

University of South Carolina College of Engineering and Computing
**CSCE 390: Professional Issues in Computer Science and
 Engineering Fall 2020**
 Sections 001 and 002
 Location: Online

Marco Valtorta, Ph.D. Professor, Computer Science and Engineering Storey Innovation Center, Room 2269 (803)777-4641 mgv@cse.sc.edu Ivan Panchenko, Teaching Assistant panchenk@email.sc.edu	Course Websites: https://cse.sc.edu/~mgv/csce390f20/index.html (main), https://blackboard.sc.edu (lectures), https://dropbox.cse.sc.edu (assignments)
	Office Hours: Monday 1500-1800 on Blackboard Collaborate Ultra. Please email mgv@cse.sc.edu for individual consultation; if necessary, a phone or virtual face-to-face conversation will be arranged.
	Class time: Thursday 1800-1850 (Section 1) Tuesday 1800-1850 (Section 2)

Course Syllabus

Academic Bulletin Description

Professional issues in the information technology professions; history and social context of computing; professional responsibilities; privacy; intellectual property; risks and liabilities of computer-based systems. **Note: Carolina Core: VSR**

(https://sc.edu/about/offices_and_divisions/provost/academicpriorities/undergradstudies/carolinacore/)

Course Description

This course covers ethical issues that are raised by technologies in the field of computing, teaches students how to apply professional codes of conduct, and familiarizes students with the various professional options and activities within the field of computing. This course examines ethical questions and issues of moral responsibility for computer professionals, concerning professional codes of conduct and the social, economic, ethical, and legal issues generated by the use of computers and computer networks, including the Internet. Topics covered include philosophical systems and ethics, benefits of information technology (IT), systems design and development, information privacy, freedom of expression, IT safety and reliability, intellectual property rights, computer security and cybercrime, and computers and social justice.

Course Overview

This course will be delivered **synchronously through Blackboard**.

- Student-to-Instructor (S2I) Interaction: Students will listen/view lectures online and interact with the professor via Blackboard Collaborate Ultra. The professor will hold online office hours via Blackboard Collaborate Ultra, post announcements on the course websites, and provide individual feedback to students through the CSE dropbox website and email.
- Students-to-Student (S2S) Interaction: Students will engage in discussions through email and the discussion forum on Blackboard.
- Student-to-Content (S2C) Interaction: Students will engage with course content by completing short assignments and reports and participating in video conference meetings.

The instructor will reply to all feedback in a reasonable amount of time; the same is expected of the students. Specifically,

- Communication: Responses to email communication and questions will be provided within 48 hours.
- Assignment and Test Grading Grades for assignments will be returned within one week of due date.
- All assignments are due before the beginning of class. A 10% deduction will be given to late submissions that are turned in before the beginning of the next class. No credit will be given for assignments that are turned in after the beginning of the next class.

Learning Outcomes

Upon completing this course, students should be able to:

1. Relate computing issues to philosophical systems and ethics
2. Resolve ethical dilemmas in the field of computing
3. Apply professional codes of conduct to realistic situations
4. Demonstrate familiarity with current social and ethical issues related to computing
5. Investigate different professional career paths and the lifelong learning involved
6. Present results and opinions on ethical and professional issues in written and oral formats

All learning outcomes in this Distributed Learning course are equivalent to those in the face-to-face (F2F) version of this course.

Prerequisites

None.

Required Textbook and Reading Materials

Robert N. Barger. *Computer Ethics: A Case-Based Approach*. Cambridge University Press, 2008.

Other Reading Materials

- James H. Moor. "What is Computer Ethics?" *Metaphilosophy*, 16, 2 (October 1995), 266-275.
- James H. Moor. "Reason, Relativity, and Responsibility in Computer Ethics." In: Terrell Ward Bynum and Simon Rogerson (eds.). *Computer Ethics and Professional Responsibility*. ISBN 1-85554-844-5. Blackwell Publishing, 2004.
- James H. Moor. "Just Consequentialism and Computing." *Ethics and Information Technology*, 1, 65-69, 1999.
- Don Gotterbarn and Keith W. Miller. "Computer Ethics in the Undergraduate Curriculum: Case Studies and the Joint Software Engineer's Code." *Journal of Computing Sciences in Colleges*. December 2004.
- Peter Aiken, Robert M. Stanley, Juanita Billings, and Luke Anderson. "Using Codes of Conduct to Resolve Legal Disputes." *Computer*, 43, 4 (April 2010), pp.29-34 (local copy, pdf).
- Andrew A. Chien. "Editor's Letter: Computing is a Profession." *Communications of the ACM*, 60, 10 (October 2017), 5.

All reading materials in the list comply with copyright/fair use policies. Other readings may be assigned during the course.

Time Commitment and Planning

Any university course requires a large amount of work outside of lecture. I assume that when you register for this one-credit course you will allocate an average of 5 hours per week to attend or view the lectures, study the readings, and complete the homework assignments, and complete the final exam. It is your responsibility to manage your workload. If you procrastinate starting your assignments, you may find that you do not have enough time to complete the assignments, or that a technology problem may prevent you from completing your assignment. Note that not being able to access a computer or network will not be considered an acceptable excuse for submitting your assignment late.

Assessments

Your overall final course letter grade will be determined by your grades on the assessments summarized below. Attendance will be taken. One letter grade will be deducted if a student is absent from more than six classes.

