**ABET Course Syllabus – CS3801**

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| **Code** | CS3801 | **Credits** | 3 |
| **Title** | Societal and Ethical Issues in Computing | **Coordinator** | Russ Abbott |

**Course Information**

1. **Catalog Description:** Ethical theories (Western, Eastern, Feminist); societal implications of artificial intelligence, data science, social networks, and 3D printing; intellectual property, professional ethical standards, and the relationship between ethics and economics. Graded ABC/NC.
2. **Prerequisites:** CS 2013 or Consent of the instructor
3. **Contact Hours:** Lecture 2 hours, Laboratory 3 hours /week
4. **Reqired/Elective:** This course is a required course in the BS program.

**Textbook**

No formal textbook. Web resources assigned by the instructor.

**Course Goals**

The Student Learning Outcomes that are addressed by the course are:

*SLO7: Students will be able to communicate effectively orally and in writing.*

*SLO8.Students will have the knowledge, skills, and attitudes for lifelong self-development.*

*SLO9. Students will have the ability to analyze the local and global impact of computing on individuals and society.*

*SLO10. Students will have a fundamental understanding of social, professional, ethical, legal, and security issues in computing.*

Other outcomes of instruction:

At the end of the course, students are able to

* Analyze the local and global impact of computing on individuals and society.
* Understand the social, professional, ethical, legal, and security issues in computing.
* Develop well-honed and sophisticated critical thinking and composition skills
* Recognize, respond to and use common techniques of persuasion.
* Refine fundamental rhetorical strategies used to produce university-level writing.
* Control such surface features as syntax, grammar, punctuation, and spelling.
* Incorporate textual evidence through quotation, summary, and paraphrase into their essays and appropriately cite their sources.

**Topics covered**

This course covers various topics on Societal and Ethical issues in Computing.

1. Professional and ethical issues

* Ethical thinking in general
* Issues found in the ACM Code of Ethics,
* Software developer’s professional responsibility regarding cybersecurity
* Ethical Issues with Major Tech Companies
* Ethical outcomes regarding the effects of computers on people.
* Possibility of strong AI (could machines have rights?)
* Privacy and data sharing
* Autonomous vehicles

1. Legal issues

* Intellectual property law
* Lawsuits and intellectual property disputes in the tech industry

1. Social issues:

* Artificial Intelligence
* Cyber age
* Social media
* Hacktivism
* Free/open source software
* Automation and employment

1. Impact of Computing

* The effects of social media
* The effects of automation on employment
* The effects of globally available information
* The effects of automation on consumers, standards of living
* The use and effects of software in law enforcement
* The “Dark Web”
* The effects of hacktivist groups like Anonymous
* Warfare in the cyber age
* Cyberbullying
* Cybersecurity
* Computer crime