# CSCI-UA Section 011, Data Structures (Spring 2024)

## Instructor Information
● Alan N. Amin
● **Office:** 60 Fifth Ave, Room 360.
● **Email:** csc102.amin@gmail.com
● **Recitation leader:** Rasmika Billa (**rb5719@nyu.edu**)

## Course information
**Course hours:** Mondays and Wednesdays 12:30-1:45 at CIWW 317
**Office hours:** Fridays 2:00-4:00 at 60 Fifth Ave, Room 360.
**Recitation leader office hours:** Tuesdays 1:00-3:00 at 60 Fifth Ave, Room 204
**Prerequisites: Passing CSCI.UA.0101 with a grade of C or better.**
**Testing out of this course:** See the Placement page at the CS department website
**Brightspace**
**Course notes**
**Textbook:** Data Structures and Algorithms in Java by Goodrich, Tamassia, and Goldwasser. Java review: Introduction to Java Programming, Y. Daniel Liang
**More general course info**

## Course overview and topics covered
We will cover a variety of data structures and algorithms to build and manipulate them. The structures we will cover will include linked lists, stacks, queues, trees, binary search trees, AVL trees, heaps, hash tables, and optionally graphs and priority queues. We will cover algorithms to build, search, and sort with these data structures; we will cover efficient sorting algorithms such as merge sort, quick sort, and heap sort. We will also cover general techniques for constructing algorithms, like recursion, and ways to evaluate the efficiency of algorithms using big-oh notation. Finally we will review advanced java topics such as polymorphism, abstract classes, interfaces, generics, and exceptions.

## Assessments and grading:
**Your percentage grade is calculated as**
**1.** Two exams: **20%** for the midterm and **30%** for the final.
**2.** 6-8 Quizzes: **30%** completed at the beginning of class or in recitation.
**3.** 4-6 Programming Projects: **20%.**

The final course grade will be assigned as follows:
95-100 A, 90-95 A-, 87-90 B+, 83-87 B, 80-83 B-, 76-80 C+, 72-76 C, 65-72 D, < 65 F
You will only get a grade of *Incomplete* if miss the final exam for a reason verified and approved by the Dean Of Students. Not for any other reason.

## Support resources
I'm always available for help after class and during office hours. You also have your

recitation leader for assistance during recitation and their office hours. Finally, the computer science department offers <u>daily additional tutoring hours</u> and <u>a question and answer forum</u> for this course. Everyone in the department is enthusiastic to help you learn, especially me!

## Attendance
If you miss a quiz for a valid reason, <u>fill out this form</u>. You can make up to two quizzes on a day near the end of the semester.

## Assignment Grading
If your program does not run at the time you have submitted it, you get a 0. Everyone receives an automatic extension of 2 days past the due date of the project in case of emergency (you must fill out <u>this form</u>). If your assignment is handed in more than 2 days after the deadline for any reason, you get a 0.

## Disability Disclosure Statement
Students requesting academic accommodations are advised to reach out to the Moses Center for Students with Disabilities as early as possible in the semester for assistance. Henry and Lucy Moses Center for Students with Disabilities
Telephone: 212-998-4980
Website: <u>http://www.nyu.edu/csd</u>
Email: <u>mosescsd@nyu.edu</u>