

## CS 3354.006: Object-Oriented Design and Programming

Fall 2019

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<b>Office Hours</b>	Tue 11 a.m. – 1:30 p.m. Thu 3:30 p.m. – 6 p.m.
<b>Section Information</b>	CS3354-006 IGRM 03104
<b>Class Meetings</b>	Tue Thu 2:00 p.m. - 3:20 p.m.
<b>Open Labs</b>	DERR 231 (Linux Lab) MCS 590 (Windows Lab)
<b>Prerequisites</b>	Grade of C or better in CS 2308

### Course Material

1. <https://www.zybooks.com/> purchase (link shared on TRACS)
2. Class slides, notes, and source code posted on TRACS
  - *Please contact the instructor for more recommendations.*

### Course Description

The course covers object-oriented design principles and programming for students **with prior** programming experience. The topics include inheritance and polymorphism, object-oriented design process, UML diagrams, design patterns, exception handling and multithreading. Students will design and implement programs in Java.

### Course Objectives

At the end of the semester the student should be able to:

- Design, implement, test, and debug programs in an object-oriented programming language: Java.
- Describe the unique features of Java.
- Read and write Java programs that use generic types and data types from the Java Collections library.
- Describe the concepts of inheritance and polymorphism and incorporate them into Java programs using abstract classes and interfaces.
- Describe how the class mechanism supports encapsulation, information hiding, and interfaces.
- Develop programs using multiple classes and composition.
- Read and write Java programs that use persistence (serializable objects).
- Describe and apply the Object-oriented design process to design a Java program.
- Describe the semantics of exception handling in Java, and use it to write reliable Java code.
- Read, design, and draw the following models using the Unified Modeling Language (UML)
- Write Java code that implements the designs specified by UML diagrams.
- Describe the following Design Patterns and create UML designs using them and implement the designs in Java programs.
- Determine the proper design pattern for a given problem.
- Use Javadoc to specify the interface (API) of Java objects.
- Understand and apply event-driven programming principles by developing programs with a graphical user interface, using objects from the Java Swing library.
- Read and write Java programs that use threads to implement concurrency.

## What is expected of student registered for CS 3354.253 in Spring 2019?

Students are expected to:

- (1) Attend instructional meetings
- (2) Do not distract or disrupt students during instructional meetings
- (3) **Read announcements** from the instructor posted on TRACs course site.
- (4) Complete pre-class reading assignment on zybooks
- (5) Be informed and prepared for the class
- (6) **Submit all assignments on time**
- (7) Complete individual assignments by yourself. Help will be provided during office hours of an instructor and a teaching assistant.
- (8) Participate in the completion of a group assignment. Group assignment means the entire group gets an identical grade score.
- (9) Check assignment grading, assessment grading, and grade grievance policy
- (10) Take midterm and final exam in the classroom during the exam time
- (11) Clearly communicate with the instructor regarding any issues, delays or unforeseen circumstances in timely manner. Emailing is the fastest way to reach the instructor.

## Grading

What	Grade Percentage	Date (if applicable)
Class Participation	4%	Attendance, active responses
Pre-class reading assignments in zybooks	10%	Weekly, posted on zybooks
After class zybooks Assignments and Labs	25%	Weekly, posted on zybooks
Three Programming Assignments	21%	Posted on TRACS
Midterm	15%	<b>Thu Oct 10 2 p.m. – 3:20 p.m.</b>
Final	25%	<b>Tue Dec 10 2:00 p.m. – 4:30 p.m.</b>

## Assignments

- All zybooks work due will be on zybooks. Check it regularly.
- Three programming assignments will be announced on TRACS. All three assignments will include a portion of coding and a portion of drawing models or commenting code or explaining design patterns.
- Three programming assignments need to be submitted to git.txstate.edu. The assignments need to be submitted by each individual student. Students are allowed to work in pairs, and they should submit the assignment naming the partner – both students need to submit the assignment.
- There is no deadline extension: if assignments are not submitted in time, they are not accepted.

## Policies

**Grade Grievance Policy:** If a student believes a mistake has been made in grading an assignment, the student has one week after an assignment is returned to resubmit an assignment for re-grading if they believe there is an error.

**Drop Policy** Students will not be automatically dropped for non-attendance: if you are planning to drop the class or withdraw from the class, follow the instructions listed on registrar's web site:

<http://www.registrar.txstate.edu/registration/drop-a-class.html>

It is student's responsibility to be familiar with the University Policy on dropping classes as described in the catalog and the TXSTATE website (see), to observe relevant deadlines, and to follow proper procedures for dropping classes.

**Incomplete Policy** Computer Science department has a strict policy regarding 'Incomplete grade'. It has to be approved by the chairman and thus an 'Incomplete grade' will only be granted under unexpected and truly severe situations, which must be supported by some official documents.

