

**University of Texas at Tyler - Department of Civil & Environmental Engineering  
CENG 4341-031: Leadership, Professionalism & Public Policy  
Spring 2022**

**Instructor:** Shariful Huq  
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**Office Hours:**  
MoWe: 9:30 a.m. - 12:00 p.m. or By Appointment

**Lectures:**

Tuesday/Thursday: 11:00 a.m. - 12:20 p.m., HEC B210

**Note to Student about a Syllabus**

This syllabus is a statement of intent about how the course will be taught this semester. It outlines what we will cover, what you will need to do in the course, and it explains what and when you must do it to successfully complete the course and get a great final grade. This syllabus is intended to protect you from arbitrary or untimely changes in course requirements and due dates. But I reserve the right to make changes as necessary to the syllabus with announcement of changes. As we learned during 2020, there are many circumstances outside of our direct course control that may require changes to this syllabus in content and schedule. These will always be announced in advance and the syllabus will be updated on Canvas so all can be aware of the required changes.

**Important Covid-19 Information for Classrooms and Laboratories**

Students are expected to wear face masks covering their nose and mouth in public settings (including classrooms and laboratories), as specified by [COVID-19 Information and Procedures](#). The UT Tyler community of Patriots views adoption of these practices consistent with [Honor Code](#) and a sign of good citizenship and respectful care of fellow classmates, faculty, and staff.

Students who are feeling ill or experiencing symptoms such as sneezing, coughing, digestive issues (e.g. nausea, diarrhea), or a higher than normal temperature should stay at home and are encouraged to use the [UT Tyler COVID-19 Information and Procedures \(Links to an external site.\)](#) website to review protocols, check symptoms, and report possible exposure. Students needing additional accommodations may contact the Office of Student Accessibility and Resources at University Center 3150, or call (903) 566-7079 or email [saroffice@uttyler.edu](mailto:saroffice@uttyler.edu).

**Course Website:**

I will use both the texts and Canvas to manage the course material for the semester. There you will find lecture notes, assigned reading, homework assignments, exam and miscellaneous handouts and other material pertaining to the class. **Please check there daily.**

## Course Description:

This is a capstone senior class on:

- A. **Public policy** and its connection to the engineering profession
- B. Understanding **the unique “trust” relationship** professional engineering has with its clients and what that TRUST means to/with society
- C. **Professionalism** – what is required of you as a professional engineer?
- D. WHAT are the **Ethical Expectations** of a professional engineer based on TRUST relationship with society?
- E. Understand what Engineering **Leadership, Management, Followership and Project Team Dynamics** are ***for a practicing Engineer.***

**ALL** engineers are **professionals** who serves as **leaders** and **team players** in the multitudes of projects over the entire length of their career. Engineers must “**BE**” a practicing professional which implies that you are:

1. An active participating professional in your “profession”
2. A lifelong learner and contributor to the body of specialized knowledge in your profession,
3. Aware of your unique relationship to society and role playing with society as professional engineers

**As** the key decision maker for complex technical issues being solved for your project (by you or your team of highly qualified team players) you must know how to deal with great amounts of uncertainty and risk that comes with the role as a professional engineer that will challenge you ethically, technically and professionally.

**As** an engineering leader or as an engineering partner on projects you must learn and master the art of engineering leadership and followership.

## Learning Objectives:

1. Know what an “engineer” is and what is engineering. We will investigate what society has defined as required engineering skills expected of an engineer professionally.
2. We will look at the link between Engineering and Society which is public policy and we will investigate the “public policy” model we practice engineering in.
3. This course will investigate that is public policy, how it is made, and we will discuss why engineers must understand and participate in public policy formation.
4. Understand the professional T model of development for a profession
5. We will investigate what level/quality of knowledge, practice and competence is required of a profession to be recognized by society as a profession.
6. We will investigate the professional requirements for you to become a professional in a professional association and examine how this impacts concepts of identify and community.
7. Understand the concept of “leadership” and specifically engineering leadership.

8. Understand what a manager is and what management does.
9. Understand what a team player/follower is and how they best support a team.
10. Understand what is required *in practice* and *character* of an engineer and a leader
11. Look at the TRUST between a professional entity and society and why it is so critical to sustain that TRUST.
12. Look briefly at contracts, Kr Law, obligations under contractual arrangements.
13. Look at the ethical standards expected of you as an engineering/technology leader and professional.

**Prerequisite:**

Senior standing and department chair approval

**Required Text:**

1. **Public Policy 6<sup>th</sup> Edition** by Michael E. Kraft and Scott R. Furlong SAGE, ISBN 9781506358154
2. **Leadership** by Peter G. Northouse, 8<sup>th</sup> edition, ISBN 9781506362311, Sage Publishing
3. **Common Sense Construction LAW** by Smith, Currie and Hancock, 5<sup>th</sup> edition Wiley, ISBN 978-1-118-85810-3

	<b>Final Grade Contribution</b>
Exam and/or Quizzes (4, equal point distribution)	40%
Team “Instructional” + Professional Practice* (4x4% + 4%* =)	20%
Team Project: Public Policy	14%
Team Project: Negligence Case Study	14%
Team Semester Project: Engr. Student Ethics Creed (COE Dean)	<u>12%</u>
	<b>100%</b>

**Exams and Pop Quizzes:**

There will be a total of maximum 4 announced exams or quizzes.

