substitute for the courses above.

POLITICAL SCIENCE

PSCI 1040 _____
 PSCI 1050 _____

If you are transferring credit for either PSCI course, check with your advisor. Do not make an assumption about the application of course(s) taken elsewhere.

SOCIAL AND BEHAVIORAL SCIENCES

VISUAL / PERFORMING ARTS

HUMANITIES

DISCOVERY

Please note that MEEN 1000 is a Major Requirement & double-dips for 3 Hours of this category.

CAPSTONE

Engineering Foundations

MATH 1710 (4 Hours) _____
 PHYS 1710-1730 (4 Hours) _____
 CHEM 1415-1435 * (4 Hours) _____
 TECM 2700 (3 Hours) _____

Grades of "C" or better required. Needs 2.5 GPA.

* Please note that CHEM 1410-1430 cannot be approved for MEEN students unless CHEM 1420-1440 is completed in addition to CHEM 1410-1430.

MATHEMATICS & SCIENCE

PHYS 2220-2240 (4 Hours) _____
 MATH 1720 (3 Hours) _____
 MATH 2730 (3 Hours) _____
 MATH 3410 (3 Hours) _____
 MATH ELECTIVE (3 Hours) _____

Math 2700 is recommended as it is the prereq for MATH 3410 & will likely be added to the MEEN curriculum. Math elective may be chosen from MATH 3680, 3420, or 3740. Completion of Math 2700 of the courses listed above will earn a minor in Mathematics.

MECHANICAL & ENERGY ENGINEERING REQUIREMENTS

MEEN 1000 (3 Hours) _____
 MEEN 2210 (3 Hours) _____
 MEEN 3110 (3 Hours) _____
 MEEN 3120 (3 Hours) _____
 MEEN 3130 (3 Hours) _____
 MEEN 3210 (3 Hours) _____
 MEEN 3230 (3 Hours) _____
 MEEN 3240 (2 Hours) _____
 MEEN 3242 (1 Hour) _____
 MEEN 3250 (3 Hours) _____
 MEEN 4150 (3 Hours) _____
 MEEN 4250 (3 Hours) _____

ENGR 1304 (3 Hours) _____
 ENGR 2301 (3 Hours) _____
 ENGR 2302 (3 Hours) _____
 ENGR 2332 (4 Hours) _____
 EENG 2610 (3 Hours) or _____
 ENGR 2405 (4 Hours) _____
 ENGR 3450 (3 Hours) _____
 ENGR 3451 (1 Hour) _____

CSCE 1020 (4 Hours) _____

6 hours (2 courses) of advanced level MEEN electives

6 hours (2 courses) of advanced level technical electives

List of approved MEEN and technical electives is located at www.mee.unt.edu

Please note that completion of an advanced Math course as a technical elective should also earn a minor in Mathematics.

Grades of "C" or better required. Needs 2.5 GPA in MEEN courses.

ELECTIVE COURSES

You may need elective courses to help reach 127 Total Hours & 42 Advanced Hours. Check with your advisor concerning elective courses.

Bachelor of Science: Major in Mechanical & Energy Engineering

Sample Four-Year Schedule

FRESHMAN YEAR

FALL

CHEM 1415, Chemistry for Engineers	3
CHEM 1435, Chemistry for Engineers Lab	1
ENGL 1310 or 1313, College Writing I	3
MATH 1710, Calculus I	4
MEEN 1000, Discover Mechanical & Energy	3
HIST 2610, U.S. History to 1865	<u>3</u>
Total Hours	17

SPRING

PHYS 1710, Mechanics	3
PHYS 1730, Mechanics Lab	1
TECM 2700, Tech Writing	3
ENGR 1304, Engineering Graphics	3
CSCE 1020, Intro. Computer Programming	4
MATH 1720, Calculus II	<u>3</u>
Total Hours	17

SOPHOMORE YEAR

FALL

MATH 2730, Multivariable Calculus	3
MATH 2700, Linear Algebra	3
ENGR 2301, Statics	3
PSCI 1050, American Government	3
PHYS 2220, Electricity & Magnetism	3
PHYS 2240, Electricity & Magnetism Lab	<u>1</u>
Total Hours	16

SPRING

MATH 3410, Differential Equations	3
MEEN 2210, Thermodynamics I	3
ENGR 2302, Dynamics	3
ENGR 2332, Mechanics of Materials	4
EENG 2610 or ENGR 2405, Circuits Analysis	<u>3-4</u>
Total Hours	16-17

