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CSCI 215E.50: Social & Ethical Issue in CS

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**CSCI 215E – 50, 51: Ethical and Social Issue in Computer Science
3 Credit Hours**

University of Montana, Missoula College
Fall 2018

Instructor: Mark J. Hanson, Ph.D.

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Davidson Honors College
DHC 004

Office Hours: Tuesdays and Thursdays 11:00 to 12:00 on the Mountain Campus (DCH 004) and Wednesdays 10:00 to 11:00. I'm also available by email. I will post exceptions as a class announcement. I will also check for email messages on a regular basis, but I am not constantly online. In addition, feel free to set up an appointment with me if you would rather talk about an issue in person.

Course Description: This course examines ethical decision making in the complex world of information technology. The course begins with a survey of general ethical principles and decision-making processes, presenting effective tools and guidelines to resolve complex dilemmas. The remainder of the course explores information technology-specific ethical issues, including professionalism involving business relationships; codes of ethics; accountability and licensure; intellectual property including patents, copyrights, and trade secrets; online behavior including SPAM, hacking, and social engineering; and privacy issues such as data mining, surveillance, and transaction generated information.

In addition to the ethics component of the course, CSCI 215E fulfills a lower-division writing requirement. So along with exploring substantive issues, assignments will focus on the basics of good writing: grammar, sentence structure, mechanics, capitalization, punctuation, paragraph structure, topic sentences, thesis statements, and introductory and closing paragraphs.

Course Objectives:

1. Students will develop the skills needed to identify and analyze various ethical issues. We will cover standard ethical concepts and theories, as well as standard methods of ethical analysis. There is a strong emphasis on practical application of the ethical process.
2. Students will learn to apply ethical concepts, theories, and distinctions to practical issues in computer science.
3. Students will learn about the relationships between ethics in computer science and ethical values in the larger society.
4. The course will advance students' skills in critical thinking and writing in ethics through the consideration of ethics issues and cases.

Learning Outcomes for Writing Courses

1. Use writing to learn and synthesize new concepts

2. Formulate and express opinions and ideas in writing
3. Compose written documents that are appropriate for a given audience or purpose
4. Revise written work based on constructive feedback
5. Find, evaluate, and use information effectively
6. Begin to use discipline-specific writing conventions
7. Demonstrate appropriate use of English language

Prerequisites: None

Course Format:

The course will be delivered online with support from UMOline. Readings and assignments are designed to help students develop the knowledge and skills stated in the course objectives. For purposes of assignments and class activities, the week starts on Monday at 12:01 a.m. and ends on Sunday at midnight. The course will consist of the following components:

1. **Lectures:** “Lectures” are in written and video form, to be read/viewed during the week assigned and prior to completing discussion forum questions, case studies, and other assignments (unless otherwise specified).
2. **Reading assignments:** Each week will feature a reading or two, found in your textbook (Quinn) or on the course website Read these before attempting other assignments for the week, and try to have them completed by Friday morning.
3. **Reflection/analysis papers or discussion forum:** Topics for reflection papers or discussion will be posted as most weeks in written form on the main course menu.
4. **Quizzes and exams:** Regular quizzes and a final exam are found on each week’s web page.
5. **Participation:** Class participation in class assignments and activities such as a discussion forum are an important part of learning. Remember that discussion forums are appropriate only for questions and discussions that would normally occur in the classroom. Please try to stay on point—keep your discussion relevant to the issue/question under discussion and keep the language formal and appropriate. Remember that the rest of the class can read postings.
6. **Questions for the instructor:** Feel free to send questions or express concerns to me privately through email or by phone regarding any aspect of the course.

Grading Policy

Again, for purposes of assignments and class activities, the week starts on Monday at 12:01 a.m. and ends on Sunday at midnight. Written assignments that are late will be penalized one-half letter grade per day. Students who will to request permission to submit an assignment late must contact me well before the assignment deadline. Extensions will be granted and late assignments forgiven only when there are serious and verifiable extenuating circumstances.