**There is NO Final Examination.**

**“If necessary, I reserve the right to adjust the grade scale at the end of the semester to the students benefit”.**

**\*Professional Practice** – this is my subjective grade based upon your participation in this course.

**\*Professional Practice:**

I will assign 4% percentage of the course grade towards your professional practice grade. **Your professional practice grade will be computed based upon your attendance plus participation in this course plus attending professional organization (student chapter, local branch etc.) activity.** You must attend a minimum of 3 ASCE meetings and submission of one mini report describing the meeting contents. I will provide a document template and an example of what needs to be submitted.

**\*\*NOTE:**

There will be no makeup work or extra credit allowed/granted at the end of the semester. All assignments must be turned in at the prescribed due date and time to receive credit. ***There is NO credit given for late assignments unless an extension was given by the instructor prior to the due date. I reserve the right to grant or deny this approval for a late assignment.***

**THERE ARE NO MAKE-UP EXAMS GIVEN WITHOUT AN EXCUSED ABSENSE.** A note from a medical professional is required for any absence due to illness.

All Graded Events are mandatory and becomes part of your grade. Failure to submit any required work will result in an incomplete. As an engineer your goal is to make a clear, logical, and professional presentation of your work, which is both accurate and correct. As such both your presentation and the accuracy of your work is important, and both will be graded. All submissions are due on the due date and time assigned through Canvas.

**Reading Discussion Questions:**

Reading or videos will be assigned when necessary for a lesson for your review. **You are required to review these prior to the next lesson.** There will be questions you will need to answer in class –this is your participation and professionalism grade.

**Class Discussion Post Participation Activities:**

You will be required to participate in class discussion and various project tasks for a grade. You should:

1. Give the project your best efforts and equally carry the load – don't be the weak link! I will ask team members anonymously to grade their team mates and this team-mate grade will count towards your overall course grade.
2. Express your ideas and thoughts clearly and openly but remember keep the dialogue professional and focused on the issues of the course. These actions should be a learning / growth tool used for your professional development.

**Final day to withdraw:**

The final day to withdraw from the course without penalty is **March 28<sup>th</sup> 2022.**

**Census date:**

The university requires that instructors report the attendance to the register at various points in the semester. An unauthorized absence will impact your final grade.

**UT Tyler Honor Code:**

Every member of the UT Tyler community joins together to embrace: Honor and Integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

**Student Standards of Academic Conduct:** Disciplinary proceedings may be initiated against any student who engages in scholastic dishonesty, including, but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed

to give unfair advantage to a student or the attempt to commit such acts. 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. Allegations of academic dishonesty will be immediately referred to the office of Student Affairs and the UT Tyler Judicial Affairs. Ignorance of the rules and policies provides no protection from the consequences.

- i. "Cheating" includes, but is not limited to:
  - copying from another student's test paper;
  - using, during a test, materials not authorized by the person giving the test;
  - failure to comply with instructions given by the person administering the test;
  - possession during a test of materials which are not authorized by the person giving the test, such as class notes or specifically designed "crib notes". The presence of textbooks constitutes a violation if they have been specifically prohibited by the person administering the test;
  - using, buying, stealing, transporting, or soliciting in whole or part the contents of an un-administered test, test key, homework solution, or computer program;
  - collaborating with or seeking aid from another student during a test or other assignment without authority;
  - discussing the contents of an examination with another student who will take the examination;
  - divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructors has designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student;
  - substituting for another person, or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment;
  - paying or offering money or other valuable thing to, or coercing another person to obtain an un-administered test, test key, homework solution, or computer program or information about an un-administered test, test key, home solution or computer program;
  - falsifying research data, laboratory reports, and/or other academic work offered for credit;
  - taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and
  - misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining an academic or financial benefit or injuring another student academically or financially.
- ii. "Plagiarism" includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the submission of it as one's own academic work offered for credit.
- iii. "Collusion" includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.

- iv. All written work that is submitted will be subject to review by plagiarism software.

### **UT Tyler Resources for Students:**

- [UT Tyler Writing Center](http://www.uttyler.edu/writingcenter) (903.565.5995), [writingcenter@uttyler.edu](mailto:writingcenter@uttyler.edu)
- [UT Tyler Tutoring Center](http://www.uttyler.edu/tutoring) (903.565.5964), [tutoring@uttyler.edu](mailto:tutoring@uttyler.edu)
- The Mathematics Learning Center, RBN 4021, this is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in earlycareer courses.
- UT Tyler Counseling Center (903.566.7254)

### **Collection of Student Work:**

Throughout the semester I may collect student work (best, average, and worst) for the ABET outcomes notebooks. This will require me to make a copy of your work, keep your original and return a copy of the graded work to you. I will not draw attention as to what level of work you accomplished. **NOTE: On certain assignments, if your work is deemed to be unsatisfactory you may be asked to resubmit the assignment until it becomes satisfactory.**

**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>

**Grade Replacement/Forgiveness and Census Date Polices:** Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar.

Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions that students need to be aware of. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

**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 date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

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.

