

Equity and Ethics in SE (CS/SWE 795)

Spring 2023 Course Syllabus

Professor: Brittany Johnson-Matthews (call me Dr. B ; Professor or Prof works too ☺)

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Office Hours (currently virtual):

TBD

Class meeting time: Th 4:30 – 7:10 pm

Location: ENGR 1103

Below are listed my/Mason's usual course policies. However, this is not a "usual" time. I fully understand that each of us may face new obstacles, or old obstacles in novel ways, during this time. Please communicate with me if such things are getting in your way for this class. **My goal is to facilitate your growth and success in this strange and uncertain time;** I can only do that if you tell me what is happening.

Course Catalog Description

Students learn concepts, tools, and frameworks (both research and practice) centered on supporting ethical decision-making and equitable outcomes in software development and use. Topics include diversity on software teams, fairness, and ethics-aware software engineering.

Prerequisites

This course is meant to be applicable and accessible to anyone with a CS (or comparable) degree. It is recommended to have taken at least one core SWE course before enrolling in this course.

Office Hours & Availability

Office hours are times that I commit to being available, first-come first-served.

Currently I am only doing virtual office hours. You do not need an appointment and I'm available to talk during these hours about *anything* (course related or otherwise).

If you can't make my office hours, I'm happy to make appointments. I will inform the class if I have to miss office hours. I will also from time to time post availability for virtual homework help and test prep (along with virtual office hours, in the event that my office hours don't work for your schedule).

Safe Space Policy

My classroom and my office (virtual or otherwise) are safe spaces. There is a lot going on in the world right now, and I want to make sure that you all feel comfortable and accommodated in every way. There is a **ZERO TOLERANCE** policy for disrespectful, racial, or otherwise prejudicial statements or actions in my class or office. If at any time you feel uncomfortable with something that has been said or done (by me or another student), please do not hesitate to contact me.

COVID-19 Class Attendance Etiquette

[As mandated by the University](#), please do not attend class if you are experiencing symptoms or have recently tested positive for COVID. Masks are not required but please be respectful of the space and preferences of others.

Readings

I expect you to read any relevant material **before** class meetings. Most readings will be a preview into the discussions we will have in class, so it's important for engagement to read and show up for discussion.

Graded Assignments

There will be six homework assignments. These assignments stress the practical application of techniques discussed during lectures. They will be posted on the class website and any clarifications or hints will be posted on Piazza.

Assignments must be submitted by the beginning of the class on the day they are due to be counted as on time. Late submissions will receive **30% per week** deduction. **Per GMU policy, all assignments must be submitted before the beginning of final exams.**

Assignment 1: Article synthesis

You will be expected to complete and submit a 1-2 page synthesis **twice** in the semester. Each synthesis should include at least three articles, ideally related to your area of interest.

For each synthesis, you should:

- Summarize each paper you've selected (at least the title, author, abstract, population targeted, the study goal and research questions asked, research methods used, and outcomes).
- Discuss your thoughts on the contributions and how these articles relate to each other (e.g., contradictory findings, all contribute to one idea or solution, gaps in the area).

Assignment 2: Article presentation

Each week, the bulk of the class will be composed of presentations on papers and articles related to the material. You will be randomly assigned a week and paper to present in class. You are welcome to switch with other students if you find there's a topic you'd be more interested in (or talk to me if there's a paper you'd rather present that isn't listed).

Assignment 3 (Final Project): Build on prior work

By the end of the semester, you will be expected to have formed a team of 3-5 students to either (a) pilot or propose a new study/experiment/tool or (b) extend an existing study/experiment/tool.

You will be expected to write a draft outline of a final paper (1,500 – 5,000 words) and final paper (5,000 – 7,500 words) for this course, which is high enough quality to submit to a conference or journal in your field. I encourage you to use a journal or conference's article template (e.g, [ACM's Proceedings Template](#)) throughout the course and treat it as a working paper or work in progress that you plan to submit at the end of the course.

You can expect to submit the following deliverables:

1. *Project proposal:* Your paper proposal must include the proposed title of your research paper as well as a one-page description of the goals of your research paper. Research paper proposals will be graded according to the following criteria: suitability of the topic, creativity of the topic, and appropriateness of the research goals. You should also list all collaborators on the team.
2. *Paper outline:* Your paper outline will typically include bulleted lists, filling in as much detail as you have ready at this point, and incorporating feedback from the paper proposal. Citations must follow APA Style (there are many useful online resources available; I recommend: <https://owl.english.purdue.edu/owl/resource/560/01/>). Research paper outlines will be graded according to the following

criteria: clarity of the plan for the paper; appropriateness of the plan for the paper; and appropriateness of the references.

3. *Final paper:* Your final paper must incorporate feedback from all previous stages of the paper development. Your paper must be complete, coherent, and easy to read. Please make sure to proofread your paper thoroughly prior to submission. The final paper should be no more than 4 pages if in two-column format (excluding references) or no more than 8 pages if in single-column format (excluding references). All citations must follow APA Style (unless using LaTeX).
4. *Final Presentation:* During the last class of the semester, you will present your research paper to the class in the form of an audiovisual presentation. The presentation week and length will be announced well in advance of the date. You may give your presentation using a visual aid such as PowerPoint, Prezi, or Keynote; create and demonstrate a website or other technology; or create a video. Research paper presentations will be graded according to the following criteria: quality of research, quality of visual presentation, and quality of oral presentation.