JUNIOR YEAR

FALL

MEEN 3110, Thermodynamics II	3
MEEN 3120, Fluids	3
MEEN 3240, MEE Lab 1	2
MEEN 3250, Analytical Methods	3
ENGR 3450, Engineering Materials	3
ENGR 3451, Engineering Materials Lab	1
Math Elective	<u>3</u>
Total Hours	18

SPRING

MEEN 3130, Machine Elements	3
MEEN 3210, Heat Transfer	3
MEEN 3230, Dynamics and Control	3
MEEN 3242, MEE Lab II	1
HIST 2620, U.S. History from 1865	3
Social & Behavioral Sciences course	<u>3</u>
Total Hours	16

SENIOR YEAR

FALL

MEEN 4150, Design I	3
Advanced MEEN Elective	3
Advanced Technical Elective	3
Visual and Performing Arts course	3
PSCI 1040, American Government	<u>3</u>
Total Hours	15

SPRING

MEEN 4250, Design II	3
Advanced MEEN Elective	3
Advanced Technical Elective	3
Capstone	3
Humanities course	<u>3</u>
Total Hours	15

PLEASE NOTE:

This is an unofficial sample schedule.

Students should meet with their advisor each semester for individual scheduling, program decisions, etc. Engineering admissions requirements must be met & a degree audit must be created in order to transition from pre-engineering to full major to progress in the program.

MECHANICAL ENGINEERING TECHNOLOGY

This is an unofficial simplified guide effective Fall 2011

University Core

Major Requirements: Mechanical Engr. Tech.

ENGLISH

Grade of "C" or better required.

UNITED STATES HISTORY

HIST 2610 _____
 HIST 2620 _____

Honors equivalents, HIST 4700, or advanced US-Topic History course(s) may substitute for the courses above.

POLITICAL SCIENCE

PSCI 1040 _____
 PSCI 1050 _____

If you are transferring credit for either PSCI course, check with your advisor. Do not make an assumption about the application of course(s) taken elsewhere.

SOCIAL AND BEHAVIORAL SCIENCES

VISUAL / PERFORMING ARTS

HUMANITIES

DISCOVERY

Please note that ENGR 1030 is a Major Requirement & double-dips for this category.

CAPSTONE

Please note that MEET 4790 is a Major Requirement & double-dips for this category.

Engineering Foundations

MATH 1710 (4 Hours) _____
 PHYS 1710-1730 (4 Hours) _____
 CHEM 1410-1430 (4 Hours) or
 1415-1435 (4 Hours) _____
 TECM 2700 (3 Hours) _____

Grades of "C" or better required. Needs 2.5 GPA.

MATHEMATICS & SCIENCE

PHYS 2220-2240 (4 Hours) _____
 MATH 1720 (3 Hours) _____

MECHANICAL ENGINEERING TECHNOLOGY REQUIREMENTS

ENGR 1304 (3 Hours) _____
 ENGR 2301 (3 Hours) _____
 ENGR 2302 (3 Hours) _____
 ENGR 2332 (4 Hours) _____
 ENGR 2405 (3 Hours) _____
 ENGR 2415 (1 Hour) _____
 ENGR 3450 (3 Hours) _____
 ENGR 3451 (1 Hour) _____

MEET 3650 (3 Hours) _____
 MEET 3940 (3 Hours) _____
 MEET 3990 (3 Hours) _____
 MEET 4050 (3 Hours) _____
 MEET 4350 (3 Hours) _____
 MEET 4360 (2 Hours) _____
 MEET 4780 (1 Hour) _____
 MEET 4790 (3 Hours) _____

MFET 3110 (4 Hours) _____
 MFET 4190 (3 Hours) _____
 MFET 4200 (2 Hours) _____
 MFET 4210 (3 Hours) _____

CSCE 1020 (4 Hours) _____
 ELET 3980 (3 Hours) _____
 LSCM 3960 (3 Hours) _____

ADVANCED TECHNICAL ELECTIVES

2 advanced courses (5 Hours): _____

TECHNICAL ELECTIVE

1 course (3 Hours): _____

Choose 1 course at 3000 or 4000 level & 1 course from any level from the areas of Engineering, Business, Biology, Chemistry, Economics, Math, or Physics. Check with your advisor for approval.

