Master Course Syllabus

School of Engineering and Computer Science
Washington State University Vancouver

CS 402 [M]

Social and Professional Issues in Computer Science

3 Semester Hours

Catalog Description

Social, legal, ethical and professional issues that arise in the context of computing.

Prerequisite Courses

CS 121 – Program Design and Development

and

Certified in Computer Science

Completion of University Writing Portfolio

Prerequisite Topics

- General computer literacy
- General understanding of computer programming and networks
- Well-developed critical thinking skills
- Ability to compose and author undergraduate research papers.

Measured Course Outcomes

Students taking this course will:

1. Evaluate the ACM/IEEE code of ethics and apply it to case studies involving ethical dilemmas (*Contributes to performance criterion* **E-1**)
2. Explain intellectual property rights and evaluate dilemmas associated with the First and Fourth Constitutional Amendments (*Contributes to performance criterion* **E-2**)
3. Deliver a well-organized oral presentation and answer questions effectively (*Contributes to performance criterion* **F-2**)
4. Explain the social and economic impact of e-mail, spam and/or network neutrality (*Contributes to performance criterion* **G-1**)
5. Explain how disclosure of information on the web, social networking via the Internet and blogs have impacted societal perspectives on privacy and/or the institution of journalism (*Contributes to performance criterion* **G-2**)

Required Textbooks

Ethics for the Information Age, by Michael J. Quinn, 2nd edition, Addison Wesley, 2006. (ISBN 0-321-37526-2)

or

A Gift of Fire: Social, Legal and Ethical Issues for Computers and the Internet, by Sarah Baase, 2nd Edition, Prentice-Hall, 2003. (ISBN 0-13-008215-5)

Reference Material

None specified.

Major Topics Covered in the Course

1. History and social context of computing
2. Privacy, anonymity and encryption
3. Risks and reliability of systems and information
4. Constitutional rights and issues
5. Computer crime
6. Intellectual property
7. Ethics theory
8. Workplace ethics and responsibilities
9. Professional ethics and responsibility

Laboratory Projects

Project Area	Weeks
Social impact or ethical issues associated with computing	5

CSAB Category Content

	FUNDAMENTAL	ADVANCED		FUNDAMENTAL	ADVANCED
Data Structures	0	0	Computer Organization and Architecture	0	0
Algorithm & Software Design	0	0	Concepts of Programming Languages	0	0

Oral and Written Communications

Students will complete a minimum of 3 individually authored papers, each with a length >500 words. In addition, students will, as a member of a team, jointly author a research paper of >20 pages addressing some aspect or application of the course subject matter. All papers will be graded for grammar, organization, critical reasoning, content and citations.

Students will receive feedback on their papers and will have the opportunity to incorporate the feedback into a revised paper or a subsequent assignment. Students deficient in their writing skills will be referred to the Writing Center for help and guidance.

Student teams will prepare a joint presentation of their research paper to the class, including graphical aids, deliver the presentation orally and lead the class in a discussion of their results.

This course is designated with [M] as a "writing in the major" course for computer science students. All Washington State University students must take and pass two such courses in their major subject to satisfy WSU's general education requirements.

Social and Ethical Issues

This course is the primary means by which computer science students are instructed in the social and ethical issues associated with computing.

Theoretical Content

Topic	Hours
Deontological theory	1
Consequentialist theory	1

Problem Analysis

There is no significant analysis of technical problems in this course. However, numerous ethical and social problems are analyzed, both by students, in a lecture format by the instructor and in the textbook readings. These analyses involve identifying and critiquing sources of information and the development of the student's ability to recognize and evaluate ethical issues.

Solution Design

Students are asked to propose and defend solutions to some of the ethical dilemmas posed in this course. These solutions are discussed and critiqued.

CC2001

This course provides coverage of topics in the following areas (hours listed are minimums):

SP2. Social context of computing [core]	3
SP3. Methods and tools of analysis [core]	2
SP4. Professional and ethical responsibilities [core]	3
SP5. Risks and liabilities of computer-based systems [core]	2
SP6. Intellectual property [core]	3
SP7. Privacy and civil liberties [core]	2
SP8. Computer crime [elective]	2

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