

Course Objectives, Syllabus, and Course Policies
Spring 2025 (2252)

“I have never let my schooling interfere with my education.”

-Mark Twain (1835-1910)

COURSE: **ENGR1201 – Introduction to Engineering**
Lectures: Mondays and Wednesdays 1115-1210 in RBN 3038

COURSE DESCRIPTION: An introduction to the engineering profession with emphasis on technical communication and team-based engineering design. Two hours of lecture per week.

REQUIRED TEXT: Discovering Engineering Design in the 21st Century, Striebig, B. A., Cengage Publishing (2024), ISBN # 978-0-357-68520-4. Paperback.

INSTRUCTOR: Dr. J. Torey Nalbone, Office – RBS 2003; Phone – 903 – 565 – 5520–
tnalbone@uttyler.edu
Office hours generally 7 – 10 a.m. M-F or as posted or with appointment when other arrangements are made.

Also available is a ZOOM Office hours available during Regular hours and you are welcome to seek additional instruction. **I have set aside virtual office hours via ZOOM posted on Canvas.**

Join Zoom Meeting

<https://uttyler.zoom.us/j/83640499109?pwd=Rcex593jYQYhQs6khs2Te9U78lp1gS.1>

Meeting ID: 836 4049 9109

Passcode: 805201

We will also have guest lecturers from time to time. An appropriate introduction will be provided when they arrive for their presentation.

ABOUT THE COURSE

This course is all about you. It will focus on the tools for you to be a success in your journey as an engineering student. The course objectives are also the foundation stones for you becoming a successful practicing engineer and to meet these long-term goals for the course and for you. We will see how math and science establish the foundation for engineering analysis and design and how we work to maximize the use of computers in support of our work. You will hear practicing engineers and computer scientist talk about real world engineering and computer science problems. You will do projects to be introduced to analysis and the engineering design process. We have six (6) specific objectives in this course (listed below), each is focused on an essential skill for success as an engineering student and as an engineer in the future. They can be generally grouped and summarized as learning about how engineering impacted the modern world, introduce you to some of the tools and techniques you will need to complete your studies in engineering, and give you an appreciation for the engineering profession. In this course you will also explore how engineering has impacted the modern world

COURSE OBJECTIVES AND TOPICS COVERED

Course Objectives

- a. Explain the engineering profession and engineering ethics.
- b. Explain engineering analysis and design using the proper techniques and processes to plan and execute.
- c. Use technical communication skills to explain the results/analysis of process of design and data presentation.
- d. Contribute as a member of a design team to construct a simple engineering device, write a design report, and present the design as part of team and participate in a competition for design adequacy and specification adherence.
- e. Demonstrate computer literacy with the use of computer tools for engineering.
- f. Analyze the impact engineering has had on the modern world.

Topics Covered

- The impact engineering had in the Modern World
- Introduction to selected engineering disciplines (civil, mechanical, and electrical engineering).
- Design project processes applying specifications and engineering constraints
- Technical report writing skills, style and proper documentation
- Technical presentation skills
- Study skills using library activities.
- Engineering competence by use and reference to standards, specifications and codes.
- Development of essential professional survival skills (resumes, social media, interviewing, etc.)

CANVAS

Course syllabus and all course material including handouts will be posted on CANVAS Please review all the material posted on CANVAS on a regular basis. We will also use Blackboard to post announcements, record grades and contacting students. Contact of student's may also be accomplished through e-mail. Only a student's assigned UT Tyler email address will be used for all course correspondence, so be certain to check it often.

ATTENDANCE

Regular attendance is imperative if you want to do well in this course. Therefore, **regular attendance is required** and course grades will be adjusted if necessary within the Grading rubric covered by Professional Practice. (see below)

Important and Continued Public Health Information for Classrooms and Team Activities

UT Tyler is operating under general good public health practices and guidance. Therefore, for UT Tyler family members, it is important to take the necessary precautions to ensure a healthy and successful year. UT Tyler continues to urge you to protect yourselves against the flu, COVID or any new public health threats that may be developing. Be diligent about preventive measures such as washing hands, covering sneezes/coughs, social distancing and vaccinations, which have proven to be successful in slowing the spread of or prevention of many diseases and illnesses. Encourage those who don't feel well to stay home, and if they show symptoms, ask them to get tested for the flu or COVID. Self-isolation is important to reduce exposure ([CDC quarantine/isolation guidelines](#)). Please work with your faculty members to maintain coursework and please consult [existing campus resources](#) when available or instructor.

