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

Course Instructors:

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Sections: A and B (see class schedule for times)

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Office Hours: Tuesday 1-3pm, Wednesday 11am-12noon
Sections: C (see class schedule for times)

Recommended Textbook:
Title: Introduction to Java Programming and Data Structures - Comprehensive Version
Amazon link:
https://www.amazon.com/Introduction-Programming-Structures-Comprehensive-Version/dp/0134670949/
Author: Y. Daniel Liang
Edition: Copyright 2018, 11th edition
Link to resources for the book, including source code:
https://media.pearsoncmg.com/bc/abp/cs-resources/products/product.html#product,isbn=0134670949

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 file) Java programs.
3. Create, select, and use appropriate basic algorithms and data structures in Java programs.
4. Understand and apply event-driven programming principles in graphical user interface (GUI) programs.

Description:
Introduction to techniques and methods of object-oriented programming such as encapsulation, inheritance, and polymorphism. Emphasis on software development and individual programming skills.

Class Policies

All students are required and expected to attend class. Lecture notes/slides may not be published, hence the need for class attendance. If you want to take notes from lecture on your laptop, that is fine. Otherwise (eg, reading email or Facebook), please don't bring your laptop. You can not read email/facebook/Instagram/etc and pay attention to the lecture at the same time. Remember this though assessing your exam scores.

Please see the rest of this document along with the course Canvas site for supplemental class policies.

Course Expectations

- Keep up with the content as it is released.
- Try the code from the in-person lectures and posted online.
- 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 exams.
- Use TAs to help you learn not just to help you complete homeworks.
- 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 to ask questions. Use the resources that are provided for you, and be determined to succeed from the start. This may mean doing additional work that is not assigned for a grade in order to completely understand the material.

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 - 79	B
70 - 79	C
60 - 69	D
<= 59	F

Important: In addition to the total overall class percentage for determining your grade, you must have a **passing average (>60 average) on the 3 exams and the final exam all combined together**, not each one individually, in order to pass the course as well. We implement this policy as a check-and-balance with respect to the HWs and our allowance of collaboration on them. Note that this does not mean that you have the option of only using the four exams 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 just the four exams in order to pass the course. For (non-CS/CM) students who are taking the course P/F, you must earn 70% to earn a P (and on the exams too).

You have **one week** from the time we post your exam or homework grade to file a challenge to the grading. After that time, the grade will stand. The grade doesn't need to be resolved in 1 week, but you must notify someone with specific issues about a question on the exam or homework for the grade to be eligible to be changed.
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.

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 zero (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 like renaming valid '.java' files or adding comments after testing from crashing compilation. On this note, make sure you even submit any files that we give you for the HW (e.g. images) unless the description says otherwise. Expect a final homework that will be due on the final instruction date of the class. I must explicitly state this according to paragraph C.1.c. here:
http://catalog.gatech.edu/rules/12/

Course Grade Percentages:

Homeworks		25 %
Written Exams	3 @ 15%	45%
Final Exam	(comprehensive)	20%
Attendance & Participation		10%

Exam Policy

The written exams will be conducted during lecture periods as indicated on the class schedule. The written exams will cover concepts, as well as aspects of coding. Material from lecture and from the assigned sections of the book will be covered in each written exam. It is also expected that you will be familiar with the material and concepts from any programming homework that is due prior to an exam. 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. There are no cheat-sheets or calculators allowed during the exams.

All students are expected to attend the exams. *Forgetting about the exam or simply missing it are not proper excuses and will receive a zero score.* If a documented excused school absence will prevent you from taking an exam, you should get written confirmation of the approved absence from the Registrar's office and notify the instructor *prior* to the day of the absence. If you are sick, you should notify the instructor via email before the exam and submit documentation of the illness (doctor's note) to the Dean of Students Office in order for an absence to be excusesessed.

In the event of a medical emergency or an illness that is severe enough to require medical attention, students are responsible for contacting the Office of the Vice President and Dean of Students (http://grandchallenges.gatech.edu/office-dean-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.

