

CS 3443 01T

Application Programming

Course Syllabus | Summer 2024



Course Information

Course Description: Prerequisite: CS 2124. Advanced application development in a current object-oriented language. Introduction to the software life cycle, best programming practices, and modern development tools.

Credit Hours: 3

Course Modality: Online only, at set time

Learning Goals

At the end of the course, you will be able to:

- Use and master the essential features of Java including control (sequential, selection, repetition), parameter passing, arrays, ArrayLists & Strings.
- Use and master object-oriented principles to develop and implement computer- based solutions to problems.
- Be introduced to elements of GUI design and event-driven models of execution.
- Be introduced to tools in the development environment, including Eclipse and Android Studio, UML class diagrams, and source control.
- Develop an application as a group project, using the principles and practices covered in class.

Communicate with Me

Instructor Name: Hend Alkittawi

Department

Computer Science

Office Location

Online

Student Hours

By appointment

Email Address: hend.alkittawi@utsa.edu

Preferred Method of Communication

Email

About Me & My Teaching Philosophy

My name is Hend Alkittawi. This is my second year teaching at UTSA. I have a master's degree in computer science and a bachelor's degree in electrical engineering. I worked as a data analyst, technician, and software developer. I worked on processing and analyzing drone images for agriculture research, built mobile apps, and best of all got to teach people about the awesome world of programming and building software! Learning how to code and build software was intimidating at first. Here I want to share some of the strategies that helped me make my journey more manageable and enjoyable:

- **Start Small:** Begin with simple coding exercises or projects that are well within your current skill level. Gradually increase the complexity as you become more comfortable with the basics.
- **Set Realistic Goals:** Set achievable goals for each coding session. Focusing on small, attainable tasks can help you feel a sense of accomplishment, boosting your confidence.
- **Break It Down:** Break larger coding problems into smaller, manageable steps. This makes the problem-solving process less overwhelming and more approachable.
- **Use Online Resources:** There are numerous online resources, tutorials, and courses available that cater to beginners.
- **Practice Regularly:** Consistency is key. Dedicate regular time to practicing coding. Repetition helps reinforce concepts and builds confidence.
- **Seek Support:** Join coding communities or forums where you can ask questions, share your progress, and get help from more experienced developers.
- **Learn from Mistakes:** Embrace mistakes as part of the learning process. Every error you encounter is an opportunity to learn and grow. Debugging and problem-solving are integral parts of coding.
- **Pair Programming:** Collaborating with a friend or a fellow learner can make the process less intimidating. You can discuss ideas, work through challenges together, and learn from each other's perspectives.
- **Practice Patience:** Coding requires patience. Solutions may not come immediately, but with persistence, you'll find your way through challenges.
- **Celebrate Progress:** Acknowledge your achievements, no matter how small. Celebrate completing a tutorial, solving a problem, or building a simple project. Recognizing your progress can be motivating.
- **Apply Learning:** Apply what you've learned by working on personal projects that interest you. Practical application reinforces your knowledge and gives you a sense of purpose.
- **Stay Curious:** Maintain a curious mindset and be open to exploring different programming languages and technologies. Learning is an ongoing process, and curiosity can fuel your journey.

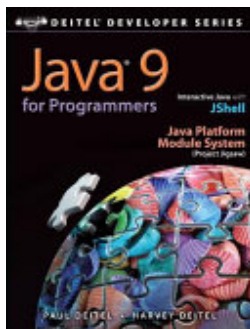
- **Mindset Shift:** View coding challenges as puzzles to solve rather than insurmountable obstacles. This shift in perspective can help reduce the intimidation factor.
- **Take Breaks:** If you feel overwhelmed, take short breaks. Stepping away from the computer can give you a fresh perspective when you return.

Remember that feeling intimidated is a natural part of learning something new. With time and consistent effort, you'll build your coding skills and gain confidence. Stay patient, stay curious, and keep pushing yourself forward. :)

Course Materials



Android Programming
ISBN: 9780134706054
Authors: Bill Phillips, Chris Stewart
Publisher: Addison-Wesley Professional
Publication Date: 2015-08-01
Edition: 3rd
Required/Recommended/Optional: Required



Java 9 for Programmers
ISBN: 9780134777566
Authors: Paul J. Deitel, Harvey M. Deitel
Publication Date: 2017-05-11
Required/Recommended/Optional: Recommended

Assessments and Assignments

Quizzes

There are 6 quizzes in this course, all given via Canvas.

Labs

There are 5 lab assignments in this course, designed to provide hands-on experience with the material covered in each module. These will be submitted via Canvas. You may submit labs late for a 10% deduction per day for up to 3 days.