**Makeup Policy** Zybooks pre-reading cannot be made up. Three programming assignments **cannot** be made up. Midterm exam cannot be made up. Final exam may be made up in exceptional circumstances, with approval from the instructor.

**E-mail Policy:** During the work week, instructor will respond to personal emails during working hours, within 24 hour window. Instructor will review communication over the weekend but will respond on Monday to most situations. If you need to reach me by email, please use the subject line: Your Name, Course Name/Number, Topic. Please allow a full 24 hours before emailing me again about the same question or issue, and on Monday for inquiries sent over the weekend.

**Extra Credit Policy:** There is no extra credit or make up assignment available for this class.

**Plagiarism Policy:** Except where explicitly and specially allowed (such as group project), all work submitted in class is expected to be your individual work. Plagiarism will not be tolerated and if detected will result in an automatic 'F' grade. Please refer to <http://www.txstate.edu/effective/upps/upps-07-10-01.html> for Texas State's Honor Code. • Do not include the code from the open source in your assignment (unless it is approved by the instructor) – penalty is 0 points for the assignment.

## Communication

Best way to contact the instructor is to send her an email. All announcements, resources, and updated will be posted on TRACS <https://tracs.txstate.edu/> We will use the TRACS website largely for the Announcements (Announcement Tool), Three Programming Assignments description (Assignments Tool) and Grades (Gradebook Tool).

## GutHub

Students will submit programming assignments through <https://git.txstate.edu>. Your login is your NetID. If you have questions about using git, please contact [cs\\_helpdesk@txstate.edu](mailto:cs_helpdesk@txstate.edu). Students repository for the class is <https://git.txstate.edu/CS3354/<NetID>.git>

## Accommodations for students with disability

Any student requiring special accommodations, should inform me during the first two weeks of classes. The student should also contact the office of disability services at the LBJ student center. Students who qualify for extra time for exams must take their test with ATSD and must schedule their test at the same time the test is given in class.

## Academic Honor Code and Conduct

You are expected to adhere to

- the University's Academic Honor Code <http://www.txstate.edu/honorcodecouncil/Academic-Integrity.html>
- Code of Student Conduct - <http://www.dos.txstate.edu/handbook/rules/cosc.html>
- Texas State Mission and Shared Values: <http://universityplan2023.avpie.txstate.edu/overview/Texas-State-Mission-and-Goals.html>.

## Relevant Campus Resources

**Food Insecurity: Bobcat Bounty** is the first student-run, on-campus food pantry at Texas State University. It is run by students under the direction of faculty from the Food Security Learning Community in the Nutrition & Foods Program. Our goal is to decrease food insecurity by providing healthy food to the students, faculty, and administration at Texas State University. The majority of our food comes from the Hays County Food Bank, a partnership to create a grocery store style experience for clients.

<https://bobcatbounty.txstate.edu/Eligibility.html>

**Texas State Counseling Center:** Counseling Center services are free, confidential, and provided by trained professionals to currently enrolled Texas State students while classes are in session. Counseling Center Services include brief individual, group, and couples counseling, consultation and crisis response, and workshops about coping with stress and other mental health topics.

<https://www.counseling.txstate.edu/>

**Texas State Sexual Misconduct Policy and Reporting:** If you need to make a report, please contact Ameerah McBride, Title IX Coordinator at 512.245.2539 or you can file a report for someone else, anonymously, or using a pseudonym here:

[https://cm.maxient.com/reportingform.php?TexasStateUniv&layout\\_id=10](https://cm.maxient.com/reportingform.php?TexasStateUniv&layout_id=10)

Title IX details: <https://www.txstate.edu/oei/title-IX.html>

**Discrimination Complaints:** Texas State prohibits discrimination and harassment on the basis of race, color, national origin, age, sex, religion, disability, veterans' status, sexual orientation, gender identity, or gender expression. Additionally, Texas State prohibits retaliation against a person who files a harassment or discrimination complaint, or who assists or participates in the investigation of a report.

<https://www.txstate.edu/oei/policies/complaints.html>

Download the discrimination complaint form:

<https://gato-docs.its.txstate.edu/jcr:1376ecad-b820-4bb5-bd4a-508ef63844f0/Discrimination%20Complaint%20Form.v3.fillable.pdf>

**Office of Student Diversity and Inclusion:** <https://www.sdi.txstate.edu/>

Texas State Alliance: <https://twitter.com/TxstAlliance>

<https://www.sdi.txstate.edu/Support-and-Empowerment/LGBTQIA-and-Allies.html>

**Full List of On-Campus Resources:**

<https://www.studentsuccess.txstate.edu/programs/faces/On-Campus-Resources.html>