

# Co Sci 436 (or CS 136) - Introduction to Data Structures

## Course Information

Sect 19431 - Room INST 2007 Times: T Th 10:15 AM - 11:10 AM

Sect 19432 - Room INST 2007 Times: T Th 11:15 AM - 12:10 PM

Final Exam Week: December 9 to 15

## Pre-requisite

Co Sci 440 (or CS 216) Programming in C++ or Co Sci 452 (or CS 113) Programming in Java.

## Course Description

Covers abstract data types including a deeper understanding of object-oriented programming concepts. Students will learn how to analyze running times of algorithms using analysis tools. Implements linear data structures including stacks, queues, and hash tables. Introduction to trees and basic implementations.

## Student Learning Outcomes

1. Analyze and estimate running time for a given algorithm.
2. Implement and use linear data structures including stacks, queues, and lists.

## Required TextBook(s)

Introduction to Java Programming, Comprehensive by Y. Daniel Liang. ISBN: 9780133761313

## Course Schedule

**Note:** Schedule subject to change. Please check Canvas regularly for material covered, project/assignment due dates and exams.

Week	Date	Date	Chapter	Description	Lab
1	Tuesday	27-Aug	Chapter 1-4	Structured Programming	
	Thursday	29-Aug	Chapter 5-8	Structured Programming	LAB 01
2	Tuesday	3-Sep	Chapter 9	Objects and Classes	
	Thursday	5-Sep	Chapter 10	Object-Oriented Thinking	LAB 02
3	Tuesday	10-Sep	Review		
	Thursday	12-Sep	<b>TEST #1</b>	<b>Chapters 1-10</b>	LAB 03
4	Tuesday	17-Sep	Chapter 11	Inheritance and Polymorphism	
	Thursday	19-Sep			Lab 04
5	Tuesday	24-Sep	Chapter 12	Exception Handling and Text I/O	
	Thursday	26-Sep			Lab 05
6	Tuesday	1-Oct	Chapter 13	Abstract Classes and Interfaces	
	Thursday	3-Oct	Chapter 18 and 19	Recursion and Generics	LAB 06
7	Tuesday	8-Oct	Review		

	Thursday	10-Oct	<b>TEST #2</b>	<b>Chapters 11-13, 18-19</b>	LAB 07
<b>8</b>	Tuesday	15-Oct	Chapter 20	Lists, Stacks	
	Thursday	17-Oct			LAB 08
	Tuesday	22-Oct	Chapter 20	Queues	
	Thursday	24-Oct			LAB 09
<b>9</b>	Tuesday	29-Oct	Chapter 21	Sets and Maps	
	Thursday	31-Oct			LAB 10
<b>10</b>	Tuesday	5-Nov	Review		
	Thursday	7-Nov	<b>TEST #3</b>	<b>Chapters 20-21</b>	LAB 11
<b>11</b>	Tuesday	12-Nov	Chapter 22	Developing Efficient Algorithms	
	Thursday	14-Nov			LAB 12
<b>12</b>	Tuesday	19-Nov	Chapter 23	Sorting	
	Thursday	21-Nov			LAB 13
<b>13</b>	Tuesday	26-Nov	Chapter 24	Implementing Lists, Stacks, and Queues	
	<b>Thursday</b>	<b>28-Nov</b>	<b>Holiday</b>	<b>Thanks Giving Break</b>	
<b>14</b>	Tuesday	3-Dec	Chapter 25	Binary Search Trees	
	Thursday	5-Dec			LAB 14
<b>15</b>	<b>Tuesday</b>	<b>10-Dec</b>	<b>Exam Week</b>		
	<b>Thursday</b>	<b>12-Dec</b>	<b>FINAL EXAM</b>	<b>Online Finals</b>	

## Evaluation Criteria

The graded assignments will be evaluated using the following weighted categories:

Category	Weight
Labs	45 %
Tests (3)	45 %
Final Exam Comprehensive	10 %
TOTAL	100%

# Important and Useful Information

## Student Services

To find a comprehensive list of services visit <http://www.lamission.edu/students/>.

## Student e-mail ID

Visit the [mycollege.laccd.edu](http://mycollege.laccd.edu) to login to your [student.laccd.edu](http://student.laccd.edu) account. Important announcements from the LACCD, LAMC, and your Instructor will be sent to this e-mail. It is your responsibility to check this email, by logging on to it regularly. If necessary, ensure that the e-mails from here are being forward.

## Disabled Student Programs and Services (DSP&S)

If you are a student with a disability and require classroom accommodations, please see me to discuss arrangements. The sooner I am aware that you are eligible for accommodations, the quicker I will be able to provide them. If you have not done so already, you may also wish to contact the DSP&S Office in Instruction Building 1018 (phone #818.364. 7732/TTD 818.364.7861) and bring a letter stating the accommodations that are needed.