Project

There will be 1 semester-long project in this course, enabling students to work on developing an application as a team.

Exams

Two exams will be given in this course – one midterm and one final. Dates and times for both exams will be posted on Canvas by the first day of the semester. The midterm exam will be held during the scheduled course time and the final exam will be held during the university-scheduled final exam date/time, therefore there will not be any conflicts with other courses. There are no make-up exams available, unless coordinated with your instructor 1 week in advance of the midterm or 1 month in advance of the final. Contact the instructor in advance if other arrangements need to be made.

Activities and Grading

Activity	Quantity	%
Quizzes	6	15
Labs	5	35
Team Project	1	20
Midterm Exam	1	15
Final Exam	1	15
Total		100%

Grade Distribution and Letter Grade

Letter Grade	Grade Range
A+	> 96%
A	93% - 96%
A-	90% - 92%
B+	87% - 89%
B	83% - 86%
B-	80% - 82%
C+	77% - 79%
C	73% - 76%
C-	70% - 72%

Letter Grade	Grade Range
D+	67% - 69%
D	63% - 66%
D-	60% - 62%
F	< 60%

Course Expectations & Policies

Instructor-Initiated Drops

This course does not use instructor-initiated drops for students who exceed the absence and/or missed assignment limit.

Video and Audio Recording

As the instructor of this course, I may record meetings and lessons. You are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Recordings may not be published, reproduced, or shared with those not in the class. If the instructor or a UTSA office plans any other uses for the recordings, consent of the students identifiable in the recordings is required before such use unless an exception is allowed by law. For more information on your privacy and class recordings, review [Student Privacy \(FERPA\) in Virtual Classrooms and Other Educational Recordings](#) and the [Guide to Secure Video Conferencing Tools](#).

Academic Freedom

Academic freedom¹ is a cornerstone of the University. Academic freedom in its teaching aspect is fundamental for the protection of the rights of the teacher in teaching and of the student to freedom in learning.² Each faculty member is entitled to full freedom in the classroom discussing the subject that the faculty member teaches.³ The University of Texas at San Antonio will not penalize or discipline members of the faculty because of their exercise of academic freedom.

Along with this freedom comes responsibility. It is the responsibility of faculty members to ensure that topics taught are related to the classroom subject. Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.⁴ It is not the proper role of the university or any outside agency to attempt to shield individuals from ideas and opinions they find unwelcome, disagreeable, or even deeply offensive.⁵ Engaging with new ideas and perspectives helps students grow intellectually and is beneficial to the educational process.

1. Statement adapted from Texas A&M University's [Syllabus Statement Regarding Academic Freedom](#)

2. 1940 Statement of Principles on Academic Freedom and Tenure

3. Board of Regents Rule 31004; HOP Policy 4.02
4. American Association of University Professors Joint Statement on Rights and Freedoms of Students
5. The Chicago Statement

UTSA Inclusivity Statement

The University of Texas at San Antonio, a Hispanic-serving institution situated in a global city that has been a crossroads of peoples and cultures for centuries, values diversity and inclusion in all aspects of university life. As an institution expressly founded to advance the education of Mexican Americans and other underserved communities, our university is committed to promoting access for all. UTSA, a premier public research university, fosters academic excellence through a community of dialogue, discovery, and innovation that embraces the uniqueness of each voice.

Syllabus Changes

The syllabus is subject to change at the instructor's discretion. Any changes/corrections to the course materials, assignment dates, or other updates will be communicated to the students ahead of time. You are responsible for checking Canvas for corrections or updates to the syllabus.

Course Schedule

For a list of important university-wide dates, review [One Stop's academic calendar](#).

Due Date	Activities/Assignments	Points
6/5	Team Formation	100
6/11	Quiz 1: Java Basics	100
6/12	Team Introduction	100
6/14	Lab1: Java Basics	100
6/19	Project Proposal	100
6/24	Lab 2: Data and File I/O	100
6/24	Quiz 2: Strings and ArrayList	100
6/26	Midterm Exam	100
6/26	Project Prototype	100
7/1	Lab 3: Introduction to Android	100

Due Date	Activities/Assignments	Points
7/1	Quiz 3: Android	100
7/3	Project Data and Code Design	100
7/15	Lab 4: Android with Multiple Views	100
7/15	Quiz 4: UML	100
7/29	Lab 5: Android and Exception Handling	100
7/29	Quiz 5: Exceptions	100
7/31	Project Demo	100
8/5	Quiz 6: Git and JUnit	100
8/7	Final Exam	0
8/7	Final Application	100
8/7	Team Participation Survey	100

The course schedule can be viewed [here](#).