Using the Web to research materials and concepts is an integral part of learning in the twenty-first century. Studying with other students is a productive method of learning. A certain amount of collaborating on concepts with other students and using resources found on the Internet in an assignment is recommended. Copy and paste is not acceptable. It is expected that each student will input his/her assignment into the computer, and each student must be able to explain any assignment turned in. **Collaboration on exams is strictly forbidden.**

Requirements

- *Reflection Papers/Discussion Forum*^[1]_[SEP]*(25 percent)*: This course requires students to write regular reflection papers or participate in a discussion forum based upon a topic covered in readings from the Quinn textbook and discussion topics developed in the classroom. No title page is needed for reflection papers, but “Your Name” and “Reflection Paper #xx” should be included on separate lines, single-spaced, in the upper left header of the document. Be sure to include references where needed. The expected length of a reflection paper is 300-400 words (approximately 1 page double-spaced). References should be cited using APA citation style. Consider a format similar to a newspaper editorial. Reflection papers are assessed as follows:
 - *Acceptable* (5 points) indicates the submission meets the minimum length, contains limited grammar/spelling/mechanical errors, and uses strong reasoning.
 - *Needs Improvement* (3-4 points) indicates the submission meets the minimum length but needs improvement in the areas of grammar/spelling/mechanical errors or reasoning.
 - *Unacceptable* (0-2 points) indicates either a missing submission or a submission that is unacceptable due to limited length, excessive grammar/spelling/mechanical errors, or extremely poor reasoning.
- *Analysis Papers*^[1]_[SEP]*(30 percent)*: Analysis papers provide students the opportunity to examine an ethical dilemma in greater depth. Topics for analysis papers will be based upon readings from the course. Submissions should be 1000-1300 words in length. Two analysis papers are required each semester. Citing reference using APA citation style is required. Title page, reference page, and APA citation style are required. Please do not use a running header. ^[1]_[SEP]Appendix A of the syllabus (below) provides an assessment rubric, which further describes requirements for analysis papers. Appendix B provides an example of the required title page. Appendix C provides a copy of the Program-level Writing Assessment Holistic Rubric for UM. All manuscripts must demonstrate writing competency at the proficient or advanced level. Papers not meeting these criteria must be rewritten.
- *Quizzes*^[1]_[SEP]*(20 percent)*: End of chapter quizzes will be completed to assess comprehension of reading content.
- *Final Exam*^[1]_[SEP]*(20 percent)*: A comprehensive written exam will be completed at the end of the semester to assess comprehension of course content.
- *Participation*^[1]_[SEP]*(5 percent)*: Classroom participation is required on selected activities as assigned.

Quizzes and exams must be taken at scheduled times unless prior permission of the instructor is obtained; otherwise the exam receives a failing grade. You are on your honor to take them without assistance.

Course Procedures and Expectations

- **Announcements:** I will post announcements regularly under “Announcements” on the main course menu. Be sure to check them each time you log on.
- **Communication:** Communication using the Discussion Forum and other Moodle features should be thought of as public communication. Please use email to me for issues regarding your grade and other issues of a more personal nature.
- **Weekly Course Materials:** Look for each week’s section on the main course page to see all instructions and course materials for the week.
- **Logging in:** You are expected to log at least every other day to read current announcements.

Required Texts

Quinn, M. J. (2017). *Ethics for the information age*. Upper Saddle River, NJ: Addison-Wesley. 7th Ed. ISBN 9780134296616

Adelson, H., Ledeen, K., & Lewis, H. (2008). *Blown to bits: Your life, liberty, and happiness after the digital explosion*. Addison-Wesley. ISBN 978-0-13-285553-2 Download PDF Format through Creative Commons Licensing: <http://www.bitsbook.com/excerpts/> (on Moodle)

