Course Description:

Number and Title:

CS 2340 Objects and Design

Credit Hours:

3.0 semester credit hours (3-0-3)

Catalog Description:

Object-oriented programming methods for dealing with large programs. Focus on quality processes, effective debugging techniques, and testing to assure a quality product.

Course Prerequisites and Co-requisites:

- Undergraduate Semester level CS 1331 Minimum Grade of C

Computer Requirement:

Each student is required to have ready access throughout the semester to a notebook computer that meets the hardware and software requirements for the student's academic program.

Program Learning Outcomes:

Course Learning Outcomes:

By the end of this course students will be able to define, describe and recognize examples of the principles of:
Professional Java practices (classpath, source layout, packages, third-party-libraries, build tools like Ant, IDEs)
- Agile software development processes
- Build automation
- Version control systems
- Unit testing
- Refactoring
- Clean coding practices
- Object-oriented design principles
- Object-oriented design patterns
- Analyzing requirements (scenarios/use cases, class design/CRC cards)
- Documenting object-oriented designs (UML)

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**Instructor Information:**

**Instructor:**
Dr. Junfeng Qu  
e-mail: jqu7@gatech.edu

**Office:**
Building B48

**Office hours:**
MW 12:30pm – 16:30pm, T 9:00am – 5:00pm

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**Class Meetings:**

CS 2340: MW 16:45-18:50

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**Official Textbook:**

**No official textbook is required.**

Semi-required:


Highly recommended:


Software
- Java Development Kit: Java SDK 9+, available from Oracle
- Visual Paradigm https://www.visual-paradigm.com/download/community.jsp
  - Git
  - Pro Git
  - Ant
  - JUnit
  - Eclipse
  - Checkstyle
  - Cobertura test coverage analyzer

Course Websites: All student grade information will be on the course’s Canvas site.

Evaluation:

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<tbody>
<tr>
<td>Class Attendance</td>
<td>15%</td>
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<td>Midterm Exam</td>
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<td>Final Exam</td>
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<td>Homeworks</td>
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Grading:

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<tr>
<td>A</td>
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<td>B</td>
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<td>C</td>
<td>70 - 79%</td>
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Course Schedule:

The course schedule is provided in the table below. Instructor reserves the right to update the schedule.
**Course Policies:**

**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. This is not a course about memorization; it is about problem-solving.

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 documented sickness or 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(s) of the absence.

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 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. 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

Programming homework turn-in is via Canvas. Each assignment is due by the time stated on the assignment. Multiple resubmissions are allowed, so submit early and often so you aren't in a rush on the due date. A grace period may be given during which your assignment will be marked "late" on Canvas, but will not be docked points. After the grace period, Canvas will not accept your submission, and you will receive a 0 if you have not submitted your HW solution. No exceptions. It is your responsibility to make sure you completely and successfully submit the proper files for your assignments turned in to Canvas. "Safe submission" practices will be discussed in your first assignment.

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 help from TA or instructor to get a stronger understanding of the concepts involved prior to putting continued effort into the assignment.

After receipt of a homework grade, you have one weeks 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. No 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. The grade of attendance is calculated based on the percentage of total number of classes you participated during the summer program.

Email Policy

You must conduct all official email correspondence for this course using your official GT email account. This is to protect your privacy. Email from outside sources such as gmail, hotmail, yahoo, and other personal accounts will be ignored. (Be sure to use an informative email subject that includes CS2340 in the subject of the email! For example, Subject: CS2340 exam 2 question. Definitely do not email saying "I'm in your CS class..." as we often teach numerous CS courses.)
Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. For information on Georgia Tech's Academic Honor Code, please visit http://www.catalog.gatech.edu/policies/honor-code/. Unless otherwise noted, all work should be strictly your own. Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations. If you have any questions about these policies, just ask your instructor.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, 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 accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

General list of resources for students at Georgia Tech.