Essential Student Information

- **Important:** Bookmark and visit the [Common Syllabus Information webpage](#) to find important and valuable resources about counseling services, transitory/minor medical issues, supplemental instruction, tutoring services, academic success coaching, sexual harassment and sexual misconduct, campus safety and emergency preparedness, and the Roadrunner Creed.
- For technical requirements, support, and resources, visit [University Technology Solutions \(UTS\) Student Services](#).
- UTSA provides reasonable accommodations to students via [Student Disability Services](#). For more details on eligibility, policies, and requirements, please visit www.utsa.edu/disability or call (210) 458-4157.
- Visit the [UTSA Libraries and Museums](#) website for access to journals, research tutorials, tech gear you can borrow, and to find your department's librarian.
- Follow [Digital Learning Netiquette](#) standards for your online communication activities. Please be mindful of the communication tools available in your course and use them for learning purposes. Class discussions take place in a respectful and safe environment, whether online or in person. UTSA encourages everyone to openly share their ideas and opinions without penalty or judgment, but learning should always be based on facts and research. It is possible to disagree without being disagreeable.

University Policies & Resources

Counseling Services

Wellness 360 Counseling Services provides confidential, professional services by staff psychologists, social workers, counselors and psychiatrists to help meet the personal and developmental needs of currently enrolled students. Services include individual brief therapy for personal and educational concerns, couples/relationship counseling, and group therapy on topics such as college adaptation, relationship concerns, sexual orientation, depression and anxiety. The Wellness 360 counselors also screen for possible learning disabilities and mental health support. Visit the [UTSA Wellbeing Services website](#) or call (210) 458-4140 (option 2).

Student Code of Conduct and Scholastic Dishonesty

The [Student Code of Conduct](#) is Section B of the Appendices in the Student Information Bulletin. Scholastic Dishonesty is listed in the Student Code of Conduct (Sec. B of the Appendices) under Sec. 203.

Students with Disabilities

The University of Texas at San Antonio, in compliance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act, provides “reasonable accommodations” to students with disabilities. Only those students who have officially registered with Student Disability Services and requested accommodations for this course will be eligible for disability accommodations. Instructors at UTSA must be provided official notification of accommodation through Student Disability Services. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.utsa.edu/disability or by calling Student Disability Services at (210) 458-4157. Accommodations are not retroactive.

Transitory/Minor Medical Issues

In situations where a student experiences a transitory/minor medical condition (e.g. broken limb, acute illness, minor surgery) that impacts their ability to attend classes, access classes or perform tasks within the classroom over a limited period of time, the student should refer to the class attendance policy in their syllabus.

Copyright and Fair Use

It is important to understand the issue of intellectual property rights. You may not use the images or thoughts of others for profit or gain without their written permission. The UTSA library has a [Copyright Laws and Public Performance Rights](#) (PPR) page.

Family Educational Rights and Privacy Act (FERPA)

FERPA grants students the right to control certain disclosures of their educational records. For a full explanation of your rights and to grant access to FERPA educational records, go to [Student Catalog Annual FERPA Letter](#) and [One Stop Enrollment – FERPA Proxy Access](#). Without your consent or authorization of proxy access, UTSA may release Directory Information, such as but not limited to your name, email, phone, place of birth, and photograph, unless you have opted out of the release of [Directory Information](#). To opt out, go to [Restrict Directory Information Form](#).

Mandatory Reporting of Sexual Misconduct and Reporting of Health and Safety Information: If a student discloses an incident of sexual misconduct to any UTSA employee (other than to a designated confidential employee such as mental health counselor or PEACE advocate, a UTSA police officer using a pseudonym form or at a public awareness event), that information is not confidential, and the UTSA employee must report all known information to the UTSA Office of Equal Opportunity Services. Employees may also report any concerns about the health and safety of students or others to other school officials and/or law enforcement. For a complete list of exceptions to FERPA, please see [Student Catalog Annual FERPA Letter](#) and [HOP 5.01](#).

Supplemental Instruction

Supplemental Instruction offers student-led study groups using collaborative learning for historically difficult classes. Supported courses and schedules can be found on the [Supplemental Instruction website](#). You can call the SI office if you have questions or for more information at (210) 458-7251.

Tutoring Services

Tutoring Services offers peer-to-peer academic support to students enrolled in a variety of courses. Both drop-in tutoring and one-on-one appointments are available. For more information, visit the [Tutoring Services website](#) or call (210) 458-6783 on the Main Campus and (210) 458-2838 on the Downtown Campus.

