

## CSCE 390: PROFESSIONAL ISSUES IN COMPUTER SCIENCE AND ENGINEERING

### Catalog Description:

**390—Professional Issues in Computer Science and Engineering.** (1) Professional issues in the information technology professions; history and social context of computing; professional responsibilities; privacy; intellectual property; risks and liabilities of computer-based systems.

### Prerequisite(s) By Topic:

Software engineering  
Speech

### Textbook(s) and Other Required Material:

Michael J. Quinn, *Ethics for the Information Age*, Pearson Addison Wesley, Boston, MA, 2005.

**Computing Platform:** Not applicable

### Course Objectives: {Assessment Methods Shown in Braces}

1. Apply professional codes of conduct to realistic situations {discussions, presentations, papers, tests}
2. Demonstrate familiarity with current social and ethical issues related to computing {discussions, presentations, papers, tests}
3. Investigate different professional options {assignments, papers}
4. Participate in professional activities {assignments, papers}

### Topics Covered:

1. Social role of computing (2 hours)
2. Professional codes of conduct (3 hours)
3. Professional organizations (1 hour)
4. Career options (1 hours)
5. Privacy and civil liberties (2 hours)
6. Intellectual property (3 hours)
7. Risks and liabilities (2 hours)

**Syllabus Flexibility:** Low. However, currently relevant cases and examples should be chosen for use in class.

**Relationship of Course to Program Outcomes:**

The contribution of each course objective to meeting the program outcomes is indicated with the scale:

3 = major contributor, 2 = moderate contributor, 1 = minor contributor. Blank if not related.

Course Objectives	Program Outcomes										
	1. Logic & Math	2. Computing Fundamentals	3. Apply Computing Principles	4. Work on teams	5. Communicate Effectively	6. Liberal arts & Soc. Sciences	7. Basic Science and Lab Procedures	8. Learn New Tools & Processes	9. Employed upon Graduation	10. Application Area	11. Electronics and Digital Sys Design
1. Apply professional codes of conduct to realistic situations			1	2	3				2		
2. Demonstrate familiarity with current social and ethical issues related to computing			1	2	3				2		
3. Investigate different professional options			1	2	3				2		
4. Participate in professional activities			1	2	3				2		

**Estimated Computing Category Content (Semester hours):**

Area	Core	Advanced	Area	Core	Advanced
Algorithms			Data Structures		
Software Design		1	Programming Languages		
Computer Architecture					

**Estimated Information Systems Category Content (Semester hours):**

Area	Core	Advanced	Area	Core	Advanced
Hardware and Software			Networking and Telecommunications		
Modern Programming Language			Analysis and Design		
Data Management			Role of IS in an Organization		
Quantitative Analysis			Information Systems Environment		1

**Oral and Written Communication:** Several papers of different lengths and both formal and informal presentations

**Social and Ethical Issues:** A wide variety of professional, ethical, and social issues

**Theoretical Content:** None

**Analysis and Design:** Professional case studies

**Class/Laboratory Schedule:**

Lecture: 3 periods of 50 minutes or 2 periods of 75 minutes per week

**Course Coordinator:** Caroline Eastman

**Modification and Approval History:**

Initial description September 2002 for submission to the Faculty Senate for approval

Revised June 2005 by Caroline Eastman to reflect recent experience with the course