CIS 036B - JAVA PROGRAMMING II BERKELEY CITY COLLEGE

Tentative Course Schedule Spring 2019

Instructor Dr. Paramsothy Thananjeyan

Course details:

• Credit hours: 4

Lec: M 6:30 to 9:20 PM (room 323)
Lab: W 6:30 to 9:20 PM (room 323)

Questions or Comments:

• Office: Room 556 C, Berkeley City College, Phone: (510) 981-2921

• Office Hours: Monday, Wednesday 1:00 to 2:00 PM and 5:30 to 6:30 PM

or by appointment.

• Email: pthananjeyan@peralta.edu

Student Learning Outcomes:

Upon completion of this class, students will be able to do the following:

Write real-life Java programs that use advanced programming concepts.

- 1. Graph User Interfaces
- 2. Multiple threads
- 3. Sockets
- 4. JDBC

Course Objectives:

- Demonstrate clear understanding of object oriented programming concepts and the Java Programming language including encapsulation, information hiding, inheritance, and polymorphism, object composition, containment, inheritance, cohesion and coupling.
- Understand advanced programming concepts including generics, multi-threaded programming, lambda expressions, annotations, and networking.
- Write computer programs to solve simple real world problems
 - Write programs that show a clear understanding of core java packages including core utilities, Collections, Swing, input/output, networking, and remote method invocation.
 - Learn to use debuggers, javadoc, and jUnit testing.

You may initially find this course challenging and even frustrating. Programming is a little difficult at first, but by *persevering* you will learn many key concepts that will be useful to you in almost all areas of computer science. The only way to learn programming is by doing it. The logical program solving techniques are very different from those you may have used in other courses, but are very useful in all areas of life, once you learn them. It is essential that you attend lectures, read the suggested material, and do the lab assignments.

Required Text:

Java – The Complete Reference (Eleventh Edition), Herbert Schildt

Also recommended – Java Cookbook (Second Edition), Nick Samoylov and Mohamed Sanaulla

Text may be supplemented with handouts and other reading assignments as necessary.

Grading

Grading will be based on lab assignments and a final exam.

Lab 50 %
 Final Exam 50 %
 Attendance/Class Participation 5 % (Extra)

Important Dates

Verify these dates with the Admissions and Records Office

Jan. 26, 2019	Last day to add without add card of permission number
Feb. 1, 2019	Last day to add with add card or permission number (in person)
Feb. 3, 2019	Last day to add with permission number (online)
Feb 3, 2019	Last day to drop with refund
Feb 3, 2019	Last day to drop without "W"
Feb 8, 2019	Last Day to update grading option (Grade or Pass/No Pass)
Apr 26, 2019	Last day to drop with "W

Please note that you must select your grading option (A—F or CR/NC) before the college specified deadline. The instructor cannot change the grading option.

Disabilities

If you have a documented disability and wish to discuss academic accommodations, please contact me as soon as possible. You can also contact the Disability Services and Programs for Students for assistance.

Homework and Lab Assignments

The homework and lab assignments are meant to be challenging and somewhat open ended. Lab time is limited, and it is absolutely necessary that you read the assignments and come prepared for the lab classes to be able finish lab assignments in time. Sometimes you may find yourself spending many hours of reading and feel no progress. This is natural. I encourage you to get help other resources, but you must do all assignments by yourself. You must be prepared to explain all the steps in your programs. If you cannot explain your answers, you may not get any credit for your homework.

- All programming assignments must be submitted on time.
 - o Late submission penalties:
 - 1-week \rightarrow 10% penalty
 - 2-weeks \rightarrow 25% penalty
 - 3-weeks \rightarrow 50% penalty
 - More than three weeks \rightarrow No grade

Our students come from varied backgrounds and can have widely varying situations and

necessities. If you have any unforeseen or extenuating circumstance that arise during the course, you must promptly contact the instructor and discuss your situation. Unless you get prior approval from the instructor, extenuating circumstances such as work-school balance, familial responsibilities, unexpected travel, or anything else beyond your control may negatively impact your performance in the class.

Class participation

Please attend all lectures and labs and be prompt. Please complete any assigned reading before you come to class. Obviously, you will not understand it fully, but it will help you anticipate what topics would be covered in the lecture. Write a brief summary of what do you expect to during the lecture and be prepared to ask questions.

