

CSC-395: Algorithms, Ethics, and Society

Fall 2023

Instructor Information

- Nicole Eikmeier, Assistant Professor of Computer Science
- She/Her Pronouns
- Preferred name: Professor Eikmeier
- Email: eikmeier@grinnell.edu. I do my best to respond to emails in a timely manner, during the hours of 9am – 5pm Monday through Friday. Outside of those times I aim to step away from work and prioritize other areas of my life. (I encourage you to also prioritize your health and wellbeing!)
- Office Hours: I am very happy to meet with you to talk about our course or other concerns you have. Book appointments online at calendly.com/eikmeier. If available times in calendly don't work for you, please send me a quick email requesting an appointment with some times that do work for you so we can find a time to meet.

Course Logistical Information

Course Meeting Times: MWF 1:00 – 1:50pm

Course Meeting Location: JRC 209

Course Overview, and Learning Outcomes

In computer science, we use algorithms to solve problems big and small, but what are the consequences? This course will introduce students to ways of thinking about how computer science impacts humans, and place algorithms within cultural context. We will begin with considering dimensions of identity such as race, ability, and class, as well as what ethics might mean in the domain of Computer Science. We will then move to ethical questions applied to current events.

Learning Outcomes (LO)

By the end of this course, students will be able to:

1. Understand identity and the ways in which it is defined (e.g., race, ethnicity, gender, class, sexual identity, and ability).
2. Define intersectionality.
3. Understand historical trends that impact organizational cultures and technology development.
4. Understand cultural competence, ethics, diversity, equity, and inclusion.
5. Identify the impact of different technologies on various identities.
6. Identify strategies for creating more equitable and inclusive technical environments and software for diverse identities.
7. Critically anticipate adverse technology outcomes.
8. Engage in current ongoing discussions of algorithms, ethics, and society.
9. Understand advanced algorithms in the context of their application(s).

Class Requirements/Components

Attendance & Participation

Your attendance and participation in class is an integral part of your learning, therefore I encourage you to attend class as often as possible and attendance affects your course grade. On each day of class, you will either be marked as *satisfactory (S)* or *not-satisfactory (NS)*. You may obtain an *S* each day by meeting the following requirements:

- Arrive on time for class, do not leave early.
- Arrive prepared for class activities by having completed the required reading(s).
- Actively engage and participate in discussion/lecture (not on phone, etc.)

You will also be asked to lead class discussion 1-2 times throughout the course of the semester. Meeting the expectations of that assignment will also count towards earning a *S* on the relevant days. More details will be given at a later time.

You may be excused for a class under certain situations. Excusable reasons to miss class include college sponsored sports absences, religious holidays, family emergencies, and illness. Please email or meet with me at least a week in advance in the event of a planned absence. In the event of an unplanned absence (such as illness or an emergency), please contact me as soon as you feel able. Please do not attend class if you suspect you may have a respiratory infection such as COVID-19. If you are excused from class, then you will receive an *S* for the day.

Daily Discussion/Writing

Throughout the course of the semester, I will ask you to complete a (nearly) daily informal writing task, which will involve participating in an online asynchronous discussion about the day's reading with your peers. Writing helps me check your understanding and helps you to work through your thoughts.

The daily discussion will take place on our course webpage, and is due by 1pm on the day we will discuss the reading. There will be no prompts/questions from me on what your contribution should consist of, rather, as CSC-395 students I expect you to be able to engage with readings in a meaningful way. In your contribution you could bring up questions that you'd like your classmates to answer (and you can respond to your classmates), you could provide an analysis or critique (note that *critique* doesn't always mean *criticism*) of some portion of the text, etc.

Your participation in the daily discussion will be graded on the scale of *satisfactory (S)* or *not-satisfactory (NS)*. Because discussions are low-stake assessments, you may not resubmit these. The comment that you make has no length requirement, but 200 – 400 words is likely in the right ballpark. Each assignment will receive an *S* by meeting the following requirements:

- The discussion assignment is completed on time, and shows thoughtful engagement with the reading(s)
- The comment that you make follows our classroom norms (i.e. is respectful)

Weekly Reflections

Most weeks, you will be asked to reflect the previous week's material. This is an open-ended informal essay assignment, in which you can write about what interests you. Each reflection will be graded on a scale of *satisfactory (S)* or *not-satisfactory (NS)*. If you receive a grade of *NS*, you may resubmit the assignment one time without penalty. You may receive an *S* on each weekly reflection by meeting the following criteria:

- Submission is a minimum of 400 words.
- Reflection is on-topic for ideas covered in the previous weeks readings.
- Reflection demonstrates learning or understanding of a key topic, OR reflection connects ideas from the weeks readings to previously discussed topics, OR reflection raises key questions that you'd like to address moving forward.
- Submission gives informal or formal attribution to where ideas come from (readings, a fellow student during in-class discussion, etc.)
- Submission is written and organized in a way which is not overly distracting. In other words, it doesn't need to be heavily edited, but it should be readable.

