EECS 198: Discover CS
Syllabus

Instructor
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TAs
Courtney Greifenberger, cgreifen@umich.edu
Nina Hesse, donhesse@umich.edu

Meeting times
Thurs 5-6pm, *zoom*

Office hours
TBD: we will have six office hours throughout the week. In order to best accommodate students, we are waiting to get survey responses before we finalize office hour times, which will be announced on Piazza.
If you are unable to attend scheduled office hours but need to meet, please send an email to Laura, Courtney, and Nina with the subject line "EECS 198 Meeting". We will do our best to accommodate your schedule.

Course description
Welcome to Discover CS! In this class, you will begin to explore some of the different areas of computer science. Using the programming language Python, we will teach basic CS concepts, as well as showcase the wide range of real-world, interdisciplinary applications of CS. This class is designed to be interactive, and much of our class time will be spent programming and problem solving collaboratively. We will also have the chance to interact with visiting researchers and computing professionals. Our hope is that you will walk away from this class excited about the possibilities available to you in computer science!

While all are welcome, this class is particularly designed for students from groups that have been historically underrepresented in computer science with no formal programming experience.

Course format
Due to COVID, this course is offered online. Expectations for attendance are listed under "Weekly Engagement."
During the first week of class and guest lectures, please plan to attend 5-6PM EST if you are able.
15-25 minutes of video will be released ahead of time for the python lessons and review. During class time, we will start with Q&A, then move to problem solving in small groups. These

sessions will take around 30 minutes, and you will be split into early (5-5:30) and late (5:30-6) groups in order to give you more time to interact with the instructors!
Once we transition to working on projects, we will schedule meeting times that work the best for members of your group.

Website
A detailed schedule, including class topics and assignment due dates is available on Canvas.

Forum
We will be using Piazza to host a course forum. You are required to read this forum regularly; it is the venue we will use for important course announcements and assignment clarifications. In addition, it will be a significant source of help and hints on the assignments. We do not answer technical questions via email. In order to save everyone time, we want all students to have the benefit of seeing each question and its answer, so please use the forum. Please do not post your own solutions, project code, test cases, or output to the forum. Also, please search the forum before posting to avoid questions that have already been asked and answered.

Contact
Please direct all technical questions to our Piazza forums. For other questions, you can reach us through private posts on Piazza, or by email.

Programming Environment
The programming environment we will use for this course is Google Colab. You can access Colab with your University of Michigan google account. When you turn in programming assignments assignments, **you must download them to your computer** and upload to canvas.

Course work and grading

Weekly Engagement: 10% (1% per week)
Programming assignments: 40% (4 assignments, 10% each)
Computer science interview: 10%
Final project: 25%
Flex points: 15% (each flex point = 1% of final grade)

Weekly Engagement
There will be thirteen class periods throughout the semester, and each student must earn engagement points for ten classes for full credit. If you miss more than this, points will be deducted. (If you are forced to miss class or unable to turn in your work for medical reasons or other emergencies, please contact the instructors directly.)

- **There are four class periods during which attendance will be taken: September 24, October 8, October 22, and November 12.** Students who know ahead of time that they

cannot attend may request to be exempted from this, and will instead submit questions for guest speakers beforehand. Please speak with Laura for details.
- November 19 and December 3 will be devoted to project meetings and presentations; everybody is expected to attend, but we will schedule multiple meetings at different times to ensure that this is not a challenge.
- For other class periods, you will be asked to turn in what we worked on during class, typically a colab notebook. These will be due Friday at 6PM, 24 hours after class is over.

Weekly engagement requirements for each class period will be laid out clearly on canvas.

Programming assignments
There will be four programming assignments at the beginning of the semester to demonstrate your grasp of basic computer science principles. Each assignment will specify the material to be turned in. Assignments are due by the beginning of class on the due date. Assignments may be turned in up to 3 days late, with a penalty of 10% for each day late. No credit will be given after 3 days excluding emergencies.

Assignments 2 and 4 will be completed with partners as pair programming assignments. You may select a partner up to two weeks before the assignment is due; if you have not selected a partner, I will assign one.

