

# ETHICAL ISSUES IN COMPUTING

Course Syllabus for Boise State University CS 230, Spring 2022

Welcome to class! In many of your courses in the computer science major, you learn how to *build* things; in this course, we're going to look at something different: how to *act* while building these things, and how to *decide* what kinds of things you will build. Writing code is just one part of a career as a computer scientist; you will also need to work professionally with a wide array of colleagues and consider the impact your work has on its users and society more broadly.

Let's get to work!

## COURSE LOGISTICS

Course Title	CS 230: Ethical Issues in Computing
Schedule	Tu/Th 12:00-1:15 in CCP 221
Web site	Canvas
Readings	<i>Ethics for the Information Age</i> , 7 <sup>th</sup> or 8 <sup>th</sup> edition, by Michael Quinn Additional research papers and online articles in Canvas

## COURSE DESCRIPTION

Privacy, intellectual property rights, computer crime, codes of conduct. Risks and liabilities of computer-based systems. Electronic information and free speech. Local and global impact of computing. Prerequisites: ENGL 102, CS 121, CS-HU 130, and (COMM 101 and ENGL 212) or (ED-CIFS 201 and STEM-ED 220)

## INSTRUCTOR

### Michael D. Ekstrand

E-mail	<a href="mailto:michaelekstrand@boisestate.edu">michaelekstrand@boisestate.edu</a> Please use Piazza to contact me about this course
Office	CCP 255
Office Hours	In-person: TBA Online: <a href="#">by appointment</a>
Home page	<a href="https://md.ekstrandom.net">https://md.ekstrandom.net</a>

COVID - 19 SYLLABUS NOTICE <sup>1</sup>

Many Boise State classes have resumed face-to-face meetings in the midst of a global pandemic and a recent local surge of infections. Our goal is to have a successful academic year while keeping our students, faculty, and local community healthy and safe. Public health requirements are in place to achieve that goal, the primary mechanism for which includes the mandatory use of facial coverings that protect all of us.

We have taken health precautions on campus so that you can have the option of a face-to-face course. However, there is still inherent risk associated with face-to-face courses during a pandemic because of proximity to others and length of potential exposure to the virus. Therefore, as members of this learning community, it is imperative that we all engage in behaviors that protect the overall public health.

You have enrolled in a face-to-face course, and this format offers a number of benefits that appeal to many students. In order to preserve your access to this face-to-face option you are required to

1. sit in the same seat all semester (for purposes of contact tracing) and
2. wear facial coverings in all face-to-face learning environments. You must keep your mouth and nose covered at all times throughout class — facial coverings cannot be pulled up or down. **As a health precaution, eating and drinking are NOT permitted in the classroom.**

By enrolling in an in-person course, you agree to comply with Boise State's rules and precautions which include, but are not limited to, facial coverings, frequent hand washing, hand sanitizing, and sitting in the same seat all semester.<sup>2</sup> Failing to comply with these rules and precautions is a violation of Boise State's [Student Code of Conduct](#) and will subject you to university sanctions and discipline.

You will select your seat at the first class meeting. Please note the seat number, as this seat will remain yours for the entire semester.

**University policy states that I am not allowed to begin/continue with instruction unless and until everyone present has a facial covering in place.**

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<sup>1</sup> This section of the syllabus is mandated verbatim from the university.

<sup>2</sup> For details, see [Health Guidelines](#)

This course is designed to be accessible to all students. A very small percentage of people cannot wear facial coverings for reasons related to medical conditions or disabilities. If this is your experience, please contact the [Educational Access Center](#) to document your condition so that we may determine the best accommodation for you. Until an accommodation is in place, you will need to participate remotely. If you need to read lips or facial expressions to understand what people are saying, please let the [Educational Access Center](#) and me know via email.

If you are unwilling to wear a facial covering, you cannot participate in person. If this is the case, please dismiss yourself and either inquire whether you may participate in the class fully remotely, or contact the [Registrar's Office](#) (208-426-4249) to pursue your learning experience in a different remote or online section. Should you refuse to cover your mouth and nose and also refuse to leave the classroom, I have been directed to dismiss the class and you will be reported to and contacted by the Dean of Students Office.

#### *Mutual Guidelines for Safe Learning Environments*

While these public health measures are essential to protecting our individual and communal health, they also complicate how we engage in teaching and learning. The following guidelines should ease our comfort and communication with one another:

- In the classroom, we must wear a facial covering that covers our mouth and nose at all times. If you or I let our facial coverings slip, we will politely remind one another to secure our masks.
- Facial coverings muffle voices. I will use the classroom microphone to amplify my voice through my mask. In addition, I will repeat your questions and summarize comments to ensure we all can follow any discussion.

