

## CS 1110 Spring 2018: Announcements

<http://www.cs.cornell.edu/courses/cs1110/2018sp>

### Sections

- Please go only to the Section you are enrolled in
- See our Section Swapping Station on Piazza:  
<https://piazza.com/class/jckqwmqflaz6i?cid=10>

### Enrollment

- There is a lot of turnover in the first week. Don't give up!
- Perhaps another class meets your needs?  
<http://www.cs.cornell.edu/courses/cs1110/2018sp/resources/alternatives.php>

### AEW Workshops (ENGRG 1010) Open to **all** students.

Additional (optional) discussion course. Small group, collaborative learning. Non-remedial. Highly recommended.  
<http://www.cs.cornell.edu/courses/cs1110/2018sp/resources/aew.php>

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## Communication

[cs1110-prof@cornell.edu](mailto:cs1110-prof@cornell.edu)

- Includes: two profs, head TAs
- **Main correspondence.** Don't email only one prof, or both separately

[cs1110-staff@cornell.edu](mailto:cs1110-staff@cornell.edu)

- Includes: both profs, admin assistant, graduate TAs, head consultants
- **"Emergency contact number."** Nobody at office hours; Lab has no printouts, etc.

**Piazza:** not required, but fast (link on class website)

**Email from us:** please check your spam filters for mail from **AWB93, LJL2, cs1110-prof**, or with [CS1110] in the subject line.

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## Lectures

Lectures:

- Not just talking! Demos, clicker questions, etc.
- Every Tuesday/Thursday (9:05 or 11:15)
- Attend *either*, 11:15 is recorded by **VideoNote**
- Handouts (*including this one!*) posted to website afternoon before class
- Slides and code posted to the website after class



**Please, no cell phones during lecture (except for during a Clicker question)**

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## Lab Sections (aka Sections)

- guided exercises with TAs & consultants
- Start Tuesday, January 30
- **Go to the lab section you are registered for.** We can't maintain workable staff/student ratios otherwise.
  - Need a different Section? See our Section Swapping Station on Piazza: <https://piazza.com/class/jckqwmqflaz6i?cid=10>
  - **Not enrolled in a lab section? Don't panic.** Do the lab on your own. If a lab section opens up, check it in then.
- Handouts posted to the website the Monday before
- **Mandatory.** Missing > 2 can lower your final grade.

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## Class Materials

**Textbook.** *Think Python*, **2<sup>nd</sup> ed.** by Allen Downey

- *Supplemental*; does not replace lecture
- Available for free as PDF or eBook
- First edition is for the Python 2 (bad!)



*sash means 2<sup>nd</sup> ed*

**iClicker.** Optional but useful.

- Will periodically ask questions during lecture
- **Not** part of the grade → no registration
- We do support REEF Polling.

**Python.** Necessary if using your own computer

- See course website for how to install

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## Things to do before next class

1. Read textbook
  - Chapter 1 (browse)
  - Chapter 2 (in detail)
2. (If using your own computer) Install Python **following our instructions:**  
<http://www.cs.cornell.edu/courses/cs1110/2018sp/materials/python.php>
3. Look at first lab handout (available Monday)
4. (optional) Join Piazza, a Q&A forum

Everything is on website!

- Class announcements
- Consultant calendar
- Reading schedule
- Lecture slides
- Exam dates
- Piazza instructions

Check it regularly:

[www.cs.cornell.edu/courses/cs1110/2018sp/](http://www.cs.cornell.edu/courses/cs1110/2018sp/)

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## Expressions

An expression **represents** something

- Python **evaluates it** (turns it into a value)
- Similar to a calculator

Examples:

- `2.3`  
Literal (evaluates to self)
- `(3 * 7 + 2) * 0.1`  
An expression with four literals and some operators

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## Types

A set of values & operations on these values

- Examples of operations: +, -, /, \*
- Meaning of operations depends on type

Memorize this definition!

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## Type: **int** (integers)

**Values:** ..., -3, -2, -1, 0, 1, 2, 3, 4, 5, ...

More Examples: 1, 45, 43028030

(no commas or periods)

**Operations:** +, -, \*, \*\*, /, //, %, unary -

- division (technically a float operator)
- integer division
- multiply
- to power of

>>> terminal time >>>

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## Type: **float** (floating point)

**Values:** (approximations of) real numbers

- With a ".": a **float literal** (e.g., `2.0`)
- Without a decimal: an **int literal** (e.g., `2`)

**Operations:** +, -, \*, /, \*\*, unary -

**Notice:** operator meaning can change from type to type

**Exponent notation** useful for large (or small) values

- `-22.51e6` is  $-22.51 * 10^6$  or  $-22510000$
- `22.51e-6` is  $22.51 * 10^{-6}$  or  $0.00002251$

A second kind of float literal

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## Type: **bool** (boolean)

**Values:** True, False

- Boolean literals True and False (must be capitalized)

**Operations:** not, and, or

- not b: **True** if b is false and **False** if b is true
- b and c: **True** if both b and c are true; **False** otherwise
- b or c: **True** if b is true or c is true; **False** otherwise

Often come from comparing **int** or **float** values

- Order comparison: `i < j`   `i <= j`   `i >= j`   `i > j`
  - Equality, inequality: `i == j`   `i != j`
- "=" means something else!

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## Type: **str** (string) for text

**Values:** any sequence of characters

**Operation(s):** + (catenation, or concatenation)

**Again:** operator + changes from type to type

**String literal:** sequence of characters in quotes

- Double quotes: `"abcxyz$g<&"` or `"Hello World!"`
- Single quotes: `'Hello World!'`

Concatenation applies only to strings

- `"ab" + "cd"` evaluates to `"abcd"`
- `"ab" + 2` produces an **error**

>>> terminal time >>>

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