CIS 234: Object Oriented Programming with Java

Winter 2016, College of Business Administration
Division of Computer Information Systems (CIS)

Instructor: **Stefan Bund, MS**
Office: **Building 164 Room 3017**
Phone: **(949)433-7487**
E-mail: **slbund@cpp.edu**
Course Website: blackboard.cpp.edu and https://github.com/stefanbund/234

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1. Class Meetings and Office Hours

Class meetings:
Tuesdays, Thursdays, 8 pm - 9:50 pm Building 98C 4-35
Office Hours:
T / Th 4:30 - 5:50 pm

Note of Potential Disruption to Class Sessions
The California Faculty Association is in the midst of a difficult contract dispute with management. It is possible that the faculty union will call a strike or other work stoppage this term. The Instructor will discuss this situation with the class, and let you know how you may be affected.

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2. Course Description

An introduction to computer programming of business information systems. Object concepts, programming, the Java language, and an integrated development environment. Discussion and analysis of Business application projects. We will follow the University's catalog exactly, in this description.

The course focus on theory and practice of fundamental object oriented programming, including using IDE, APIs within the Java SDK, understanding basic programming concepts and object oriented concepts. Advanced topics include: String, array traversal, file I/O. The goal of this course is to get students started with Java programming and prepare them for latter coursework in the CIS major.

234 is a hackerspace: please come ready to try things, observe results, and support each other. Carry the hackerspace idea into your homework. We will teach the methods for programming substantial applications with the Java console, and the personal skills necessary for enjoying development. Though students will never share code, they will actively discuss strategies for getting work done.

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3. Learning Objectives

Students successfully completing this course should have acquired the ability to:

- Use an application development environment (IDE) to create and compile Java projects and files.

- Use Java API in writing programs.
- Describe and use basic concepts of programming language, such as variables, data types, and control statements.
- Describe and use object-oriented concepts such as classes, inheritance, and interfaces.
- Describe and use fundamental features of Java, including arrays and several very useful Java Utilities packages.
- Read and write text files using a Java program.
- Demonstrate fundamental skills in developing simple business computer application programs with Java.

4. Prerequisites

Microcomputer proficiency (or CIS 101) and a minimum grade of C (2.0) in STA 120 and ENG 104.

5. Textbook and Software

Required Textbook:

Title: Murach's Java Programming: Training & Reference 4th Edition
Author: Joel Murach
Year: 2011 Publisher: Mike Murach & Associates, Inc.
ISBN: 978-1-890774-65-3

- Have access to this textbook for your study periods. Weekly assignments will demand direct reference to Murach. Also, sample code from the text will be required for you to study, for delivery of assignments.

Required Software:

- Eclipse IDE, available at http://www.eclipse.org/downloads/packages/eclipse-ide-java-developers/lunasr2

- Download at their website and install the IDE software on your own laptop/computer for free.
- Bring your laptop to class for programming practice (recommended)
- Labs will provide all necessary software.

6. Exams, Projects and Assignments

Exams: each exam will require a full two hour period, and will be delivered in the same room as your class.

Assignments: There will be 3 individual assignments. The goal of the assignments is to apply programming knowledge and skills you learned in class to create Java applications that solves business problems simulating a real-world setting. These assignments weigh heaviest in the final grade.

Attendance: Please pick up your attendance card each class, then resubmit at the close of each class. Days absent are recorded on your card, for your review.

Make-up policy: There will be no make-up exams except for serious and compelling reasons that are substantiated with formal documents. For example, medical cases have to be substantiated with valid doctor or hospital note stating that the student is too ill to attend the exam. If you plan to take the exam at DRC, where permitted, please schedule this exam with the DRC and myself.

Late assignments: Projects **2 and 3** must be submitted by their due dates. A late penalty of 25% of final score will be deducted in cases where an assignment is submitted late, according to the submission date, recorded electronically.

Assignment Submission. All assignments are to be submitted via link which will be sent to you using your CPP.EDU email.

Tutoring: Please contact the Instructor via email for instructions on tutoring.

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7. Grading and Grading Scale

Item	%
Mid Term	3
Final Exam	3
Assignments 3 x (30 pts apiece)	90
Attendance and coding in class	4
Total	100

Grade	Percentage
A	93.00-100.00
A-	90.00-92.99
B+	87.00-89.99
B	83.00-86.99
B-	80.00-82.99
C+	77.00-79.99
C	73.00-76.99
C-	70.00-72.99
D+	67.00-69.99
D	63.00-66.99
D-	60.00-62.99
F	0-59.99

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8. Class Communication

E-mail:
To prioritize your email and reply quickly, please follow these email guidelines.

- A cpp.edu email account is required.
- All emails must be signed with the student's first and last name.
- Please review the syllabus and Blackboard before submitting an email.
- Email is for private questions related to your grades, attendance and performance.
- Please post your general academic questions to our github page, below.

Blackboard (BB):
Blackboard provides key information related to your grades and other course announcements.

Github (http://github.com/stefanbund/234)
Github permits for instructor source code to be synchronized to each student's computer on a push-button basis. Issues, questions and discussion will take place on github outside of class. Please post all your assignment questions here.