Additional Notes

- This syllabus is subject to change by the instructor. Any changes will be announced in the “Announcements.”
- Disability Student Services: In accordance with the University of Montana’s mission to provide equal educational opportunities for all students, necessary accommodations for students with disabilities will be made whenever possible. If you require accommodations, please provide written information regarding your disability from the Disability Services as soon as possible so that accommodations can be made.
- Academic Misconduct: All students must practice academic honesty. Academic misconduct is subject to academic penalty by the course instructor and/or disciplinary sanction by the University of Montana. All students should be familiar with the Student Code of Conduct. The Code is available for review online at <http://www.umt.edu/SA/VPSA/index.cfm/page/1321>
 - Plagiarism is the represent of another’s work as one’s own. It is a particularly intolerable offense in the academic community and is strictly forbidden. Students who plagiarize may fail the course and may be remanded to Academic Court for possible suspension or expulsion. (See UM Student Conduct Code.)
 - Students must always be very careful to acknowledge any kind of borrowing that is included in their work. This means not only borrowed wording but also ideas. Acknowledgment of whatever is not one’s own original work is the proper and honest use of sources.

- Exams are taken on the honor system. They will be “closed book” exams—allowing no notes, texts, or access to other online materials. **Exam answers that are exact copies of, or highly similar to, sentences from course materials will be investigated as a possible violation of the Student Code of Conduct, and the student may be subject to penalty.**

Topics and Reading Assignments

Introduction

Aug. 27 – Sept. 2 None; Respond to Discussion Forum topic

Week 2: Catalysts for Change

Sept. 3 Quinn, chapter 1; *Practicing Computer Ethics* (pp. 25-30, Moodle)

Week 3: Ethical Theories I

Sept. 10 Quinn, chapter 2, pp.

Week 4: Ethical Theories II

Sept. 17 Quinn, chapter 2, pp.

Week 5: Intellectual Property

Sept. 24 Quinn, chapter 4

Week 6: Who Owns the Bits?

Oct. 1 *Blown to Bits*, chapters 1, 6 (on Moodle)

Week 7: Network Communications

Oct. 8 Quinn, chapter 3

Week 8: Information Privacy

Oct. 15 Quinn, chapter 5

Week 9: Privacy and Government

Oct. 22 Quinn, chapter 6

Week 10: Computer and Network Security

Oct.29 Quinn, chapter 7

Week 11: Footprints, Fingerprints, and Scary Old Drives

Nov. 5 *Blown to Bits*, chapters 2-3 (on Moodle)

Week 12: Computer Reliability

Nov. 12 Quinn, chapter 8

Week 13: Thanksgiving Holiday Week

Nov. 19 None

Week 14: Professional Codes of Ethics

Nov. 26 Quinn, chapter 9

Week 14: Work & Wealth

Dec. 3 Quinn, chapter 10

Final Exam **Tuesday, December 11 (available 7:00 a.m.; must be completed by 10:00 p.m.)**

See Appendices below

Appendix A: Analysis Paper Grading Rubric
 CSCI 215E Ethics in Computer Science
 Analysis Paper Grade Rubric

Name:	Score: (max 50 points)
	Understand the content found in the assigned readings and identify the ethical dilemma. Demonstrate a strong understanding of the content and clearly identify multiple ethical dilemmas (5 points). Demonstrate some understanding of the content and partially identify at least one ethical dilemma (3 points). Demonstrate a limited or no understanding of the content or dilemma (1 point).
	Identify the multiple perspectives and stakeholders associated with an issue Identify more than one perspective on an issue (5 points). Identify a singular perspective on an issue (3 points). Inability to provide a definite perspective on an issue (1 point).
	Use of ethical philosophy in forming an argument Examine an issue through the use of multiple ethical philosophy (5 points). Examine an issue using a singular ethical philosophy (3 points). No use of ethical philosophy is found in the texts (1 points).
	Use of analogies and/or examples in illustrating a dilemma Writer has provided numerous examples or analogies to illustrate the dilemma (5 points). Writer has provide at least one example or analogy to illustrate the dilemma (3 points). Writer has not used a single example or analogy to illustrate the dilemma (1 point)
	Compose written documents that are appropriate for a given audience or purpose (Learning Outcome 1) The texts show a strong sense of purpose, appropriate voice, and attention to audience. (5 points) The texts show some attention to purpose, appropriate voice, and attention to and audience (3 points) The texts show little understanding of purpose, appropriate voice, and attention to and/or audience (1 point)
	Formulate and express opinions and ideas in writing (Learning Outcome 2) Expression of ideas is articulate, developed, and well-organized. (5 points). Expression of ideas may be vague, unclear, and/or unorganized at times (3 points). Expression of ideas is confusing, minimal, or irrelevant; the organization is illogical or weak (1 point).
	Use writing to learn and synthesize new concepts (Learning Outcome 3) These texts demonstrate an ability to synthesize concepts (5 points). These texts demonstrate developing ability to synthesize concepts. (3 points) These texts demonstrate difficulty in synthesizing concepts. (1 point).
	Find, evaluate, and use information effectively (Learning Outcome 5) The texts consistently show the writer's ability to evaluate and use information effectively (5 points). The texts reveal the writer's uneven ability to use information; use of information may be insufficient (3 points). The writer's use of information is inaccurate, inappropriate, or missing (2 points)
	Appropriate use of APA writing conventions (Learning Outcome 6) Demonstrate APA writing conventions with general success (5 points). Demonstrate some knowledge of APA writing conventions (3 points). Demonstrate little to no awareness of APA writing conventions (1 point).
	Demonstrate appropriate English language usage (Learning Outcome 7) While there may be a few errors in grammar, usage, and mechanics, a strong command of English language usage is clearly evident (5 points). A basic control of English language usage is apparent, even though frequent errors in grammar, usage, or mechanics may occasionally hinder understanding (3 points). Severe problems with grammar, usage, and mechanics show poor control of English language and impede understanding (1 points).

