

CompSci 101

Introduction to Computer Science



Sept 29, 2016

Prof. Rodger

“All your troubles are due to those ‘ifs’,”
declared the Wizard. If you were not a
Flutterbudget you wouldn’t worry.”

- The Emerald City of Oz by Frank Baum

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Exam logistics

- Exam is in the regular classroom
- Only need a pen or pencil
- No scratch paper
- Will give you a reference sheet of Python information with the test (see resources page)
- Closed book, closed notes, closed neighbor
- Covers lecture, lab and assigned reading, assignments, apts
- Have put old quizzes back up as quiz review
 - This is NOT for a grade, for studying only

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Announcements

- Test 1 is Tuesday!
 - You must take the exam in your lecture section
 - Accommodations for test 1? Must fill out form on website
- See Regrades form on website
- See all new Forms on website – main page
- No labs next week
- No consulting hours Tues-Thurs night
- Exam 1 Review session – LSRC B101
 - Sunday, 4:30-6pm

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The best way to study

- Write code on paper!
- Resources page has old tests and solutions
 - Try writing code, then look at solutions
- Rewrite an APT
- Rewrite code we did in lecture
- Rewrite code we did in lab

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What we have not done

- Test 1 from Fall 2014 on we have covered everything.
- If looking at old exams, note we **have not done** the following:
 - List comprehensions
 - Code in square brackets such as
 $y = [w \text{ for } w \text{ in } \text{alist}]$

There may be other things.... If it looks strange, it might be we haven't done it....

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Understand

- What is the difference between:
 - [] and ()
 - $w =$ and $w +=$
 - print value and assigning value to a variable
 - print and return
 - When do you print? When do you return?
 - Does a function print or return?
- if, for, range, strings, lists
 - Understand format and how they work
- Parameters vs arguments

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Writing functions with formulae

bit.ly/101f16-0929-1

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Writing functions with formulae

- Using extra variables: can be really smart
 - Helps in making each line simple
 - Easy to correct if you've made a mistake
- See `triangleArea`, what about other math symbols and formula?
 - What do +, -, *, /, % do?
 - What about `math.sqrt` or `5**0.5` or `math.sin ...`

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Accumulating in a loop

- If you are going to return a string
 - Initialization, return value, how to "build it"
- If you are going to return an int (counter)
 - Initialization, return value, how to "build it"
- If you are going to return a list
 - Initialization, return value, how to "build it"

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Counting 'a's in a string, 'fox' in a list?

- What Python functions/methods help
 - If you forget, how can you recreate yourself?
 - See exam Python reference sheet

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Basic List/file Processing

bit.ly/101f16-0929-3

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Review Old Exam Questions

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