CS 1331 - Introduction to Object-Oriented Programming
Fall 2026
(3 credit hours)

Course Instructor

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Office – CCB 218
Office hours – By appointment

Lectures:

Section	Days	Time	Where	CRN
A	MWF	09:30 AM – 10:20 AM	KACB 1443	84558
B	MWF	11:00 AM – 11:50 AM	Scheller 270	89223
GR	MWF	09:30 AM – 10:20 AM	KACB 1443	85796

Recitations (optional, *highly recommended*):

Section	Days	Time	Where
A01, A02, A05, A06, B01	T	05:00 PM – 06:15 PM	*see CANVAS*
A03, A04, B02, B03, B04, B05, B06, GR1	T	06:30 PM – 07:45 PM	*see CANVAS*

Required Textbook:

Title: Introduction to Java Programming and Data Structures - Comprehensive Version
Author: Y. Daniel Liang
Edition: Copyright 2020, 12th edition (11th edition is likely fine)

The textbook itself can be found here on Pearson's site (but you can probably find it elsewhere)

Prerequisites:

At least one of CS 1301, CS 1315, CS 1321, or CS 1371, minimum grade of C.

Learning Objectives:

Students will learn how to:

1. Understand object-oriented programming principles and apply them in the construction of Java programs.
2. Demonstrate proficiency in writing medium-sized (1-10 source files) Java programs.
3. Create, select, and use appropriate basic algorithms and data structures in Java programs.
4. Understand and apply fundamental concepts of application development using the Spring Boot framework.

Contents

Description

Introduction to techniques and methods of object-oriented programming such as encapsulation, inheritance, and polymorphism. Emphasis on software development and individual programming skills. Students gain exposure to modern application development using the Spring Boot framework to build simple, structured applications. Additional topics include basic concepts of secure computing with respect to graphical user interfaces (e.g., password fields) and memory management.

Course Modality Information

This course is in-person and synchronous. Students enrolled are expected to be available and present during the scheduled class time as there may be assessments, assignments, and class participation required. Students are expected to participate in the class through live lecture Q&A, class forum, TA office hours, and other activities. Assessments will be given during the assigned lecture period.

Class Policies

All students are required and expected to attend class. Recitations are optional, but attendance at recitations is highly recommended. If you must miss class for any reason, it is your responsibility to find out what was covered and seek the help of TAs or classmates to get caught up.

It is expected that everyone will follow the Student-Faculty Expectations document and the Student Code of Conduct. The instructor expects a positive, respectful, and engaged academic environment in the classroom, outside the classroom, in all electronic communications, on all file submissions, and on any document submitted throughout the course. No inappropriate language is to be used, and any assignment deemed by the instructor to contain inappropriate or offensive language will get a zero. You are to use professionalism in your work. Violations of this conduct policy will be turned over to the Office of Student Integrity for misconduct.

Note:
Beginning Spring 2020: CS 1331 is a 3 credit and contact hour lecture course with a 0 credit hour, 1.25 contact hour recitation companion, CS 1331R. The fact that CS 1331R contributes 0 credit hours to your schedule simply means that no graded work will take place during recitation and all testable course material will be available outside recitation. **Recitation is provided for small group practice and review, and is very valuable. Attendance is highly recommended**.

Grading

The course will be graded on a traditional 60-70-80-90 system as shown below.

Grade Scale:

Percent	Grade
90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
<= 59	F

See http://registrar.gatech.edu/info/grading-system for more information about the grading system at Georgia Tech.

Important: In addition to the total overall class percentage for determining your grade, you must have a **passing (weighted) average (>60 average) on the assessments and the final exam, all combined together**, *not each one individually*, **otherwise you will be penalized 5 points on your final numeric grade (i.e., half of a letter grade)**. This average is computed WITHOUT any substitution that may be offered by the instructors. We implement this policy as a check-and-balance with respect to the HWs and to ensure that you are still meeting passing criteria for assessments/exams.

Note that this does **not** mean that you have the option of only using the assessments to determine your grade. All the categories above will be used in the grade calculation, *but in addition*, you must have a passing grade on the weighted average of the assessments in order to avoid this penalty. Historically, very few students are affected by this policy.

