



CS 113 – Computer Science I

Lecture 01

Tuesday 09/03/2024

What is Computer Science?

Computer Science in this course

- Break down problems into solvable components
- Learn how to instruct and command a computer to solve a complex problem

Algorithms ! = Programs

- Programs: implementation of algorithm that a computer understands
 - Unambiguous
 - Expressive
 - Communicate a lot of ideas

Semester goals/objectives

- Be able to break down a problem into simple steps
- Instruct a computer how to solve those steps in Java
- Debug confidently & independently
 - Trace execution flow (line by line, trace how variables update)
 - Understanding error messages
- Read and understand documentation (java docs)

Workload

- At least 10 hours a week
- Weekly homework assignments:
 - This is where learning happens!
- Weekly labs: prep for homeworks
- Daily reading
- 100-level class != lighter workload

Logistics

- Course webpage:
 - <https://BMC-CS-113.github.io>
- Gradescope:
 - Submitting assignments
- Piazza:
 - Course communication
 - Useful links will be posted there
 - Ask Questions!!!!

Assignments

Learning by doing!

- Homeworks
- Labs

Assessments

- Midterms
 - October 24th (Thursday after Fall break)
 - December 3rd (Tuesday after Thanksgiving)
 - flexible grading policy
- Final Exam:
 - Self-scheduled

Course Staff



Prof. Adam Poliak

- 3rd year at BMC,
- spent 2 years at Barnard as Prof
- Taught CS113 in Fall 2022, Spring 2023, Fall 2024
- Office Hours: TBD
- Research:
 - Natural Language Processing
 - Computational Text Analysis
 - Data Science

Course staff

- Teaching Assistants:
 - Hazel Ngyuen (BMC '26)
 - Allison Liao (BMC '26)
 - ...

Teaching Assistants

- Office hours Park 231:
- Most evenings (time tbd)
- All of them have taken CS 113, and other CS courses

Our job is to help
you succeed!

Linux Directory Structure

Folders & Directories

- Computer is structured as a folder-system.
 - Folders (directories) can contain files and other directories
- Organizing programs in directories
- special directories:
 - .. (double dot) - parent directory

Navigating Linux Directory

Terminal commands

- List files
 - `ls`
- Move directories
 - `cd`
- Print the path to working directory
 - `pwd`
- Make a directory
 - `mkdir`

A simple java program

```
1 // A java program to print a message
2 public class HelloWorld {
3
4     public static void main(String[] args) {
5         // Prints out message to standard output
6         System.out.println("Hello World!");
7     }
8 }
9
```

Compiling

- Converting java file (.java) to a file that the computer understands (.class, this is called a binary file)

```
javac filename.java
```

- Compiler is your friend, will tell you when there are errors

Running

```
java filename
```

- Don't include the *.class

What are the errors here?

```
public clas SyntaxErrors {  
  
    public static void main(String args) {  
        System.out.println("Hello World);  
  
    }  
}
```

Before next lecture

- Read chapter 01
- Complete Lab00:
 - Set up linux account on the CS lab machines
 - Learn how to use the command line
 - Create folder structure on the CS lab machines
- Sign up on:
 - Piazza
 - Gradescope
- HW00 due Monday night (09/09)