

**1. Course number and name**

CMP 235 – Ethics for Computing and Information Technology

**2. Credits and contact hours**

3 credit hours, 3 contact hours

**3. Instructor's or course coordinator's name**

Dr. Tamer Shanableh

**4. Textbook, title, author, and year**

M. Quinn, *Ethics for the Information Age*, 5<sup>th</sup> edition. Addison-Wesley, 2014.

**Other supplemental materials**

None

**5. Specific course information**

**a. Brief description of content of the course (catalog description)**

(Equivalent to PHI 206). Examines ethical theories and ethical decision-making models applied for computing and information technology. Offers in-depth discussion of social, ethical, and professional issues in computing, including the codes of ethics of computing; professional societies; intellectual property defined by copyright, patent and trade secrets; privacy; confidentiality; conflict of interest; cybercrime; hacking; viruses; and identity theft.

**b. Prerequisite or co-requisite**

Prerequisites: WRI 102 (Academic Writing II)

**c. Indicate whether a required, elective, or selected elective course in the program**

Required

**6. Specific goals for the course**

**a. Specific outcomes of instruction**

This course requires the student to demonstrate the following:

1. Structure persuasive arguments and critically evaluate the reasons and arguments for ethical decisions using various ethical theories.
2. Analyze human behavior and ethical decisions using the Software Code of Ethics and Professional Practice.
3. Evaluate computer network communications and security issues from an ethical perspective.
4. Analyze the effect of IT privacy and computer crime on individuals and organizations.
5. Recognize professional issues and ethical problems related to intellectual property.
6. Describe the local and global impact of economic issues in computing on individuals, organizations, and society
7. Write and present a paper related to ethics in computing.

**b. Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course**

This course contributes in a significant way to the accomplishment of the following program outcomes:

<b>Program outcome</b>	<b>Emphasis in this course</b>
(a) an ability to apply knowledge of computing and mathematics appropriate to the discipline	
(b) an ability to analyze a problem, and identify and define the computing requirements appropriate to its solution	
(c) an ability to design, implement and evaluate a computer-based system, process, component, or program to meet desired needs	
(d) an ability to function effectively on teams to accomplish a common goal	
(e) an understanding of professional, ethical, legal, security and social issues and responsibilities	●
(f) an ability to communicate effectively with a range of audiences	◐
(g) an ability to analyze the local and global impact of computing on individuals, organizations, and society	◐
(h) recognition of the need for and an ability to engage in continuing professional development	○
(i) an ability to use current techniques, skills, and tools necessary for computing practice	
(j) An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices	
(k) An ability to apply design and development principles in the construction of software systems of varying complexity	

Emphasis: ● High; ◐ Medium; ○ Low; Blank – Nothing Specific Expected

**7. Brief list of topics to be covered**

- i. Introduction to ethics and ethical theories
- ii. Network communications and ethics aspects
- iii. Network security and ethical aspects
- iv. Intellectual Property, open source software and ethical aspects
- v. Information privacy
- vi. Computer and software reliability and ethical aspects
- vii. Social and global aspects of computing
- viii. Professional ethics (ACM/IEEE-CS)