For (non-CS/CM) students who are taking the course P/F, you must earn **70% to earn a P** (and on the assessments, too).
Questions about specific circumstances or issues can be directed to the instructor via email prior to the last week of class.

Regrades:
When offered, you will have **one week** from the time we post your assessment or homework grade to file a challenge to the grading if you feel that you were graded incorrectly until it is posted otherwise (mainly at the end of the semester). After that time, the grade will stand. The regrade request doesn't need to be resolved within one week, but you must notify someone via the posted channel (Gradescope, form, etc.) with specific issues about a question on the assessment or homework for the grade to be eligible for change.

All grades will be determined by work done throughout the semester. **Students will never be allowed to do "extra work or projects" after the term to boost their grade**. Please do not appeal at the end of a term for special consideration. All students will be treated equally and fairly.

Course Grade Percentages:

Participation Activities ~ assigned at least 10 ~	5%
Homeworks (HWs) ~ assigned at least 5 ~	10%
Programming Exercises (PEs) ~ assigned at least 3 ~	5%
Assessments (3 x 14%)	42%
Final Exam	38%

Academic Integrity and Collaboration
Academic dishonesty will not be tolerated. Students are expected to uphold the highest standards of academic honor and integrity and must abide by the Georgia Tech Academic Honor Code https://policylibrary.gatech.edu/student-life/academic-honor-code.

All programming assignments must be completed individually. You may seek conceptual help from TAs, but the code you submit must be entirely your own work. Your submission must not be substantially similar to another student's submission. Collaboration at a reasonable level

should not produce similar or identical code. Any submissions that are not fundamentally unique will receive a zero and will be referred to the Office of Student Integrity.

You may not collaborate on quizzes or exams. Use of ChatGPT, AI tools, Chegg, code-generation systems, online forums, or any other unauthorized resource is strictly prohibited on programming assignments, quizzes, exams, or any graded work. Submissions found to contain AI-generated content, or work significantly influenced by AI tools, will receive a zero and be reported to the Office of Student Integrity. TAs reserve the right to review and analyze submissions for indicators of plagiarism or AI use.

Any student suspected of cheating, plagiarizing, or assisting others in violating the Honor Code will be reported to the Office of Student Integrity, which will determine the appropriate sanctions.

Learning Accommodations

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services at (404) 894-2563 or as soon as possible to make an appointment to discuss your special needs and to obtain an accommodation letter. Please also email me as soon as possible in order to set up a time to discuss your learning needs.
You are responsible for scheduling your Exams with the test center in accordance with the Test Center procedures here: https://disabilityservices.gatech.edu/testing-center/guidelines

Assessments and Exam Policy

The quiz assessments and exams will be conducted in person and during lecture periods, as indicated on the class schedule. The timeframe of the assessments may extend past the actual lecture period to allow more flexibility due to the distance learning environment; details will be posted prior to the actual assessment. The assessments will cover both concepts and aspects of coding. Material from the lecture and from the assigned sections of the book will be covered in each assessment. It is also expected that you will be familiar with the material and concepts from any programming homework that is due prior to an assessment. One of the best ways to do well in this class is to thoroughly complete all the HWs and learn all the ideas that are embodied in them.

This is not a course about memorization; it is about problem-solving and applying object-oriented principles. No cheat sheets or calculators are allowed during the assessments. You may NOT collaborate with anyone else; collaboration will be considered a violation of the honor code and will be treated as such. Assessments will be paper-based. The specific restrictions for the assessments will be announced prior to the assessment.

All students are expected to complete the assessments. *Forgetting about the* assessments *or simply missing them are not proper excuses and will result in a zero score.* If a documented excused school absence will prevent you from taking an assessment, you should get written confirmation of the approved absence from the Registrar's office and notify the instructor *prior* to the day(s) of the absence if possible.

In the event of a medical emergency or an illness that is severe enough to require medical attention, students are responsible for contacting the Dean of Students as soon as possible to report the medical issue or emergency, providing dated documentation from a medical professional, and requesting assistance in notifying their instructors. The medical documentation will be handled confidentially within the Office of the Vice President and Dean of

Students and will inform a decision as to whether communication with instructional faculty is appropriate.