Weekly reflections will be due at 10:30pm on Sundays in Gradescope, but following the course late policy (see below) may be turned in up to 48 hours late with no penalty.

Projects

Projects are opportunities for you to demonstrate mastery of the course learning goals by applying these concepts and skills to assignments larger in scope. Projects will be graded on a scale of *satisfactory (S)* or *not-satisfactory (NS)*. If you receive a grade of *NS*, you may resubmit the assignment one time without penalty. You may receive an *S* on each project by meeting the following criteria:

- The project must be complete, by providing answers to all questions, and/or following all instructions.
- It must show a good faith effort on every component of the project
- Key learning is shown for each relevant learning outcome (this will vary by project).

Projects will be due at 10:30pm on their due date, typically in Gradescope, but following the course late policy (see below) may be turned in up to 48 hours late with no penalty.

A note on revised work: For any weekly reflection or project which you turn in and receive a grade of *NS* you may resubmit it for no penalty. You may not resubmit an assignment which you did not turn in. Resubmissions are due during finals week but may be turned in at any time. Revisions should be turned in under my office door (not on Gradescope). Any revised assignment must include the following components stapled together:

- 1) A copy of the first submission, including any feedback given by the instructor
- 2) A reflection which includes a summary of what you worked on for the resubmission, including if you sought help anyone (instructor, writing lab, etc)
- 3) A copy of your new submission

A note on instructor/grader workload: In order for your instructor to maintain sanity this semester, no more than three of your reflection papers, projects, or revisions will be graded in a single week. While revised work is not officially due until the last day of finals, this means that you may need to turn in some things earlier than that.

Letter Grades

This course will rely on ideas of [specifications grading](#). One of the fundamental principles behind this grading scheme is that you will have opportunities to re-try assignments if they do not originally obtain a satisfactory grade. My goal in using this schema is to reduce the stress that accompanies typical grading rubrics and give you permission to make mistakes and learn as much as possible. Ultimately, my goal is for each student to learn as much as possible, and I would be very happy to give every student an A.

Letter grades for the entire course will be assigned according to the bundles in the table below. You will receive the grade corresponding to the bundle for which you meet all the requirements. All bundles list minimum amounts, you may exceed the requirements for a bundle and still qualify for it.

Grade	Attendance & Participation (out of 40)	Daily Writings/ Discussions (out of 40)	Weekly Reflections (out of 10)	Projects (out of 5)
C	27xS	27xS	7xS	3xS
B	32xS	32xS	8xS	4xS
A	37xS	37xS	10xS	5xS

D: 3 requirements of a C are met

F: 0-2 requirements of a C are met

To move from a B to a B+ or a C to a C+: you must have completed the requirements of the lower tier (B/C) and meet the requirements of at least 2 components of in the higher tier (A/B).

To move from a B to an A- or a C to a B-: you must have completed the requirements of the lower tier (B/C) and meet the requirements of at least 3 components of in the higher tier (A/B).

Course Materials

Required Textbooks & Materials

All course materials will be available online, and you don't need to purchase anything.

Resources

- Course webpage: eikmeier.sites.grinnell.edu/csc-395-fall-2023
- Submit your assignments on [gradescope](https://gradescope.com) (<https://gradescope.com>)
- Grinnell Writing Center: <https://grinco.sharepoint.com/sites/WritingCenter>
- Databases, journal articles, and more: [Grinnell Library](https://www.grinnell.edu/academics/libraries) (<https://www.grinnell.edu/academics/libraries>)
- Health and Wellness: [SHAW](https://www.grinnell.edu/about/offices-services/student-health) (<https://www.grinnell.edu/about/offices-services/student-health>)
- Grinnell Emergency Fund for Students: <https://www.grinnell.edu/about/leadership/offices-services/student-affairs/student-assistance/emergency-fund>
- First Generation and Low-Income Resources (including lending-library, student food pantry, and laptop loaner program): <https://www.grinnell.edu/about/leadership/offices-services/crssi/fqli-resources>
- Report a Bias Incident: <https://www.grinnell.edu/about/leadership/offices-services/dei/bias-incident>
- Get Academic Support: <https://grinco.sharepoint.com/sites/AcademicAdvising>

Course & College Policies

Attendance

I highly encourage you to attend all class sessions. Attendance affects your learning in this course, and thus affects your grade. If you know in advance that you will miss class due to a college-sponsored sport or a religious holiday, please let me know in the first two weeks of the semester. If you have another emergency come up, please let me (or the college) know when safe for you.

Late Policy

I am aware that there are a number of things outside of your control that may affect your ability to complete work on time, so I will attempt to be as flexible as possible in accepting late work. Reflections and Projects may be turned in up to 48 hours late with no penalty, without prior instructor approval, however if possible, please let me know if you plan to turn in work late. Reflections and Projects turned in more than 48 hours late, without prior approval (before the original due date) of the instructor will not be accepted. Late contributions to the daily discussions will not be accepted. Please refer to the Student Workload statement below, to emphasize that you should attempt to follow the posted deadlines. Please keep in mind that if you turn in work late, I may not be able to grade it as quickly as you or I hope.

