

Course Syllabus

 Edit

CS8001 Data Structures & Algorithms

Professor

Mary Hudachek-Buswell

Email: hudachek@cc.gatech.edu (<mailto:hudachek@cc.gatech.edu>) (use **Outlook GT email**, **NOT** canvas email)

Office: CCB 256

Office Hours: by appointment (please email the professor to confirm your time)

- I do not hold office hours the first or last week of the semester.

Lecture via Pre-recorded Videos:

This is an Online Asynchronous course with prerecorded video lectures. You are required to have working computer (not a tablet or Chromebook). You are required to have internet access.

Important Dates (all dates are tentative and subject to change, click [here](#) 

(<https://docs.google.com/spreadsheets/d/1hIVShykgkrYOsAX2mCWHZhsOMRFAAnukZQ3W0A6kDI/edit?gid=1709829923#gid=1709829923>) for detailed tentative schedule):

First Day of Classes	August 18, 2025
First TA Virtual Office Hours	See announcement
GT Holiday (no class)	September 1, 2025
Problem Set 1	September 14 - 20, 2025 (Sunday to Saturday)
Fall Break (no class)	October 6 - 7, 2025
Problem Set 2	October 19 - 25, 2025 (Sunday to Saturday)
Withdraw Deadline	October 25, 2025 (4pm)
Problem Set 3	November 17 - 23, 2025 (Sunday to Saturday)
All Reality Checks Close	November 30, 2025
Last Instructional Days	December 1 - 2, 2025

Party AVL



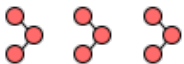
Created by Adrianna Brown

Course Overview and Directory

This section serves a quick overview of the course. For more detailed explanations, please read the later sections of this syllabus.

The Syllabus has been condensed for ease of navigation. You are still responsible for reading the ENTIRE syllabus, both the parts above, and below in each dropdown.

- **Canvas:** You are responsible for all announcements made on Canvas. Also, the lecture videos can be found in the "Modules" tab, along with the weekly "Reality Checks" and "Homework".
- **Work Expectation:** You are required to read and complete all material in the modules. You are responsible for all content and/or administrative announcements made in canvas course.
- **Schedule:** the tentative schedule can be found [here](#) 
(<https://docs.google.com/spreadsheets/d/1hIVShykgzgrYOsuAX2mCWHZhsOMRFA nukZQ3W0A6kDI/edit?gid=1709829923#gid=1709829923>)_.
- **Homework:** Assignments are released through Canvas, in the Assignments tab. Submissions are turned into [Gradescope](#) 
(<https://www.gradescope.com/courses/923165>)_. There are no late submissions for homework.
- **Excused Absences and Late Submissions:** If (and only if) you have a valid institute-approved absence or medical emergency, you may fill out the Absence Form. For instructions on how to fill out the form, please see below.
- **Problem Sets:** There are three problem sets approximately 5 weeks apart. The problem sets are 90 minutes long and students have 3 attempts over a 7 day period to complete the problem set. Problem sets are open notes. The problem set dates are in the table above.
- **Reality Checks:** These are worth 9% of your final grade, and can be found in the Modules tab to the left. They have suggested due dates but are officially due on Saturday, November 29th at 11:59pm.
- **Piazza:** This course uses Piazza ([here](#) 
(<https://piazza.com/class/megav7cr6a48a>)_) as a student forum to ask questions and get answers from TA's and other students. It is incredibly active and an great place to look if you are having trouble getting started or finishing an assignment. (If you have a hundred open tabs anyway, you may as well keep the Piazza open in a separate tab in your browser for quick access.)
- **CSVISTOOL:** www.csvistool.com 
(<http://www.csvistool.com>)_. Maintained by TA's, for students. An incredible tool that provides real-time visualizations of all the data structures and algorithms discussed in this course. Bookmark this tool, and visit often.