If a student is going to miss an exam and this can be coordinated with the instructor ahead of time, then it may be possible to schedule an alternative make-up exam. We will try to do so in the 1-2 days following the exam. **The class standard make-up exam time is the Thursday following the exam at 11am**. If you cannot make-up the exam during the standard time, contact the instructor immediately. If that can't be worked out or isn't possible, alternatively, *we will instead substitute the student's score/percentage on the final exam for the missed exam's score/percentage*. Note that this does not mean that anyone can substitute the final exam grade for another exam's grade or simply decide not to take an exam. The policy only applies for legitimate excused absences.

Homework

During the course of the semester, there will be programming assignments each week. The HWs will be distributed via Canvas. They will be **due at 11:59 pm**. 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 your TA to get a stronger understanding of the concepts involved prior to putting continued effort into the assignment.

You should also read the collaboration policy below to learn about our policies about how you can work on the HW assignments with your peers, if you so choose. For all assignments, you will submit all the source files (.java) that you 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 were there. You are responsible for ensuring what you want graded is submitted correctly.

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 12 hours after it is due, there will be -25 points on whatever the result of your grade is. No late homework submissions will be accepted after 24 hours without a valid excused absence from the Dean of Students Office.

After receipt of a homework grade, you have **one week to inquire about the grade and check into any potential grading problems with your homework.**

Attendance

All students are required and expected to attend class. There is no guarantee that lecture notes/slides will be published, hence the need for class attendance. If you want to take notes from lecture on your laptop, that is fine. Otherwise (e.g. reading email or Facebook), please don't bring your laptop or simply keep it closed.

The attendance portion of your grade will be determined by your presence in class for a series of quizzes and participation activities (some electronic and some written). Some of these quizzes will be graded for correctness, while others will be graded for completeness. The percentage you earn on that component of the class grade will be determined by the percentage of quizzes you turn in. You can expect that there will be a participation exercise nearly every class. You lowest 3 participation exercise grades will be dropped (this includes any zeros received).

Official excused absences will be handled on an individual basis. For an official excused absence please contact the Dean of Students office: https://gatech-advocate.symplicity.com/care_report/. **Social functions are not considered excused absences.**

Here are some important notes:
- If you are absent due to official Georgia Tech business, please forward the electronic official documentation to the professor in an email stating the dates you will be absent. It will be noted in the gradebook as excused instead of receiving full credit without the work. This must be done in advance of the absence.
- Events such as vacations, 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 not valid excuses.
- If you miss any assignment without a valid excuse, then you receive a 0.
- If you will be observing religious holidays during the semester, then inform your professor during the first week of the semester in writing, especially of any conflicts with exam dates.
- Any request for exceptions to the no-makeup policy must be made in advance of the assessment, unless it is physically impossible.
- Documented incapacitating illness, death in the family, judicial procedures, military service, or official school functions are considered valid excuses. Be aware that documentation must be provided on letterhead with the signature of a physician, supervisor, or other appropriate official. Additionally, the excuse must encompass the date(s) of any assignment for which you are requesting an exception. All situations will be referred to the Dean of Students Office for verification. Therefore, contact the Dean of Students with your documentation, and they will inform you of the proper procedures. The Dean of Students' Office (https://studentlife.gatech.edu/), then contacts your professor directly with any accommodations to be provided.
- The final decision regarding any exception is made solely at the discretion of your professor.
- We will only offer a single makeup day for each exam. We write a brand new exam for makeups so that the integrity of the exams remains intact. The exam makeup day will be scheduled prior to the Exam and anyone needing to makeup an exam will be notified of the date, time and place. Generally, the make up exam will take place on the Thursday following the exam from 11:00 - 11:50 am. The makeup exam is a traditional exam, and is administered as such. If you have an excused absence, then you may take the makeup exam at this time. If you miss the makeup day, then you must have another institute approved absence in order for us to consider alternative dates. If you miss the makeup day without a valid excuse, then you receive a 0.

HW Collaboration Policy

We have chosen to focus the assessment of students' knowledge of course concepts and skills on in-class exams rather than homework assignments. Homework assignments are opportunities for learning and discovery; they are not instruments of evaluation. (In fact, homework assignments are considered in the final grade largely to motivate students to work on the assignments.)