Appendix C: Cover Page Example

Assignment Name

by
Student Name

Submitted to
Mark J. Hanson

In Partial Fulfillment of Requirements for
CSCI 215E Societal and Ethical Issues in Computer Science

The University of Montana
Fall Term 2018

**Appendix D: UM-Missoula University-wide Program-level
Writing Assessment Holistic Rubric
(Created by the ASCRC Writing Committee, Revised May 13, 2013)**

Learning Outcomes for Approved Writing Courses

1. Compose written documents that are appropriate for a given audience or purpose
2. Formulate and express opinions and ideas in writing
3. Use writing to learn and synthesize new concepts
4. Revise written work based on constructive feedback
5. Find, evaluate, and use information effectively
6. Begin to use discipline-specific writing conventions (largely style conventions like APA or MLA)
7. Demonstrate appropriate English language usage

Score 4: Advanced

The texts show a strong sense of purpose and audience. Expression of ideas is articulate, developed, and well-organized. These texts demonstrate a clear ability to synthesize concepts. The texts consistently show the writer's ability to evaluate and use information effectively. Writing style (word choice and sentence fluency) is highly effective for the purpose and audience. The writer is beginning to use discipline-specific writing conventions with general success. While there may be a few errors in grammar, usage, and mechanics, a strong command of English language usage is clearly evident.

Score 3: Proficient

The texts show a clear sense of purpose and audience. Expression of ideas is generally developed and organized. These texts demonstrate an ability to synthesize concepts. The texts show the writer's ability to evaluate and use information. Writing style (word choice and sentence fluency) is effective for the purpose and audience. The writer is beginning to use discipline-specific writing conventions with uneven success. While there may be some errors in grammar, usage, and mechanics, a competency in English language usage is evident.

Score 2: Nearing Proficiency

The texts show some attention to purpose and audience. Expression of ideas may be vague, unclear, and/or unorganized at times. These texts demonstrate developing ability to synthesize concepts. The texts reveal the writer's uneven ability to use information; use of information may be insufficient. Writing style (word choice and sentence fluency) is sometimes ineffective for the purpose and audience. The writer shows minimal knowledge of discipline-specific writing conventions. A basic control of English language usage is apparent, even though frequent errors in grammar, usage, or mechanics may occasionally hinder understanding.

Score 1: Novice

The texts show little understanding of purpose and/or audience. Expression of ideas is confusing, minimal, or irrelevant; the organization is illogical or weak. These texts demonstrate difficulty in synthesizing concepts. The writer's use of information is inaccurate, inappropriate, or missing. Writing style (word choice and sentence fluency) is not effective for the purpose and audience. The writer shows little to no awareness of discipline-specific writing conventions. Severe problems with grammar, usage, and mechanics show poor control of English language and impede understanding.