CLASS OPERATIONS

- 1) All materials will be placed on the Canvas Platform for access including links to class lecture.
- 2) All important information will be communicated in this syllabus or through timely class wide announcements posted in CANVAS.
- 3) All Announcements are important and are also part of the consideration for Professional Practice.

A record of attendance will be made for every class meeting. A student's failure in meeting the minimum attendance requirement may result in a grade of "F" in the course (see grading section). In case you must miss a class please contact the instructor as soon as feasible, preferably prior to the absence. It is however your responsibility to keep up with the class work and be informed of all announcements made in the class on assignments, work to be submitted, lab/project reports, communication with your project team members, etc.

RESEARCH/TECHNICAL PAPER

Each student will write a research/technical paper in this course with both draft and final (revised) versions graded. Details will be announced in class. **Everyone will be required to take their outline and drafts to the writing center to be evaluated.**

WRITING CENTER: The UT-Tyler Writing Center provides professional writing tutoring for all students. You will be provided additional information on how to access this resource as the course moves forward. When you use the Writing Center, you should plan in advance for a minimum of one-two hour-long tutorials per assignment: the first to assess your needs, and the second to follow up. Be prepared to take an active role in your learning, as you will be asked to discuss your work. While Writing Center tutors are happy to give constructive criticism and teach effective writing techniques, they will under no circumstances write your paper for you. Appointments are strongly encouraged: call 903-565-5995. Visit <http://www.uttyler.edu/writingcenter/>

DESIGN PROJECT

Each student is required to participate in a semester design project which is the construction of a machine. You will be part of a team that will design a Cardboard Canoe or Extreme Water Treatment Plant (EWTP) according to the rules provided. See the Rules section of the Canvas site for the details on Cardboard Canoe or EWTP projects.

FINAL GRADES

Final grades in this course are based on:

Professional Practice	12.5%	250 points
Written assignments	22.5%	450 points
Technical Paper (Outline & Final)	35%	700 points
<u>Team Design Element (Grade subject to Rules)</u>		<u>600 points</u>
Total	100%	2000points

FINAL GRADES ASSIGNMENT

HI	LOW	%	Final Grade
2000	1800	90%	A
1799	1600	80%	B
1599	1400	70%	C
1399	1200	60%	D
1199	0	<60%	F

What is Professional Practice? – There are certain expectations of professionals in the workplace (especially of engineers) and those same expectations are key components in this course and in preparing you for success as an engineering student. These practices demonstrate that an engineer is:

- 1) Prepared – students are expected to be prepared for the lesson by reading or completing assigned materials prior to class
- 2) Present – students are expected to attend class (see above) just as an employer counts on your presence at work we count on your attendance to class. Any student present less than 60% of the lessons may fail the course.
- 3) Punctual – students are expected to submit assignments according to the attached class schedule or due date provided on the assignment sheet. Assignments are due before class begins at the front of the class. Assignments turned in after class starts will be considered late. Homework turned in late, but prior to 5:00p.m. (1700 hrs.) on the date due will receive a 5% reduction. Homework turned in late, but within one day of the due date, will receive a 15 % reduction; homework turned in within two days of the due date will receive a 25 % reduction. *No credit will be given for homework turned in more than two days late.* **You will receive an Incomplete in the Course if all Assignments have not been submitted.** Obviously there may be circumstances that will occur and make a timely submission impossible. Notify me immediately and I will work with you if/when they occur.
- 4) Participating – students are expected to contribute to each lesson when called upon during class and as a member of their design/work teams.