For a confirmation of a medical excused absence, please contact the Dean of Students Office here instead of sending me anything: Class Absence Verification Form (maxient.com)

Homework Assignments

During the course of the semester, there will be programming assignments of various sizes; specifically, programming exercises and homeworks. Programming exercises are intended to help you learn how to do things in the specific programming language and therefore emphasize syntax and semantics more and problem-solving less. Programming homeworks will be larger programming assignments meant to emphasize the application of object-oriented principles through programming in Java.

The programming exercises and HWs will be distributed via Canvas. They will be due at 8:00 pm on the date provided in the Canvas assignment. We also allow a "grace period" until 11:59PM on evenings that homeworks are due where the assignment can be turned in without incurring a late penalty.

We recommend that you start on the HWs early. Do not leave them until the night they are due. If you are stuck on a portion of the program for longer than the recommended time, you should definitely see a TA to get a stronger understanding of the concepts involved prior to putting continued effort into the assignment.

Late Homework Policy:

You may submit your homework up to 24 hours late for a 25% reduction in possible points. This means that if the assignment is worth 100 points and you turn it in 12 hours after it is due, there will be a deduction of 25 points from whatever the result of your grade is. No late homework submissions will be accepted after 24 hours without a valid excused absence (*see Assignment Deadlines section*).

Note that an assignment **turned in at one minute after midnight is still late**; you have had the assignment for an adequate amount of time to complete it (usually a week).

You should also read the collaboration policy below to learn about our policies on how you can avoid academic misconduct while discussing the HW assignments with your peers. For all assignments, you will submit all the source files (.java) that you've created to Canvas or Gradescope. Make sure to practice safe-submission and **retrieve your submission after you submit** it to make sure all the files you thought you turned in are there. You are responsible for ensuring that what you want graded is submitted correctly.

After receiving a homework grade, you have **until the close of the regrade request period (typically one week) to inquire about the grade and address any potential grading issues with your homework.**

Please read the following carefully:

- **Non-compiling submissions are 0s**. If the TA downloads your HW, tries to compile it, and errors are generated that prevent complete class files from being generated, it will be a 0.
- **It is your responsibility to make sure you completely and successfully submit the proper files for your assignments turned in**. Once you submit your HW files, we

suggest that you download them into an empty folder and compile/run the HW to see if it works using your uploads alone. This will prevent issues such as renaming valid '.java' files or adding comments after testing from crashing the compilation.
    - On this note, make sure you also submit any files that we provide for the HW (e.g., images) unless the description says otherwise.
- **Expect a final homework that will be due on the final instructional date of the class**. I must explicitly state this according to paragraph C.1.c. here: http://catalog.gatech.edu/rules/12/

HW Collaboration Policy

We have chosen to focus the assessment of students' *individual* knowledge of course concepts and skills primarily on in-class exams rather than homework assignments. Homework assignments are opportunities for learning and discovery; they are not significant instruments of evaluation. That is, the weights of weekly HW assignments on your final grade are intentionally low. (In fact, homework assignments are a component in the final grade largely to motivate students to work on the assignments.)

The weekly programming HWs and exercises provide opportunities for each student to learn object-oriented programming and Java well. Thus, what you submit for these assignments should be **your own work,** and they should be code that you have written. We do expect that you understand and can explain the homework solution that you submit.

Students should be aware of the approved sources of assistance, help, and collaboration in our course. You can definitely use resources provided for everyone, including the instructor, teaching assistants, the textbook, recitations, and Ed Discussion. In particular, you should take advantage of our TA helpdesk/office hours to get personalized assistance on HW assignments. It is also permissible, and actually recommended, that you post questions about course concepts and HW assignments to Ed Discussion. Please refrain from posting code in public (readable by all) messages there, however. If you post code, make it a private message to the instructor and TAs.

We also seek to create a culture where you can interact with and learn from other students in class as well. Interaction between students at a **conceptual, high-level is permitted**. You can discuss course concepts and HW assignments broadly, that is, at a conceptual level to increase your understanding. If you find yourself dropping to a level where specific Java code is being discussed, that is going too far. Those discussions should be reserved for the instructor and TAs. To be clear, you should never exchange code related to an assignment with anyone other than the instructor and TAs.

