

## **Master Syllabus CIS 381 Social and Ethical Aspects of Computing**

### **Course Overview:**

Introduction to the social, legal, and ethical issues of computing. Topics include how computer use affects social and work relationships and the uses of computers in society. These will be reviewed in the context of risks, privacy and intrusion, computer crime, intellectual property, and professional decision-making. Students analyze scenarios that allow them to view ethical decision-making as a crucial part of understanding the world of computing.

3 Hours of Lecture;

### **Learning Outcomes:**

Course-Specific Learning Outcomes: After completing this course, students will be able to:

1. Identify and analyze social, legal, and ethical issues in computing.
2. Understand and interpret a professional code of ethics relevant to the computing profession.
3. Interpret the activities and choices of others within an ethical framework.
4. When confronted with an ethical situation, determine appropriate action based on standards of professional ethics.

University Studies Learning Outcomes: Cluster 2B After completing this course, students will be able to:

1. Analyze and evaluate the use of scientific information in the context of social, economic, environmental or political issues.
2. Apply scientific theories and knowledge to the real-world problems.
3. Effectively communicate scientific information in writing.

### **Examples of Texts and/or Assigned Readings:**

- Textbook - Ethics for the Information Age (5<sup>th</sup> Edition), Michael J. Quinn, ISBN-10: 0132855534; ISBN-13: 978-0132855532
- Published Document - ACM Engineering Code of Ethics
- Publication - How Good is Good Enough: An Ethical Analysis of Software Construction and Use, W. Robert Collins, Keith W. Miller, Bethany J. Spielman, and Phillip Wherry

### **Example Assignments:**

- In class activities based on situations using ethical theory and analysis to identify stakeholders and all possible outcomes and repercussions. (Maps to University Outcome Cluster 2B1)
- Term paper based on a real world ethical dilemma, topics geared toward technology. (Maps to University Outcome Cluster 2B3) Sample requirements include:
  1. 10 Page Research Paper; 1.5 spacing; Arial Font; Size 12. Not including reference pages.
  2. Images cannot be more than 25% of a page, and cannot account for more than 5 pages of content. (Tables with empirical data are exempt from this requirement).
  3. Must follow IEEE Citation Format.
  4. No less than 10 references.
  5. Must include reference page.
  6. Grammatical and spelling errors will be counted against you.
  7. Issues must be presented for both sides, and your opinion supported by empirical evidence and/or reasoning.
  8. Well organized.
- Team presentation based on term paper, students must present their findings in a teaching capacity. (Maps to University Outcome Cluster 2B2) Sample requirements could include:
  1. Each member of the group presents and equal amount of the allotted time.
  2. Presentation materials are suitable (and submitted).
  3. Presentation focuses on helping others understand topic and relation to privacy.
  4. Presenters maintain a professional attitude during activity.
  5. Presenters manage questions appropriately.
  6. Presentation is conducted in a professional manner.
  7. Presenters maintain the focus of the audience.
  8. Presentation grade will be affected by review of the audience.

## **University Studies Course Rationale for**

### **CIS 381 – Social and Ethical Aspects of Computing**

Ethics in technology is a new field of study in this technological age. Determining whether something is ethical or not is becoming exponentially difficult and the answer is not always backed by law where laws have not kept up with the emergence of new technology. The digital mediums, including the internet, blur the lines between rights and responsibilities. Through this course students will take a methodical approach to tackling these multi-faceted issues, through in-class discussion, review of ethical theory, research, case-studies, and feedback from peer review of their work. Students are required to research an ethical topic related to technology and explore all possible viewpoints and stakeholders and identify potentially ethical issues. This research will culminate with a research paper (IEEE publication format) where the students will present their finding, and if possible, make a recommendation on solutions to the ethical issues that could arise. Students are also required to present their research to the class for peer review of their topic. Students can take the feedback to bolster their research paper before final submission. Also integral to this class is in-class discussion and written analysis of ethical situations involving technology. The rationale behind this is to show through example that everyone has different view points, and to have students develop a system to identify multiple viewpoints in a technological situation. Students will also gain an understanding that ethical situations vary greatly based not only on viewpoint, but social, economic, environmental and political issues based on where the issue is centered geographically. Set inside this is also determining “where” the issue is, especially where the internet sets not clear boundaries between countries and governing bodies.

