California State University, Long Beach
Department of Computer Engineering and Computer Science

Fall 19 CECS 282 – C++ for Java Programmers   section 03&04
Instructor: Minhthong Nguyen
Class Meetings: MW 12-12:50 pm at ECS 302
Lab: MW 1:00-2:15 pm at ECS 403
Office: VEC 404
Office hours: T 10:00 – 11:00 am
Phone:

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Prerequisite:
CECS 274 or CECS 274H with a grade of "C" or better.

Course description:
Structured and Object Oriented Programming in C++. Common features and differences between Java and C++. Pointers, references, and memory management, stream I/O, classes, operator overloading, exception handling, STL.

Course Objectives:
Upon completion of this course, students are expected to gain knowledge of the following topics
- Common features and between Java and C++
- Differences between Java and C++.
- Pointers
- Pass-by-reference, and pass-by-value
- Memory management
- Stream I/O
- Classes: interface, abstract, and multiple inheritance
- Operator overloading
- Exception handling
- STL

More Specific Goals:
- Write a C++ program using preprocessor facilities.
- Understand the platform dependency of C++ data types.
- Understand call by value vs. call by reference.
- Understand the difference between polymorphic and non-polymorphic methods.
- Understand C++ dynamic memory management.
- Effectively use operator overloading.
- Effectively use friends.
- Effectively use the C++ Standard Template Library.
- Design and program a solution using Multiple Inheritance.

Course Policies

1. Homework: <u>All code must be written by you</u>. You must provide your own functions on all assignment unless you are allowed to use built-in functions. I strongly recommend you to do your own work before looking at other people's work because once you see their work, it is much harder to come up with your own code. Collaboration is encouraged but do not share your code under any circumstance. Copy and Paste code and cite the source means it is NOT your own work and will not be accepted. If you have any questions regarding what is allowed on the homework, please feel free to have a discussion with me. No late homework will be accepted.

2. Lab: Lab time will be for you to ask questions, work on assignments and take quizzes.

3. Quiz: There are 10-13 quizzes throughout the semester.

4. Exam: There are three exams (including the final exam). <u>NOTE</u>: **You must take the final.**

5. Academic Integrity: <u>Cheating</u> and <u>plagiarism</u> will not be tolerated in this course. Any individual caught cheating on quizzes, homework, lab projects, or the final exam will be punished to the full extent allowed under University regulations. Plagiarism on papers or assignments is not acceptable and work that is plagiarized will not receive credit. Plagiarism is considered cheating. <u>Note</u>: Any time another person's work is used without giving them proper credit, it is considered plagiarism and cheating. <u>At a minimum</u>, any student caught cheating will receive no credit for the work concerned, and will receive a reduction of one letter grade from their final course grade. The official CSULB Policy on Cheating and Plagiarism can be found here:

http://web.csulb.edu/divisions/aa/catalog/current/academic_information/cheating_plagiarism.html

6. Attendance & Makeup Exam:
- Attendance is required for exams and will not be used in grade determination.
- Missing exam without a legitimate excuse will result 0 point for that exam.
- Only students with legitimate excuses (e.g. medical emergencies, etc.) will be allowed to make up missed exams.
- Please notify instructor as soon as possible regarding schedule conflict for the exam.

7. Need for assistance: Students with a disability or medical restriction who are requesting a classroom accommodation should contact the Disabled Student Services at 562-985-5401 or visit Brotman Hall, Suite 270 during 8AM-5PM weekday hours. Disabled Student Services will work with the student to identify a reasonable accommodation in partnership with appropriate academic offices and medical **providers. We encourage students to reach out to DSS as soon as possible**. More information can be found at:
http://www.csulb.edu/divisions/students/dss/

8. Need for food or housing: Any student who is facing academic or personal challenges due to difficulty in affording groceries/food and/or lacking a safe and stable living environment is urged to contact the CSULB Student Emergency Intervention & Wellness Program. The website outlining the resources available is www.csulb.edu/basicneeds. Students can also e-mail supportingstudents@csulb.edu or call 562/985.2038. If comfortable, students may reach out to the professor as they may be able to identify additional resources.

Text/Material:
Text: Timothy Budd, C++ for Java Programmers, First Edition, Addison-Wesley
Supplement:
Cay Horstmann and Timothy A. Budd, Big C++ 2nd Edition, Wiley

Withdraw Deadlines
It is the student's responsibility to withdraw from classes. Please do not wait until the last day if you intend to drop the class. Further information regarding schedule adjustment, fees, refunds and deadlines can be found on:
http://www.csulb.edu/enrollment-services/key-dates-and-deadlines

Grade Assignment:
Grades will be determined using the following percentages:
Grade distribution
Assignments	15%
Quiz	20%
Exam 1	20%
Exam 2	20%
Final Exam	25%

http://www.csulb.edu/enrollment-services/key-dates-and-deadlines

Grading Scale
Grading Scale
≥ 90%	A	70%-79.99%	C	< 60%	F
80%-89.99%	B	60%-69.99%	D		

This syllabus is subject to change during the semester. Last updated: 08/28/2019

	Date	Topic	Homework	Quizzes
Week 1	08/26	-Introduction -Number and Objects		
	08/28	-Control Flow		
Week 2	**09/02**	**NO CLASS -- LABOR DAY HOLIDAY**		
	09/04	-Functions		Quiz 1
Week 3	09/09	-Classes		Quiz 2
	09/11	-Classes	Assignment 1	
Week 4	09/16	-Vectors and Arrays		Quiz 3
	09/18	-Pointers		
Week 5	09/23	-Pointers		Quiz 4
	09/25	-Inheritance		
Week 6	09/30	-Review		Quiz 5
	10/02	-EXAM I		
Week 7	10/07	-Streams		
	10/09	-Recursion	Assignment 2	Quiz 6

Week 8	10/14	-Sorting and Searching		Quiz 7
	10/16	-Lists, Queues, and Stacks		
Week 9	10/21	-Sets, Maps, and Priority Queues		Quiz 8
	10/23	- Sets, Maps, and Priority Queues		
Week 10	10/28	Review		Quiz 9
	10/30	-EXAM II		
Week 11	11/04	-Operator Overloading		Quiz 10
	11/06	-Memory Management		
Week 12	**11/11**	**NO CLASS -- VETERAN'S DAY**		
	11/13	-Templates	Assignment 3	Quiz 11
Week 13	11/18	-Exception Handling		
	11/20	-Name Scope Management		Quiz 12
Week 14	11/25	**-**Other Features		
	11/27	**FALL BREAK**		
Week 15	12/02	-The Standard Template Library		

	12/04	- The Standard Template Library		Quiz 13
Week 16	12/09	Review	Assignment 4	
	12/10	**NO CLASS**		
Week 17	**12/13**	**FINAL EXAM**		