OTHER REQUIREMENTS

ENGR 1030 (3 Hours) _____
 ENGR 1060 (3 Hours) _____

Grades of "C" or better required . Needs 2.5 GPA in Mechanical Engineering Technology & Technical Elective courses.

ELECTIVE COURSES

You may need elective courses to help reach 124 Total Hours & 42 Advanced Hours. Check with your advisor concerning Elective courses.

Bachelor of Science in Engineering Technology: Major in Mechanical Engineering Technology

Sample Four-Year Schedule

FRESHMAN YEAR

FALL

CHEM 1410 or 1415, Chemistry	3
CHEM 1430 or 1435, Chemistry Lab	1
ENGL 1310 or 1313, College Writing I	3
MATH 1710, Calculus I	4
ENGR 1304, Engineering Graphics	3
PSCI 1040, American Government	<u>3</u>
Total Hours	17

SPRING

TECM 2700, Technical Writing	3
MATH 1720, Calculus II	3
PSCI 1050, American Government	3
PHYS 1710, Mechanics	3
PHYS 1730, Mechanics Lab	1
ENGR 1030, Technological Systems	<u>3</u>
Total Hours	16

SOPHOMORE YEAR

FALL

CSCE 1020, Program Development	4
HIST 2610, U.S. History to 1865	3
ENGR 2301, Statics	3
ENGR 2405, Circuit Analysis	3
ENGR 2415, Circuit Analysis Lab	1
ENGR 1060, Communications & Ethics	<u>3</u>
Total Hours	17

SPRING

ENGR 2332, Mechanics of Materials	4
ENGR 2302, Dynamics	3
PHYS 2220, Electricity & Magnetism	3
PHYS 2240, Electricity & Magnetism Lab	1
HIST 2620, U.S. History from 1865	3
Social & Behavioral Science course	<u>3</u>
Total Hours	17

JUNIOR YEAR

FALL

ENGR 3450, Engineering Materials	3
MEET 3940, Fluid Mechanics Application	3
MFET 3110, Mach Principles & Processes	4
ENGR 3451, Engineering Materials Lab	1
Humanities core	<u>3</u>
Total Hours	14

SPRING

ELET 3980, Digital Controls	3
MEET 3650, Design of Mech Components	3
MEET 3990, Applied Thermodynamics	3
MFET 4190, Quality Assurance	3
MFET 4210, CAD/CAM System Operations	<u>3</u>
Total Hours	15

SENIOR YEAR

FALL

MEET 4050, Mechanical Design	3
MEET 4350, Heat Transfer Applications	3
MFET 4200, Engineering Costs Analysis	2
Technical Elective	3
Visual & Performing Arts course	3
MEET 4780, Senior Design I	<u>1</u>
Total Hours	15

SPRING

MEET 4790, Senior Design II	3
MEET 4360, Experimental Thermal Sciences	2
LSCM 3960, Logistics	3
Advanced Technical Elective	2
Advanced Technical Elective	<u>3</u>
Total Hours	13

PLEASE NOTE:

This is an unofficial sample schedule.

Students should meet with their advisor each semester for individual scheduling, program decisions, etc. Engineering admissions requirements must be met & a degree audit must be created in order to transition from pre-engineering to full major to progress in the program.

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 I
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
HIST	4700, Texas History Advanced (3*** or 4***) level U.S. History (Group A)

POLITICAL SCIENCE (6 Hours)

PSCI	1040, American Government
	1041, Honors Am. Government
	1050, American Government
	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
EADP	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, Contemp. French Civilization
MUET	3030, Music Cultures of the World
PHIL	1800, Philosophy of Self
PHIL	2070, Great Religions
PHIL	2100, Intro. To Judaism
PHIL	2310, Intro. To Ancient Philosophy
PHIL	2400, Religion in American Society
PHIL	2500, Contemp. Environ. Issues
PHIL	2600, Ethics in Science

DISCOVERY (3 Hours)