Subject to Change: This syllabus and class schedule are subject to change. If the student is absent from class, it is the student's responsibility to check on announcements made and make up the work while absent.

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9. Course Policies

Classroom environment:
The classroom is a special environment in which students and faculty come together to promote learning and growth. It is essential to this learning environment that respect for the rights of others seeking to learn, respect for the professionalism of the instructor, and the general goals of academic freedom are maintained. Student conduct which disrupts the learning process shall not be tolerated and may lead to disciplinary action and/or removal from class.

Using laptops and other electronic devices:
- Using laptops during the class for anything other than this class, personal conversations, talking or texting on cell phones or other distracting behavior are prohibited.
- As a courtesy to all, please turn off all cell phones and pagers during class. If the student needs to be reached for family medical or significant work-related issues, the student must present evidence to the instructor before the class starts.
- Absolutely no cell phones or pagers (or other communication devices) may be used during an exam.

Attendance:
- Arrive on time.
- If the student needs to leave early, the student must let the instructor know before the class starts, and choose a seat that minimizes disruption to the class when leaving.
- If the student has to miss the class, the student must send an email to let instructor know before class and explain the reason. No excused absences are granted outside the scope of medical emergencies.
- If the student is sick and contagious, the student must not come to the class and risk getting others sick.

Student responsibilities:
Each student is responsible for the successful completion and submission of all assignments and projects. Students are also responsible for keeping a backup copy of each submission. The instructor (or tutors if available) will not debug errors for individual students. We will, however, help you to gain knowledge and skills in analysis and design, problem solving, modeling, debugging, and answer specific questions about course topics. You will be expected to investigate coding errors using a search engine or Oracle's java website.

Turnitin:

Students written assignments may be checked through Turnitin.com for plagiarism detection.

10. University Policies

Students with Disabilities:
Upon identifying themselves to the instructor and the university, students with disabilities will receive reasonable accommodation for learning and evaluation. For more information, contact Services to Students with Disabilities at http://dsa.csupomona.edu/drc/.

Academic Integrity:
Students should understand or seek clarification about expectations for academic integrity in this course (including no cheating, plagiarism, or inappropriate collaboration); neither give nor receive unauthorized aid on examinations or other course work that is used by the instructor as the basis of grading; take responsibility to monitor academic dishonesty in any form and to report it to the instructor or other appropriate official for action.

Where Programming is Assigned:
You may discuss the assignment with others, but you may not

- share your code
- ask another student to fix or correct your work
- copy the work of others and present it as your own

You may however, ask for another student to read your code and point out errors.

Cheating and Plagiarism:
Cheating is the actual or attempted practice of fraudulent or deceptive acts for the purpose of improving one's grade or obtaining course credit; such acts also include assisting another student to do so. Typically, such acts occur in relation to examinations. However, it is the intent of this definition that the term 'cheating' not be limited to examination situations only, but that it include any and all actions by a student that are intended to gain an unearned academic advantage by fraudulent or deceptive means. Plagiarism is a specific form of cheating which consists of the misuse of the published and/or unpublished works of others by misrepresenting the material (i.e., their intellectual property) so used as one's own work. Penalties for cheating and plagiarism range from a 0 or F on a particular assignment, through an F for the course, to expulsion from the university.

Computing Resources:
At Cal Poly Pomona, computers and communications links to remote resources are recognized as being integral to the education and research experience. Every student is required to have his/her own laptop/computer or have other access to a computer with all the recommended software for this course. Find out more about how to access to the university's information resources from Information Technology Services.

Copyright Policy:
Copyright laws and fair use policies protect the rights of those who have produced the material. The copy in this course has been provided for private study, scholarship, or research. Other uses may require permission from the copyright holder. The user of this work is responsible for adhering to copyright law of the U.S. (Title 17, U.S. Code). A full description of Cal Poly

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week #	dates	Lecture Topics	Chapter(s) to read in textbook	Deliverable
1	Jan 5	Introduction to object oriented programming (OOP) 1 demo: using Elipse to author a class, the main. Introduction of Term Project. Commence the Java Language Boot Camp	1, 2, 7	
	Jan 7	Private, Public variables, data types, if-else statements, comparison operators. Lecture on problem solving for project 1	3,4	
2	Jan 12	Java packages, methods, Random Numbers	8	
	Jan 14	constructor, variable initialization		
3	Jan 19	For loops, regular and enhanced	11	
	Jan 21	iterating the for-loop, using if-else inside the loop. Intializing a class from within a loop. Basic collections (array lists)	12	
4	Jan 26	array list management (add, get, size, delete)	11	
	Jan 28	open work time		
5	Feb 2	Discuss project 2, applying the toolset, lecture on problem solving for project 2		project 1 due
	Feb 4	open lectures on applying the java language; the instructor will break the students into groups to address problem-solving scenarios, and address their individual approach to programming, using skills taught during the first month		mid term exam
6	Feb 9			
	Feb 11			
7	Feb 16			
	Feb 18			
8	Feb 23			
	Feb 25			
9	Mar 1	Project 3 introduced; lecture on problem solving for project 3		project 2 due
	Mar 3			
10	Mar 8			
	Mar 10			project 3 due
11	mar 14, 18th	finals week		final exam

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11. Tentative Course Schedule