In addition to what is allowable, it is important for you to understand what is not permitted in our class. Sharing code, whether an entire program or just a portion of one, between students is **not allowed**. Taking/receiving assignments from other classmates, being given a homework solution, or downloading solutions (partial or complete) from websites are considered plagiarism and are not allowed. These are activities that are simply meant to earn a score, not to understand our course material.

Similarly, **you should not give (email, IM, etc.) or even show a copy of your code**, or a portion of your code, to another student. In this course, giving code is considered just as bad as receiving code, so you must not succumb to other students' requests to see your program(s). If you are caught doing any of the prohibited activities above, you will be dealt with according to

the GT Academic Honor Code and the incident will be submitted to the Office of Student Integrity.

For quizzes and assessments, all work **must be your own**. Cheating off of another person's assessment or quiz is unethical and unacceptable. Cheating off of anyone else's work is a direct violation of the GT Academic Honor Code and will be dealt with accordingly.

A general list of resources for students at Georgia Tech is available via your Canvas site.

Assignment Deadlines and Policies

The leadership within the School of Computing Instruction has recommended that the first few CS Major courses adopt a new policy regarding makeup assignments, assessments, and exams to address the limitations of scale by which our large courses are affected. Starting with Spring 2023, there will be **NO makeups** offered for missed exams, programming exercises, homeworks, or participation quizzes. Institute-approved absences are rare and **DO** qualify for an exception.

If you miss any assignment without a valid excuse, then you will receive a **ZERO** for that assignment. Any request for an exception to this policy **MUST** be received **PRIOR** to the assignment due date. Documentation is required for **ALL** valid excuses to be considered. Some examples of valid excuses are:

- Incapacitating illness
- Death in the family
- Judicial procedures
- Military service
- Official school functions
- Physical accident
- Other serious circumstances

For **participation quizzes**, NO makeups or extensions will be offered. These may be excused.

For **programming exercises** and **homework assignments**, an excusal may allow for an extension of no more than 72 hours, or the assignment may be excused.

For **assessments** and **exams**, NO makeups or extensions will be offered. Substituting the **assessment portion of the final exam** for a missed exam grade is **not automatic** and may be applied **only with prior approval from the instructor**. This substitution, if approved, is a **one-time, single-use exception**.

- If you take the exam, it is assumed that you are well enough for your performance to accurately reflect your knowledge, and you will NOT be allowed to retake the exam.
- If you miss more than one exam, the situation will be handled **entirely at the instructor's discretion** on a case-by-case basis.

The final decision regarding any exception is made solely at the discretion of your instructor. Events such as vacations, parents setting up travel plans, weddings, graduations, work conflicts, alarm malfunctions, forgetting to submit, forgetting the data and time of the exam, or not being aware of the assignment are not valid excuses.

Attendance and Participation

All students are required and expected to attend lectures. The live lectures enable students to ask questions and receive answers on the covered topics. While we will not be taking attendance, you will be required to participate in the class via participation activities. The timeframe for the participation activities may extend beyond the lecture period to allow you to focus on the lecture material and complete the activity at your own pace.

Course Expectations

- **Keep up** with the content as it is released.
- **Try the code** from the online content and in-person lectures.

- Do your own homework and **experiment** with examples! Learning to program is like learning a sport. It takes actual practice and time to get comfortable with programming. The assignments that are given are opportunities to learn the material that you will be responsible for on exams. Copying your friends HW will only expose your limitations during quizzes and assessments.
- **Use TAs** to help you learn.
- Be prepared when you go to get help from a TA or your instructor. Bring your work with you.
- Avoid waiting until the end of the semester to ask for help.
- **Take initiative**. Begin your assignments early, and if you think you need help, come prepared. Utilize the resources provided to you and be determined to succeed from the outset.

Digital Etiquette

You are expected to attend lecture and recitation (if registered) and to actively participate via any polls or quizzes posted and chat questions and answers. It is expected that you will be respectful and use acceptable language free from vulgarity in any medium, but specifically in chatrooms, forums, meetings, and email. When requesting help from the instructors and TAs, it is expected that you are respectful of their time, preparing your questions in advance, and making sure to show up to any requested meeting. **When sending an email, make sure to include a concise and informative subject that contains "CS1331" and your section number, e.g., "CS1331-A"**. Make sure all course correspondence comes from an official GT channel (i.e., GT email).

