Introduction to CS111
Part 1: Logistics

CS111 Computer Programming
Department of Computer Science
Wellesley College

Am I in the right class?

- CS111 introduces the fundamentals of programming and problem solving techniques using Python. It is for students who have not taken a full introductory programming course before.
- More advanced concepts are taught in CS230: Data Structures. If you’ve already taken an introductory programming course, talk to a 230 instructor to see if it’s right for you.
- CS115: Computing for the Socio-Techno Web teaches the impact of, and the technology behind, social media and the Web. Also covers HTML, CSS, and JavaScript. It is a required course for the MAS major.

Prerequisites

- No previous exposure to programming or computer science expected
- No advanced mathematics expected (esp. no calculus)
- Need comfort with some basic math concepts
  (a subset of the basic skills component of QR):
  **From geometry:**
  - The two-dimensional coordinate system and displaying points based on x,y coordinates
  - Drawing geometric shapes on a plane based on coordinates, e.g., lines, circles, polygons.
  **From algebra:**
  - Mathematical operations (addition, subtraction, multiplication, division, exponent) with variables. Examples: \(10 \times x + 25; \sqrt{a^2 + b^2}; \text{age} = \text{currentYear} - \text{birthYear}\)
  - Translating English sentences into expressions with operators and values. Example: Approximate minutes you spent eating in a week: \((15 + 30 + 40) \times 7\)

Lectures and Labs

- Two 70-minute lectures per week (TF 9:50—11:00am, 11:10am-12:20pm, 1:30-2:40pm) introduce and discuss material.
- A weekly 2-hour lab* provides hands-on experience with the ideas presented in lecture. There are six lab sections this semester, all taught by Sohie Lee:
  
<table>
<thead>
<tr>
<th>Day</th>
<th>Lab</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wed</td>
<td>L01</td>
<td>8:30am – 10:20am</td>
<td>SCI257</td>
</tr>
<tr>
<td>Wed</td>
<td>L02</td>
<td>10:30am – 12:20pm</td>
<td>SCI257</td>
</tr>
<tr>
<td>Wed</td>
<td>L03</td>
<td>2:15 – 4:05pm</td>
<td>SCI257</td>
</tr>
<tr>
<td>Thu</td>
<td>L04</td>
<td>8:30am – 10:20am</td>
<td>E101</td>
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<tr>
<td>Thu</td>
<td>L05</td>
<td>10:30am – 12:20pm</td>
<td>E101</td>
</tr>
<tr>
<td>Thu</td>
<td>L06</td>
<td>2:15 – 4:05pm</td>
<td>S160A</td>
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- If you cannot get into the section you want, register for another and use the cs111-fall17 Google Group to arrange a swap.

*This does not satisfy the Wellesley laboratory requirement.
Waitlisted or Otherwise Unregistered?

- Everyone (even registered students) should sign the signup sheet circulating in the first weeks. We need to know who is actually attending.
- If you're not registered and want to take the course, use the Wellesley Course Browser to add yourself to the waitlist.
- Waitlisted students should attend one of the labs on Wed Sep 6 or Thu Sep 7 (the one that's best for your schedule). Attendance will be taken in lab.
- On the afternoon of Fri Sep 8, we'll email an update about the prospects for waitlisted students.
- There is no guarantee that slots will open up for waitlisted students. If you can't handle uncertainty in your schedule, it's best to take CS111 in a future semester!
- If you decide not to take the course, please be kind and either (1) drop the course or (2) remove yourself from the waitlist.

No Laptop Policy

You must use classroom computers in CS111 lecture/lab and are not allowed to use your own laptops. Why?

- Reduces issues with platform and software in hands-on exercises.
- Easier to share classroom computers with others for pair programming.
  - Bigger screens for partners & instructors
  - Fewer “ownership” issues
  - Reduces distracting personal messages, notifications, etc.

You may use your own laptops for problem sets, but be sensitive in pair programming situations. (See the CS111 Computing at Home page for software details.)

Everything you need: CS 111 Website

http://cs111.wellesley.edu

Materials for the course

- All course materials may be found online at: http://cs111.wellesley.edu
- The CS file server, ftp://cs.wellesley.edu, is used to download and upload programming assignments. You'll use CyberDuck to do this process, as shown in lab. To create an account, complete PS0.
- Textbook - you don't have to buy one. We will rely on our slides and Python notebooks from class plus resources available on the web, particularly Allen Downey's Think Python online book.
Expectations on Slides and Notebooks

- Slides are posted ahead of time in the website. We expect you to read the slides before coming to class.
- During class time we work together through the examples in the notebook. Bring questions from your reading to ask in class.
- Sometimes, we might not finish all notebook examples for a particular day. It is your responsibility to complete them after class.
- Together, slides and notebooks are our notes for the course.
- We post solutions to notebook problems at the end of the day.
- At the end of the slide deck there are usually questions which help you test your knowledge.

CS 111 Assignments: Three Parts

- **Part 1: Programming Problems.** They are usually due on Tuesdays at 23:59. You work individually on most problems. One problem is optionally a pair-programming problem (with some exception, for example, PS01.)
- **Part 2: Written Reflections.** They go out Wed morning and are due Thursday evening by 23:59. You work individually to answer the questions of the reflection.
- **Part 3: Quizzes.** These are administered on paper usually on Fridays at the start of class. The quizzes are closed-books.

Reflections and quizzes are intended to give you more opportunities for self-assessment and self-regulation, both very important skills for becoming a life-long learner.

Programming: Two kinds of problems

**Individual (Build up the Strength):**
these are problems on which you work individually, and in case of need can ask for help from the CS111 staff. We encourage you to not give up easily, and ask for help only when really stuck.

**Partner (Teamwork/Pair Programming):**
these are problems on which you work very closely with a partner (sitting together on the same place and taking turns in writing code). This is a form of peer learning. When really stuck, ask for help from the CS111 staff. You have the choice to work alone if you cannot fit pair programming in your schedule.

Exams

- One 70-minute, in-class midterm. This is open notes, but without access to electronic devices.
- One take-home midterm composed of four take-home quizzes distributed throughout the semester (see dates in the Schedule page).
- One 150-minute final exam taken at the end of semester during the examination period. This is also open notes, but without access to electronic devices. This exam is a self-scheduled.

All exams should be your own work, collaboration with others is a violation of the Honor Code.
Need help or support?

- Regular Supplemental Instruction (SI) sessions will meet four times per week for structured activities (Cece and Pet will each hold 2 one-hour SI sessions per week).
- Regular drop-in hours with tutors support questions on assignments or concepts (see the Calendar).
- Regular drop-in hours or scheduled appointments with instructors support questions on psets, concepts, logistics, or anything else (see the Calendar).
- Peer Mentor Group meetings (see next slide).
- Questions, studying and group work with your classmates, abiding by the honor code.
- Our cs111-fall17 Google group supports questions and allows us to disseminate course information to all enrolled 111 students.
- Individual tutoring through the PLTC.

Building Community

Peer Mentor Groups (new this semester)

- Every student will be placed in a peer mentor group with a trained mentor.
- Your cohort group will meet throughout the semester and offer you support, guidance in how to succeed and discussion of solutions to past assignments.
- Each time you attend your Peer Mentor Group meeting, you earn points applied to your take-home quizzes.

Most importantly, talk to each other. But...

- All discussion should be in a high level language (drawings, English). Do not share code: it is a violation of the Honor Code.
- One exception: you can code together with a partner on designated pair programming problems in the programming assignments.
- Do not consult materials from previous semesters. This also violates the Honor Code.
- When in doubt, ask!