

CSCI 201: Computer Science Seminar

Professor Xiannong Meng. Tuesdays, 10:00am - 11:20am.
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Credits

The contents and the structure of the course, including the syllabus and schedule, are based on the work of other Bucknell CS professors who taught the course before, in particular, Professor Evan Peck.

Catalog Description

CSCI 201. Computer Science Seminar. .5 Credits.

Offered Fall Semester Only; Lecture hours:1.5

Faculty, alumni, student speakers, and other relevant guests present various computer science-related topics. Discussions include the frontier of the discipline, professional development, ethics and societal issues, and other topics relevant to the profession.

Prerequisite: open to sophomores. Others by permission of the instructor.

Why a CS Seminar?

Computer Science has many components that are hard to capture in CS core classes. They relate to career paths, intersections with other disciplines, and cultural expectations. We'll get advice from current students, alumni, and experts - some who will visit us directly and some who will visit us virtually. The goals of this course are...

→ **For you to feel more confident professionally engaging with CS - so that you can see potential career paths and see how your path is not so dissimilar.** This will happen through conversations with Bucknell alumni who graduated in CS and now fill a number of roles in industry and in academia. They will answer your questions and share their stories with you. We will work on your resume, your public persona, and get advice on technical interviews.

→ **For you to see the breadth of opportunities and disciplines that CS touches - so that you can see that you can use CS to amplify and empower you in other fields, including arts, management, humanities, and social sciences.** This will happen through conversations with live panels of faculty and professionals who sit at the intersection of the arts, management, humanities, and social sciences. They will present how technology is tied directly to core questions and positions in their fields, and how you can interface with those fields.

→ **For you to build a culture among your peers that rises above the culture of our field - so that we can confront and overcome the ugly history of CS.** Make no mistake, Computer Science has had culture problems. While we often talk about its successes, the tech world has also amplified racism, fostered sexist working environments, and [embedded historical inequalities into our everyday systems](#). We need to confront those directly and make sure that we are not unintentionally propagating that same culture in our classroom.

→ **For you to have space and time to reflect on your own goals and priorities - so that you can begin to maximize your social, professional, and academic life at Bucknell.** I have found that it is rare for students to have an opportunity to take a step back and think: *what do I want from my education?... my career?... my time at Bucknell?* This course builds it directly into your work. This will happen through weekly reflections, group conversations, and assignments that ask you to reflect on your personal and professional career.

Note: Because of the nature of the course, we should consider our syllabus a dynamic document that might need to change to fit our circumstances. However, I will never change it in a way that retroactively hurts your assessment or increases the difficulty of the course.

How will the course be taught?

The course will be conducted in various forms, including lectures by the instructor, panel discussions with visitors, discussions among student groups, and others.

What are the expectations?

Engagement (20%)

The most critical component of CSCI 201 comes from engagement.

Engagement includes...

- **Engagement in classes:** Pay attention to the speakers, whether a fellow student, a visitor, or the instructor. Ask and answer questions as appropriate. It goes without saying that attendance at each class is required. If you are repeatedly unavailable during class times **without** communicating with me, it will count against engagement.
- Occasional **mini assignments:** For example, "bring a copy of your resume to class". Mini assignments may also simply be activities completed during class.
- **Engaging with speakers:** Many weeks, we'll have speakers to talk about various topics. You should be prepared to ask questions and continue the conversation. In these weeks, I will ask each team (see other **Team Exercises** below) to post 1-2 questions by **Sunday night**. Each team (any member or members of the team) should ask these questions, or some variations of them, in the session with the visitor(s).

Weekly Reflection (30%)

Weekly reflections should focus on the course content for the week. They should be approximately 1 page (about 300-400 words) in Google Docs. Use the template found on our Google Classroom page. The rubric and their descriptions will be posted along the assignments.

- Reflections are graded on a 2-point scale.
 - 0 - missing or clearly far below expectations for college work
 - 1 - needing more effort
 - 2 - good work

Questions and Answers – Team Exercises (18%)

One of the goals of the course is community building. We will organize the class into teams of 4-5 students. Teams will be randomly assigned first, then be switched mid-semester so each of us will be working on two different teams. Each team will post two to three questions for the entire class and will answer one or two questions posted by the class, including the question(s) posted by your own team. We will use Google Classroom for this activity. The following are some details.

