**New York University Tandon School of Engineering - Computer Science**

**CS1122 Introduction to Computer Science - Spring 2021**

**Fridays 9:00 AM – 10:50 AM**

**Course Coordinators:** Eugene Callahan / Salim Arfaoui

**Office Location:** 370 Jay St. Office 844

**Telephone:** (646) 997-3476

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**Office Hours:** Prof. Callahan: [to be completed]

TA office hours: [to be completed]

**Course Number:** CS-UY 1122

**Course Name:** Introduction to Computer Science

**Course Location:** REMOTE

**Course Website:** https://gcallah.github.io/IntroToCS/

**Class Times:**  Fridays 9:00 am – 10:50 am

**Prerequisites:** CS-UY 1114 (Introduction to Programming and Problem Solving)

**Course Description:** This is a breadth-first course that introduces computer-science majors to several sub-disciplines in the computer-science field. The course is built around the theme that computer science includes much more than programming. The course introduces hardware, system software, a variety of application areas, theory, and social issues in computing. This course is intended only for first-year Computer Science students.

**Course Objectives:** Students are expected to attend all classes and turn in all homework assignments on time.

**Course Structure:** The course will be team taught by several faculty members, with professors Callahan and Arfaoui teaching a few classes and coordinating. Classes will generally include lectures introducing a topic and in-class work reinforcing the concepts. Most will be followed by a homework assignment due the following week. Completion of in-class work and homework assignments will be critical to learning the material and evaluating students' performance.

**Course Objectives & Learning Outcomes:** This is a breadth-first course that introduces computer-science majors to several sub-disciplines in the computer-science field. The course introduces some fundamental concepts and trends in computer science, especially focusing on research strengths in the CSE department in the Tandon School of Engineering at NYU. At the end of the course students are expected to:

• Have a basic understanding of some of the key areas in computer science.

• Begin to know which areas they might want to study in more depth later through elective courses or participation in a research project.

• Learn to use some basic concepts/tools needed by a computer scientist.

***Course Text(s):*** None. Lecture slides and pointers to other resources will be provided.

***Grading Policy:*** Grades are Pass/Fail (not letter grades like A, B, C…).

***Grading Distribution and Passing Grade Requirements:***

• Each of attendance and homework has a weight of 50%.

• For attendance, each class has the same weight.

• For homework, each of the 5 homework assignments has the same weight.

***• Total = (average % of attendance) \* 50% + (average % of homework) \* 50%.***

***• Passing grade: Total is 60% or above.***

***Course Policies:*** Attendance is **mandatory** as class participation counts for your grade.

Late homework submissions will not be accepted.

***NYU Tandon School of Engineering Policy on Academic Dishonesty***

Please see **Student Code of Conduct:**

<https://engineering.nyu.edu/sites/default/files/2018-06/code-conduct2-2-16.pdf>.

* **In-class work:** Prof. will tell you whether to work alone or in groups
* **Homework:** Unless you are explicitly told in-writing that you may work with others on a particular homework assignment, you must hand in **your own work**. You may discuss general concepts of how to approach a problem with other students, but you must then **do the work on your own** and **explain it in your own words.**

***NYU Tandon School of Engineering Policies and Procedures on Excused Absences***

Complete policy is found here:

[https://engineering.nyu.edu/campus-and-community/student-life/office-student-affairs/policies](https://engineering.nyu.edu/campus-and-community/student-life/office-student-affairs/policies f)

with associated form:

<https://engineering.nyu.edu/sites/default/files/2018-09/Excused%20Absence%20Form%20DR.pdf>

Deanna Rayment, deanna.rayment@nyu.edu, is the *Coordinator of Student Advocacy, Compliance and Student Affairs* and handles excused absences. She is located in 5 MTC, LC240C and can assist you should it become necessary.

***Moses Center Statement of Disability***

If you are student with a disability who is requesting accommodations, please contact New York University’s Moses Center for Students with Disabilities at [212-998-4980](tel:212-998-4980) or [mosescsd@nyu.edu](mailto:mosescsd@nyu.edu).  You must be registered with CSD to receive accommodations.  Information about the Moses Center can be found at [www.nyu.edu/csd](http://www.nyu.edu/csd). The Moses Center is located at 726 Broadway on the 2nd floor. ***Please do this at the start of the semester.***

**Tentative Schedule**

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| --- | --- | --- |
| **Date** | **Topic** | **Professor** |
| 1/29 | Introduction to Computation | Trishank Karthik Kuppusamy |
| 2/5 |  |  |
| 2/12 |  |  |
| 2/19 | Complexity Science | Joe Norman |
| 2/26 | Agent-based Modeling | Gene Callahan |
| 3/5 |  |  |
| 3/12 |  |  |
| 3/19 |  |  |
| 3/26 |  |  |
| 4/2 |  |  |
| 4/9 |  |  |
| 4/16 | Search Engines and Information Retrieval | Torsten Suel |
| 4/23 |  |  |
| 4/30 |  |  |
| 4/7 |  |  |
| 4/14 |  |  |