

Course Syllabus CSci 3923
Ethics in Computing
Spring 2024: Generative AI

Why have a course in ethics and computing? Why is it important for computer scientists, computer engineers, data scientists, and people in other computing-related fields to know and care about ethics? This class will explore ethics and computing in general, and will focus especially on ChatGPT and other generative AI tools, why ethics matters in computing, how generative AI raises many ethical issues, and what specific ethical incidents show us about generative AI.

Meeting Time and Place: 1:25 – 3:20pm Friday. CSci 3923 is a 7-week class, and it will meet for two hours/week for each of the last seven weeks of the semester, i.e., starting on March 15, and continuing until April 26. Room: Lind L122.

Class Modality: This is an in-person class.

Number of Credits: 1.

Instructor: Phillip Barry. barry@umn.edu. Office Hours Time and Place: 4:30 - 6:30 Tuesday, Lind 313.

Teaching Assistants:

- Riandy Setiadi: email: seti0008@umn.edu. Office hours: 11:15 - 12:15 Monday in Lind 103
- Izzi Lauer. email: lauer156@umn.edu. Office hours: 2:30 - 5:30 Monday in Lind 103

Catalog Description: An introduction to ethics and computing, including ethical principles and codes, professional conduct and responsibilities, basics of topics such as freedom of speech and intellectual property, computing and current societal issues, data collection and privacy issues, fairness and related issues, and benefits and harms of computing systems.

Prerequisites and Rationale: CS major (BA or BS), or DS major. This course assumes students have foundational knowledge of computing so our discussions can involve technical issues if useful.

Why This Class is Important, and Its Role in the Curriculum: Computing is having major effects – both positive and negative -- on society, and vice versa. It is important for students in computing-related fields to understand computing in this wider context and to be knowledgeable about at least some of the many ethical issues related to computing. This one-credit course is intended to be one way for CS B.A., CS B.S., and DS (data science) BS students to learn about ethics in computing and to fulfill a new department “ethics and computing” requirement.

Textbook: There is no textbook for the course. Instead, notes as well as links to articles or other resources will be posted to the class website.

Course Learning Objectives: Upon successful completion of the course students should be able to do the following:

1. Be able to explain why ethics is important to computing. Be able to explain approaches to ethics and computing, including often-used philosophical theories and professional codes of ethics. Be able to apply different ethical approaches to given scenarios.
2. Be able to identify issues of exemplary professional ethical conduct as well as professional misconduct. Be able to recommend and justify individual and societal strategies for promoting ethical conduct and for preventing and responding to issues of misconduct.

3. Be able to explain how public policy (law and other means of regulation) both affects and is affected by computing issues. Be able to make and justify policy recommendation related to specific computing issues.
4. Be able to provide examples and analyze how technology can have both beneficial and harmful effects both in terms of individuals, and in terms of social structures. For instance, be able to explain how computing technology can contribute to issues such as societal inequality.
5. Be able to identify and analyze specific topics in ethics and computing such as algorithmic bias, data misuse, and online disinformation.

Use of Generative AI in Course Activities: We will have different type of class activities that allow different levels of use of ChatGPT or other generative AI tools. On some use of generative AI will be required, on some it will be allowed (but not required), on some limited use will be allowed, and on some no use will be allowed. This will be explained further on each assignment or quiz.

Course Work: The class consists of several learning activities: readings or videos, short between-class activities, in-class activities, weekly short quizzes, and two short papers. There is no final exam for this class. Here is more information about the activities:

- **Class Meetings:** The in-person class meetings will be not only for presentation of some course material, but also for in-class discussions, exercises, and other activities. These are an essential part of the class, so plan on attending and participating in class.
- **Between Class Readings, etc.:** Each week there will be weekly online readings (or maybe podcasts or videos). These will either provide further information about topics covered in a previous class meeting, or provide background material for topics that will be covered in the next class meeting.
- **Between-Class Short Activities:** Most weeks there will be some short between-class activities, for example short writing assignments or online discussions on the week's readings/videos/podcasts.
- **Online Quizzes:** Many weeks there will be a short online quiz on material from the class meeting or from the between-class readings. The purpose of these quizzes is to ensure you are learning some of the foundational material in the class.
- **Papers:** There will be two short papers. The first will be announced at the first class meeting, and you will be able to work on it throughout most weeks of the class. The second is an end-of-the-class reflection paper that will be posted the next-to-last week of the class.
- **Extra Credit:** In addition to the work above, there will be chances for extra credit work throughout the semester. This can raise your grade up to 3% if you do all extra credit assignments and get full points for all of them. Further details will be given during the semester as chances for extra credit occur.