WRITTEN ASSIGNMENT FORMAT

The production of a neat, organized, high-quality assignments cannot be overestimated nor can its importance to your course grade be overstated. An assignment should be something you are proud of and not something hastily “slapped together”. Toward this end, considerable emphasis will be placed on not only getting the assignment completed, but also completed in accordance to format and style requirements. These format and style requirements are provided in Attachment 4, but will also be included in each assignments sheet. As an engineer your goal is to make a clear, logical, and professional presentation of your work, which is both accurate, correct and appropriately attributed to sources relied upon for your completion of the assignment. As previously mentioned, all submissions are due at the beginning of class on the due date. Late submissions should be uploaded to CANVAS just as original submittals. Any work submitted after the submission timer will be considered late unless previous arrangements with the instructor have been made. All work submitted late will be subject to a reduction in grade as described above. **Work submitted more than 48 hours late will not be graded but must be submitted in order to receive a completion in the course.**

FINAL ASSIGNMENTS NOTE

All graded events are mandatory and will be used to compute your final grade in the course. Failure to submit any required work will result in a lower grade and **you may receive an Incomplete “I” in the course if all assignments have not been submitted.** All submissions are due in class on the date specified on the assignment or the course schedule. Final grades will be determined on the basis of the assignments submitted and the overall class average. If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed. Obviously, there may be circumstances that will occur and make a timely submission impossible. Notify me immediately and I will work with you if/when they occur.

Laptops/PDAs/iPads/any MP3 players/Cell Phones or other electronic devices:

With the delivery platform consideration for this course all electronic devices necessary to complete the assignments or make connection for participation in the course are approved. Need for electronic devices may be identified specifically for certain class topics. Please be aware that I will record the class through the ZOOM platform and will provide the address for that download in a timely fashion after the lecture. If you plan to record the lectures for your personal use please notify the instructor and provide the information about the device you will be using.

Academic policies regarding withdrawal from the course, state-mandated course drop rule, grade forgiveness, student rights, absence for religious observance, grade replacement, social security and privacy, learning disability, academic dishonesty and others can be found at <http://www.uttyler.edu/academicaffairs/syllabuspolicies.pdf> . And are reproduced for your convenience below:

1. Academic Misconduct: Plagiarism of homework and cheating on examinations will be interpreted as academic misconduct and will not be tolerated. Please refer to the University of Texas at Tyler current Undergraduate Catalog for academic policies and Manual of Policies and Procedures for Student Affairs (MOPPS, Chapter 8) regarding academic integrity, cheating and plagiarism. Academic dishonesty will not be tolerated. Ignorance of the rules and policies provides no protection from the consequences.
2. Students Rights and Responsibilities. To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/StudentRightsandResponsibilities.html>
3. Grade Replacement/Forgiveness. If you are repeating this course for a grade replacement, you must file intent to receive grade forgiveness with the registrar by Census Day (see Schedule of Topics). Failure to do so will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates will receive grade forgiveness (grade replacement) for only three course repeats during his/her career at UT Tyler. Also, please notify the instructor so that they know about your circumstance.
4. State-Mandated Course Drop Policy. Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the Census Day (See Schedule of Topics for the specific date). Exceptions to the 6-drop rule include, but are not limited to, the following: totally withdrawing from the university; being administratively dropped from a course; dropping a course for a personal emergency; dropping a course for documented change of work schedule; or dropping a course for active duty service with the U.S. armed forces or Texas National Guard. Petitions for exemptions must be submitted to the Registrar's Office and must be accompanied by documentation of the extenuating circumstance. Please contact the Registrar's Office if you have any questions. Please contact the instructor prior to dropping the course to receive any guidance in your course progress.

5. Disability Services. In accordance with federal law, a student requesting accommodation must provide documentation of his/her disability to the Disability Support Services counselor. If you have a disability, including a learning disability, for which you request an accommodation, please contact a counselor in the Disability Support Services office in UC 3152, or call (903) 566-7079. Additional information may also be obtained at the following UT Tyler Web address: <http://www.uttyler.edu/disabilityservices>
6. Student Absence due to Religious Observance. Students who anticipate being absent from class due to a religious observance are required to inform the instructor of such absences by the second class meeting of the semester.
7. Student Absence for University-Sponsored Events and Activities. If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed. This includes University Athletes who should also provide a notice to the instructor of their athletic participation by the third-class meeting
8. Social Security and FERPA Statement. It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically nor will they be discussed with anyone outside of the University without your permission and in most cases presence during the discussion.
9. Emergency Exits and Evacuation. Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. For Tornado warnings the safe areas within the building have been designated. The Instructor will identify to you these safe refuge areas. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Tyler Police, Fire Department, Fire Prevention Services, or other official Public Safety personnel.

Additional syllabus/course policies available on CAVAS Syllabus content area.