I wish to make this course as accessible as possible to all students. Please let me know in advance anything that may affect any aspect of the course assignments or participation and will improve your learning experience.

You can earn extra credit by participating in class discussions, helping other students, taking extracredit quizzes, and submitting all assignments in a timely manner. Please note that you need to be outstanding in these activities to get full credit. Extra-credit in assigned by the instructor and not discussed with the students.

Academic Dishonesty and Cheating

Please carefully read the policies and contact me if something is unclear.

- All projects must be done individually.
- It is **NOT** acceptable to copy solutions from other students.
- It is **NOT** acceptable to copy solutions from the Internet.
- It is **NOT** acceptable to use public services or archives to obtain solutions.
- If you are caught, the penalties **WILL** be severe. You will receive at the minimum an F in the course and a letter on your university record documenting the incidence of cheating.
- If you are willing to share your work so that someone else can cheat using your work, please remember that **BOTH** the giver and the receiver of code are equally culpable and suffer equal penalties.

Other

- No cell phone usage in class. If you need make or receive a call please do it outside
 of the classroom.
- Computers must be used for class and lab work only. You must take all your work on a flash drive and do not leave files on the hard drive on the lab computers. You

can lose the files and also allows others to copy from them.

- Unless instructed to do so, computers must be turned off during lectures. You will be asked to leave the class immediately and will not be admitted until you get approval from the Dean of Students or the Dean or Instruction
- You are encouraged to discuss lab work with other students. However, all lab work must be done independently. See Academic Dishonesty and Cheating above.
- Please see the lecture schedule for lab due dates. Lab work must be submitted promptly. Unless you have a good reason, lab work submitted two weeks after the due date may be penalized. See Homework and Lab Assignments above.

CIS 036B – JAVA PROGRAMMING II Tentative Class Lecture Schedule

Lecture Topic (Java Complete Reference	<u>Lab</u>
Week 1 (1/21/19 and 1/23/19) Chapter 1 – The History and Evolution of Java Chapter 2 – An Overview of Java Chapter 3 – Data Types, Variables, and Arrays Chapter 4 – Operators Chapter 5 – Control Statements	
Week 2 (1/28/19 and 1/30/19) Chapter 6 – Introducing Classes Chapter 7 – A Closer Look at Methods and Classes Chapter 8 – Inheritance Chapter 9 – Packages and Interfaces Chapter 10 – Exceptions	Lab 1
Week 3 (2/4/19 and 2/6/19) Chapter 12 – Enumerations, Autoboxing, and Annotations (Metadata)	Lab 1
Week 4 (2/11/19 and 2/13/19) Chapter 24 – Event Handling Chapter 31 – Introducing Swing	Lab 1
Week 5 (2/18/19 and 2/20/19) No class 2/18/19 Chapter 32 – Exploring Swing	Lab 1 (Due)
Week 5 (2/25/19 and 2/27/19) Chapter 33 – Introducing Swing Menus	Lab 2
Week 7 (3/4/19 and 3/6/19) Chapter 11 – Multithreaded Programming	Lab 2
Week 8 (3/11/19 and 3/13/19) Chapter 28 – The Concurrency Utilities	Lab 2
Week 9 (3/18/19 and 3/20/19) Chapter 14 – Generics	Lab 2 (Due)

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Lecture Topic (Java Complete Reference	<u>Lab</u>
Week 10 (3/25/19 and 3/27/19) Chapter 15 – Lambda Expressions	Lab 3
Week 11 (4/1/19 and 4/3/19) No class Spring Break	
Week 11 (4/8/19 and 4/10/19) Chapter 20 – Input/Output: Exploring java.io Chapter 22 – Exploring NIO	Lab 3
Week 13 (4/15/19 and 4/17/19) Chapter 17 – String Handling Chapter 18 – Exploring java.lang	Lab 3
Week 14 (4/22/19 and 4/24/19) Chapter 19 – java.util.Part 1: The Collections Framework Chapter 20 – java.util Part 2: More utility classes	Lab 3 (Due)
Week 15(4/29/19 and 5/1/19) Chapter 23 – Networking	Lab 4
Week 16 (5/6/19 and 5/8/19) Database Programming	Lab 4
Week 17 (5/13/19 and 5/15/19) Review	Lab 4
Week 18 (5/20/19 and 5/22/19) Final Exam	Lab 4 (Due)