

ECS 3361 - Social Issues and Ethics in Computer Science and Engineering

Summer 2016

Course Syllabus

Course Information

Lecture Times: Tuesday & Thursday: 5:30 pm – 7:45 pm, ECSN 2.126

Census date: June 2 - Last day to drop without a W grade

Withdrawal deadline: July 11 - Last day to drop with a W grade

Instructor

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Office: ECSN 3.920

Office Hours: Tuesdays & Thursdays 4:30-5:30 AM

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 course communications is through e-learning.

Course Description

ECS 3361 - Social Issues and Ethics in Computer Science and Engineering (3 semester hours) 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 material as posted on e-learning.

Tentative Course Outline & Assignments

This outline is subject to change to allow for unforeseen issues.

Every class period, we will have a lecture, homework, and class discussion or project presentation by students.

Week 1, May 24, 26:

- Introductions, course syllabus, team formation
- Lecture 0: Interpersonal Skills

Week 2, May 31, June 2:

- Lecture 1a: Ch. 1- IT Milestones, Discussion1
- Lecture 1b: Ch. 1- IT Milestones, Discussion2, HW1
- Census day: Jun. 5
- Semester Project assigned

Week 3, June 7, 9:

- Lecture 2a: Ch. 2- Introduction to Ethics, Discussion3
- Lecture 2b: Ch. 2- Introduction to Ethics, Discussion4, HW2

Week 4, Jun. 14, 16:

- Lecture 3a: Ch. 9- Professional Ethics, Discussion5
- Lecture 3b: Ch. 9- Professional Ethics, Discussion6, HW3, Project update 1

Week 5, Jun. 21, 23:

- Lecture 4a: More Professional Ethics (IEEE, PMI, PE...), Discussion7
- Lecture 4b: More Professional Ethics (IEEE, PMI, PE...), Discussion8, HW4, Project update 2
- Release Exam 1 assignment

Week 6, Jun. 28, 30:

- Lecture 5a: Chapter 3- Networked Society, Discussion9
- Lecture 5b: Chapter 3- Networked Society, Discussion10, HW5, Project update 3
- Exam 1 assignment due
- Exam 1 online test in testing center

Week 7, Jul. 5, 7:

- Lecture 6a: Chapter 4- Intellectual Property, Discussion11
- Lecture 6b: Chapter 4- Intellectual Property Discussion12, HW6
- Project Presentation file due
- Drop Deadline: Jul. 13

Week 8, Jul. 12, 14:

- Lecture 7: Chapter 5- Information Privacy, Discussion 13
- Lecture 8: Chapter 6- Privacy and the Government, HW7, Discussion 14

Week 9, Jul. 19, 21:

- Lecture 9: Chapter 7- Computer security, Project Presentations
- Lecture 10: Chapter 8- Computer Reliability: HW8, Project Presentations

Week 10, Jul. 26, 28:

- Lecture 11: Misc. Ethics Topics (Harassment, etc.), Project Presentations
- Project Presentations
- Exam 2 Online test in testing center

Week 11, Aug. 2, 4:

- Review, Project Presentations
- Exam 2 Online test due

List of project topics to choose from:

- Self-Driving Cars
- Fracking
- Tissue Engineering/Stem cells
- Genetic Engineering
- Cowboys practice facility collapse
- WikiLeaks
- Deep Water Horizon accident (BP oil spill)
- Fukushima nuclear meltdown
- Madoff Investment scandal
- NSA leaks
- Samsung/Apple IP lawsuits
- 2008 financial crisis
- Net Neutrality
- Keystone pipeline
- Other topics of your choice (has to be within last 10 years and pre-approved by the instructor)

Grading Policy

Homework	20%
Discussions	15%
Essay	15%
Exam 1 Assessment	15%
Project	15%
Exam 2 Assessment	20%

The grades will be assigned as follows:

≥ 92	A	85 – 88-	B+	74 – 77-	C+	63 – 66-	D+	<55	F
88 – 92-	A-	81 – 85-	B	70 – 74-	C	59 – 63-	D		
		77 – 81-	B-	66 – 70-	C-	55 – 59-	D-		

Course & Instructor Policies**Homework**

Homework will be assigned every week. Homework will be a combination of short answer and multiple choice questions done out of class.

Discussions

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

Team Project

Every student will participate in a team (assigned at random) for a semester long project covering a specific topic chosen by the teams from a list of options. Each team must select a different topic from the list provided or another topic upon approval of the instructor. In the first half of the semester, teams will be required to turn in weekly status updates as they work on the project. A final power point file must be submitted on the due date. Oral in-class presentations will be scheduled in the second half of the semester.

Failure to attend/participate in team activities will result in a zero or partial credit for the assignment.

Exams

Exams constitute a total of 50% of the course grade. Exams will be a combination of a written assignment (essay) done out of class and an online multiple choice, T/F, and short answer questions assessment taken in the testing center (basement of Library).

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

Late Work: Accepted with penalty as instructed.

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, including academic integrity, student conduct, attendance, etc. These policies and procedures will be followed and students are expected to adhere to them.

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.