

Texas Tech University

Department of Computer Science

Course Name: Object-Oriented Programming **Number:** 2365- 002 **Semester:** Spring 2025
Instructor Name: Mustafa Alam **Office:** EC102E **Email:** Mustafa.Alam@ttu.edu
Classroom: Holden Hall 150 **Class Hours:** 1:00 pm to 1:50 pm (MWF)
Instructor Office Hours: - Tuesday and Thursday from 12:00 am to 1:00 pm Or by appointment

When sending an email, please include your course number and section number in the subject line. For example: CS2365-001: [Specify the reason for the contact].

Texts:

Starting out with Java: From Control Structures through Objects, 7-8 edition, Tony Gaddis
The Complete Reference Java 10 edition, McGraw Hill, Herbert Schildt

Course objectives:

The objective of this course is to introduce object-oriented analysis, design, and programming through the programming construct, classes.

Key Topics:

Classes
Inheritance
Polymorphism
Object-Oriented Analysis & Design
User Interfaces
Object Interfaces
Abstract Classes
Data Abstraction & Encapsulation
Secure Programming
Local/global impacts of computing solutions on individuals, organizations, and society

Prerequisites:

CS 2413 Data Structures

Expected Prior Knowledge and Skills In:

The successful student should be proficient in procedural programming and data structures.

Learning Outcomes: Students who have completed this course should have

1. Understand object-oriented analysis and design. (2)
2. Able to use classes, inheritance, and polymorphism. (1)
3. Understand user interface design principles. (2)
4. Understand object-oriented abstractions, such as data abstraction. (6)
5. Understand basics of secure programming. (6)
6. Understand local/global impacts of computing solutions on individuals, organizations, and society (4)

Assessment methods of all of the above: exams, assignments

Grading Policy:

- **Homework: 18%**
 - **Assignment.** The instructor will provide you with assignments/projects and post them on the Blackboard. The instructor will announce each assignment may discuss it in class to clarify.
 - **Submission.** Homework/Projects must be submitted to the Blackboard by the due date.
 - **Late submission.** Late submissions will not be accepted. However, the students' late submission can be graded with a 30% penalty if they get the instructor's permission. The instructor can reduce or remove the penalty if the students justify the late submission. Here is the 30% deduction policy for late submission:
 - 0 hours – 24 hours late: 10% penalty
 - 24-48 hours late: 20% penalty
 - 48-72 hours late: 30% penalty
 - After 72 hours, not accept
 - **Incorrect homework file submission.** The instructor may not grade the students' incorrect homework/projects files submitted to the Blackboard. However, the instructor can grade the students' new submissions with a 30% penalty if they get instructor permission and submit it by the new deadline.
 - **Technical issues.** The students need to check if they have successfully uploaded their homework to the Blackboard. The students must email homework to the instructor immediately if they cannot submit assignments to the Blackboard due to any technical problems.
 - **Review grade.** The students can review their homework with the Instructor/TA/GRader in a given period if they have any questions.
- **Attendance 2%**
- **Class Work: 5%**
- **Exam: 75%** (Exam1: 20%, Exam2: 20%, Exam3: 15%, Final Exam: 20%)
 - **Tentative exam dates:**
 - Exam1: 2/14/24
 - Exam2: 3/28/24
 - Exam3: 4/11/24
 - Final Exam:
 - https://www.depts.ttu.edu/officialpublications/calendar/24-25_cal_glance.php
 - **One of the exams will be a coding exam**
 -

Makeup Policy:

- Students are required to **take the exam on the exam date**. No make-up exam except for the following cases.
 - **Absence due to religious observance.** The Texas Tech University Catalog states that a student who is absent from classes for the observance of a religious holyday will be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. Notification must be made in writing and delivered in person no later than the 15th class day of the semester.
 - **Absence due to officially approved trips.** The Texas Tech University Catalog states that the person responsible for a student missing class due to a trip should notify the instructor

of the departure and return schedule in advance of the trip. The student is responsible for the material missed.

- **Absence due to illness of student and death of immediate family.** The student must contact the instructor within 24 hours of missing an exam in order to get a chance to make up that exam. The Center for Campus Life is responsible for notifying the campus community of student illnesses, immediate family deaths and/or student death. Generally, in cases of student illness or immediate family deaths, the notification to the appropriate campus community members occur when a student is absent from class for four (4) consecutive days with appropriate verification. It is always the student's responsibility for missed class assignments and/or course work during their absence. The student is encouraged to contact the faculty member immediately regarding the absences and to provide verification afterwards. The notification from the Center for Campus Life does not excuse a student from class, assignments, and/or any other course requirements. The notification is provided as a courtesy.
- **Whether an absence is excused or unexcused is determined solely by the instructor.** The Center for Campus Life will notify faculty, at the student's request, when a student is absent for four consecutive days with appropriate verification of a health related emergency. This notification does not excuse the student from class, it is provided as a courtesy.
 - The usual grading scale is **A (90-100), B (80-89), C (70-79), D (60-69), F (0-59).**
 - This scale may be subject to class performance.
 - The student's responsibility is to attend the class and check the Blackboard regularly to get any announcements.
 - Beyond the conditions described above, the instructor will make all decisions.

