Course number and name: INTR 01265: Computers and Society

**Credits and contact hours:** 3 credits/3 contact hours

**Faculty Coordinator:** Kimberly Poolos **Instructional Materials:** Open access materials

## **Specific course information**

Catalog description: This interdisciplinary course focuses on the effects of computer

systems on individuals and institutions. How computer systems are developed and operated will be related to an analysis of current trends in society. Ethical, legal, security, and social issues stemming from the use of computers in society will be discussed in the context of philosophical frameworks and professional codes of ethics including those of the Association for Computing Machinery. Students are expected to compose reflective papers on such topics.

**Prerequisites:** COMP 01112 College Composition II or HONR 01112 College

Composition II Media Literacy or ENGR 01201 Sophomore

Engineering Clinic I

**Type of Course:**  $\square$  Required  $\square$  Elective  $\square$  Selected Elective

## **Educational objectives for the course**

- 1. **analysis of social issues.** Students have actively examined approaches to ethical, legal, security and social issues and will produce reflective papers on such topics in computing.
  - ABET (4) Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- 2. **application of behavioral codes.** Students have demonstrated their ability to apply historical codes of behavior (e.g., constitutions and legal precedents, international standards, ethical frameworks) to such technology topics as intellectual property, privacy, freedom of speech and proprietary information.
  - ABET (4) Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- 3. **concepts philosophy, ethics**, **law.** Students have identified the fundamental concepts and methods of philosophy, ethics and/or law and used these principles to better articulate the relationship between the individual and society with respect to computers and information systems.
  - ABET (4) Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- 4. **examination of behavioral codes**. Students have examined documentation that they may be expected to create or review in their future careers, such as Code of Ethics,

Acceptable Use Policies, Proprietary Information Protection Policies, and Security Policies.

- ABET (4) Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- 5. **historical basis of standards.** Students have expressed through written and/or oral deliverables the historical basis for technology-based societal standards.
  - o ABET (4) Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- 6. **societal impacts of technology.** Students have scrutinized technology issues and articulated the societal impacts to individuals and institutions that frequently have conflicting perspectives.
  - ABET (4) Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- 7. **solution formulation**. Students have demonstrated the capability to formulate a complete solution that takes societal factors into account.
  - o ABET (4) Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

## Required list of topics to be covered

- 1. How computer systems relate to current trends in society
- 2. Ethical, legal, security and social issues stemming from use of computers in society
- 3. Ethical codes, philosophical frameworks and professional codes of ethics (including the ACM Code of Ethics)
- 4. Ethics in cyberspace
- 5. Intellectual property availability
- 6. Understanding and respecting the rights of others
- 7. Respect and principles of community resource use, allocation, and abuse
- 8. Censorship
- 9. Ethics-based decision tools
- 10. Cybersecurity and social responsibility
- 11. Laws (HIPAA, FERPA, Sarbanes-Oxley, FISMA, Data breach disclosure laws)
- 12. Regulations
- 13. NIST 800-53
- 14. FDA 21 CFR part 820/806
- 15. Rainbow Series
- 16. Commercial Standards (PCI/DSS)
- 17. Open Standards (OWASP)

Optional list of topics that could be covered

- 1. Careers in computing
- 2. Workplace communications