Students requesting academic accommodations should use the following procedure:

**Step 1:** Obtain documentation of your disability from a licensed professional. You may contact DSPS to request a Disability Verification Form.

**Step 2:** Make an appointment to meet with a DSPS Specialist to review your documentation and discuss reasonable accommodations.

To schedule a meeting, please call DSPS at (818)364-7732.

**Step 3:** Bring your disability documentation to your DSPS appointment. The DSPS office is located in room 1018 of the Instructional Building.

**Step 4:** Each semester, reach written accommodation agreement with the DSPS Specialist and your instructor.

To be most effective, students should complete this process by the end of the 3rd week of the semester. Tests with required accommodations must be taken at the DSPS office

## Emergency Procedure:

\*If a campus emergency that poses risk to students occurs, please be prepared to immediately follow the instructions of your Instructor.

\*Do not exit the classroom until instructed to do so.

\*If building evacuation is required, you will be asked to leave all of your non-essential personal belongings in the classroom.

\*Quickly, yet orderly and safely, exit the classroom and the building, preferably through **main entrance**.

\*Proceed to **the Quad**.

\*As the last person to exit, I will lock the classroom door behind me and meet you at the Quad in order to account for your presence and safety.

### Recording devices in classroom

Section 78907 of the California Education Code prohibits the use of any electronic audio or video recording devices, without prior consent of the instructor (including cell phones, laptops, MP3 players, and more)

### Important Dates to Remember

Accurate/current information are found at  
<http://www.lamission.edu/students/calendar.aspx>

# Instructor Information

## Contact Information

NAME: Milan Samplewala

EMAIL: [samplem@lamission.edu](mailto:samplem@lamission.edu)

PHONE: (818) 833-3385

OFFICE: INST 18

## Office Hours

My website: <http://lamission.edu/~samplem> lists my office hours. For office hours by appointment, contact me by email or phone.

## Turnaround/Feedback

I respond to emails and private messages within **24 hours**, during the hours of **12:00 am to 9:00 pm, Monday through Thursday**.

## Canvas E-mail vs. Discussion

Please use Canvas **Inbox** to send me an email. Use Canvas Inbox even for 'private' questions like inquiries about your grade. This will keep all our course related correspondence together.

For all other queries, first check the Canvas **Discussions** to see if the answer to your question already exists. If not, put up your question in discussion. Allow other students to respond and see if they can provide the answers, you are looking for. I shall be closely monitoring the questions and responses for accuracy.

## Note

Do not use comments in assignments to correspond with me. Send me an email using **Inbox**. Do not comment on announcements to get my attention. Send me an email using **Inbox**.

## Other

Online classes are very different from traditional face-to-face classes. To help you be successful in your online course, LAMC has made some resources available to you. These resources can be found at [Mission Online](#) and include guides to help you log on to your course. Here is also a direct link to [LAMC E-Counseling](#) and [Online Education Initiative Tutorials](#). Through these links; you will find many interactive tutorials and tools. I hope you will find these to be useful throughout the semester.

## Course Policies

### Grade Conversion

The final grades calculated from the percentages earned in the course, as follows:

Grade	Percentage	Credit
A	90-100%	4.0
B	80-89%	3.0
C	70-79%	2.0
D	60-69%	1.0
F	<60%	0.0

### Attendance

If the student is inactive for more than a week (if 8 week session) or two weeks (if 16 week session), the instructor may exclude the student from the class. *Inactive means not attending the class if it is a hybrid or traditional course. For online class, it means you have not submitted assignments due that week.* For materials covered in the class, refer to the schedule on Canvas. Lectures notes may be available in Canvas, check their first. Otherwise, it is a student's responsibility to get missing class notes from other classmates.

### Incomplete Policy

A student who has successfully completed more than 80% of the entire semester course work at end of semester and has communicated with the instructor with a justifiable explanation may be considered for an incomplete grade.

### Reminder

If you stop attending a class (or wish to drop a class), please drop the class yourself - on or before **November 17, 2019**. Drop classes with a "W", before **November 17**. Failure to drop the class in a timely manner will result in letter grade of (A, B, C, D or F).

## Academic Integrity

### Plagiarism

All students must comply with the policies that regulate all forms of academic dishonesty, or academic misconduct, including plagiarism, self-plagiarism, fabrication, deception, cheating, and sabotage.

### Student Conduct

Please make yourself familiar with [http://www.lamission.edu/aso/docs/STANDARDS OF STUDENT CONDUCT.pdf](http://www.lamission.edu/aso/docs/STANDARDS_OF_STUDENT_CONDUCT.pdf) document.