Course Syllabus

Course Information
ECS 3361.004: Social Issues & Ethics in Computer Science and Engineering
Fall 2016, Tuesdays, Thursdays 08:00–09:15, SOM 1.107
Census date: Last day to drop a class without a W. Wednesday, September 7.
Withdrawal date: Last day to drop a class with a W grade. Thursday, October 27.

Professor Contact Information
Lecturer: J. Christopher Wilt, P.E.
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Phone number: 972-974-1861
Office: none
Office Hours: N/A

Course Pre-requisites, Co-requisites, and/or Other Restrictions

Students must be capable to check their UTD eLearning account and submit assignments/assessments online IN and OUT of the classroom. All assignments are through eLearning.

Course Description

This course exposes students to major theoretical approaches and modes of reasoning about ethics while exploring a range of important professional and ethical issues in computing and engineering, and the interrelationship between the computing and engineering professions and important elements of social systems. Issues of professional ethics, computer crime and privacy, intellectual property, the balance between the acceptability of risk and constraints such as cost, scheduling, safety and quality, the role of globalization and various important constitutional issues are explored by drawing upon engineering and computing case studies.

Student Learning Objectives/Outcomes: To make students aware of the importance of, and criteria for, professional and ethical conduct in Engineering and Computer Science.

• An understanding of professional, ethical, legal, security and social issues and the implications of these issues for the professional responsibilities of engineers and computer scientists.
• An ability to analyze the local and global impacts of engineering and computing in individual, societal, economic, and environmental contexts.

Required Textbooks and Materials

"Ethics for the Information Age", by: Michael J. Quinn, 6th edition.
Other materials as posted on eLearning.

Assignments & Academic Calendar
Tentative Course Outline *(Subject to change to allow for unforeseen issues).
Every week, we will have a review/lecture/homework and class discussion or presentation by students.

Week 1 Starting August 22:
Introductions/Course syllabus/Teams formation
Lecture 0 - Interpersonal skills

Week 2 starting August 29:
Lecture 1_Chapter 1- IT Milestones and issues/HMW1
Discussion 1
Semester Project assigned

Week 3 starting September 5:
Lecture 2_Chapter 2- Introduction to Ethics/HMW2
Discussion 2
Census day

Week 4 starting September 12:
Lecture 3a_Chapter 9a- Professional Ethics (SECE code of ethics)
Discussion 3

Week 5 starting September 19:
Lecture 3b_Chapter 9b/HMW3
Discussion 4

Week 6 starting September 26:
Lecture 4 Codes of Ethics (IEEE, PMI)/HMW4
Discussion 5

Week 7 starting October 3:
Lecture 5_Chapter 3- Networked Society, BMEN code of ethics/HMW5
Release Exam 1 online in Testing Center

Week 8 starting October 10:

Midterm Grade due

Week 9 starting October 17:
Lecture 6_Chapter 4- Intellectual Property/HMW6
Project Presentations A, B, C and project questions 1

Week 10 starting October 24:
Lecture 7_Chapter 5- Information Privacy/HMW7
Project Presentations D, E, F and project questions 2
Drop Deadline

Week 11 starting October 31:
Lecture 8_Chapter 6- Privacy and the Government/HMW8
Project Presentations G, H, I and project questions 3

Week 12 starting November 7:
Lecture 9_Chapter 7,8- Computer security, Reliability/HMW9
Project Presentations J, K, L and project questions 4

Week 13 starting November 14:
Lecture 10 PE licensing, NSPE code, Harassment/HMW10
Project Presentations M, N, O and project questions 5

Week 14 starting November 21:
Fall Break

Week 15 starting November 28:
Presentations P, Q, R
HMW10/Lect.10 review, Final remarks
Release Exam 2 online in Testing Center

Week 16 starting December 5:
No class meeting
Exam 2 online due

Week 17 starting December 12:
No Final

Course Grade due **December 16.**

List of project topics to choose from include:

- o Cowboys practice facility collapse
- o WikiLeaks
- o Hubble Space Telescope Failure
- o Deep Water Horizon/BP oil spill
- o Fukushima Nuclear meltdown
- o Chernobyl and/or 3-Mile Island
- o Columbia shuttle crash
- o NSA information gathering/Leaks
- o Samsung/Apple IP lawsuits
- o 2008 Financial Crisis
- o Stuxnet
- o Self-Driving Cars
- o Fracking
- o Tissue Engineering/Stem cells
- o Genetic Engineering
- o DC-10 Paris air crash
- o B.F. Goodrich Air Force A7-D Brake Problem
- o Aberdeen Three, U.S. Army Aberdeen Proving Ground
- o American Society of Mechanical Engineering (ASME) versus Hydrolevel Corp

- o Other of your choice (preferably within last 10 years and must be approved by instructor)

Grading Policy

Homework   20%
Discussions   15%
Exam 1 online   25%
Projects   20%
Exam 2 online   20%

The letter grades will be assigned as follows:

97+	A+	87 to 90-	B+	77 to 80-	C+	67 to 70-	D+		< 58 F
93 to 97-	A	83 to 87-	B	73 to 77-	C	63 to 67-	D		
90 to 93-	A-	80 to 83-	B-	70 to 73-	C-	58 to 63-	D-		

Course & Instructor Policies
Homeworks
Over the course of the semester, 10 homeworks will be assigned. Homeworks will be a combination of short answer and multiple choice/multiple answers questions taken online through eLearning.

Discussions

Over the first half of the semester, class discussion sessions will be conducted and submitted online for grading. Team members will take turn to share and/or submit for the team.

Team Project

Every student will participate in an assigned team for a semester long project covering a specific topic chosen by the teams from a list of options. No two teams may select the same topic.
In the first half of the semester, teams will earn bonus points by turning in weekly status updates as they work on their project. A final power point file of the presentation must be submitted on eLearning by the due date. Oral in-class presentations and project questions assignments will be conducted in the second half of the semester. The oral presentations dates will be in the order that the power point file is submitted on eLearning.

Failure to attend/participate in team activities will result in a zero/partial credit for the assignment. To get credit, students must contribute through their team, make sure they are included in the team submission and notify the instructor by email for any missed session of graded discussions.

Exams

Over the course of the semester, there will be 2 exams. Exams will be taken online at the testing center (basement of the library). Online Exams are a combination of multiple choice, multiple answers, T/F and short answer questions.

Make-up Exams: No make-up exams will be allowed except in the case of an extended medical condition or family emergency. In the case of a medical condition, a doctor's note is necessary.

Extra Credit: There will be bonus opportunities assigned during the course of the semester. Only attending students will get credit.

Late Homework: Accepted with late submission penalties. The penalty will range from 1 to 50% depending on how late the homework is submitted.

Classroom Citizenship: I expect students to be attentive during class and to actively participate in class discussions and reviews. You are expected to listen respectfully to me and to other students when they are speaking.

Academic Dishonesty: Any student who is found responsible for committing an act of academic dishonesty will receive a grade of zero on that assignment.

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to http://go.utdallas.edu/syllabus-policies for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.