# Course Syllabus

### CS-UY 1122 - Introduction to Computer Science - Spring 2018

Course Location: Pfizer Auditorium

Course Website: <a href="https://cs1122.engineering.nyu.edu">https://cs1122.engineering.nyu.edu</a>

Class Times: Fridays 9:00 am – 11:00 am

Prerequisites: CS-UY 1114

Contact: tandon-cs1122@nyu.edu

Course Faculty: Nasir Memon (Professor) - memon@nyu.edu

Ian Butler (Head TA) - itb206@nyu.edu

Momopranto Amin (Head TA) - m.amin@nyu.edu

Victoria Spann-Burton

Cindy Lee Boying Tang Kyle Martin Joey Chung Joseph Kim

Office location Room 1923, 19th Floor, 1 MetroTech -Nasir Memon

Office hours Fridays 1:30 - 4:00 pm

TA Office Location: OSIRIS Lab (RH 219)

TA Office Hours: Monday 12:30 - 5:00 PM

Tuesday 2:00-4:00 PM Wednesday 2:00 - 6:00 PM Thursday 2:00 - 6:00 PM Friday 12:00 - 8:00 PM

## **Course Objectives**

This course is designed to:

- 1. Introduce computer science majors to a variety of sub-disciplines within the broader field of Computer Science
- 2. Provide students with a hands-on practical experience with skills and tools that directly reflect the applications and methods in the industry
- 3. Demonstrate the importance and impact of computer science beyond just programming

The topics covered include but are not limited to algorithms, full-stack web development, cybersecurity, data science, cloud infrastructure, and software engineering.

### **Course Expectations**

This course will require significant group work, self learning, public speaking, and independent assignments. Students are expected to attend lectures and complete homework assignments and project milestones on time. **Late assignments will not be accepted.** Extensive circumstances notwithstanding. There will be no midterm or final exam.

The course is heavily focused on three group projects. Groups will be different for every project. Each week will focus on topics related to the current phase of the project. Each class will begin with randomly selected groups doing a short presentation on their progress in the current phase of the project.

The Student Response System (SRS) will be used for class participation. 10% if your grade will depend on class participation.

Homeworks will be due the midnight before class. Homeworks grades consist of:

- 50% competition (correct flag submission)
- 50% source code submission to hw repo on Github

#### Resources

This course will primarily use the course website (<a href="https://cs1122.engineering.nyu.edu">https://cs1122.engineering.nyu.edu</a>) and the CS1122 Github organization. Use of NYU Classes will be limited. We will also be using other platforms such as Trello, AWS, and CircleCI.

## **Grading Policy**

Project 1	20%
Project 2	25%
Project 3	30%
Homework	15%
Participation	10%

#### Extra Credit:

Students will receive half a point on their final grade for any of the following:

- Participating in any CTFtime.org ranked Capture the Flag competitions with the OSIRIS Lab. Must submit a write up of a solved or attempted challenge (1 page min)
- Attending a Cyber Security Club or Milk Night meeting. Must submit a write up of the topic discussed/presented (½ page min)

### Plagiarism

All work turned in should be individual and original. Plagiarism will be severely dealt with. Please see http://engineering.nyu.edu/academics/code-of-conduct for engineering school policies.

### Course Schedule

This schedule is tentative (subject to change). All changes will be announced in class.

Week	Date	Agenda
1	1/26	Introduction and Policies
2	2/2	Project 1
3	2/9	Project 1 (cont)
4	2/16	Project 1 (cont)
5	2/23	Project 1 (cont)
6	3/2	Project 1 (cont)
7	3/9	Project 2
	3/16	SPRING BREAK - NO CLASS
8	3/23	Project 2 (cont)
9	3/30	Project 2 (cont)
10	4/6	Project 2 (cont)
11	4/13	Project 3
12	4/20	Project 3 (cont)
13	4/27	Project 3 (cont)
14	5/4	Project 3 (cont)
15	5/11	Project 3 (cont)