CECS 277 Object Oriented Application Development Fall 2021 Section 9-10

Instructor: **Parvaneh Ghaforyfard**

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Mode of Delivery: **online synchronously**

Virtual Office Hours: ONLINE Mondays-after class	**Zoom/another Link:** Same link as lecture and lab
Class Days/Times: MW 11:00PM - 11:50AM online	**Class Zoom Link** : Please check beachboard →zoom
Lab Days/Times: LAB MW 12:00PM - 1:15PM online	**Lab Zoom Link:** Please check beachboard →zoom

Course Description:

Prerequisite: CECS 174 with a grade of "C" or better.
Disciplined methods of design, coding and testing using the Java programming language. Topics include the structure and semantics of Java classes, data abstraction, encapsulation, cohesion, coupling, information hiding, object-oriented design, inheritance, interfaces, composition, delegation, polymorphism and design patterns.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

Units: 3

Prerequisite : CECS 174

Required Textbook:

Big Java: Early Objects, 7th Edition

Cay S. Horstmann

ISBN: 978-1-119-49909-1

Specific Goals for the Course

The student will be able to:

- Design an abstract class and an appropriate set of instantiable child classes to solve a software requirement.
- Effectively use inheritance, interfaces, composition and delegation.
- Effectively use Java Collections library
- Effectively use Design Patterns to create software. (Factory Method, Singleton, Adapter, Decorator, Command, Memento, State, Visitor.)
- Effectively use try/catch/throw along with the Java Error Exception class hierarchy.
- Design a class hierarchy of medium complexity (6-12 classes) to create a software solution for a non-trivial application.
- Implement their class hierarchy to produce the software solution.
- Provide Unit Tests
- Create a Graphical User Interface application (Optional)

Course Structure and Delivery Mode

This course will be conduct primarily online synchronously.

You will access the course material and activities on [BeachBoard](#) and are required to participate in synchronous class meetings via [Zoom](#).

If you need technical assistance at any time during the course or need to report a problem with BeachBoard, please contact the Technology Help Desk using their [online form](#), by phone at (562) 985-4959.

Course Communication

We will use BeachBoard to make **announcements**, **communicate information**, **post assignments** and corresponding due dates, and discuss course-related topics. Please note, it is your responsibility to check BeachBoard's dashboard regularly, as it will contain important information about upcoming class assignments, activities, or concerns.

Add additional info as needed.

Tentative Course Schedule

Most lecture material will be from Big Java. All presentations will be available Beach board.
This schedule is subject to change. You are responsible for checking this schedule for the latest information. Additional quizzes or homework may be assigned beyond what is listed below.

Week	MW	Lecture	Lab	Homework Due
1	8/23	Course Introduction Syllabus & Beachboard Tour Java Basics - Variables, Console IO, Ifs, Loops (Ch 4,5,6)	Complier Installation Java Basics and JavaDoc	
	8/25	Lecture 2 – Java Basics - Methods	Lab 1 – Java Basics	
2	8/30	Lecture 3 – Java Basics - Problem Solving		
	9/01	Lecture 4 – Arrays (Ch 7)	Lab 2 – 2D Arrays	
3	9/06	No Class		
	9/08	Lecture 5 – ArrayLists (Ch 7)		
4	9/13	Lecture 6 – Exceptions & File IO (Ch 11)	Lab 3 – File IO & ArrayLists	
	9/15	Lecture 7 – Classes & Objects (Ch 2, 3, 8)		
5	9/20	Lecture 8 – Class Design	Lab 4 – Classes & Objects	
	9/22	Lecture 9 – Class Relationships		
6	9/27	Lecture 10 – Inheritance (Ch 9)	Lab 5 – Inheritance	
	9/29	Lecture 11 – Delegation		
7	10/4	Lecture 12 – Polymorphism	Lab 6 – Polymorphism	
	10/6	Lecture 13 – Abstract Classes		
8	10/11	Lecture 14 – Interfaces (Ch 10)	Lab 7 – Interfaces	
	10/13	Lecture 15 – Comparable Interface		
9	10/18	**Midterm**		
	10/20	Lecture 16 – Collections - Lists (Ch 15)		
10	10/25	Lecture 17 – Collections - Set/Map	Lab 8 – Maps	
	10/27	Lecture 18 – Collections - Hash		
11	11/01	Lecture 19 – Design Patterns - Singleton	Lab 9 – Singleton	
	11/03	Lecture 20 – Design Patterns - Prototype		
12	11/08	Lecture 21 – Design Patterns – Factory	Lab 10 – Factory	
	11/10	Lecture 22 – Design Patterns - Adapter		
13	11/15	Lecture 23 – Design Patterns - Decorator	Lab 11 - Decorator	
	11/17	Lecture 24 – Design Patterns - State		
14	11/22 11/25	No Class- Fall Recess		
15	11/29	Lecture 25 – Design Patterns - Observer	Lab 12 – State	
	12/01	Lecture 26 – Design Patterns - Memento		
16	12/06	Lecture 27 – Design Patterns - Strategy	Lab 13 – Memento	
	12/08	Final Review		

Homework/Programming Assignments

- Turn in all assignments on time. The assignments will be turned into a Beachboard dropbox.
- I won't accept late work.

