Introduction to CS111  
Part 1: Logistics

CS111 Computer Programming
Department of Computer Science
Wellesley College

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: $10x + 25$; $\sqrt{a^2 + b^2}$; age = currentYear - birthYear
    - Translating English sentences into expressions with operators and values. Example: Approximate minutes you spent eating in a week: $(15 + 30 + 40) \times 7$

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.
- CS125: FYS: Brain, Minds, and Machines
  A new course that studies computational models of intelligence. Uses Matlab. Cross-listed as NEUR 125.
- 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.

Lectures and Labs
- Two 70-minute lectures per week (MTH 9:50—11:00am, 11:10am-12:20pm, 1:30-2:40pm, or 2:50-4:00pm) introduce and discuss material.
- A weekly 2-hour lab* provides hands-on experience with the ideas presented in lecture. There are seven lab sections:
  - Tue L01 8:30am – 10:20am (Susan Buck, S160A)
  - Tue L02 10:30am – 12:20pm (Susan Buck, S160A)
  - Wed L03 8:30 – 10:20am (Sohie Lee, SCI257)
  - Wed L04 10:30 – 12:20am (Sohie Lee, SCI257)
  - Wed L05 10:30 – 12:20am (Susan Buck, 160A)
  - Wed L06 2:15 – 4:05pm (Susan Buck, 160A)
- If you cannot get into the section you want, register for another and use the cs111-spring17 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 few classes. 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 Tue Jan 24 or Wed. Jan 25 (the one that’s best for your schedule).
- On the evening of Wed. Jan 25th, 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.) Link: http://cs111.wellesley.edu/reference/computing-at-home

Everything you need: CS 111 Website

http://cs111.wellesley.edu

Welcome

CS111 is an introduction to problem solving through computer programming. Using the Python programming language, students learn how to read, design, debug and test algorithms that solve problems.

You needn’t go to the bookstore

- All course materials may be found at http://cs111.wellesley.edu
- The CS file server, cs.wellesley.edu, is used to download and upload programming assignments.
- 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.
- Many intro Python programming books can be found in other places:
- Bookshelves in SCI 257
- Bookshelves in SCI 160A
- Science Center library
Help

- Q&A and announcements will be posted on the cs111-spring17 Google group. Read this daily and/or have posts forwarded to your email.
- Lecturers, lab instructor, and TAs have office/drop-in hours that are posted on the course web site. (Check Calendar!)
- We'd like to get to know you! Come see us, even if you don't have a question.
- PLTC tutors are available to those who want them (at no charge to you).
- Disabilities? Contact instructors for accommodations.
- Observing Religious holidays? Talk to an instructor about conflicts with due work.

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 assignments (more on this later in semester).
- Do not consult materials from previous semesters. This also violates the Honor Code.
- When in doubt, ask!

Assignments: 2 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.

Expectations on Slides and Notebooks

- We'll almost never cover all slides and notebook examples posted for a particular day in lecture.
- Different lecturers may emphasize different aspects of these materials.
- Together, slides and notebooks are our notes for the course.
- Unless otherwise stated, we expect you to review all slides and all notebook examples before the next class and ask any lingering questions at the beginning of the next class.