Course Schedule: The table provides the initial class schedule. **This schedule is tentative.** All changes will be announced in class or on the Blackboard.

Week	Activity	Plan
1 (1/15)	Lecture	Syllabus
2 (1/20)	Lecture	Introduction to OOP
3 (1/27)	Lecture	Java Fundamental
4 (2/03)	Lecture	Methods
5 (2/10)	Lecture	Class
6 (2/17)	Lecture	Array and Array List Class
7 (2/24)	Lecture	Class and Object
8 (3/03)	Lecture	Inheritance
9 (3/10)	Lecture	Interface, User Interface
10 (3/24)	Lecture	Exception Handling
11 (3/31)	Lecture	File
12 (4/07)	Lecture	Secure Programming
13 (4/14)	Lecture	JavaFX
14 (4/23)	Lecture	Multithreaded Programming
15 (4/28)	Lecture	Secure Programming
16 (5/05)	Lecture	TBD
	Final Exam	

Holiday Schedule: The school calendar will be followed for the holiday schedule. If the class needs to be canceled for any reason, it will be made known in advance

https://www.depts.ttu.edu/officialpublications/calendar/24-25_cal_glance.php

AI-use policy:

You may not use traditional artificial intelligence tools (such as Grammarly) or generative artificial intelligence (AI) tools (such as ChatGPT) to assist or produce work for this class, EXCEPT on assignments specified in class or on the syllabus. The instructor will provide more information as appropriate. You may not, however, construe this limited use as permission to use these technologies in any other facet of this course. Submission of AI-generated content as your own work is a violation of academic integrity and may result in referral to the Office of Student Conduct. Please contact your instructor if you have questions regarding this course policy.

Accommodation for pregnant students:

Any pregnant student will be provided reasonable accommodations as would be provided to a student with a temporary medical condition, including:

1. ability to maintain a safe distance from hazardous substances, areas, or activities.
2. excused absences;
3. ability to make up missed assignments or assessments.
4. additional time for assignment completion and access to instructional materials and recordings of classes for which the student has an excused absence.

Any student who is pregnant or parenting a child up to age 18 may contact Texas Tech's designated Pregnancy and Parenting Liaison to discuss support available through the University. The Liaison can be reached by emailing titleix@ttu.edu or calling 742-7233. Additional information is available online

Discrimination, Harassment, and Sexual Violence Statement: Texas Tech University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from gender and/or sex discrimination of any kind. Sexual assault, discrimination, harassment, and other Title IX violations are not tolerated by the University. Report any incidents to the Office for Student Rights & Resolution, (806)-742-SAFE (7233) or file a report online at titleix.ttu.edu/students. Faculty and staff members at TTU are committed to connecting you to resources on campus. Some of these available resources are: TTU Student Counseling Center, 806-742-3674, <https://www.depts.ttu.edu/scc/> (Provides confidential support on campus.) TTU 24-hour Crisis Helpline, 806-742-5555, (Assists students who are experiencing a mental health or interpersonal violence crisis. If you call the helpline, you will speak with a mental health counselor.) Voice of Hope Lubbock Rape Crisis Center, 806-763-7273, voiceofhopelubbock.org (24-hour hotline that provides support for survivors of sexual violence.) The Risk, Intervention, Safety and Education (RISE) Office, 806-742-2110, <https://www.depts.ttu.edu/rise/> (Provides a range of resources and support options focused on prevention education and student wellness.) Texas Tech Police Department, 806-742-3931, <http://www.depts.ttu.edu/ttpd/> (To report criminal activity that occurs on or near Texas Tech campus.)

Ethical Conduct: Although students are encouraged to discuss ideas and problems with the instructor, and other students, academic dishonesty will not be tolerated. Unless stated otherwise by the instructor, you are not allowed to share code or answers, use or even look at code or answers obtained from online sources, friends, or classmates. It is your responsibility to educate yourself about actions that constitute academic dishonesty. If you are not sure whether a specific action is allowed, talk to the instructor before you indulge in it. All submitted code and assignments will be randomly checked for plagiarism. Academic dishonesty of any kind, if discovered, will result in one or more of the following sanctions: a grade of 0 for the corresponding graded item, a grade of "F" in the course, and further action according to the TTU operating procedures: <http://www.depts.ttu.edu/opmanual/OP34.12.pdf>.