Computer science interview
Each student must interview someone farther along in the field of computer science and engineering (e.g., an older undergraduate student, a graduate student, a faculty member, a computing professional). We encourage you to interview someone that you can relate to (e.g., interviewing a woman if you are a woman). The interview should focus on the career path and experiences of the person you are interviewing. We will provide some funds to allow you to take the person you are interviewing out to coffee. More details will be provided towards the beginning of the semester.

After the interview, each student must write a two-page paper (single-spaced) about what they learned from the interview. This paper will be due on November 19, one class before Thanksgiving Break.

Final project
Each student will work with a team to complete a final project of their choice. There will be a set of projects to choose from, and groups will rank their preferred projects. This project will have three milestones: project selection (date TBD), a check-in (date TBD), and code + presentation (due December 3). More details will be forthcoming about the requirements for this project.

Flex points
In order to get full credit in the class, you must earn at least 15 flex points throughout the semester. These flex points can be earned through participating in activities related to the class, as well as other computer science activities. All flex points must be earned by the last day of class, December 3. A full list of activities available for flex points is available on Canvas.

We will track flex points on canvas. Many of these points are graded using the honor system. Please note that it is a violation of the honor code to tell us that you've attended an event when you really have not; such violations will be reported to the honor council (see section below).

Course Schedule

This schedule is tentative and subject to change. Do you best to attend each class period; however, attendance will only be taken on the dates highlighted in yellow. Please refer to Canvas for the most up-to-date schedule

September 3	Thinking through problems like a programmer
September 10	Python Lesson #1: Using colab, first program
September 17	Python Lesson #2: If statements, variables
September 24	TBD Likely: guest lecture
October 1 *Homework 1 due*	Python Lesson #3: Loops
October 8	Undergraduate Panel
October 15 *Homework 2 due*	Python Lesson #4: Lists, dictionaries
October 22	Guest Lecture: Joyce Chai
October 29 *Homework 3 due*	Python Lesson #5: Functions, libraries Project Introductions
November 5 *Final project teams selected*	Python Lesson #6: TBD, possibly catch-up
November 12 *Homework 4 due*	Industry panel
November 19 *Computer science interview due*	Project work day (multiple meetings)
November 26	***NO CLASS - THANKSGIVING BREAK***

December 3 *Project code due*	Project presentations (multiple meetings)

Policy on Collaboration and Cheating

All cheating will be reported to the Engineering Honor Council, as appropriate. While you are allowed to work together and collaborate on assignments, you are not allowed to copy someone else's work and represent it as your own. You must write your own code, and you must understand the code that you write. Proper pair programming practices must be followed when pair programming is required.

As mentioned above, it is also considered cheating to lie in order to gain additional flex points. For example, it is cheating if you say that you have attended an event that you did not really attend.

Student Mental Health and Wellbeing

University of Michigan is committed to advancing the mental health and wellbeing of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, contact Counseling and Psychological Services (CAPS) at (734) 764-8312 and https://caps.umich.edu during and after hours, on weekends and holidays, or through its counselors physically located in schools on both North and Central Campus. You may also consult University Health Service (UHS) at (734) 764-8320 and https://www.uhs.umich.edu/mentalhealthsvcs, or for alcohol or drug concerns, see www.uhs.umich.edu/aodresources.

For a listing of other mental health resources available on and off campus, visit http://umich.edu/~mhealth/.

Accommodations for Students with Disabilities

If you think you need an accommodation for a disability, please let your instructor know at the beginning of the semester or at least 2 weeks in advance. As soon as you make us aware of your needs, we can work with the Services for Students with Disabilities (SSD) office to help us determine appropriate academic accommodations. SSD (734-763-3000; http://ssd.umich.edu) typically recommends accommodations through a Verified Individualized Services and Accommodations (VISA) form. Any information you provide is private and confidential and will be treated as such.

Religious/Cultural Observance

Persons who have religious or cultural observances that coincide with this class or any deadlines should let the instructor know by email by September 24. I strongly encourage you to honor

your cultural and religious holidays! However, if I do not hear from you by September 24, I will assume that you plan to attend all class meetings.