Student Success Coaching

The Student Success Coaching program offers one-on-one study skills assistance through academic coaching. Students meet by appointment with a professional to develop more effective study strategies and techniques that can be used across courses. Group workshops are also offered each semester to help students defeat common academic challenges. Find out more information on the [Student Success Coaching website](#) or call (210) 458-4694.

Sexual Harassment and Sexual Misconduct

UTSA is committed to providing an environment free from all forms of discrimination and sexual harassment, including sexual misconduct, sexual assault, domestic violence, dating violence, and stalking. If a student has experienced or experiences any of these incidents, know that UTSA has resources to help.

UTSA faculty have the responsibility to create a learning environment that is safe and free from hostility. State and federal law as well as UTSA's Handbook of Operating Procedures ([HOP 9.24](#)) require that instructors must report incidents of sexual harassment and sexual misconduct they learn about to the Title IX Coordinator or a Deputy Title IX Coordinator. This means that if a student tells their instructor about a situation (including

classroom discussions, written work and/or one-on-one meetings) involving sexual harassment, sexual assault, dating violence, domestic violence, or stalking, the instructor must report it to the [EOS/Title IX Office](#). Although the faculty member must report the situation, the student will still have options about how their case will be handled, including whether or not they wish to pursue a formal complaint. The university's goal is to make sure students are aware of the range of options available to them and have access to the resources they need.

If a student wishes to speak to someone confidentially, they can contact any of the following on-campus resources, who are not required to report the incident to the EOS/Title IX Office: (1) [Wellness 360 Counseling Services](#) at 210-458-4140; (2) [Wellness 360 Healthcare](#) at 210-458-4142; or (3) [PEACE Center](#) at 210-458-4077.

Campus Safety & Emergency Preparedness

UTSA is committed to providing a safe campus environment for students, faculty, staff, and visitors. As members of the community, we encourage you to take the following actions to be better prepared in case of an emergency:

- Alerts: Ensure you are signed up for UTSA Alerts through your myUTSA Account.
- Emergency Procedures: Read through the emergency response guide on the [UTSA Alerts website](#).
- Safety App: Download the LiveSafe App on your phone through the Apple store or Google Play; visit the UTSA Alerts website for details.
- Important Numbers: UTSA Police - Emergency: (210) 458-4911; Non-Emergency: (210) 458-4242

Each one of us plays a critical role in making sure ALL ROADRUNNERS are safe, know what to do, and how to stay informed during a campus crisis. Don't be scared, be prepared! #UTSAprepared

Campus Recreation

Enrolled students are members of [Campus Recreation](#) and are eligible to use all of the services provided as well as participate in programming. Aquatics, Club Sports, Downtown Programs, Fitness and Wellness, Intramural Sports, and Outdoor Pursuits are all part of Campus Recreation.

The Roadrunner Creed

The University of Texas at San Antonio is a community of scholars, where integrity, excellence, inclusiveness, respect, collaboration, and innovation are fostered.

As a Roadrunner, I will:

- Uphold the highest standards of academic and personal integrity by practicing and expecting fair and ethical conduct;
- Respect and accept individual differences, recognizing the inherent dignity of each person;
- Contribute to campus life and the larger community through my active engagement; and



- Support the fearless exploration of dreams and ideas in the advancement of ingenuity, creativity, and discovery.

Guided by these principles now and forever, I am a Roadrunner!

Artificial Intelligence (AI) Use Guidance

Generative AI tools may be used in this course with proper attribution and full transparency, with the aim of becoming informed digital citizens. Note that generative AI can produce questionable results, including misinformation, nonexistent references, and bias, and its responses are often bland. When using generative AI, we are responsible for revising its responses to be authentic and relevant to our unique perspectives and creative thoughts.

For each usage, documentation of the following process is required.

- Cite your prompts to any AI tool that informed your work.
- Cite the AI tool and its entire response in quotation marks, with a summary of its use in your work.
- Edit the AI tool's response to include your own original thoughts and style of writing. In other words, you may not submit assignments generated entirely by artificial intelligence.
- Validate any AI-generated content with reliable references.

When you use generative AI, be sure not to share any personally identifiable information (PII) or other personal information in your prompts. You are also encouraged to review that tool's "terms of use" with regard to data privacy and raise any concerns with your instructor.

A template and additional guidelines will be provided with assignments as needed.

Adapted from Kristopher Purzycki (University of Wisconsin-Green Bay, 18 Jan 2023) (CC BY 4.0) @ Medium.