ANTH	1100, World Cultures
ANTH	1150, World Cultures Through Film
ANTH	2070, Intro. to Race & Ethnic Studies
ANTH	2200, Gender Across Cultures
BCIS	3615, Visual Display of Business Info.
BIOL	1750/1755, Intro. Research Lab I & II
BUSI	1340, Managing Business Enterprise
COMM	1010, Intro. to Communication
COMM	1440, Honors Classical Argument
COMM	2040, Public Speaking
COUN	2620, Diversity & Cultural Awareness
DANC	1100, Stress Reduct. Thru Movement
DFST	2033, Parenting in Diverse Families
ENGR	1030, Technological Systems
FREN	1610, French Influence in North Am.
FREN	1620, French Language in Canada
GEOG	1170, Culture, Environment & Society
GEOG	1200, World Regional Geography
GEOG	1500, Geography of DFW Metroplex
HIST	1050, World History to 1500
HIST	1060, World History from 1500
HMGT	1450, Principles of Nutrition
HNRS	1100, The Good Society
HNRS	1500, Intro. to Research
INST	2100, Intro. to International Studies
LING	2050, Pop Culture, Tech. & Society
MDSE	2750, Consumers in a Global Market
MEEN	1000, Discover Mech. & Energy Engr.
MGMT	3330, Communicating in Business
MKTG	3010, Professional Selling
MUAG	1500, Occupational Health:
PHED	1000, Health Related Fitness
PHIL	1050, Introduction to Philosophy
PHIL	1400, Contemporary Moral Issues
PHIL	2050, Introduction to Logic
PSYC	1500, Mythbusting
RHAB	3000, Microcounseling
SOCI	2070, Race & Ethnic Relations
SOWK	4540, Human Diversity
TECM	1500, New Media for College Career
UCRS	1000, Freshman Seminar
WMST	2100, Women & Society

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 post-pone completing a course until the updated curriculum is released.

Resources

Name	Location	Phone	Web Address
Bulletin (Catalog)	N/A	N/A	www.unt.edu/catalog/
Career Center	Chestnut Hall 103	565-2105	careercenter.unt.edu
Center for Student Rights & Responsibilities	UU 324	565-2039	unt.edu/csrr
Chemistry Resource Center	CHEM 231	565-2556	chem.unt.edu/crc
Computer Labs	Numerous locations	Check website	gacl.unt.edu
Computer Class Help Lab	Discovery Park F205	565-2767	cse.unt.edu
Counseling & Testing Service	Chestnut Hall 311	565-2741	unt.edu/cat
Deadlines : Add, Drop, Withdrawal, Payment, Incomplete, Pass/No Pass, Graduation Application	Academic Calendar & MyUNT	565-2111	unt.edu/registration my.unt.edu
EagleConnect: Student Email Account	N/A	Check website	eagleconnect.unt.edu unt.edu/helpdesk
Engineering Student Organizations & Honor Societies	Discovery Park	Check website	engineering.unt.edu/students/organizations dplife.unt.edu/orgs.html
Financial Aid: Grants & Loans	ESSC 228	565-2302 or 565-2016	essc.unt.edu/finaid
Internships & Cooperative Education Office	Chestnut Hall 155	565-2861	internships.unt.edu
Learning Center	UU 323	369-7006	learningcenter.unt.edu
Libraries	Numerous locations	Check website	library.unt.edu
Math Lab & Short-Term Tutoring	GAB 440	565-2155	math.unt.edu/mathlab
Office of Disability Accommodation	UU 321	565-4323	unt.edu/oda
Physics Instructional Center (PIC)	PHYS 209	565-3275	phys.unt.edu/PIC
Registrar: General Information Graduation Registration Transcripts	ESSC 209 ESSC 210 ESSC 147 ESSC 209	565-2111 565-4625 565-2378 565-2344	essc.unt.edu/registrar/
Student Accounting –Tuition & Fees	ESSC 105	565-3225	http://essc.unt.edu/saucs/
Student Activities & Organizations	UU 216	565-3807	unt.edu/sac
Student Employment at UNT	Chestnut 103	565-2105	careercenter.unt.edu
Multicultural Center	UU 216	565-3424	unt.edu/edo/multicultural
Scholarships	ESSC 228 (for some scholarships)	Check website	essc.unt.edu/finaid engineering.unt.edu/students/opgf.unt.edu searchforcolleges.org
Student Government Association	UU 216B	565-3850	untsga.com/
Student Health & Wellness Center	Chestnut Hall	565-2333	healthcenter.unt.edu
Student Money Management Center	Chestnut Hall 313	369-7761	moneymangement.unt.edu
Student Legal Advisor	UU 322AA	565-2614	unt.edu/legal
Texas Success Initiative: Academic Readiness	Stovall Hall 117	565-4403	unt.edu/academicreadiness
Thinkwell Tutoring	N/A	Check website	thinkwell.com
Writing Lab	AUD 105	565-2563	unt.edu/writinglab

For Additional Help or Information Visit: www.unt.edu