

TED University
ENGR 490 Contemporary Issues in Engineering
Spring 2023-2024

Course Description:

Seminars on engineering topics such as, ethics, life-long education, engineering standards, project management, risk management, change management, entrepreneurship and innovation, sustainable development, effects of engineering applications on health, environment and safety, legal consequences of engineering solutions. A multidisciplinary group work on a selected theme. *Credit units: (2+2+0) 3 Credits/ 5 ECTS, Prerequisite: CMPE 399 or EE 399 or IE 399 or ME 399.*

Class Meetings:

Fri: 14:00-15:50
Ahmet Ersan Auditorium

Instructors:

Section 1: Dr. Mehmet R. Taner mehmet.taner@tedu.edu.tr 585-0-024, A320 Office Hours: Mon 16:00-16:50	Section 2: Dr. Yiğit Taşcıoğlu yigit.tascioglu@tedu.edu.tr 585-0-024, F311 Office Hours: To be announced
Section 3: Dr. Gökçe Nur Yılmaz gokce.yilmaz@tedu.edu.tr 585-0-030, D305 Office Hours: To be announced	Section 4: Dr. Kurtuluş Erinc Akdoğan erinc.akdogan@tedu.edu.tr 585-0-010, F324 Office Hours: To be announced

Teaching Assistants:

Ali Koç ali.koc@tedu.edu.tr , A324	Selin Nur Özsert Duran selin.ozsert@tedu.edu.tr , H110
Semihanur Aktay semihanur.aktay@tedu.edu.tr , A217	A. Davud Duran H103
Research Assistant from Electrical Electronics Engineering, To be announced.	

Learning Outcomes:

Upon completion of the course, students will be able to;

- 1- Recognize ethical conduct and responsibility in engineering applications,
- 2- Identify engineering standards,
- 3- Show an awareness for the need for lifelong learning and ways of pursuing it,
- 4- Show an understanding of business applications of project management, risk management and change management,
- 5- Recognize entrepreneurship and innovation applications,
- 6- Identify sustainable development goals and opportunities,
- 7- Recognize effects of engineering applications on health, environment and safety,
- 8- Recognize potential legal consequences of engineering applications,
- 9- Demonstrate an effective contribution to a project in multidisciplinary engineering team.

Required Text:

Course slides to be posted in LMS.

Supplementary Material:

Selected case studies, Coursera modules, readings TBA.

Grading:

Weekly Quizzes: 60% (2 lowest grades excluded)

Written Report on Multidisciplinary Term Assignment: 20%

Poster Presentation on Multidisciplinary Term Assignment: 15%

Attendance: 5%

Make-up Policy:

The weekly quizzes will be given after each lecture. If you fail to attend the lecture your grade from that week's quiz will be automatically set to zero. If you must miss a quiz, you should report your formal excuse such as a medical report to your section instructor no later than one week after the exam date. Under any circumstances, at most two quizzes may be excluded in calculation of the overall grade.

Estimated Student Workload:

Lectures 28 hrs

Readings 3 hrs

Quizzes 3 hrs

Working on the term assignment 41 hrs

Report 20 hrs

Team meetings 30 hrs

Total workload is 125 hours.

Course Management System:

TEDU LMS (<https://lms.tedu.edu.tr/>). All announcements and course related materials will be posted on the LMS course page.

Planned Learning Activities and Teaching Methods:

Collaborating
Telling / Explaining
Discussion/Debate
Seminars
Guest Speakers
Questioning
Reading
Inquiry

Student Feedback Survey: In the last two weeks of classes.

Course Conduct Policy:

- No late submissions of any assignments or quizzes will be accepted.
- Students are responsible for all announcements made during class, in LMS, and via e-mail by the instructors or teaching assistants.
- Discussion of the course material and working in groups are effective ways of learning. However, this does not mean that you can copy the answers or ideas from one of your friends. In case of plagiarism, all involved students will receive a grade of zero on the particular quiz or assignment. In case of a group assignment, no collaboration between groups is permissible.
- E-mail messages to the instructor and teaching assistants should be sent from accounts in TEDU domain and electronically signed (i.e., with your name and last name). No e-mail message from external domains such as msn, yahoo, etc. will be replied.
- Academic misconduct is not tolerated, and violations will be dispatched in accordance with the University policy.

Misconduct in class and exams:

"All of the following are considered plagiarism: turning in someone else's work as your own, copying words or ideas from someone else without giving credit, failing to put a quotation in quotation marks, giving incorrect information about the source of a quotation, changing words but copying the sentence structure of a source without giving credit, copying so many words or ideas from a source that it makes up the majority of your work, whether you give credit or not" (www.plagiarism.org)

Plagiarism is a very serious offense and will be penalized accordingly by the university disciplinary committee. The best way to avoid accidentally plagiarizing is to work on your own before you ask for the help of other resources.

Cheating has a very broad description which can be summarized as "acting dishonestly". Some of the things that can be considered as cheating are the following: copying answers on exams, quizzes and assignments, using prohibited material on exams, lying to gain any type of advantage in class, providing false, modified or forged data in a report, plagiarizing, modifying graded material to be re-graded, causing harm to colleagues by distributing false information about an exam, homework or lab. Cheating is a very serious offense and will be penalized accordingly by the university disciplinary committee. For more information on TEDU policy on intellectual integrity, please see the following link.

[Principles of Academic Integrity | TED Üniversitesi \(tedu.edu.tr\)](http://tedu.edu.tr)

Schedule:

Please note that the schedule provided below is tentative and will be adjusted to the actual pace of the course.

Date	Topic	Speaker	Notes
Oct 06	Course Introduction	Course Instructors	No quiz
Oct 13	Sustainable development	Dr. Mehmet R. Taner	
Oct 20	Details of the term assignment	Course Instructors	No quiz
Oct 27	Entrepreneurship and innovation	Mr. Şevket Ö. Kürkçüoğlu	
Nov 03	Engineering ethics	Dr. Yiğit Taşcıoğlu	
Nov 10	Change management	Dr. Gülser Köksal	
Nov 17	Risk management	Dr. Arda Alp	
Nov 24	Lifelong learning	Dr. Sercan Çelik	
Dec 01	Project management	Dr. Mehmet R. Taner	
Dec 08	Engineering standards	Dr. Yiğit Taşcıoğlu	
Dec 15	Effects of engineering applications on health environment and safety	Dr. K. Erinc Akdoğan	
Dec 22	Legal consequences of engineering solutions	Dr. Gökçe Nur Yılmaz	
Dec 29	Q&A session on the poster presentation preparations	Course Assistants and Instructors	No quiz
Jan 05	Poster presentation	Student Groups	

Important Dates:

Report on Multidisciplinary Term Assignment: Dec 20, 2023

Poster Presentation on Multidisciplinary Term Assignment: Jan 5, 2024