

COEN-288 SOFTWARE ETHICS


The ethics of software engineering.
Course syllabus.

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Lecture:	W 19:10 – 21:00, Room ENGR-326

This course will be an inquiry into some of the ethical problems arising in the field of software engineering. We will survey some traditional theories of ethics in order to develop several conceptual frameworks for addressing these problems. These frameworks will then be applied to a number of cases studies. existing professional codes, law, and standard professional practice. Students will be expected to conduct the course in seminar fashion.

(R=required, S=suggested, P=possible material for further research)

Class	Topic of Class
1	Class introduction Ethical theories: http://cseserv.engr.scu.edu/nquinn/Coen288/EngrHandbook_Ethics.pdf <i>Ethics Updates</i> website: http://ethics.acusd.edu Unwrapping the Gift 1.1 The Ubiquity of Computers and the Rapid Pace of Change 1.2 Examining the Gift: An Introduction to Some Issues and Themes 1.3 Appreciating the Benefits
2	Privacy and Personal Information 2.1 The Impact of Computer Technology 2.2 “Big Brother Is Watching You.” 2.3 Consumer Information 2.4 More Privacy Risks 2.5 Protecting Privacy: Education, Technology, and Markets 2.6 Protecting Privacy: Law and Regulation
3	Encryption and Interception of Communications 3.1 Overview of the Controversies 3.2 Intercepting Communications 3.3 Cryptography and Its Uses 3.4 Encryption Policy: Access to Software, Keys, and Plaintext 3.5 Fundamental Issues
4	Can We Trust the Computer? 4.1 What Can Go Wrong? 4.2 Case Study: The Therac-25 4.3 Increasing Reliability and Safety 4.4 Perspectives on Failures, Dependence, Risk, and Progress 4.5 Computer Models

5	<p>Freedom of Speech in Cyberspace</p> <ul style="list-style-type: none"> 5.1 Changing Communications Paradigms 5.2 Offensive Speech and Censorship in Cyberspace 5.3 Anonymity 5.4 Spam 5.5 Ensuring Valuable and Diverse Content
6	<p>Intellectual Property</p> <ul style="list-style-type: none"> 6.1 Intellectual Property and Changing Technology 6.2 Copyright Law 6.3 Copying Music, Movies, Software, and Books 6.4 Solutions (Good and Bad) 6.5 Free-Speech Issues 6.6 Free Software 6.7 Issues for Software Developers <p style="text-align: right;">Midterm Papers Due</p>
7	<p>Computer Crime</p> <ul style="list-style-type: none"> 7.1 Introduction 7.2 Hacking 7.3 Online Scams 7.4 Fraud, Embezzlement, Sabotage, Information Theft, and Forgery 7.5 Crime Fighting Versus Privacy and Civil Liberties
8	<p>Computers and Work</p> <ul style="list-style-type: none"> 8.1 The Changing Nature of Work 8.2 The Impact on Employment 8.3 The Work Environment 8.4 Employee Monitoring 8.5 Health Issues
9	<p>Broader Issues on the Impact and Control of Computers</p> <ul style="list-style-type: none"> 9.1 Computers and Community 9.2 Information Haves and Have-Nots: The Access Issue 9.3 Loss of Skills and Judgment 9.4 Evaluations of the Impact of Computer Technology 9.5 Prohibiting Bad Technologies
10	<p>Professional Ethics and Responsibilities</p> <ul style="list-style-type: none"> 10.1 Ethics 10.2 Ethical Guidelines for Computer Professionals 10.3 Cases
<p>Mar-17</p> 	<p style="text-align: right;">Final Paper Due</p> <p style="text-align: center;">NO LATE PAPERS WILL BE ACCEPTED!</p>

Grades for the course will be determined on the basis of:

Attendance and classroom contribution	10%
One 5-7 page midterm paper (assigned topics)	40%
One 7-10 page final paper (on a topic from a major section of the course)	50%

Class participation / case presentation: Attendance in class is mandatory. I reserve the right to deduct 5% from your overall grade for EACH class you miss during the quarter. (This is not a bluff, ask the students who have taken my courses in the past).

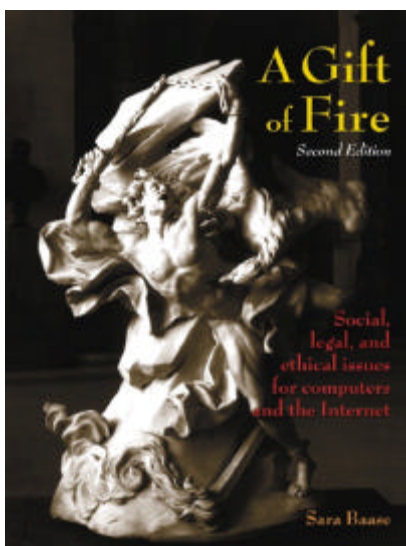
The Midterm Paper will consist of choosing from one of a number of assigned topics and providing a thorough Ethical Analysis of the topic. **The midterm paper shall utilize HTML as the presentation medium.** Correct spelling, grammar, and citation of sources are expected. This paper should be 5 – 7 pages of text in length.

The research paper assignment presents you with an opportunity to investigate an information technology issue with which you are most interested. This paper should be an analytical essay, i.e., an in-depth discussion that also defends a particular position. This research paper must utilize *at least two* high quality academic sources outside of the required readings. The course textbooks will help you identify appropriate sources (e.g., the journals that originally published the articles, footnoted material, and lists of supplementary reading), and may contain non-assigned readings pertinent to your topic. This paper should be consistent with University guidelines for research papers. Both form and content are important for the success of this assignment. **The research paper shall utilize HTML as the presentation medium.** Correct spelling, grammar, and citation of sources are expected. You will receive a more detailed set of instructions later in the quarter. This paper should be 7 – 10 pages of text in length.

References

There will be one required text:

Gift of Fire, A: Social, Legal, and Ethical Issues for Computers and the Internet, 2nd Edition
Sara Baase, *San Diego State University*



ISBN: 0-13-008215-5
Publisher: Prentice Hall
Copyright: 2003
Format: Paper; 480 pp
Published: 06/05/2002