# CompSci 101

## Introduction

Live Lecture

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### CompSci 101 Calendar

All materials we use in class are accessible via this page.

Information about grading and course logistics.

#### January 18-22 Week

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<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
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<td><strong>PRE-WORK</strong></td>
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<td><strong>1/21</strong></td>
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<td>1/18 MLK Day</td>
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<td>Quiz (RQ)</td>
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<tr>
<th><strong>LECTURE LAB</strong></th>
<th>1/19</th>
<th>1/20</th>
<th>First Lecture</th>
<th>Lab 0</th>
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| **ASSIGNMENTS APTS DUE** | 1/19 | 1/20 | | Assign 0 out |

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Susan Rodger

Nicki Washington

January 21, 2021
Sea turtles hatching

- [https://www.youtube.com/watch?v=sZYd0-egqbc](https://www.youtube.com/watch?v=sZYd0-egqbc)
CompSci 101 Professors

Prof. Nicki Washington

Prof. Susan Rodger
About Prof. Rodger

- PhD Computer Science, Purdue
- BS CS and Math, NCSU
- Research in Computer Science Education
  - build tools to help learn computer science
  - Integrate computing into K12
Fun things About Prof. Rodger

How do you keep your sanity?

1/21/20

Compsci 101, Spring 2021
What you will be able to do: Process files

President Biden’s Inauguration Speech transcript

Chief Justice Roberts, Vice President Harris. Speaker Pelosi, Leader Schumer, McConnell, Vice President Pence, my distinguished guests and my fellow Americans, this is America's day.

This is democracy's day. A day of history and hope of renewal and resolve through a crucible for the ages. America has been tested anew and America has risen to the challenge. Today, we celebrate the triumph not of a candidate, but of a cause, the cause of democracy. The people, the will of the people, has been heard and the will of the people has been heeded.

We've learned again that democracy is precious. Democracy is fragile. At this hour, my friends, democracy has prevailed.
Go over CompSci 101 webpages

CompSci 101, Spring 2021

Home

CompSci 101: Introduction to Computer Science

Course Description

Introduction to practices and principles of computer science and programming and their impact on and potential to change the world. Algorithmic, problem-solving, and programming techniques in domains such as art, data visualization, mathematics, natural and social sciences. Programming using high-level languages and design techniques emphasizing abstraction, encapsulation, and problem decomposition. Design, implementation, testing, and analysis of algorithms and programs. No previous programming experience required.

Due Dates

- **Reading Quizzes**: due 1:45pm on Lecture days. Take reading quizzes on Sakai.
- Labs weekly on Fridays, submit by Sunday night, see labs page.
What will this course be like?

- Practice programming a lot!
  - You will write code all the time!
  - In the online textbook – code boxes
  - Small and large assignments due!
  - Weekly labs

- Important to stay caught up

- Lots of help along the way:
  - Consulting hours: UTAs
  - Office hours: Professors, Grad TAs
  - Piazza – post anonymous questions
Questions?

• Don’t send us email!!!!!!!!!!!!!!!

• Post your questions on Piazza
  • We will answer them there!

• You should try to answer them too
  • Want to be a UTA one day? Answer questions!
WOTO1: What is Computer Science?

• What is WOTO?
  • Working Together
  • Breakout room – random groups
  • Introduce yourself, discuss and answer questions together
  • Each person fills out a WOTO form
    • Include email, name and netid
About Prof. Washington

• MS & PhD Computer Science, NCSU
• BS Johnson C. Smith University
• Durham, NC native

Research
• Identity in computing
  • Race, gender, sexuality, ability, class
Things Prof. Washington Enjoys
Who are you?

- Who’s enrolled in Compsci 101 this semester?
  - Do you recognize yourself?
  - Is there a stereotypical Compsci 101 student?
  - Is there a stereotypical computer scientist?

- You DO NOT need prior programming experience to succeed!!
Can you find an example of CS in each of these industries?

1. Music
2. Healthcare
3. Sports
4. Arts
There’s still a long way to go
Source: Code.org

The “STEM” problem is in computer science

- 67% of all new jobs in STEM are in computing
- 11% of STEM bachelor’s degrees are in Computer Science

The value of a computer science education

- $0.58M lifetime earnings of a high school graduate
- $1.19M lifetime earnings of a college graduate
- $1.67M lifetime earnings of a computer science major

A computer science major can earn 40% more than the college average.

*Net present value today
• "Hello World"
• Scratch Program
• Colors
  • Duke blue: motion
  • Mustard: control
  • Light blue: sensing
  • Orange: data
  • Purple: looks
WOTO3:  

Analyze this Scratch Program?
Scratch Program

• If you want to experiment with this scratch program, here is the link:

https://scratch.mit.edu/projects/472644306
Why is it called Python?

Guido van Rossum

A: Monty Python show

B: Python snake
Questions?