- Cheating will not be tolerated on any work done throughout the semester.
- The first offense will result in an F for that assignment, and the second offense will result in an F in the course. Both offenses must be reported to Student Judicial Programs.
- Cheating is considered to be any collaboration beyond basic discussion for anything unless specifically announced by the instructor. See Statement of Academic Conduct for Engineering Students, College of Engineering, for further information.
- "Students are expected to assist in maintaining a classroom environment that is conducive to learning. In order to assure that all students have the opportunity to gain from time spent in class unless otherwise approved by the instructor, students are prohibited from engaging in any form of distraction. Inappropriate behavior in the classroom shall result, minimally, in a request to leave class."

Civility in the Classroom Statement: Texas Tech University is a community of faculty, students, and staff that enjoys an expectation of cooperation, professionalism, and civility during the conduct of all forms of university business, including the conduct of student-student and student-faculty interactions in and out of the classroom. Further, the classroom is a setting in which an exchange of ideas and creative thinking should be encouraged and where intellectual growth and development are fostered. Students who disrupt this classroom mission by rude, sarcastic, threatening, abusive, or obscene language and/or behavior will be subject to appropriate sanctions according to university policy. Likewise, faculty members are expected to maintain the highest standards of professionalism in all interactions with all constituents of the University (www.depts.ttu.edu/ethics/matadorchallenge/ethicalprinciples.php).

Center for Campus Life: The Center for Campus Life can assist in notifying the campus community of student illnesses, immediate family deaths and/or student death. Generally, in cases of student illness or immediate family deaths, the notification to the appropriate campus community members occurs when a student is absent from class for four consecutive days with appropriate verification. It is the student's responsibility for missed class assignments and/or course work during their absence.

ADA STATEMENT:

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services in West Hall or call 806-742-2405.

ACADEMIC INTEGRITY :

Academic integrity is taking responsibility for one's own class and/or course work, being individually accountable, and demonstrating intellectual honesty and ethical behavior. Academic integrity is a personal choice to abide by the standards of intellectual honesty and responsibility. Because education is a shared effort to achieve learning through the exchange of ideas, students, faculty, and staff have the collective responsibility to build mutual trust and respect. Ethical behavior and independent thought are essential for the highest level of academic achievement, which then must be measured. Academic achievement includes scholarship, teaching, and learning, all of which are shared endeavors. Grades are a device used to quantify the successful accumulation of knowledge through learning. Adhering to the standards of academic integrity ensures grades are earned honestly. Academic integrity is the foundation upon which students, faculty, and staff build their educational and professional careers. [Texas Tech University ("University") Quality Enhancement Plan, Academic Integrity Task Force, 2010]

All work in this course shall be done in conformance with the statements made on academic integrity in The Texas Tech University Catalog: “It is the aim of the faculty of Texas Tech University to foster a spirit of complete honesty and a high standard of integrity. The attempt of students to present as their own any work that they have not honestly performed is regarded by the faculty and administration as a serious offense and renders the offenders liable to serious consequences, possibly suspension.”

“Scholastic dishonesty” includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor) or the attempt to commit such an act.

“Cheating” includes, but is not limited to, the following:

- Copying from another student’s test paper.
- Using materials during a test that have not been authorized by the person giving the test.
- Failing to comply with instructions given by the person administering the test.
- Possessing materials during a test that are not authorized by the person giving the test, such as class notes or specifically designed “crib notes”. The presence of textbooks constitutes a violation only if they have been specifically prohibited by the person administering the test.
- Using, buying, stealing, transporting, or soliciting in whole or part the contents of an unadministered test, test key, homework solution, or computer program.
- Collaborating with or seeking aid or receiving assistance from another student or individual during a test or in conjunction with an assignment without authority.
- Discussing the contents of an examination with another student who will take the examination.
- Divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructor has designated that the examination is not to be removed from the examination room or not to be returned to or kept by the student.
- Substituting for another person, or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment.
- Paying or offering money or other valuable thing to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program, or information about an unadministered test, test key, homework solution, or computer program.
- Falsifying research data, laboratory reports, and/or other academic work offered for credit.
- Taking, keeping, misplacing, or damaging the property of the university, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct.

“Plagiarism” includes, but is not limited to, the appropriation of, buying, receiving as a gift, or obtaining by any means material that is attributable in whole or in part to another source, including words, ideas, illustrations, structure, computer code, other expression and media, and presenting that material as one’s own academic work being offered for credit. Any student who fails to give credit for quotations or for an essentially identical expression of material taken from books, encyclopedias, magazines, Internet documents, reference works or from the themes, reports, or other writings of a fellow student is guilty of plagiarism.

“Collusion” includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.