Career Homework Assignment (HW2)	20 points
Presentation of a Current Professional Issue (HW8)	20 points
Other Homework Assignments (HW1, HW3-HW7)	60 points
Total	100 points

Your final grade is based on the total points you have earned over the course. Therefore, individual assignments are not curved, and all points for all assignments are weighted equally. The numeric scores are translated to letter grades as follows:

[90-100] = A [87-89] = B+ [80-86] = B [77-79] = C+ [70-76] = C [67-69] = D+ [60-66] = D [0-59] = F

If everyone performs very well, I do not have a problem with assigning everyone A's. However, poor performance (particularly failure to turn in assignments on time) in class will result in a low grade.

Summary of Assessments

All essays must be typed, with 1-inch margin, 12-point Calibri font, 1.5 spaced. All essays must be done individually. The notation [B] refers to the required textbook.

1. (HW1) Answer all the questions at the end of chapters 1 and 2 of [B].
 - Your essay, in total, must be no longer than two pages. Please type the questions as well as your answers. All questions must be answered.
 - For question 1 on p.15, provide only one occurrence and why you think it should have been included.
 - For question 2 on p.15, provide only one example of each of the two kinds and explain why they meet the conditions of the question.
 - For question 3 on p.15, provide only one kind of problem and explain why the computer has raised a unique dilemma.
2. (HW2: Career)

Choose a company where you would like to apply for a position. Write:

 1. A one-page overview of the company
 2. A one-page overview of the position that you would apply for
 3. A one-page resume (possibly, geared towards that position)
 4. A half-page essay on what you need to learn or do to be competitive for the position
 5. (If held) Attend the (virtual) STEM Majors Career Fair and write a half-page essay describing your experience
 6. Complete your Handshake profile at the USC Career Center. Write a statement that you did this on the first page of your homework submission document.

The whole submission consists of four pages. If the career fair is not held or you cannot attend it, you must:

1. Do all parts of the assignment except for part (5)
2. Do one of the following:
 1. Write a half-page essay describing your experience at another career fair

2. Attend an activity (virtual or in-person) sponsored by the career center, such as a resume-writing workshop, and write a half-page essay about it
3. Attend an activity (virtual or in-person) sponsored by a professional society in computing and write a half-page essay about it.
3. (HW3) Do the exercises at the end of chapter 3 and 5 of [B]. A two-page paper (roughly half a page per question) is expected.
4. (HW4) Do the exercise at the end of chapter 6 of [B]. I expect about one page.
5. (HW5) Do the exercise at the end of chapter 7 of [B]. I expect about one page.
6. (HW 6) Choose one case from Ch.13 or Ch.15 [B]. Do the exercise at the end of the chapter for that case only. I expect between one and two pages. Students will be asked to bring your analysis of the case to class and prepared to present it. Students will be asked to present their solutions or comment on the solution of other students.
7. (HW7) The ACM Code of Ethics and Professional Conduct was updated in 2018, for the first time since it was written in 1992. The updated code was released on 17 July 2018 and is available at <https://www.acm.org/code-of-ethics>. Do exercise 4 at the end of Chapter 9 using both the new code and the old code, and describe the difference. The four sections of the old version of the code have, respectively, 8, 8, 6, and 2 parts. The four sections of the new version have, respectively, 7, 9, 7, and 2 parts. Explain how the old and new parts differ; for example: are some of the parts substantially the same? Have some been merged?. I expect about one page.
8. (HW8: Presentation) Choose a topic of professional interest that includes a non-trivial ethical issue from [ACM TechNews archives](#). Prepare a 6-slide PowerPoint presentation (in pptx format; a few more slides are acceptable) in which (1) you summarize the topic (appropriate references should be on the title slide; see below), (2) you apply the 8-step ethical decision-making process from Ch.6 [B] to the problem, (3) you apply the ACM Code (either the original version in the textbook or the newer version of 2018). You also need a title slide with your name, the title of your presentation, and reference(s), including at least the ACM TechWeek entry that you used. At least one example is provided in the "Student Presentations" section of the course website. All students should be prepared to present in class.

- **Final Exam:** There will be no Final Exam.

All assignments will be graded.

Accommodating Disabilitie

Reasonable accommodations are available for students with a documented disability. If you have a disability and may need accommodations to fully participate in this class, contact the Student Disability Resource Center: 803-777-6142, TDD 803-777-6744, email sadrc@mailbox.sc.edu, or stop by LeConte College Room 112A. All accommodations must be approved through the Student Disability Resource Center. See <https://www.sa.sc.edu/sds/>.

Academic Integrity

The faculty takes violations of the University Honor Code (<http://www.sc.edu/policies/ppm/staf625.pdf>) seriously. Students are encouraged to review the Honor Code and to understand the consequences of any action that is proven to be a violation of the code.

You are expected to practice the highest possible standards of academic integrity. Any deviation from this expectation will result in a minimum academic penalty of your failing the assignment. In addition, an honor code violation will be subject to the sanctions described in the USC Community Handbook and Policy Guide. Violations of the University Honor Code include, but are not limited to, improper citation of sources, using another student's work, and any other form of academic misrepresentation. For more information, please see the University Honor Code.

In reference to this course, students are expected to do their own work when assignments require individual work. For example, students may not copy the work of others, either manually or electronically, under these

conditions. Further, students who allow their work to be copied by others risk violation of the University Honor Code. All violations of the University Honor Code or this Academic Integrity Statement will be reported to the [Office of Student Conduct and Academic Integrity](#).

The following paragraph, written by Professor Duncan Buell, clarifies the distinction between "learning from a discussion" and "turning in someone else's work": If, after having participated in a group activity, you can walk away, put the books down, have lunch, and then come back afterwards to re-create from your own head the material and techniques you discussed as a group, then you can legitimately say that you have learned from the group but the work you turn in is your own.

Remember that the first tenet of the Carolinian Creed is, "I will practice personal and academic integrity."