CS 3000 : PROFESSIONAL AND SOCIETAL ISSUES IN COMPUTING

Semester Hours: 3.0  
Contact Hours: 3

Coordinator: Sankardas Roy


Author(s): SARA BAASE

Year: 2013

SPECIFIC COURSE INFORMATION

Catalog Description:
Impact of computers, the Internet and related computer technology on society and the social forces underlying the rapid and widespread adoption of computer technology. Personal privacy, intellectual property, legislative and constitutional issues, changing labor force composition, professional ethics. Not a programming course. Prerequisite: Grade of C or better in CS 2010. Approved for Distance Ed.

Course type: REQUIRED

SPECIFIC COURSE GOALS

- I can specify the strengths and weaknesses of relevant professional codes as expressions of professionalism and guides to decision-making
- I can discuss technical and ethical approaches to social and ethical issues that arise in information technology contexts
- I can distinguish among patent, copyright, and trade secret protection and can identify the impact of technology on their implementations and enforcement
- I can describe the risks and problems to privacy that computer technology poses and explain privacy protection mechanisms
- I can identify and describe the significant issues underlying the use of technology in a variety of contemporary social contexts

STUDENT OUTCOMES ADDRESSED BY THIS COURSE

- B.4 Understand the impact of professional, ethical, and social issues in computing
- B.7 Contribute effectively to professional teams in order to accomplish a common goal
LIST OF TOPICS COVERED

- Controversies and alternative points of view, such as
  - privacy vs. access to information
  - privacy vs. law enforcement
  - freedom of speech vs. control of content on the Net
  - market-based vs. regulatory solutions to problems
  - controversies about banning technologies that can have negative impacts
- How computers change established social and legal institutions and conventions, and the need for those institutions to adapt to computers.
- Perspectives:
  - comparing risks and problems of computer technology with other technologies
  - noncomputerized alternatives
  - benefits of computers
- Solutions to computer related problems from technology, the market, management, education and law.
- How organizations and governments attempt to control computer technology.
- Recent significant court cases and decisions.
- The ethical issues impacting computer professionals and their employers and clients.
- Current controversies, such as
  - Censorship of the Internet
  - Government restrictions on encryption
  - The impact of electronic media on intellectual property
  - Privacy threats from government and business databases
  - Privacy of email
  - Neo-Luddite criticisms of computing
  - Hacking and computer crime