

“Social and Ethical Implications of Engineering Technologies”

Fall 2018 - LEAP 1501 – Sections 4, 5, & 6 MWF

MWF / 10:45AM-11:35AM

MWF / 11:50AM-12:40PM

MWF / 02:00PM-02:50PM

Course Instructor

Jennifer Large Seagrave, Ph.D.
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Office: Sill Center (Downstairs) Rm 009a
(Through the parking lot, across from the Union)
Office Hours: M/W 9:30-11 or by appointment
(call or text me)

Library Instructor

Lis Pankl, Jessica Colbert
Marriott Library 1726
801-585-3101

lis.pankl@utah.edu
Office Hours: By appointment only

Peer Advisors: Kaylon Draney, Ari Ortiz, Morgan Rhoner,

Engineering-LEAP [E-LEAP] Course Description

“Social and Ethical Implications of Engineering Technologies,” LEAP 1501, provides you with an understanding of the role of ethics in the engineering profession. This course prepares you critically to understand and appreciate the social and ethical implications of engineering technologies. Through the help of articles and case studies you will learn to identify these impacts within the broader context of local and global communities.

You will identify ethical responsibility based on professional codes of ethics published by discipline specific organizations. We will look at some engineering failures in order to integrate concepts of risk analysis into the discussion of ethics and professional responsibility, especially as these failures relate to public health, safety, and whistle blowing.

To understand the impact of engineering solutions in global and societal contexts, we will study concepts of local and global sustainability. We will examine the notion of *sustainable development* from an engineering perspective and the ethical implications of issues such as globalization and rapid growth of information technology. You will explore multiple discourses on sustainability, and, after receiving instruction on how to present professionally, you will ultimately present your final team project in a conference setting on the day of our Final Exam.

Grade Breakdown for Dr. J's LEAP 1501 Fall 2018		
Individual		600
Attendance & Participation	110	
Instructor Consultation (after midterm)	20	
Homework/Reading quizzes (see schedule for due dates)	90	
Interview with an engineer paper (Due 09/21/2017 11:59 PM)	100	
Library (attendance and assignments) (Fridays 9/17, 10/01, 10/22, & 11/05 in MLIB 11/19)	50	
Midterm (9/21 in Class)	200	
Final presentation evaluations (5x5) and reflection (5) (11/25-12/6)	30	

***ABREVIATED SYLLABUS* FULL SYLLABUS AVAILABLE ON COURSE CANVAS PAGE**

Team		400
Team Report 1: Working agreement & topic proposal (Due 9/29)	50	
Team Report 2: Technology (Due 10/19 11:59 PM)	75	
Team Report 3: Sustainability and policy (Due 11/9 11:59 PM)	75	
Team final paper (Due 12/12 11:59 PM)	50	
Team final practice (25) (11/14-21) & Presentation (75) (Due 11/25-12/6)	100	
Teamwork Evaluations (Due 12/12 11:59 PM)	50	
Total		1000

COURSE SCHEDULE

Items in Blue are readings. There are QUIZZES associated with some reading assignments. These are multiple choice and true or false quizzes that will be taken in class, designed to test your reading comprehension.

WEEK 1

Aug 20 Speed dating, explanation of class, discussion of the neutrality of technology

Aug 22 [Is Technology Neutral?](#)

Aug 24 Discussion of Amish technology adoption ([Amish Technology Article](#))

WEEK 2

Aug 27 Discussion of Engineering and Social Sciences ([The Value of the Social Sciences](#)) ([Assign Interview Article](#))

Aug 29 Challenger, Preventative ethics ([Naked Launch & Explaining Disasters](#))

Aug 31 Reenactment of the phone conference

WEEK 3

Sept 3 Labor Day (No Class)

Sept 5 Professionalism and Codes of Ethics ([Engineering Society Codes of Ethics](#))

Sept 7 Ethical thought and theories & problem-solving techniques ([EE Chapter 3 & 4](#))

WEEK 4

Sept 10 Bhopal ([Ethics of Global Risk/Exportation of Risk](#))

Sept 12 Bhopal, Red Butte Creek Spill ([Deseret News, Effects, & Reclamation—3 Articles](#))

Sept 14 Red Butte Creek Spill ([Deseret News, Effects, & Reclamation—3 Articles](#))

WEEK 5

Sept 17 [Library Day 1, MLIB 1110 \(Researching a technology\)](#) [Assign Project Teams](#)

Sept 19 Review Day

Sept 21 [Midterm \(Interview Article Due\)](#)

WEEK 6

Sept 25 Working Contracts/Working in teams role play

[Sept 27 Proposals](#)

Sept 29 Workshop for Report 1 ([Report 1 due](#))

WEEK 7

- Oct 1 Library Day 2, MLIB 1110 (Using Images and Figures) Introduce Report 2
- Oct 3 Memo reports, Formal reports & Documentation
- Oct 5 Workshop for Memo 2

WEEK 8 Fall Break Oct 8-12

WEEK 9

- Oct 15 Sample papers and presentation slides/formatting & content
- Oct 17 Workshop for Report 2
- Oct 19 Team Report 2 Due/Assign Team Report 3 (team meetings)

WEEK 10

- Oct 22 Library Class 3 MLIB 1110 (Researching Sustainability)
- Oct 24 Pillars of Sustainability, (Beder Article)
- Oct 26 Developing criteria for assessing sustainability

WEEK 11

- Oct 29 Materials Life Cycle (Young & Vanderburg Article)
- Oct 31 Workshop for Sustainability Definition
- Nov 2 Product Policy Issues

WEEK 12

- Nov 5 Library 4 MLIB 1110 (Creating a references list)
- Nov 7 Report 3 Workshop
- Nov 9 Team Report 3 Due

WEEK 13

- Nov 12 Organizing Presentations/Examples & Critiques
- Nov 14 Practice Presentations/submit slides
- Nov 16 Practice Presentations/submit slides

WEEK 14

- Nov 19 Practice Presentations/submit slides (Library 5 Online Assessment)
- Nov 21 Practice Presentations/submit slides
- Nov 23 Thanksgiving Break

WEEK 15

- Nov 26 TEAM 1 PRESENTATION
- Nov 28 TEAM 2 PRESENTATION
- Nov 30 TEAM 3 PRESENTATION

WEEK 16

- Dec 3 TEAM 4 PRESENTATION
- Dec 5 TEAM 5 PRESENTATION

FINALS WEEK Final Papers and Teamwork Evaluations Due DECEMBER 12, 11:59 PM