Absence/Extension Request Form (*click to expand*)

The following sections explain how and when to use the Absence/Extension Request form ([link](#) 
(<https://forms.office.com/r/ySXfdv5gj>)). You must have a valid excuse to submit a request. If you have a valid

excuse, you can use the form to request the following:

- additional time to complete a homework assignment
- approval of an absence from an exam

What constitutes a valid excuse?

- There are **No Makeups or Grade Replacements** for missed exams, homeworks, or reality checks without a valid excuse.
- If you miss any assignment without a valid excuse, then you will receive a 0.
- *Institute approved absences* are rare and do qualify for an exception.
- Institute approved absences must be made in advance of the assessment, unless it is physically impossible to do so. Please read the section below very carefully. If you have an institute approved absence, you must fill out the Absence/Extension request form, as described in the next section.
- **Institute approved absences:**
 - *Documentation is required for all valid excuses to be considered. Examples of Valid Excuses are:*
 - incapacitating illness
 - death in the family
 - judicial procedures
 - military service
 - official school functions
 - physical accident
 - other serious circumstances
- *Events such as vacations, parents set up travel plans, weddings, graduations, errands, work conflicts, sleeping through your alarm, alarm malfunction, forgetting to submit, forgetting the date or time of an exam, or not being aware of the assignment are all NOT valid excuses.*
- If your absence is approved, then the professor will adjust the specific assignment(s) as they deem appropriate.
- If you miss any assignment without a valid excuse, then you will receive a 0.
- *The final decision regarding any absence is made solely at the discretion of your professor.*

What if I miss an exam?

- OMS Data Structures made a major change to the exam makeup procedure. OMS Data Structures will NO longer offer any makeups. This is now a School of Computing Instruction Policy.
- If you miss any exam without a valid excuse, then you will receive a 0.
- NOTE: If you take the problem set, it is assumed you are well enough for your performance to accurately reflect your knowledge, and you will NOT be allowed to replace the exam.
- NOTE: If you miss more than one problem set (with a valid excuse), then your professor will handle that situation on a case by case basis.

How do I submit a valid excuse for approval?

In order to be approved for an extension or an absence, whether due to an emergency or a planned, institute-approved event, you must fill out the Absence/Extension form. This is a three-step process. (Failure to follow all three steps may result in a rejected request.)

Three-step Request Process (You must complete all steps for EACH assignment or exam for which you have a valid excuse. Failure to complete any step may result in a denied request.):

- **Step 1:** Fill out the “CS8001 Absence Notification and Request to be Excused Form” which can be found at this link, [Absence Request Form](https://forms.office.com/r/ySXfdv5gj)  (<https://forms.office.com/r/ySXfdv5gj>). Do so promptly, as soon as you are aware that you will need an extension.
- **Step 2:** Submit **documentation** to the Dean of Students Office (NOT your professors) at the following link for verification: <https://studentlife.gatech.edu/request-assistance>  (<https://studentlife.gatech.edu/request-assistance>). Documentation should be on letterhead with the signature of a physician, supervisor, or other appropriate official and must encompass the date(s) of any assignment for which you are requesting an exception.
- **Step 3:** Once you have received verification from the dean, upload it to the same form you filled out in step 1. You do not need to make a new submission: Microsoft Teams allows you to edit a previous submission. This step may take some time, as the dean may take several days (or weeks) to respond. This is okay.
- **Timeliness:** The absence form and dean's request for verification (steps 1 and 2) should be filled out **before** the due date of the corresponding assignment or exam. If you are for some reason incapable of completing the form before the deadline, instead complete it as soon as you are able. Absence and extension requests submitted significantly later than the due date of the assignment or exam will be denied.
- **Interview Absences:** For any absences due to interviews, you must note this on the CS8001 Request to be Excused Form prior to the event with the exact day and time. Upload documentation from the employer on letterhead with the exact interview/travel dates in the form. [Absence Request Form](https://forms.office.com/r/ySXfdv5gj)  (<https://forms.office.com/r/ySXfdv5gj>).
- **Georgia Tech Business Absences:** If you are absent due to official Georgia Tech business, upload the electronic official documentation the CS8001 Request to be Excused Form prior to the event with the exact day(s) of the event(s). NOTE: For each date or sequence of consecutive dates, you must submit a separate entry to the form, [Absence Request Form](https://forms.office.com/r/ySXfdv5gj)  (<https://forms.office.com/r/ySXfdv5gj>). Example: Sept 5-9, Oct 8-9 requires two forms to be filled out.
- **Religious Absences:** If you will be observing any religious holidays during the semester, then you must submit on the CS8001 Request to be Excused Form in the **FIRST** week of the semester. NOTE, this on the CS8001 Request to be Excused Form prior to the event with the exact day(s) of the religious observance. [Absence Request Form](https://forms.office.com/r/ySXfdv5gj)  (<https://forms.office.com/r/ySXfdv5gj>). The first week of the semester is a hard deadline for religious exceptions.
- **Military or Judicial Absences:** If you have an official military or judicial absence, then you must submit the CS8001 Request to be Excused Form which is found at the link [Absence Request Form](https://forms.office.com/r/ySXfdv5gj)  (<https://forms.office.com/r/ySXfdv5gj>).