#### S T U D E N T W E L L - B E I N G

If you are struggling for any reason (COVID, relationship, family, or life's stresses) and believe these may impact your performance in the course, I encourage you to contact the Dean of Students at (208) 426-1527 or email [deanofstudents@boisestate.edu](mailto:deanofstudents@boisestate.edu) for support. Additionally, if you are comfortable doing so, please reach out to me and I will provide any resources or accommodations that I can. If you notice a significant change in your mood, sleep, feelings of hopelessness or a lack of self worth, consider connecting immediately with Counseling Services (1529 Belmont Street, Norco Building) at (208) 426-1459 or email [healthservices@boisestate.edu](mailto:healthservices@boisestate.edu).

## L E A R N I N G O B J E C T I V E S

1. Understand different sources of principles and rules governing professional work.
2. Identify and analyze ethical issues in computing using classical ethical theories.
3. Express ethical arguments in written and verbal communication.
4. Identify stakeholders in a computing system and their morally relevant concerns.
5. Recognize and avoid discrimination in work and products.
6. Explain challenges electronic information has brought to issues such as free speech.
7. Recognize intellectual property and its protections, and use available licensing options to create, protect, and legally use software.
8. Explain unique threats to privacy induced by applications of computer technology.
9. Adopt best practices for mitigating threats to computer security.
10. Commit to a professional code of ethics.

## R E S O U R C E S A N D R E A D I N G S

*Textbook*

Our primary (and required) textbook is *Ethics for the Information Age* by Michael Quinn; either the 7<sup>th</sup> or 8<sup>th</sup> edition is fine. Older editions may also work, but chapter numbers in the reading assignments are based on the more recent editions.

*Additional Readings*

I will be posting additional readings (and similar resources, such as videos or podcasts) to Canvas throughout the semester that are intended to support our work and discussion.

One crucial reading we will reference from time to time is the [ACM Code of Ethics and Professional Conduct](#).

*Further Study*

I will also be posting resources to help you dive deeper on a topic if you wish to study it further; these readings will be marked “FS” and are for your own supplementary study; you will not be assessed on their content (but you are free to incorporate ideas from these resources in your assignments and course contributions).

## C O U R S E   S T R U C T U R E

*Class Sessions and Attendance*

Class will be delivered in-person in CCP 221, health permitting. You can attend either in-person or remotely via Zoom (see Canvas for Zoom links). I will do what I can to support engagement from both in-person and Zoom classes; we may be using Zoom breakout rooms to supplement in-class discussion activities as appropriate.

I will make my slides available through Canvas after each week's class. I will also record lectures to make them available for your later review, but watching lecture later is **not** a regular substitute for live attendance (either in-person or virtual).

*Assessment Overview*

There are two purposes for assessments (homeworks, exams, quizzes, etc.) in a course:

- To give you feedback on your progress on achieving our learning objectives.
- To assess your mastery of the course material and learning objectives.

The assessments result in a final course grade, which communicates the extent to which you have demonstrated achievement of the course learning outcomes to the outside world: subsequent classes, prospective employers, and others who review your university transcript.

There will be several assessments throughout the semester to assess your achievement of individual learning outcomes and the course goals as a whole.

*Quizzes*

There are eight quizzes throughout the semester, approximately corresponding to learning outcomes and scheduled every other week. Quizzes are via Canvas and contain a variety of question types (multiple choice, short-answer, matching, etc.); some will have a reading component. They are open-book and open-note. Quizzes may have different lengths and weights. For your two quizzes with the lowest grade, I will replace the grade with full credit; this is approximately equivalent to dropping the lowest two quiz grades, but in a way that works with differing quiz weights.

*Essays*

There will be two **essays**, one midway-through the semester with an assigned topic to assess learning outcomes 2 and 3, and another late in the semester on a topic of your choosing. Only your highest essay score will be used.

*Exam*

There will be a **comprehensive final exam** during finals week. It will be open-book and open-note and delivered by Canvas. Its format will be the same as the quizzes.

*Presentation*

The second comprehensive assessment for this course will be a **video presentation**. This will be due before the last week of class. More details will be available later in the semester, but you will work with a group of your classmates to study an issue in computing ethics and prepare and record a video presentation providing an ethical analysis of it.

*Participation*

Throughout the semester, there will be **participation points** available. These will be announced during lecture, and will be due the same day; late points will not be accepted. At least 20 participation points will be available, each of which is worth 1% of your grade.

*Final Grade*

Your final grade will be computed from these components as follows:

Component	Grade Contribution
<b>Quizzes</b>	45%
<b>Essays</b>	10%
<b>Exam</b>	15%
<b>Presentation</b>	15%
<b>Participation</b>	15%

The standard 70/80/90 scale determines the **minimum** grade you will get: if you earn a 90, you will get at least an A-. It is possible to earn more than 100%, which is necessary to earn an A+.

I will be configuring Canvas to provide as accurate an approximation of your final grade as practical throughout the semester, but Canvas grading policies do not readily accommodate all the nuances of a course grading policy.