Backup Zoom Class Link: If the class is unable to meet in person, for whatever reason, we will meet via Zoom. In this case I will send out an email to your U of M account, and post an announcement — including the Zoom link — on the class website. Note (i) the class will usually meet in person, not through Zoom. So the class will be on Zoom only when we are unable to meet in-person due to extraordinary circumstances. (ii) The in-person meetings of the class will not be recorded, so it is important to come to class.

Sample Course Schedule: Here is a tentative schedule. This may change slightly as the course progresses.

Week	Topic(s)
1	Why ethics? Ethics in computing in general. Generative AI: what we know, What we want to know, and how it is related to ethics

2	Ethics and computing: Why ethics matter; ethical theories, principles and systems; the ACM Code of Ethics
3	Generative AI and information reliability
4	Generative AI and intellectual property
5	Regulation and public policy. Generative AI and large tech companies.
6	Assorted topics: AI and fairness. Freedom of speech. Interpersonal relationships. Employment. Privacy and security.
7	Future concerns: How will generative AI affect society in the future? Course summary.

Grading: Your grade will be based on the following:

- Weekly quizzes 20%
- In-class writing and exercises 20%
- Between-class short exercises 20%
- Short papers 40% (20% reflective paper and 20% recommendation paper)

Grading for this course is on an absolute scale, so that the performance of others in the class will not affect your grade. Final grades will be based the following scale:

93.0 ≤ X ≤ 100.0 A
 90.0 ≤ X < 93.0 A-
 87.0 ≤ X < 90.0 B+
 83.0 ≤ X < 87.0 B
 80.0 ≤ X < 83.0 B-
 77.0 ≤ X < 80.0 B+
 73.0 ≤ X < 77.0 B
 70.0 ≤ X < 73.0 B-
 67.0 ≤ X < 70.0 D+
 60.0 ≤ X < 67.0 D
 X < 60.0 F

Class Participation and Expectations: Attending the scheduled class time, participating in the in-class activities, and doing the between-class activities are all essential parts of the class. Two particular comments: First — unless you are ill or have another legitimate excuse to miss class – plan on attending all the class meetings. Second, in many ways this is a "doing things" class -- if you spend the time to attend class and do the between-class activities then you should pass the class without any trouble. So read, listen to, or watch the assigned material, spend time reflecting on it, and spend time completing the class activities.

Expected Workload: This is a 7-week 1-credit class. For most students, the average weekly workload will be about 6 hours per week: 2 hours/week in class and about 4 hours/week outside of class meetings.

Incompletes: will be given only in very rare instances when an unforeseeable event causes a student who has completed all the coursework to date to be unable to complete a small portion of the work (typically the final assignment). Incompletes will not be awarded for foreseeable events including a heavy course load or a poorer-than-expected performance. Verifiable documentations must be provided for the incomplete to be granted, and arrangements for the incomplete should be made as soon as such an unforeseeable event is apparent.

Withdraws: Please see the [University add/drop calendar](#) for the withdraw deadlines. Withdrawing

after the deadline is up to the college and is not automatic. If you are not doing as well as you had hoped in the course, and are considering withdrawing, please do so by that deadline.

Scholastic conduct: The amount of collaboration allowed on assignments will be explained in the assignment rules. Unless otherwise stated, you are free to discuss the assignments with others, but you must work out and write your own solution. Copying others' answers on quizzes or individual assignments, or letting another person copy your answers is a serious situation and can result in failing the course. If you have any questions about what is and is not allowable in this class, please ask the course instructor.

Disability Accommodations: We desire to make learning rewarding and fun for all students and make every attempt to accommodate anyone who has a desire to learn. If you require special classroom or test-taking accommodations, you need to contact the University Disability Services; also notify the instructor as soon as possible at the start of the semester (no later than two weeks prior to the first needed accommodation).

Students Mental Health and Stress Management: As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. University of Minnesota services are available to assist you with addressing these and other concerns you may be experiencing. You can learn more about the broad range of confidential mental health services available on campus via <https://mentalhealth.umn.edu>.