TA Office Hours and Location (*click to expand*)

Rethika Ambalam – Head TA for Seminar Course: rambalam3@gatech.edu

(<mailto:kkrupczak3@gatech.edu>) Lucian Tash – Head TA:

Jack Hayley– Head TA:

Office hours will be by appointment.

Grading Breakdown *(click to expand)*

- There will be homeworks every week. Expect for a homework to be due during the last full week of class of the semester.
- There will be problem sets approximately 5 weeks apart (3 in total). The problem sets are 90 minutes long and students have 3 attempts over a 7 day period to complete the problem set. Problem sets are open notes.
- There are NO "dropped" homeworks or problem sets.
- There are NO "retakes."
- There are NO "make-ups."
- There is NO "extra credit" ever.
- There is NO curve in this course. Letter grade cutoffs use a straight scale.
- CS 8001 ODA is a pass/fail course.

Type Assessment	Points	Grade Scale	Percentage
Reality Checks (39)	9%	S	70.0%
Homework (10)	70%	U	less than 70.0%
Problem Sets (3)	21%		
Total	100%		

Reality Checks

This course has 39 "Reality Checks" or RC's, the goal of which is to help you gauge your understanding and comfort with the current weekly topics. There are multiple RC's assigned weekly, which can be found in the "Modules" tab in Canvas. RC's are graded only on attempts, not for correctness or completion. Each RC has a suggested deadline that will help you pace your learning throughout the course of the semester. However, *all Reality Checks are open the first day of class, and officially close the last week of class **prior to the last instructional days**.*

This semester, the actual final due date to complete ALL reality checks is **Saturday, November 29th at 11:59pm** (with no late submissions allowed). Once again, despite this later actual deadline, you will be more successful in the course if you do each RC by the suggested deadlines.

Homework Submissions Instructions, Late Policy, Regrades, etc. *(click to expand)*

Late Policy and Submission Responsibility

All homework for all sections will have a single due date. Homework is due at 11:59:00 pm EST for full credit consideration. We do not accept late submissions. *Do not ask for an exception to the late policy unless you have a valid excuse accompanied by documentation that has been submitted to the Dean of Students office.*

Homework files will be available in the Canvas Module titled "Homework". Homework submissions will be done through **Gradescope**. Turning in homework properly on **Gradescope** is solely your responsibility.

It is completely within your power to make sure your homework is submitted properly. If you are not conscientious about your submission, then there is a high likelihood you will trip up and not turn in one or more assignments correctly.

