

Computer Science 4307 – Ethical Issues in Computing

Student Learning Outcomes

1. Overview

Students will understand how computing and information systems give rise to social issues and ethical dilemmas.

2. Privacy

Students will become familiar with some of the privacy issues they may face as a member of a complex technological society.

3. Freedom of Speech

Students will be able to discuss the benefits offered by computing technology in many different areas and the risks and problems associated these technologies.

4. Intellectual Property, Crime, and Work

Students will understand some of the social, legal, philosophical, political, constitutional and economical issues related to computers and the historical background of these issues.

5. Evaluating and Controlling Technology

Students will have opportunities to explore the arguments on all sides of a controversial issue, and argue convincingly for the position they select.

6. Professional Ethics and Responsibilities

Students will have an increased awareness of current social and legal developments related to computers.

Course Content

Textbook: *A Gift of Fire*, 3rd Edition, by Sara Baase.

The following chapters including the particular sections listed are covered. (See textbook “Contents”)

1. Unwrapping the Gift

The Ubiquity of Computers and the Rapid Pace of Change
New Developments and Dramatic Impacts
An Introduction to Some Issues and Themes
Ethics

2. Privacy

Privacy and Computer Technology
“Big Brother Is Watching You”
Diverse Privacy Topics
Protecting Privacy: Technology, Markets, Rights, and Laws
Communications

3. Freedom of Speech

Changing Communications Paradigms
Controlling Offensive Speech
Censorship and the Global Net
Political Campaign Regulations in Cyberspace
Anonymity
Protecting Access and Innovation: Net Neutrality of Deregulation?

4. Intellectual Property

Intellectual Property and Changing Technology
Copyright Law and Significant Cases
Copying and Sharing

Search Engines and Online Libraries
Free-Speech Issues
Free Software
Issues for Software Developers

5. Crime

Introduction
Hacking
Identity Theft and Credit-Card Fraud
Scams and Forgery
Crime Fighting versus Privacy and Civil Liberties
Whose Laws Rule the Web?

6. Work

Fears and Questions
The Impact on Employment
The Work Environment
Employee Crime
Employee Monitoring

7. Evaluating and Controlling Technology

Information, Knowledge, and Judgment
Computers and Community
The Digital Divide
Evaluations of the Impact of Computer Technology
Making Decisions About Technology

8. Errors, Failures, and Risk

Failures and Errors in Computer Systems
Case Study: The Therac-25
Increasing Reliability and Safety
Dependence, Risk, and Progress

9. Professional Ethics and Responsibilities

What Is Professional Ethics?
Ethical Guidelines for Computer Professionals
Various Scenarios