Course Syllabus

CS-UY 1122 - Introduction to Computer Science - Spring 2020

Course Coordinator:	Prof. Yi-Jen Chiang
Office Location:	370 Jay Street, room 1103 (11th Floor)
Telephone:	646 997 3395
E-mail:	chiang@nyu.edu
Office Hours:	Prof. Chiang: Mondays 2:00 pm – 3:00 pm. TA office hours and office hours of other profs. will be posted on NYU Classes
Course Number:	CS-UY 1122
Course Name:	Introduction to Computer Science
Course Location:	Pfizer Auditorium
Course Website:	NYU Classes
Class Times:	Fridays 9:00 am – 10:50 am
Prerequisites:	CS-UY 1114 (Introduction to Programming and Problem Solving)

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

Teaching and Learning Methodologies: The course will be team taught by several faculty members, with Prof. Chiang 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…).

Passing Grade Requirements:

- *Attend **at least 70% of the classes,** and*
- ***Average homework score** is **70 points or above** (at a 100-point scale).*
- ***In-class work** can be considered for improving the grades in borderline cases if needed.*

Course Policies: *Attendance is **mandatory** as class participation counts for your grade.* ***Late homework submissions** will **not be accepted** under any circumstance whatsoever.*

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
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 or 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. The Moses Center is located at 726 Broadway on the 2nd floor. ***Please do this at the start of the semester.***

Course Schedule: *The following is a tentative schedule, subject to change. All changes will be announced in class and on NYU Classes.*

Tentative Schedule

Date	Topic	Professor
1/31	Course Overview; Intro to Algorithms	Yi-Jen Chiang
2/7	Automata and Turing Machines	Phyllis Frankl
2/14	Intro to Data Science	Rumi Chunara
2/21	Software Engineering and Related Information	Fred Strauss
2/28	Security Basics, etc.	Justin Cappos
3/6	Artificial Intelligence and Games	Julian Togelius
3/13	Freshmen Transition Meeting (info session about CS major)	CSE academic advisors
3/20	No Class (SPRING BREAK)	
3/27	Introduction to Machine Learning	Christopher Musco
4/3	Sports Data Science	Claudio Silva
4/10	Security	Nasir Memon
4/17	Search Engines	Torsten Suel
4/24	Responsible Data Science	Julia Stoyanovich
5/1	Intro to Cloud Computing; Industrial Experiences	Peter DePasquale
5/8	Information Technology for Healthcare	Karen Cohen and her team from HSS (Hospital for Special Surgery)
	(Final Exam Week, No Class)	