- **Asking question(s):** We will have a theme for each week during the semester, e.g., "Values and Priorities" (week 1), "How to do technical interviews?" (week 2), ... Student teams should post questions around the theme of the week after the lecture of the week. These questions are posted to the entire class as soon as they are submitted. The class, including the team that posts the question, can comment on the questions and indicate the preferences to these questions. These questions should be asked during the speaker's session, when appropriate.
- **Discussing and answering question(s):** Everyone in the class can comment, discuss, and answer any of the questions. Each team is then to go over the discussion and summarize the answer for one question to submit as their team work for the week. The team may choose to discuss and answer questions not asked during the session, if the team finds these questions are beneficial.

Building Skills (18%)

Inspired by [The Missing Seminar course](#) at MIT, I am specifically clearing out time for you to develop 3 new skills that you did not have before the course. These skills must be achievable

in a short amount of time and beneficial to your career in some way. You can choose two of the skills, the third one is a required exercise to create a p5js program.

- For each CS skill, you will construct a 5 - 10 minute minute demonstration video of that skill, which would be appropriate for teaching someone else the basics.
- You must also have some kind of *artifact* you developed with that skill. It can either be a task you accomplished or something that you built.
- Some sample skills include type setting using LaTeX, building a simple web page, editing a video (or audio), writing a Linux shell script, and many many more. If you are not sure of a particular skill, please feel free to discuss it with me.
- One of these three "skills" will be the creation of a j5ps program and posting it on the github website. **You don't need to create and submit any videos, as long as you submit the proper links to the program and the website for me to review.** We will practice j5ps in one of our classes. Details for this assignment will be coming.
- The emphasis of this assignment is on what you learned, not necessarily on any extra features of the video and audio, though they must be clear and logical so the viewers can understand what is presented.

Please [see this link](#) for a general description of these assignments.

Final Reflection (14%)

We will have no final exam for the course. Instead, you will be prompted to give a final reflection that is due at the end of your final exam slot.

How am I graded?

Everything you turn in will be graded roughly as *not acceptable, acceptable, high-quality*.

- **Engagement:** 20%
- **Weekly Reflection:** 30%
- **Questions and Answers:** 18%
- **Building Skills:** 18%*
- **Final Reflection:** 14%*

**To receive an A-level grade in these categories, you must individually fill out a Google form within 3 days of your submission that explains why your work is exceptionally high quality and deserves an A. A grade of "A" means 92 percent or above.*

Code of Conduct

You have two primary responsibilities:

1. **Promote** an inclusive, collaborative learning environment.
2. **Take action** when others do not.

Professionally, we adhere to [ACM's Code of Ethics](#). More broadly, a course like CSCI 201 involves reflection, collaboration, and communication. Computer science has a checkered history with respect to inclusion – in corporate environments, in our classrooms, and in the products we create. We strive to promote characteristics of transparency and inclusivity that reflect what we hope our field becomes (and not necessarily what it has been or is now).

We reject behavior that strays into harassment, no matter how mild. Harassment refers to offensive verbal or written comments in reference to gender, sexual orientation, disability, physical appearance, race, or religion; sexual images in public spaces; deliberate intimidation, stalking, following, harassing photography or recording, sustained disruption of class meetings, inappropriate physical contact, and unwelcome sexual attention.

If you feel someone is violating these principles (for example, with a joke that could be interpreted as sexist, racist, or exclusionary), **it is your responsibility to speak up!** If the behavior persists, send a private email to your instructor to explain the situation. We will preserve your anonymity.

(Portions of this code of conduct are adapted from [Prof. Lorena A. Barba](#))

Accommodations

Any student who may need accommodation based on the impact of a disability, should contact the Office of Accessibility Resources (OAR) at 570-577-1188 or OAR@bucknell.edu. The office will help coordinate reasonable accommodations for those students with documented disabilities. Please visit <https://www.bucknell.edu/Accessibility> for more information about the OAR.

If you have been granted accommodations, **please inform your instructors in a timely manner** (a week before accommodations are needed). **I want to help you and support you!**

Basic Needs Security

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the [Dean of Students](#) for support.

If you are comfortable doing so, please notify your professor as well. This will enable us to provide any resources that we have or are aware of. Again, **I want to help you succeed here!** Success means taking care of your basic needs **first**.