C O U R S E P O L I C I E S

*Announcements*

I will primarily use **Piazza** for course communications, including announcements; course content updates, however, will trigger Canvas announcements. Make sure you receive e-mails for both Piazza and Canvas announcements

*Late Work*

The quizzes and essays have a combined pool of 6 **late days** that you can use on any of the assignments. You can use more than one late day on the same assignment (up to 3 per assignment); each late day extends the deadline by 24 hours. Late days are indivisible (to turn in an assignment 12 hours late, you must use an entire late day).

This policy is intended to account for most ordinary need for extensions, so individual extensions will only be granted in extreme circumstances, and must be requested by e-mail or private message on Piazza.

*Conduct*

I expect you to behave in a civil, respectful manner in all class interactions, both in official meetings such as lectures and out-of-classroom activities such as project group meetings and study sessions, and to contribute to a constructive learning environment. Part of our course material will be on what professional conduct means in computing settings.

The [Recurse Center Social Rules](#) are a good source of guidance on how to maintain a constructive and educational environment.

*Academic Integrity*

As both a programmer and a student, you are expected to do your own work, attribute sources, and respect the legal and moral rights of others with respect to their work; as a student, you are also required to abide by the [Student Code of Conduct](#). We will also be discussing intellectual integrity issues in the course material.

While I aim to allow you to make reasonable use of resources, cheating (including copying answers from each other or the Internet, using unauthorized resources during tests, sharing your completed assignments on either public or limited web sites, etc.) will not be tolerated. If you are found to be cheating, the penalty may range from an F on the assignment to an F on the course, and will also be reported to the university.

*Disability Accommodations*

If you need particular accommodations to be able to fully participate in this course, please talk with me as soon as possible. If you have documentation from Office of Disability Services for particular accommodations, please bring it, but I am happy to discuss with you anything needed for you to participate in the class.

*COVID Accommodations*

Any of us may encounter disruptions this semester either directly or indirectly due to the current state of public health and the challenges of working and learning remotely. This of course may include contracting COVID (although I hope that does not happen to any of us), but there are also many indirect effects such as health problems with roommates or family members, unexpected changes in childcare situations, etc.

My goal is to ensure you have a path to successfully completing the semester and achieving the course learning outcomes. If something arises, whether directly related to COVID or not, that affects your ability complete the assigned work on schedule, please talk with me as soon as practical to work out a plan. The dropped assignments and essay along with late days should provide reasonable accommodation for many of the types of needs likely to arise in the course of the semester.

*Office Hours*

I will be having some open office hours available in my office; in accordance with university policy on indoor masking, you must wear a mask in my office. I generally have my door closed but have a door sign indicating open office hours.

## SCHEDULE

Following is an approximate schedule. If this schedule and Canvas disagree about topics or readings, Canvas has the more current and definitive information.

Week	Date	Day	Topic	Reading	Due
1	Jan 11	Tue	Introduction	1	
	Jan 13	Thu	Scopes and Application		Q1
2	Jan 18	Tue	Intro to Ethical Theory	2.1-2.5	
	Jan 20	Thu	Action-Based Ethics: Virtue and Utility	2.7, 2.10	
3	Jan 25	Tue	Rule-Based Ethics I: Kant and Utility	2.6, 2.8	
	Jan 27	Thu	Rule-Based Ethics II: Social Contracts	2.9	Q2
4	Feb 1	Tue	Foundations of Anti-Discrimination		
	Feb 3	Thu	Intention, Impact, Identity, and Power		
5	Feb 8	Tue	Perspectives and Stakeholders		
	Feb 10	Thu	Case Study: Moral Machine		Q3
6	Feb 15	Tue	Networked Communication and Speech	3	E1
	Feb 17	Thu	Intro to Intellectual Property	4.1-4.4	
7	Feb 22	Tue	Software Licensing I	4.5-4.6	
	Feb 24	Thu	Software Licensing II	4.7-4.10	Q4
8	Mar 1	Tue	Information Privacy I	5	
	Mar 3	Thu	Information Privacy II	6	Q5
9	Mar 8	Tue	Security	7.1-7.3	
	Mar 10	Thu	Security	7.4-7.5	
10	Mar 15	Tue	Security		
	Mar 17	Thu	Reliability	8	Q6
Break	Mar 22	Tue	<i>Break - No Class</i>		
	Mar 24	Thu	<i>Break - No Class</i>		
11	Mar 29	Tue	Professional Ethics		
	Mar 31	Thu	Professional Ethics	9.1-9.4	
12	Apr 5	Tue	Professional Ethics	9.5-9.6	
	Apr 7	Thu	<i>Presentation Planning</i>		Q7
13	Apr 12	Tue	Social Impact: Labor and Wealth	10	
	Apr 14	Thu	Social Impact: Discrimination		E2
14	Apr 19	Tue	Social Impact: Education		
	Apr 21	Thu	TBD / Review		Q8, VP
15	Apr 26	Tue	Review		
	Apr 28	Thu	<i>Watch Video Presentations (no class)</i>		
Finals	May 3	Tue	<i>Final Exam</i>		

Quizzes (Q<sub>n</sub>) are due **on Sunday at midnight** the end of the week they are listed.

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