University Use of Electronic Email

A university-assigned student email account is the official means of communication between the university and all students at the Georgia Institute of Technology. Students are responsible for all information sent to them via their university-assigned email account. If a student chooses to forward information in their university email account, he or she is responsible for all information, including attachments, sent to any other email account. To stay current with university information, students are expected to check their official university email account and other electronic communications on a frequent and consistent basis. Recognizing that some communications may be time-critical, the university recommends that electronic communications be checked twice a week at a minimum.

Finally, when sending an email to the instructor and/or TAs, be sure it is from your GT email and use an informative email subject that **includes "*CS1331-<Section>*" in the subject** of the email! For example, subject: CS1331-A assignment 2 question. Definitely do not email saying "I'm in your CS class..."

Student-Faculty Expectations Agreement

At Georgia Tech we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. See the Georgia Tech Catalog for an articulation of some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Subject to Change Statement

The syllabus and course schedule may be subject to change. It is the responsibility of students to check Ed Discussion, email messages, and course announcements to stay current in their courses.

Information Related to Covid-19
Students are expected to be familiar with and abide by the Institute guidelines, information, and updates related to Covid-19. Find campus operational updates, Frequently Asked Questions, and details on campus surveillance testing and vaccine appointments here: https://health.gatech.edu/coronavirus

Student Illness or Exposure to Covid-19
During the semester, you may be required to quarantine or self-isolate to avoid the risk of infection to others. Quarantine is the separation of those who have been exposed to someone with Covid-19 but who are not ill; isolation is the separation of those who have tested positive for Covid-19 or been diagnosed with Covid-19 by symptoms.

Current CDC guidelines state that you do not need to quarantine following exposure – regardless of vaccination status – but you should:

- Wear a well-fitting mask for 10 days when around others in public indoor spaces.
- Test on Day 5 and thereafter:
    - Recent guidance from the U.S. Food and Drug Administration regarding use of at-home rapid antigen tests suggests that if you are not having symptoms and your initial test after exposure (Day 5) is negative, you should repeat the test in 48 hours and repeat the test again after another 48 hours (for a total of 3 tests).

If you test negative for the virus that causes Covid-19 but still have symptoms, you should still be careful about contact with others, particularly if you tested with an at-home antigen test very soon after developing symptoms. It is recommended that you repeat the test 48-72 hours later if your initial at-home test is negative. Visit the CDC website for isolation guidelines.

Remote courses and remote class sessions during hybrid courses. Unless you are too ill to work, you should be able to complete your remote work while in quarantine or isolation.

In-person courses and in-person class sessions during hybrid courses. When in isolation or quarantine you will be unable to attend in-person course sessions but your instructor may require you either to participate in the course remotely, complete some complementary work that parallels what you are missing in class, or make up some class work when you return.

If you are ill and unable to do course work this will be *treated similarly to any student illness*. The Dean of Students will have been contacted when you report your positive test or are told that it is necessary to quarantine and will notify your instructor that you may be unable to attend class events or finish your work as the result of a health issue. Your instructor will not be told the reason. We have asked all faculty to be lenient and understanding when setting work deadlines or expecting students to finish work, and so you should be able to catch up with any work that you miss while in quarantine or isolation. Your instructor may make available any video recordings of classes or slides that have been used while you are absent, and may prepare some complementary asynchronous assignments that compensate for your inability to participate in class sessions. Ask your instructor for the details.

Mental and Physical Health & Wellness Resources
These uncertain times can be difficult, and many students may need help in dealing with stress and mental health. The Center for Mental Health Care & Resources, and Stamps Health Services 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 website. For more

information on these and other student services, contact the Vice President and Dean of Students or the Office of Student Life.

Recordings of Class Sessions and Required Permissions

Class recordings, lectures, and other classroom presentations presented through video conferencing and other materials posted on Canvas are for the sole purpose of educating the students enrolled in the course. *Students may not record or share recordings*, including screen capturing, unless the instructor states so or individual permission is obtained. Assessments may require students to engage the video camera, but those recordings will not be shared with or disclosed to others without consent unless legally permitted.

- For classes where participation is voluntary, students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded.
- For classes requiring class participation, if students are identifiable by their names, facial images, voices, and/ or comments, written consent must be obtained before sharing the recording with persons outside of students in the class.