In summary this course:

1. Contains at least one writing assignment.
2. Except for the research paper, assignments such as in-class discussion/written analysis are low-stakes (low points).
3. Has students gain feedback from both in-class discussions as well as their in-class presentation which includes
  - a. Individual comments
  - b. Presentation of research work
  - c. Peer review of presentation.



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### UNIVERSITY STUDIES COURSE APPROVAL REQUEST

#### FACULTY AND CHAIR SPONSOR SHEET

COURSE NAME/DEPARTMENT/NUMBER: Social and Ethical Aspects of Computing/CIS 381

CLUSTER REQUIREMENT: Cluster 2B - The Natural World; Science in the Engaged Community

As a condition of approving this course for University Studies credit, we agree:

That each offered section of this course shall have a syllabus explicitly listing the learning outcomes for this Cluster Requirement along with the course-specific learning outcomes.

That each offered section of this course shall follow the general spirit of the Master Syllabus, with the understanding that different instructors may emphasize different elements of the course and/or use different pedagogical approaches or assessments.

That a syllabus for each offered section of this course will be emailed to the University Studies Director prior to the end of the semester in which it is offered.

That all faculty teaching this course will make available to the University Studies Director and the University Studies Committee any and all student work for the purposes of program assessment, with the understanding that such assessment will take place on a multi-year cycle, that such assessment will keep anonymous the identities of both the students and the instructors, that the responsibility for the collection of student work will fall in the main on the University Studies Director or designee and that this collection shall entail minimal disruption to the operation of the course.

Chair:	<u>IAN BOZCANDY</u>		<u>Professor</u>	<u>3-11-13</u>
	Printed Name	Signature	Academic Rank	Date
Faculty Sponsor:	<u>Ramprasad Balasubramanian</u>		<u>Assoc. Professor</u>	<u>3-11-13</u>
	Printed Name	Signature	Academic Rank	Date
Faculty Sponsor:	<u>XIAOQIN ZHANG</u>		<u>Associate Prof.</u>	<u>3-15-2013</u>
	Printed Name	Signature	Academic Rank	Date
Faculty Sponsor:	<u>Joyce Higgins</u>		<u>FTL</u>	<u>3-30-2013</u>
	Printed Name	Signature	Academic Rank	Date
Faculty Sponsor:	<u>Paul Bergstein</u>		<u>Assoc. Prof.</u>	<u>4/1/2013</u>
	Printed Name	Signature	Academic Rank	Date

(Mail completed form to Doug Roscoe, University Studies Director, LARTS 327)

## CIS 381 - Social&Ethcl Aspect Comp

Course Detail	
<b>Career</b>	Undergraduate
<b>Units</b>	3.00
<b>Grading Basis</b>	Graded
<b>Course Components</b>	Lecture                  Required
<b>Campus</b>	UMass Dartmouth Main Campus
<b>Academic Group</b>	College of Engineering
<b>Academic Organization</b>	Computer & Infor Science Dept

[View class sections](#)

Enrollment Information	
<b>Enrollment Requirement</b>	Pre-Requisite: Sophomore Standing
<b>Requirement Designation</b>	Natural Science Technology/Ethics

**Description**

Introduction to the social, legal, and ethical issues of computing. Topics include how computer use affects social and work relationships and the uses of computers in society. These will be reviewed in the context of risks, privacy and intrusion, computer crime, intellectual property, and professional decision-making. Students analyze scenarios that allow them to view ethical decision-making as a crucial part of understanding the world of computing.

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