- **Gradescope** is NOT forgiving about due dates and times. Imagine a train taking off whether or not you are fully onboard. It has no love.
- **Gradescope** always overrides previous submissions. We ONLY grade the latest submission.
- Homework submissions that do not follow the conventions listed in the homework information PDFs of the expected deliverables (e.g. names, types, and number of files) will be treated as non-compiling and will earn a zero. If an assignment requires the submission of multiple files, all necessary deliverable files must be included in your most recent submission to be considered.
- You are to upload the .java files and any other files required by the assignment. (.class files will not be graded and will be given a 0.) To receive credit, the file(s) must compile in Java 17 using JUnit 4.12 and the allowed Java standard libraries.
- After submitting your file(s) for a Homework assignment, reload **Gradescope** going to the Assignments list within the CS1332/8001 **Gradescope**. Look at the assignment in question. You should now see that it says it has been submitted with the date and time.
- Download a fresh copy of the files from **Gradescope**, saving to a new folder, and then recompile and run that code. Following steps 1, and 2 is truly the only way to confirm what you have turned in.
- Failure to upload the proper file(s) for a homework will result in a zero for the assignment. Programs that do not compile or run also receive no credit. No exceptions.

Turning in homework properly on **Gradescope is solely your responsibility.**

Regrade Requests

Assignments are posted on Canvas, but are submitted, graded, and returned through **Gradescope**. Homework grades will be returned through **Gradescope** and then posted to Canvas. As soon as grades are posted, you will be notified immediately so that you can log in and see your feedback.

We will NOT be using the regrade request feature in Gradescope.

Grade disputes are rare, but if you find yourself not clear about why points were lost, we have a strict policy and procedure to follow.

- If you feel that a regrade request is justified for a homework assignment or exam, discuss the dispute with any TA during office hours. If the TA approves the regrade, they will give you instructions on how to submit your regrade request.
- Disputes of grading on assignments, exams, etc. must be discussed within 5 days of the assignment being returned. Any exceptions to this timeline will be announced before grades are released.
- All regrade requests are evaluated by the Head TA's. No regrade request submitted after the deadline or without approval from a TA will be considered.
- It may take a week or more for your regrade request to be processed. If there is still an issue after your regrade request is processed and returned, contact the Head TA's.
- If the Head TA's are unable to resolve the issue, contact your instructor.

- Every regrade request must have a detailed reason why a regrade is needed. "I'd like to get more points" is not a valid reason and will result in the request being promptly declined. Furthermore, any regrade request that is not respectful and professional will be declined. Be aware that any regrade request may result in your entire exam or homework being regraded. Your grade may go up or down.

It is your responsibility to ensure that all the grades in Canvas are correct **before finals week**. After that, the only grade discussion will be about the grading of your final exam. Any discussion of your grades after the final exam must be done in person, and **cannot occur until the 3rd week** of the next semester you are enrolled. Final exams are not released or returned to students. They remain on file for the college.

Problem Set Instructions

- There will be 3 Problem Sets approximately 5 weeks apart. The Problem Sets are 90 minutes long and students have 3 attempts over a 7 day period to complete the Problem Set. Problem Sets are open-note.
- There are NO "dropped" Problem Sets.

Problem Set September 14 - 20, 2025 (Sunday to

- 1 Saturday)

Problem Set October 19 - 25, 2025 (Sunday to

- Set 2 Saturday)

Problem Set November 17 - 23, 2025 (Sunday to

- Set 3 Saturday)

Problem Set Makeup Policy

CS1332 does not offer makeup exams or Problem Sets. If you miss a Problem Set with a valid excuse, you must fill out the Absence/Extension request form as described earlier in this syllabus. If you miss a Problem Set without a valid excuse, you receive a 0.

NOTE: Problem Sets are open for 7 days.