Incomplete Grade Policy

All work for the course is due by 5:00 pm on the last day of finals (12/15/2023). In exceptional circumstances, *incomplete* grades can be granted. Talk with me if you think you might need an *incomplete* to complete all the requirements of the course. Please note that due to special circumstances of this semester, it will be especially challenging for your instructor to accommodate an incomplete.

Student Workload

You can expect to spend 12 hours per week on this course, including all in-class and out of class time. This number is based off the Grinnell Guidelines for credit-hours. Since our class meets for approximately 3 hours each week, you can expect to work 9 additional hours outside of class time. This includes: reading and reflecting, office hours, and projects.

Academic Honesty Statement

[Grinnell College's Academic Honesty policy](#) is located in the online Student Handbook. It is the College's expectation that students be aware of and meet the expectations expressed in this policy. In addition, in this course, it is my expectation that students may collaborate on elements of this course, however your collaboration must be attributed. Using any text generated by a Large Language Model such as ChatGPT, or any other AI system, and treating it as your own work is a violation of the college's academic honesty policy.

I know that there is great temptation to look for answers and ideas online when things get difficult. I will provide you with numerous resources to get help which include office hours and group class work. It is my hope that allowing you to resubmit assignments without penalty eases some of the pressure that you might feel. If you have questions about how a particular assignment relates to the College's policy, or how to attribute your collaboration, I will gladly consult with you in advance of the assignment's due date.

Religious Observance

I encourage students who plan to observe holy days that coincide with class meetings or assignment due dates to consult with me in the first two weeks of classes so that we may reach a mutual understanding of how you can meet the terms of your religious observance and also the requirements for this course.

Students with Disabilities

I encourage students with documented disabilities, including invisible disabilities such as chronic illness, learning disabilities, and psychiatric disabilities, to discuss appropriate accommodations with me. You will also need to have a conversation about and provide documentation of your disability to the Coordinator for Disability Resources, located on the ground level of Steiner Hall (641-269-3124).

Technology Usage Policy

Materials you have obtained from this course should not be distributed outside of the members of our class. Live synchronous sessions should not be recorded by students. Using text generated by ChatGPT or any other Artificial Intelligence and submitting it as your own work is in violation of our academic honesty policy.

Academic Support

If you have other needs not addressed in these policies, please let me know soon so that we can work together for the best possible learning environment. In some cases, I will recommend consulting with the Academic Advising staff. They are an excellent resource for developing strategies for academic success and can connect you with other campus resources as well: <http://www.grinnell.edu/about/offices-services/academic-advising>. If I notice that you are encountering difficulty, in addition to communicating with you directly about it, I will also likely submit an academic alert via Academic Advising's SAL portal. This reminds you of my concern, and it notifies the Academic Advising team and your adviser(s) so that they can reach out to you with additional offers of support.

Inclusion Statement

It is my intention that students from all backgrounds and perspectives will be well served by this course, and that the diversity that students bring to this class will be viewed as an asset. I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, socioeconomic background, family education level, ability – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming, and inclusive environment for every other member of the class. Your suggestions are encouraged and appreciated.

This course was intentionally curated using factual information to teach concepts that will lead to more equitable and inclusive computing environments and outcomes for diverse identities. It is extremely important that this course is prioritized as a safe space for learning/growing. The course discusses sensitive topics that impact people with different identities in different ways. As such, it requires participation that is respectful of all identities. Failure to abide by this (including verbal and written language that is found to be abusive, offensive, threatening, and/or hateful) will result in action taken by the instructor as guided by college policy.

Take care of yourself

Do your best to maintain a healthy lifestyle this term by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

All of us benefit from support during times of struggle. You are not alone. There are many helpful resources available through campus and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is often helpful.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, I strongly encourage you to seek support. Student Health and Wellness (SHAW) is here to help: call [641-269-3230](tel:641-269-3230) and visit their website at <https://www.grinnell.edu/about/offices-services/student-health>. Consider reaching out to a friend, faculty, or family member you trust for help getting connected to the support that can help.

If you or someone you know is feeling suicidal or in danger of self-harm, call someone immediately, day or night:

- Need to Talk Line: 641-269-4404 (available 24/7 for counseling needs)
- 24/7 Suicidal Hotline: 1-800-273-8255
- **If the situation is life threatening, call 911**

Syllabus Acknowledgements

- The inclusion statement has been taken verbatim from two sources: <https://lgbtq.asee.org/resources/ally-resources/>; and Dr. Nicki Washington's course on Race, Gender, Class, and Computing <https://courses.cs.duke.edu/fall21/compsci240/about.html>
- The Take Care of Yourself Section has been taken verbatim from <https://www.cmu.edu/teaching/designteach/design/syllabus/syllabussupport.html>
- Ideas for specifications grading were developed by Peter-Michael Osera and adapted to meet the needs of this course.
- Many ideas for this course were inspired by similar courses at other institutions.