RELIGIOUS HOLY DAY :

“Religious holy day” means a holyday observed by a religion whose places of worship are exempt from property taxation under Texas Tax Code §11.20. A student who intends to observe a religious holyday should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holyday shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who is excused under section 2 may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily.

COVID related items

Vaccinations: Texas Tech University strongly recommends students adhere to CDC guidelines on COVID-19, including obtaining COVID-19 vaccinations. If you were unable to obtain a vaccination prior to your arrival on campus, the COVID-19 vaccine is available at Student Health Services by appointment. You can find additional information about the vaccine and campus vaccine clinics [here](#).

Face Covering Policy: As of May 19, 2021, face coverings are optional in TTU facilities and classrooms but, based on CDC guidelines, are recommended and welcome, especially for those who have not been vaccinated for COVID-19 or who may have susceptibilities to the virus. Face coverings are required in public transportation (e.g., Citibus) and in the Student Health Clinic.

Illness-related Absences: Illness-related absences will require proper documentation in order to be considered an excused absence. It is the student’s responsibility to communicate with the course instructor regarding adjusting course deadlines (HW, exams, etc.), due to illness, in advance of those deadlines. The instructor will work with students with documented illnesses regarding missed work or deadlines. For further information please reference the COVID-19 page

(<https://www.depts.ttu.edu/registrar/coronavirus/>).

In-Person Office Hours: The instructor will hold face to face office hours.

Personal Hygiene: We all should continue to practice frequent hand washing, use hand sanitizers after touching high-touch points (e.g., door handles, shared keyboards, etc.), and cover faces when coughing or sneezing.

Potential Changes: The University will continue to monitor CDC, State, and TTU System guidelines in continuing to manage the campus implications of COVID-19. Any changes affecting class policies or delivery modality will be in accordance with those guidelines and announced as soon as possible. If Texas Tech University campus operations or activities in this class are required to change because of health concerns related to the COVID-19 pandemic, it is possible that this course will move to a fully online delivery format. Should that be necessary, students will need to have a computer that meets the laptop requirements of the Whitacre College of Engineering found at <https://www.depts.ttu.edu/coe/dean/engineeringitservices/buyingtherightcomputer.php>, web cam, and microphone to participate in class and conduct exams, and students will have to scan and submit course assignments as required and specified for the class.

In the event of a change to an online teaching modality, online exams and quizzes within this course may require online proctoring. Therefore, students will be required to have a webcam (USB or internal) with a microphone when taking an exam or quiz. Students understand that this remote recording device is

purchased and controlled by the student and that recordings from any private residence must be done with the permission of any person residing in the residence. To avoid any concerns in this regard, students should select private spaces for the testing. The University library and other academic sites at the University offer secure private settings for recordings and students with concerns may discuss location of an appropriate space for the recordings with their instructor or advisor. Students must ensure that any recordings do not invade any third party privacy rights and accept all responsibility and liability for violations of any third party privacy concerns. Setup information will be provided prior to taking the proctored exam.

All students must review the syllabus and the requirements including the possible online terms and equipment requirements to determine if they wish to remain in the course. Enrollment in the course is an agreement to abide by and accept all terms. Any student may elect to drop or withdraw from this course before the end of the drop/add period.

Additional COVID related information and TTU COVID updates can be found at <https://www.depts.ttu.edu/communications/emergency/coronavirus/>

Safety and Wellness

The Texas Tech University (TTU) and Edward E. Whitacre Jr. College of Engineering are committed to the safety and wellness of our students by providing various services and resources.

Make sure you register with [Tech Alert](#) to get emergency notification by phone call, text, or email. You are encouraged to review the [Emergency Action Plans \(EAPs\)](#) and watch the videos of [Know What To Do In Emergency Events](#) and [Surviving an Active Shooter Event Training](#) to be prepared for those emergency situations. Additionally, due to the nature of laboratory or design courses, it is mandatory for you to follow the [university safety policies](#) and any additional safety protocols required by the course instructor(s).

For your wellbeing, various services are available at [Student Counseling Center](#) and [Student Health Services](#). The Student Wellness Center provides convenient walk-in services M-F from 8 AM to 5 PM. Furthermore, the Texas Tech Crisis HelpLine (806-742-5555) provides 24/7/365 assistance for students experiencing a crisis or distress.

Emergency/Crisis Phone Number

TTU Police (UPD) Emergency	911
TTU Police (UPD) Non-Emergency	806.742.3931
TTU Emergency Maintenance	806.742.4OPS (4677)
TTU EHS (M-F, 8 am – 5 pm)	806.742.3876
SafeRide	806.742.RIDE (7433)
TTU Crisis HelpLine	806.742.5555
Student Wellness Center (From Urgent Care to a Full-Service Pharmacy on site)	806.742.2848
Title IX Reporting	806.742.7233
The Dean of Students	806.742.2984