Because homework assignments are not used for assessment but for practice, we relax the constraints on collaboration with respect to these assignments, that is, collaboration between students in CS 1331 in permitted. Collaboration includes students working together to gain an understanding of course concepts, active discussions with teaching assistants and instructors to learn about course material, and interactions in other GT-approved activities that help students to learn and understand the topics covered in the course. We do expect that you understand and can explain any homework solution that you submit, no matter how you worked on it.

As has always been the case, however, plagiarism is not allowed. Plagiarizing is defined by Webster's as "to steal and pass off (the ideas or words of another) as one's own : use (another's production) without crediting the source." Taking assignments from other classmates, being given a homework solution from an outside GT source, or downloading completed assignments from websites are considered plagiarism and are not allowed. You should not give a copy of your code, or a portion of your code to another student. You should not email your code, text or message in any way your code electronically, or share your code with other students. You should not allow another student to look at your code for the purpose of copying it into their assignment. These are activities that are simply meant to earn a score, not understand our course material. If caught plagiarizing, you will be dealt with according to the GT Academic Honor Code.

If you collaborate with other students in class or use approved sources other than those provided for everyone in the course (e.g., instructors, teaching assistants, the textbook, the course web site, the course newsgroups, the lectures, or the recitations) to help yourself learn and understand, then you must give appropriate credit to those collaborators and/or sources. As long as you acknowledge the collaboration that occurred, your grade will not be affected nor will you be charged with academic misconduct. On the other hand, a failure to acknowledge collaborations or give appropriate credit to sources of help (other than course materials or personnel as noted above) will be treated as plagiarism, a violation of Georgia Tech's Student Conduct Code.

To ensure that you acknowledge a collaboration and give credit where credit is due, we require that you place a collaboration statement at the beginning of every set of homework solutions you submit. That collaboration statement should say either:

"I worked on the homework assignment alone, using only course materials."

or

"In order to help learn course concepts, I worked on this homework with [give the names of the people you worked with], discussed homework topics and issues with [provide names of people], and/or consulted related material that can be found at [cite any other materials not provided as course materials for CS 1331 that assisted your learning]."

For quizzes and exams, all work must be your own. Cheating off of another person's test 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.

Use of any previous semester exams to help studying is allowed for this course; however, I remind you that while they may serve as examples for you, they are not guidelines for any tests, quizzes, homework, projects, or any other coursework that may be assigned during the semester.

Academic Integrity:
All work for this class is to be done individually; however you are allowed to collaborate with other students. You are strongly urged to familiarize yourselves with the GT Student Honor Code (Links to an external site.) rules. Specifically, the following is not allowed:

- Copying (electronically or otherwise), with or without modification, someone else's work when this work is not meant to be publicly accessible (e.g., a classmate's program or solution).
- Submission of material that is wholly or substantially identical to that created or published by another person or persons, without adequate credit notations indicating authorship (plagiarism).
- Putting your projects on public Github. Otherwise, if a student (in the future) copies your codes/projects, the student obviously violates the honor code but you will also be implicated.

You are encouraged to discuss problems and papers with others as long as this does not involve copying of code or solutions. Any public material that you use (open-source software, help from a text, or substantial help from a friend, etc...) should be acknowledged explicitly in anything you submit to us. If you have any doubt about whether something is legal or not please do check with the class Instructor or the TA. Please see the "HW Collaboration Policy" section of this document for details. Collaboration is not allowed exams and quizzes

Resources
There are lots of resources available to the students at GaTech. Here is a general list of resources for students at Georgia Tech.

Learning Accommodations:
If you are a student with learning needs that require special accommodations, contact the Office of Disability Services at (404) 894-2563 or http://disabilityservices.gatech.edu/, 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.

University Use of Electronic Email
A university-assigned student email account is the official university means of communication with all students at 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 minimally twice a week.

Finally, when sending an email to the instructor and/or TAs, be sure to use an informative email subject that **includes CS1331 in the subject of the email!** For example, Subject: CS1331 assignment 2 questions. 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 http://www.catalog.gatech.edu/rules/22/ 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 Piazza, email messages, and course announcements to stay current in their courses.