Collaboration

Most of the exercises, as well as the final project, will be collaborative. You will be expected to form teams of **no fewer than 3 and no larger than 5** for any exercises and final project.

For collaborative assignments, list every collaborator and include a **short summary of what each person did** (*collaboration summary*). You should submit one assignment with all names.

You may collaborate **only with students currently enrolled in your section of CS/SWE 795**. You are **NOT ALLOWED** to include "guest names". Every person listed as a collaborator **must contribute**.

If someone is listed as a collaborator but did not contribute, all will be given a zero on the assignment and reported to the university [honor committee](#). ***So please be honest and collaborative when completing your assignments!*** If you have any questions or concerns while completing an assignment, don't hesitate to contact me.

In-class Exercises

Periodically, we will have in-class exercises during class. They will be announced and completed during class and count towards your participation grade. Typically these will be group exercises.

Final Project

The final project will be due by the University-scheduled exam period and will be centered on applying or further exploring concepts discussed throughout the semester. Your grade will be based on a write up and presentation on what your team did and/or found.

You will be expected to work in teams of 3-5 for the final project. You will be given ample opportunity to form your teams over the semester prior to the final project specifications being provided. It is recommended you use class time to form connections and reinforce them on Piazza to find the team that best fits you.

Discussion Board Use

All students will be enrolled in the discussion forum for SWE 795 on Piazza. You will receive an invitation via your Mason email. Participation on Piazza will count towards your participation grade. You can post questions, interesting and relevant articles, or continue discussions from class. This discussion board is meant to be a forum for engaging with and learning from one another outside of class time.

Participation and Attendance

You are not required to attend class. However, do keep in mind that your participation grade is 20% of your final grade. So not attending class means finding other ways to ensure you get full credit for participation (e.g., participations on Piazza). If you miss class, you are responsible for catching up on any material or exercises missed.

Email Communications

I will occasionally send course announcements to your Mason email account (through Piazza), so you should check it regularly. Professors are required to use your Mason email, not personal email accounts. Email sent to the professor or TA should have a subject that starts with "**CS/SWE 795**". If not, we may not notice it in a timely manner.

Online Presence

I always accept LinkedIn requests from current and former students – we clearly have a professional relationship. *Be sure to remind me you took my class.* I tweet random thoughts super irregularly about software engineering and life @drbrittjay and @INSPIREDLabGMU.

Diversity, Inclusion, & Anti-Racism Statement

As a member of the George Mason University community, I will work to create an educational environment that is committed to anti-racism and inclusive excellence. An anti-racist approach to higher education acknowledges the ways that individual, interpersonal, institutional, and structural manifestations of racism against Black individuals, indigenous people, and other people of color contribute to inequality and injustice in our classrooms, on our campuses, and in our communities. Anti-racist work strives to provide our community members with resources to interrupt cycles of racism so as to cultivate a more equitable, inclusive, and just environment for all of our students, staff, faculty, alumni, and friends, regardless of racial background. I believe that the work of anti-racism starts with each individual; together, students and faculty in this course will build knowledge and take actions rooted in principles of equity, inclusion, and justice that we will carry with us throughout our lives.

Statement of Collegiate Compassion

I believe we learn best when we can show up as whole and healthy people. To learn effectively we need to have basic security: a roof over our head, a safe place to sleep, a stable place to live, and enough food to eat. If you are struggling to meet any of these basic needs please talk to me, visit our campus food pantry (<https://ssac.gmu.edu/patriot-pantry/>), or reach out to other Mason resources <https://learningservices.gmu.edu/campus-resources/>. Remember, asking for assistance and advocating for yourself is an important part of your collegiate experience. I am here to help, and **YOU** are not alone.

Honor Code Statement

As with all GMU courses, SWE 637 is governed by the [GMU Honor Code](#). In this course, **all** quizzes and exams carry with them an implicit statement that it is the sole work of the author, unless joint work is explicitly authorized. When joint work

is authorized, all contributing students must be listed on the submission. Any deviation from this is considered an Honor Code violation, and as a minimum, will result in failure of the submission and as a maximum, **failure of the class**.

Office of Disability Services

If you need academic accommodations, please see me and contact the [Disability Resource Center](#)(DRC) at 993-2474. All academic accommodations must be arranged through the DRC.

Other Useful Campus Resources

- Student Support and Advocacy Group: <https://ssac.gmu.edu/>
- Office of Diversity, Inclusion, and Multicultural Education (ODIME): <https://odime.gmu.edu/>
- Writing Center: A114 Robinson Hall; (703) 993-1200; <http://writingcenter.gmu.edu>
- University Libraries "Ask a Librarian"; <http://library.gmu.edu/ask>
- Counseling and Psychological Services (CAPS): (703) 993-2380; <http://caps.gmu.edu>

Grade Distribution

Participation (discussion board and in-class): 20%

Article presentation: 20%

Article synthesis: 20%

Final project: 40%

Numeric scores will map to letter grades as follows:

97+: A+

90-96: A

85-89: B+

80-84: B

70-79: C

below 70: F

I delegate quiz and assignment grading to our GTA, and I provide specific grading guidelines. If you have questions about your grade, or if you feel that your work has not been graded correctly based on the grading guidance, then please contact our GTA first. They can probably answer your question or correct

any obvious mistakes quickly and easily. If you do not feel that our GTA has adequately addressed your concerns, please contact me. I will consider your concerns and re-grade your work. But understand that while my re-grading might result in a higher grade, it might also result in a lower one.