Grading Policy

LETTER GRADE	PERCENTAGE
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	59% and below

Evaluation Components and their Percentages

Evaluation Components	Weight
Laboratory/Program(Projects)	30%
Final Project	10%
Midterm Exam	30%
Final Exam	30%
Total	100%

Plagiarism/Academic Integrity Policy

Cheating and plagiarism will not be tolerated in this course. Students are to do their own assignments. Cases of copying, cheating, and plagiarism of assignments and/or tests, and any other violations, will be pursued to the maximum extent permitted by the University, which can include expulsion from the University. This applies equally to students who intentionally assist other students in academic dishonesty.

Any form of plagiarism or cheating -- including copying from someone else, cheating on an exam, turning someone else's work in as your own, and so on -- will result in a failing grade on the assignment (at a minimum), and could result in a failing grade in the course or even university disciplinary action.
To learn more about the University policy on Cheating and Plagiarism, visit:

[Academic Information and Regulations-Cheating and Plagiarism](#)

University Withdrawal Policy

Class withdrawals during the final 3 weeks of instruction are not permitted except for a very serious and compelling reason such as accident or serious injury that is clearly beyond the student's control and the assignment of an Incomplete grade is inappropriate (see Grades). Application for withdrawal from CSULB or from a class must be filed by the student online whether the student has ever attended the class or not; otherwise, the student will receive a grade of "WU" (unauthorized withdrawal) in the course. More information regarding the University guidelines on Dropping and Withdrawing at:
Dropping and Withdrawal

Attendance and Participation Policy

Attendance is required in lecture and lab. Programming projects are due on the dates shown in the schedule.

Student Grievance Policy

Please check CSULB grievance policy and procedure at:
Student Grievance Procedures

Special Needs Accommodations

Students with a disability or medical restriction who are requesting a classroom accommodation should contact the Bob Murphy Access Center (BMAC) and also notify the instructor. BMAC personnel will work with the student to identify a reasonable accommodation in partnership with appropriate academic offices and medical providers. Only approved BMAC petitions will be accommodated.

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. Additional resources are available via Basic Needs Program. The students can also email supportingstudents@csulb.edu, call (562)985-2038, or if comfortable, reach out to the instructors as they may be able to identify additional resources. For mental health assistance please check out CSULB Counseling and Psychological Services (CAPS).

http://web.csulb.edu/divisions/students/caps/

Emergency Preparedness

Students are strongly encouraged to familiarize themselves with the Personal Preparedness Instructions and other resources under "Emergency Preparedness" link on CSULB University Police web site.

Disclaimer

In the event of extraordinary circumstances beyond the University's control, the content and/or

evaluation scheme in this course is subject to change.

Additional Information

BeachBoard Access

To access this course on [BeachBoard](#) you will need access to the Internet and a supported web browser (Please note: The preferred web browser to use when accessing information in this course is Google Chrome. Google Chrome minimizes technical issues and responds well to the technology used in this course.).

You may access [BeachBoard](#) directly at https://bbcsulb.desire2learn.com/d2l/login and log in with your CSULB campus ID and password. You may also access it via [Single-Sign-On](#) page at https://csulb.okta.com/. Once logged in, you will see the course listed under "My Courses". Click on the title to access the course page.

Technology Requirements

o **Software and tools**: You will need to have an up-to-date browser, operating system and some additional software (list any needed for your course) on your computer to take this class. Some of the documents in this course will be available to you in PDF form. If you do not have Adobe Acrobat Reader software on your computer, you can download it by going to [Adobe Acrobat Reader](#)

o **Virtual Lab:** Please see the Virtual Lab chiclet available in your [MyCSULB login page.](#)

Please contact the department if you need support with access to the Internet, electronic devices, or any other issues related to remotely accessing your course.

Tutoring

Take advantage of free peer tutoring (virtual) provided by Engineering Student Success Center (ESSC): [Engineering Tutoring](#)

Additional Resources

There are many services on campus to help you achieve success in your courses. Links to the

following services are also available in BeachBoard course homepage under "CSULB Student Resources":

- [Counseling and Phychological (CAPS)](#)
- [Disabled Student Services](#)
- [Enrollment Services](#)
- [Financial Aid](#)
- [Learning Assistance Center](#)
- [Student Health Services](#)
- [Tutoring at CSULB](#)
- [University Library](#)
- [Writers Resource Lab](#)

Personal Assistance

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](#). Additional resources are available via [Basic Needs Program](#). The students can also email supportingstudents@csulb.edu, call (562)985-2038, or if comfortable, reach out to the instructors as they may be able to identify additional resources