

University of Arkansas – Fort Smith
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General Syllabus

CS 4033 Ethics and Professional Practice

Credit Hours: 3

Lecture Hours: 3

Laboratory Hours: 0

Prerequisite: CS 2003 Data Structures

Effective Catalog: 2020-2021

I. Course Information

A. Catalog Description

Students are exposed to the larger societal context of computing to develop an understanding of the relevant social, ethical, legal, and professional issues inherent in the discipline of computing.

II. Student Learning Outcomes

A. Subject Matter

Upon successful completion of this course, the student will be able to:

1. Evaluate ethical and social tradeoffs in technical decisions.
2. Analyze a global computing issue, observing the role of professionals and government officials in managing the problem.
3. Compare and contrast the concepts of copyright, patents, and trademarks.
4. Explain the environmental impact of design choices within the field of computing that relate to algorithm design, operating system design, networking design, and database design.
5. Examine the impact of technological solutions to privacy problems.
6. Develop and deliver a formal presentation.

B. University Learning Outcomes

This course enhances student abilities in the following area:

Analytical Skills

Critical Thinking Skills

Students will analyze a computing problem related to intellectual property, sustainability, or economics and develop a solution that demonstrates ethical decision-making.

Ethical Decision Making

Students will model ethical-decision making processes related to computing.

III. Major Course Topics

- A.** Social implications of computers and the Internet
- B.** Ethical theories, principles, and analysis
- C.** Computer ethics, decision-making, and social conduct
- D.** Intellectual property
- E.** Privacy and Civil Liberties
- F.** Professional Communication
- G.** Sustainability
- H.** History of Computing
- I.** Economies of Computing
- J.** Security Policies, Laws, and Computer Crimes