

CSC 411 - ETHICS IN COMPUTER SCIENCE

LECTURE HOURS: 1
CREDIT HOURS: 1
PREREQUISITES: Eighteen hours of computer science with at least six hours advanced and department chair approval.

GRADE REMINDER: Must have a grade of C or better in each prerequisite course.

CATALOG DESCRIPTION

Study of ethical concepts to guide computing professionals. Implications and effects of computers on society. Responsibilities of computing professionals in directing emerging technology. May not be used to satisfy requirements toward a minor in computer science, computer information systems or information technology.

PURPOSE OF COURSE

Studies the ethical, social, and professional concerns of the computer science field. Covers the social impact of the computer, implications and effects of computers on society, and the responsibilities of computer professionals in directing the emerging technology; to further develop oral and written communications skills by enabling students to gain first-hand experience in presenting information.

EDUCATIONAL OBJECTIVES

Upon successful completion of the course, students should be able to:

1. Describe and distinguish between the various ethical theories which can be used to form the basis of solutions to moral dilemmas in computing.
2. Identify and define the components of a structured plan for solving ethical problems and, in the process, will be able to understand the basis for her/his own ethical system.
3. Indicate which of a variety of ethical problems may be unique to computing and what makes each unique.
4. Prepare case studies dealing with moral dilemmas related to computing, including appropriate components of the plan described in objective 2 above.
5. Compare and contrast several examples of professional codes of ethics related to computing, discussing their commonalities, differences, and implications.
6. Demonstrate research skills using the library and the Internet.
7. Effectively express ideas through written communication.
8. Demonstrate oral communication abilities by presenting oral reports and case studies.

COURSE CALENDAR

This course meets for a minimum of 12.5 lecture contact hours during the semester, including the final exam. Students have significant weekly reading assignments. Students are expected to complete one research paper and give a 10-15 minute presentation on the paper and one group-led lecture and class discussion of an assigned topic in addition to the final exam. Students are expected to prepare for any class assignments or quizzes over the material covered in class or in the reading material. Successful completion of these activities requires at a minimum two additional hours of outside of classroom work each week.

CONTENT

Hours

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| Lecture | 11 |
| Introduction to ethics | |
| Social and ethical issues affecting computing | |
| Case studies | |

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| Projects..... | 0 |
| Projects are assigned at the discretion of the instructor. Project work will be accomplished outside of student's scheduled classroom hours. One term project for each student. Approximately 10 weeks to complete. Project requires research, a formal paper of eight to twelve pages and a formal presentation lasting ten to fifteen minutes. Topics are drawn from social and ethical issues. | |
| Presentations | 2 |
| Oral presentation of projects and case studies | |
| Exams..... | 1-2 |
| TOTAL 15 | |

REFERENCES

Baase, Sara, A Gift of Fire., 1st Ed., Prentice Hall, 1997.

Edgar, Stacey L., Morality and Machines, 2nd Ed., Jones and Bartlett, 2003.

Forester, Tom and Morrison, Perry, Computer Ethics, 2nd Ed., MIT Press, 1999.

Gehringer, Edward F., Ethics in Computing, website: <http://ethics.csc.ncsu.edu/>, 2006.

Quinn, Michael J., Ethics for the Information Age, 2nd Ed., Addison Wesley, 2006.

Spinello, Richard A., CyberEthics: Morality and Law in Cyberspace, 2nd Ed., Jones and Bartlett, 2003.

Woodbury, Marsha Cook, Computer and Information Ethics, 1st Ed., Stipes Publishing, 2003.