INTRODUCTION TO DATA STRUCTURES and ALGORITHMS

Rutgers University

0. Course Logistics

- **Lectures**
- **Recitations**
- **Resources**
- **Grading**
- **To Remember**
- **Research Statement**

https://ds.cs.rutgers.edu

Lectures

Coordinated course

- ALL lectures and recitations cover the same material
- Same assignments and same exams across ALL sections

Three instructors across 4 lectures [remote lectures]:

- Ana Paula Centeno (course Coordinator)
- Lily Chang
- Juan Zhai

Click on Staff at our course website https://ds.cs.rutgers.edu for contact information and office hours

Canvas main page has links to access remote lectures.

Recitations

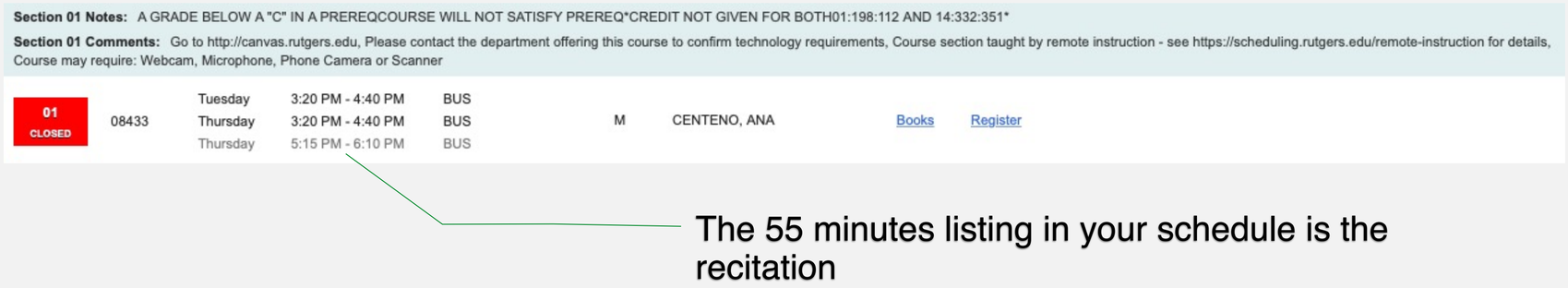
Recitations are for you to practice the concepts learned in class.

Group Problem-Solving Exercises

Led by Learning Assistants – Undergraduate Peer Leaders

PARTICIPATION REQUIRED

- Canvas
  - Main page has links to access remote recitations
  - Recitation problems and solutions
  - Pre and post recitation quizzes



Resources

- Textbook **Algorithms**, 4th Edition, Robert Sedgewick and Kevin Wayne, Princeton University

- Course content on website https://ds.cs.rutgers.edu
- Canvas https://rutgers.instructure.com/courses/104525
- The CAVE is available to students – no appointment necessary
  - https://resources.cs.rutgers.edu/docs/rooms-equipment/cave/
  - Monday through Thursday, 1-11PM
  - Friday 1-6PM
  - Sunday 3-11PM

https://rutgers.webex.com/meet/cs-the-cave

- Instructional Labs Systems (Desktops) in Hill 120, Hill 248, and Hill 252.
  - Once we are back to campus

Resources

AWICS (Advancing Women in Computer Science) is introducing peer tutors to:

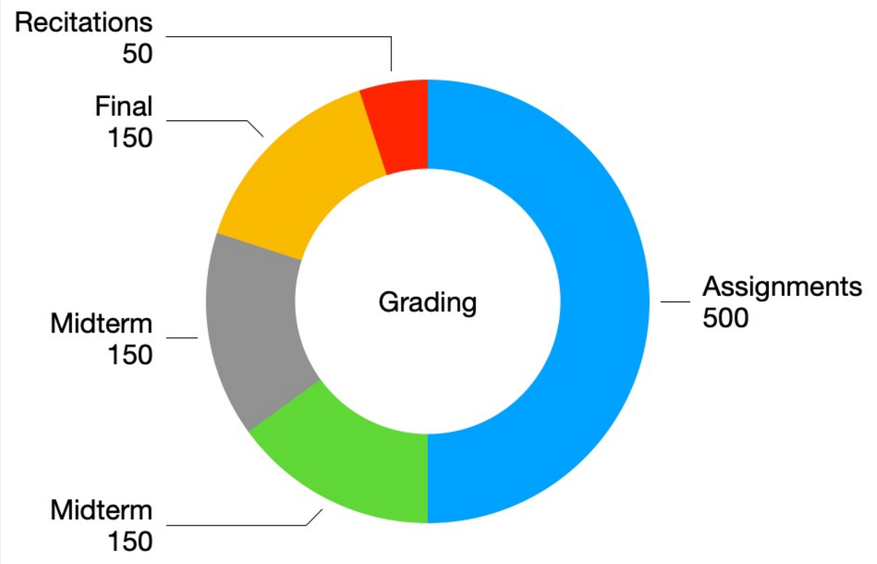
- hold weekly office hours to assist you with your academic work.
- create an inclusive community for students taking Computer Science courses at Rutgers University.
- build a peer network that fosters encouragement and support for the learning and academic persistence of all students regardless of identities.
- assist the CS Study Group Leaders/Learning Assistants in guiding the students to advance their knowledge and understanding of the course(s).

Refer to the **Canvas Tutor's Calendar** for their office hours and to schedule a spot.

Office hours start on the second week of classes.

Grading

Class Grade out of 1000 points



Course Points	Letter Grade
900	A
850	B+
800	B
750	C+
700	C
600	D

Cutoffs are strictly followed

- **Exams**: 2 midterms and a final
- **Assignments**: 5 programming
- Each **recitation** is 5 points: 3 attendance, and 2 points for quizzes
  - Quiz points are dependent on recitation attendance
  - If you don't attend a recitation: 0 points
  - **Mandatory to have cameras on during recitation**. If you have concerns, contact your instructor.
    - You may use a virtual background.

To Remember

Read course Policies on https://ds.cs.rutgers.edu

Add assignment due dates and exam dates to your calendar

https://ds.cs.rutgers.edu/assignments/

https://ds.cs.rutgers.edu/exams/

Assignments

- Assignments are due at **11PM**
- All assignments have a 3-day extension built-in
- DO NOT email your assignment, use Autolab
- 0-tolerance policy for misreading due dates or not following directions

No extra credit except for two surveys

- Entry survey will be available in the first week of classes
- Exit survey will be available at the last week of class

To Remember

AutoLab (programming assignments)

- 3 submissions without penalty
- 5% penalty for each submission thereafter
- **Grade based on the last submission**

- Each submission receives a feedback
  - **READ** the feedback to improve your assignment
  - Depending on the system load, the feedback may take up to 1 day to be returned

- Programming assignments have a built-in extension of 3 days:
  - if you submit up to 24 hours after the deadline a 10% penalty applies.
  - if you submit after 24 hours but before 48 hours after the deadline a 20% penalty applies.
  - if you submit after 48 hours but before 72 hours after the deadline a 30% penalty applies.

To Remember

Everyone belongs in CS112! The course staff is very excited to have you in this course and we hope that you have a great semester. Feel free to approach any of us, we are here for you.

This is the second Computer Science course – the science of solving problems with the aid of a computer.

The objective of this course is to study a variety of *algorithms* – methods for solving problems that are suited for computer implementation. Algorithms go hand in hand with *data structures* – schemes for organizing data that leave them amenable to efficient processing by an algorithm.

Research Statement

As Rutgers is a research university there is a possibility that by enrolling in this class you may be asked to participate in a research study. Participation in any such study will be optional and at no time will participation in a research study be part of a grade or a requirement for this course. This notification does not imply that by enrolling in this class you have provided consent to be a subject in a research study. Should you be asked to participate in a research study a consent form will be presented to you describing the study and asking for your signature. Participation in research is always voluntary and refusing to participate will have no adverse effects on your standing in the course. To learn more about research at Rutgers University and Human Subject research go to:

http://orsp.rutgers.edu/index.php?q=content/institutional-review-board-irb

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Last updated on 1/8/21