Students with Accommodations (*click to expand*)

Professional Conduct (*click to expand*)

How to Succeed in This Course (*click to expand*)

This course has many, *many* resources available to help you learn, practice and master the material. Here is a short, non-exhaustive list:

- The TA's hold office hours weekly
- Piazza
- The Resources folder in the Files tab contains
 - Worksheets about literally every topic discussed in class, with (half) answer sheets available
 - Practice Exams
 - Multiple sets of lecture notes from previous semesters
- The [csvistool \(http://csvistool.com/\)](http://csvistool.com/) is a fantastic way to learn and practice the topics from class
- The PLUS leaders hold weekly PLUS sessions, which are student-led review sessions
- And last but not least, keep pace with the module schedule on the Tentative Schedule! Keeping pace with videos will help you keep pace with the assignments and assessments as well!

TA Suggestions for Success

Here are some suggestions from the TA's for lecture, homework, and the exam:

Lectures

- Watch the prerecorded video lectures.
- Have some writing utensils to take notes during videos (Notepad, iPad, etc.).
 - This course relies on specific diagrams and visual representations. Be sure to bring something to write so you can practice and follow along.
- Ask clarifying questions during and after lectures on Piazza.
 - TAs are here to help answer questions on Piazza or office hours.

Homeworks

- Start early - we recommend creating a homework schedule which allows you to start the first or second day the homework is released. Allocate 3-5 hours that are dedicated to completing the homeworks early.
- Utilize Office Hours as much as possible.
 - You can complete your homework in Office Hours. If a bug arises or you have a conceptual question, you can quickly get help and receive an in-depth explanation.
 - Office Hours typically become crowded near due dates and exams, so come early!
- Use [csvistool.com \(https://csvistool.com/\)](https://csvistool.com/) for diagramming and pseudocode to help you get started.
- Write your own JUnit tests and use the ones posted by other students on Piazza.

Problem Sets

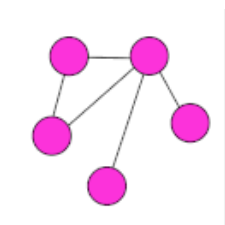
- Start early - again, we recommend creating a study plan and schedule. Allocate as many hours as you need to study *all* of the topics that are posted on the topic list.
- Review the lecture notes and module videos to ensure a conceptual understanding of topics.
- Rewrite the homework methods by hand from scratch. Repeat until you are comfortable with your understanding of the entire homework.
- Practice diagramming using CSVistool and examples from class.
- Come to office hours and study with a TA.

- Practice, practice, practice!
 - [CSVistool \(http://csvistool.com/\)](http://csvistool.com/)
 - Module Videos
 - Lecture Notes
 - Worksheets (Includes Big-O)
 - Socrative Polls

CARE Center, Counseling Center, Stamps Health Services, and the Student Center:

The **CARE Center** [\(https://care.gatech.edu/\)](https://care.gatech.edu/) and the **Counseling Center** [\(https://counseling.gatech.edu/\)](https://counseling.gatech.edu/), and **Stamps Health Services** [\(https://health.gatech.edu/\)](https://health.gatech.edu/) will offer both in-person and virtual appointments. Face-to-face appointments will require wearing a face covering and social distancing, with exceptions for medical examinations. Student Center services and operations are available on the **Student Center** [\(https://studentcenter.gatech.edu/\)](https://studentcenter.gatech.edu/) website. For more information on these and other student services, contact the Vice President and Dean of Students or the **Division of Student Life** [\(https://studentlife.gatech.edu/\)](https://studentlife.gatech.edu/).

Party Graphs



Created by Jacob Allen

Course Summary:

Date	Details	Due
Sun Feb 2, 2025	📅 Problem Set 1 Opens (https://gatech.instructure.com/calendar?event_id=4790387&include_contexts=course_516838)	12am
	📅 Week 5 (https://gatech.instructure.com/calendar?event_id=4790365&include_contexts=course_516838)	12am
Fri Feb 7, 2025	📅 Module 7 (https://gatech.instructure.com/calendar?event_id=4790347&include_contexts=course_516838)	12am
Sun Feb 9, 2025	📅 Week 6 (https://gatech.instructure.com/calendar?event_id=4790363&include_contexts=course_516838)	12am