

COSC 4301-01 Programming for Graduate Students

Semester: Fall 2017
Time: MWF 9:10-10:05
Building/Room: Maes 211B
Instructor: Dr. Tim Roden
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Phone: 880-2179
Campus Office Hours: T 9:30-12:45, F 11:15-12:30, or by appointment

Description

This is an accelerated introductory course in Java programming. No prior programming experience is needed but is highly recommended. Topics include algorithms, pseudocode, structured techniques of problem solving and program design, data sorting, searching and object-oriented design.

Prerequisite None

Required Text

Liang, D. (2014). *Introduction to Java Programming*. (Comprehensive Version, 10th Edition), Prentice Hall, ISBN-13: 978-0133761313. **This is the required textbook. Any previous edition of the textbook will not be sufficient for this course.**

Grading

2 Exams 30% (15% each, all exams are comprehensive)
Assignments (usually 1 per week) 70%
Final semester grade: A=90%, B=80%, C=70%, D=60%, F=below 60% (Exception: see Academic Honor Code)

Final Exam Date/Time

See "Final Exam Schedule" on the Lamar University website.

Assignments

Assignments are due on the designated due date. Late assignments will be penalized 20%. Assignments will not be accepted later than 3 calendar days after the due date. Assignments will be submitted as discussed in class. No assignments will be accepted by email. Some assignments will be submitted in hardcopy format and some will be submitted via Blackboard mail. The instructor will specify for each assignment how it will be submitted. The lowest graded assignment will be dropped and will not be calculated in the final semester average.

Exams

There are no makeup exams. If the Midterm exam is missed, the final exam will count 30% of the semester grade to make up for the missed Midterm exam. Only the Midterm exam can be made up this way. The Final exam must be taken on its assigned date and time. If the Final exam is missed a grade of 0 will be given for the Final exam.

Attendance Policy

Attendance is mandatory and roll will be taken. There is no grade penalty for missing classes. However, student's knowledge of the subject matter will suffer as a result which may affect other grades in the course.

The Campus Closure Policy

In the event of an announced campus closure in excess of four days due to a hurricane or other disaster, students are expected to login to Lamar University website's homepage (www.lamar.edu) for instructions about continuing courses remotely.

Academic Honor Code

Students are encouraged to study together and brainstorm about assignments. However, all work turned in on assignments and exams must be done individually. Copying work from another student or allowing your work to be copied by someone else is considered a breach of academic honesty. Students are expected to observe university and departmental policies regarding academic honesty (see <http://www.cs.lamar.edu/departmenthonesty.php>). Any breach of these policies may result in a grade of 'F' for an assignment, up to and including a grade of 'F' for the entire course.

No student will receive a grade of 'A' under any circumstances if any academic honesty policy has been violated regardless of the points accumulated in the course.

Academic Accommodations

Lamar University is committed to providing equitable access to learning opportunities for all students. The Disability Resource Center (DRC) is located in the Communications building room 105. Office staff coordinates with students who have disabilities to provide and/or arrange reasonable accommodations.

If you have, or think you may have, a disability (e.g., mental health, attentional, learning, chronic health, sensory, or physical), please contact the DRC at 409-880-8347 or drc@lamar.edu to arrange a confidential appointment with the Director of the DRC to explore possible options regarding equitable access and reasonable accommodations.

If you are registered with DRC and have a current letter requesting reasonable accommodations, please contact the instructor early in the semester to review how the accommodations will be applied in the course.

IT Support

The Lamar IT Department offers support for a variety of computing-related issues. See their website at: <http://students.lamar.edu/it-services-and-support/index.html>

Drop Dates See the Academic Calendar, <http://events.lamar.edu/index.html>.

Computer Accounts

Students should obtain a CS department computer account for use in assignments. The instructor will provide instructions on how to obtain a department account.

Student Learning Outcomes

Students who successfully complete the course will be able to:

- Design and run Java programs based on object-oriented approach utilizing Java packages and user defined classes and their objects and methods.
- Demonstrate effective applications of program design skills including recursion, inheritance and exception handling.
- Demonstrate effective implementations of common data structures including stacks, queues, dynamic arrays, binary trees and linked lists.
- Design common graphical user interfaces using containers, components and event listeners.
- Design simple multithreading applications using co-ordination and synchronization.

- Demonstrate some basic UNIX commands in (a) developing/running Java programs and (b) file creation/editing and file transfer.
- Demonstrate some basic Microsoft Windows commands in (a) developing/running Java programs and (b) file creation/editing.

Lecture Topics

The list of lecture topics below is tentative, and subject to change and adaptation.

Topic	Description
1	Introduction to Computers, Programs, Java, Elementary Programming
2	Selections and Loops
3	Methods
4	Arrays - Sorting and Searching
6	Objects and Classes
7	Strings and other standard Java classes
8	File I/O
9	Recursion
10	Basic data structures – Stacks, Queues, Linked Lists, Trees
11	Object-Oriented Programming – Inheritance, Polymorphism, Abstract interfaces
12	Exception Handling and Debugging
13	Multi-threaded programming and Synchronization
14	Unix and Microsoft Windows programming and tools

Emergency Procedures

Many types of emergencies can occur on campus; instructions for severe weather or violence/active shooter, fire, or chemical release can be found at:

<http://www.lamar.edu/about-lu/administration/risk-management/index.html>. Following are procedures for the first two:

Severe Weather:

- Follow the directions of the instructor or emergency personnel.
- Seek shelter in an interior room or hallway on the lowest floor, putting as many walls as possible between you and the outside.
- If you are in a multi-story building, and you cannot get to the lowest floor, pick a hallway in the center of the building.
- Stay in the center of the room, away from exterior walls, windows, and doors.

Violence/Active Shooter (CADD):

- **CALL** - 8-3-1-1 from a campus phone (880-8311 from a cell phone). Note: Calling 9-1-1 from either a campus phone or cell phone will contact Beaumont City Police Dispatch rather than University Police.
- **AVOID**- If possible, self-evacuate to a safe area outside the building. Follow directions of police officers.
- **DENY**- Barricade the door with desks, chairs, bookcases or any other items. Move to a place inside the room where you are not visible. Turn off the lights and remain quiet. Remain there until told by police it is safe.
- **DEFEND**- Use chairs, desks, cell phones or whatever is immediately available to distract and/or defend yourself and others from attack.