**Disability Services:** In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Tyler at Texas offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including non-visible a diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler> and fill out the New Student application. The **Student Accessibility and Resources (SAR)** office will contact you when your application has been submitted and an appointment with an Accessibility Case Manager. For more information, including filling out an application for services, please visit the SAR webpage at <http://www.utt Tyler.edu/disabilityservices>, the SAR office located in the University Center, # 3150 or call 903.566.7079.

**Student Absence due to Religious Observance:** Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

**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.

**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.

**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. 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, Fire department, or Fire Prevention Services

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<b>4341 Course Schedule</b> <i>(Subject to change as needed throughout the semester)</i>				
Date	Lesson	Topic for Class	Reading	Assignment
BLOCK 1 – Public Policy (PP)				
1/11	1	Syllabus and Intro/Project	Canvas Module 1	Teams for next class
1/13	2	Public Policy 1	TEXT Chapter 1	For grade Team presentation/lecture to class
1/18	3	Public Policy 2	TEXT Chapter 2	
1/20	4	Public Policy 3	TEXT Chapter 3	
1/25	5	Exam #1 or Quiz #1 (PP) PP Project Time		For grade
1/27	6	PP Project Time		No Class
2/1	7	Project - PP: Team Presentations		IN Class Presentation For grade
2/3	8	Project - PP: Team Presentations		IN Class Presentation For grade
BLOCK 2 - Ethics				
2/8	9	<b>Engineering - a matter of PP in Texas</b>	Canvas	
2/10	10	“	Canvas Texas PP Engineering Law	Read Pages 1-11 to Qualified Scientists
2/15	11	“	Canvas Texas PP Engineering Law	Read pages 19-27; 41-49
2/17	12	<b>Engineering Professional Ethics</b> Exam: Exam #2 or Quiz #2 -NO CLASS	Canvas Texas PP Engineering Law	Pages 59-61 AND Take exam For grade
BLOCK 3 – Being a Professional				
2/22	13	What is Profession? What is a professional?	Canvas - Colby Sullivan Paper and Fleddermann article	For grade Team presentation/lecture to class
2/24	14	Professional Duty of Care and Bolam Test of Negligence	Canvas Paper and Fleddermann article	
3/1	15	Duties and Accountabilities of Design Professional	Chap 9 of Smith & Currie	
3/3	16	<b>Case Study Application Prep</b>		NO CLASS
3/15	17	Project - Negligence Case Study: Team Presentations		IN Class Presentation For grade
3/17	18	Define Lead-er-ship and Management	Northrup Chap 1 TEXT	Team presentation/lecture and Guest Lecturer (Zoom session from Tyler)
3/22	19	Define Lead-er-ship and Management in Engineering context		Team presentation/lecture and Guest Lecturer (Zoom session from Tyler)
3/24	20	Follow-ship in project team	Northrup Chap 12	Zoom session from Tyler
3/29	21	Exam #3 or Quiz #3 - (lessons 13 -16)		For grade



BLOCK 4 – Law applicable to Engineering				
3/31	22	Anatomy of a Construction Project (ECPM)	Canvas	Zoom session from Tyler
4/5	23	Project Status Reporting EVM	Canvas	Zoom session from Tyler
4/7	24	KR Engineering Law & Construction (ECP Focus)	Smith/Currie TEXT Chap 1	For grade Team presentation to class
4/12	25	KR Interpretation	Chap 2	
4/14	26	ECP and P3 Projects for the Engineering Designer	Chap 4	
4/19	27	Change Orders	Chap 7	
4/21	28	Exam #4 or Quiz #4 Ethics Paper Due Course Survey	Covers Smith/Currie chapters & papers	
				For grade Ethics Paper – Canvas Submission

CENG 4341 Projects:

**Public Policy Project Topics: (one affirm and one contest)**

1. ALL CE required to pass FE exam for graduation from UT Tyler with a grade of 90% or greater?
2. Mandatory Specific Ethics training and mandatory ethics exam criteria for graduation of all CE students (based on Texas law) with an exam grade of 100%?
3. Should all CE students belong to and be active in ASCE organization and MUST participate in one or more ASCE contests to graduate as part of their experience component?

**Negligence Case Study Topics**

1. Challenger Space Shuttle Tragedy - January 28, 1986
2. Columbia Space Shuttle Tragedy - February 1, 2003
3. Schlitterbahn Kansas City Fatal Accident - August 7, 2016
4. Apollo Capsule Fire (Plugs-out Test) - January 27, 1967
5. Ronan Point Apartment Tower Collapse/Failure - May 16, 1968
6. Florida International University Pedestrian Bridge Collapse/Failure - March 15, 2018

**Dean Ethics: (affirm and contest)**

Given the draft C of Eng. ethical “creed” should this creed be made mandatory for all engineering students at UT Tyler?