Course Syllabus

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CS 01A - SPRING 2019

OBJECT ORIENTED PROGRAMMING METHOD IN JAVA

1. COURSE INFORMATION

Instructor : **Viet Trinh**

Email : trinhviet@fhda.edu (mailto:trinhviet@fhda.edu)

Course Type : Online

Office Hours : Since this is an online course, there is no in-person office hour. Instead, the instructor is available on Canvas on Tuesday & Thursday, 6:00PM - 8:00PM. Your messages/posts/IMs posted during these time slots are most likely to be responded immediately. Additionally, emails to trinhviet@fhda.edu (mailto:trinhviet@fhda.edu) are welcome for discussing both academic-related and private matters that you prefer not to post on Canvas

2. COURSE REQUIREMENTS

Prerequisite: MATH 105 or equivalent, not open to students with credit in CS 1AH

Reading Materials:

(Required) **Lecture Notes**

(Optional) **Introduction to Java Programming and Data Structures, Comprehensive Version** (https://www.amazon.com/Introduction-Programming-Structures-Comprehensive-Version/dp/0134670949/ref=sr_1_1?ie=UTF8&qid=1515522118&sr=8-1&keywords=introduction+to+java+liang)

(11th Edition) by Y. Daniel Liang

ISBN-13: *978-0134670942*

ISBN-10: *0134670949*

3. COURSE DESCRIPTIONS

This 4.5-unit course aims to the systematic introduction to fundamental concepts of computer science through the study of the Java programming language. Coding topics include Java control structures, classes, methods, arrays, graphical user interfaces and elementary data structures. Concept topics include algorithms, recursion, data abstraction, problem solving strategies, code style, documentation, debugging techniques and testing. The following are learning outcomes of this course:

- Describe the basic components of the Java software development environment
- Describe the Java software development life cycle from concept design through documentation, testing and maintenance
- Produce clearly written code in an industry standard style appropriate for Java
- Define both primitive and compound data types and give examples in Java of each type
- Use Java variable expressions in a program to compute numeric and string results

- Incorporate user-interaction input and output in a program through either console or graphical user interface methods
- Define, analyze and code the basic Java conditional and iterative control structures and explain how they can be nested
- Design, implement, test, and debug functions and methods that can be used in programs, and demonstrate the way parameters are passed in such functions and methods
- Apply the techniques of structured (functional) decomposition to separate a Java program into computational and interactive modules
- Write Java programs using object-oriented design, and contrast the difference between object-oriented and procedural code
- Produce a program that interacts with the user using intermediate GUI elements such as buttons and text-boxes
- Create analytical algorithms that use arrays for solving simple problems
- Explain how errors can be reported to the calling function
- Explain what an algorithm is and give examples of how algorithms are implemented in a Java program
- Solve problems that have origins in a variety of disciplines including math, science, the Internet and business
- Explain the difference between syntax and semantics in the context of Java, and place Java in its historical context among high-level languages

4. STUDENT LEARNING OUTCOMES

A successful student will be able to write and debug Java programs which make use of the fundamental control structures and method-building techniques common to all programming languages. Specifically, the student will use data types, input, output, iterative, conditional, and functional components of the language in his or her programs.

A successful student will be able to use object-oriented programming techniques to design and implement a clear, well-structured Java program. Specifically, the student will use and design classes and objects in his or her programs.

5. COURSE ASSIGNMENTS & GRADING

Homework Assignments

There will be five (5) individual homework assignments weighted totally 70% toward the final course grade. The instructor strongly suggests students to start working on these as soon as possible, once they are released. Problem solving strategies are welcome to be discussed. However, solution or code sharing is prohibited, and will result a grade of 0 for an assignment.

Quiz

There will be three (3) individual timed quizzes given on Canvas. Students must take a quiz during its opening period, and there will be no make up. The lowest-graded quiz will be replaced by the second-lowest at the end of the quarter.

Exam

There will be one (1) final exam opened from ***Monday, 06/24/2019 at 08:00 AM PST*** *to* ***Wednesday, 06/26/2019 at 11:59 PM PST***. The exam will be given on Canvas, and there will be no make up.

Grading

The “break points” dividing letter grades will be determined by the Instructor at the end of the quarter, based on the overall

performance of the class and other relevant factors. Class participation will be taken into consideration when determining boundary cases.

Assignments (5 x 14% each)	70%
Quizzes (3 x 3% each)	9%
Final Exam	21%
Total	**100%**

Tentative Grading Scale

A	>= 90%
B	80% - 89%
C	70% - 79%
F	<= 69%

6. COURSE POLICIES

Participation

It is a student's responsibility to drop himself/herself from the class. Participation in forum discussion is strongly recommended, and is a subject to extra credits (maximum of 5%).

Emailing Your Instructor

The subject line MUST includes ***the course number, and the name of the student*** as follow *"CS 01A: Jane Doe, Question regrading to Java Loop"*. The body MUST contains the student's ***firstname, lastname, and CWID***. Following these directions enables the instructor to identify quickly the student and course, facilitate a timely response, and avoid students' emails from being filtered out.

Late Submission

Late submission results ***15% penalty per day***, except with proof of medical or legal emergency.

Regrade

Grading homework and exam is a difficult task, and errors or misjudgments occasionally occur. Any student who feels that his or her work has not been graded properly may request a regrade. However, all such requests must be made *no later than one week* after the assignment has been returned.

Expected Turn-around Time for Discussion Questions and Assignment Grading

For student communication, via both Canvas inbox/email messages and Discussion forum posts, the instructor will try his best to respond within 6 hours (weekend included). In case of matters that require more time and effort (e.g: understand and debug student's code), it will take up to 24 hours for the instructor to reply. For assignment grading, it will take up to a week and a half for the instructor to evaluate student's submission.

Academic Honor Code

Students are expected to be familiar with the college's policy on academic integrity found in both the *Student Handbook* and School of Undergraduate Studies *Catalog* and to follow it. As an academic community, Foothill College takes seriously the call for integrity and penalizes breaches of of academic integrity. Faculty members are required to report all infractions to the Office of Student Conduct and Ethical Development.

Students are on their honor to complete assignments with honesty and integrity. Academic dishonesty involves intentionally or unintentionally stealing the intellectual property of others. Also, students should obviously not cheat on exams and coding assignments. At a minimum a 0 on an assignment or exam will be given. For homework assignments, students are welcome to discuss problem solving strategies, but should not share code or actual solutions. A student caught using resources like Rent-a-coder will receive an F for the course and be referred to the college for disciplinary action.

Disability Resource Center

To obtain disability-related accommodations, students must contact Disability Resource Center (DRC) as early as possible in the quarter. To contact DRC, you may :

- Visit DRC in Room 5400 (edited 16 Sept '14)
- Email DRC at adaptivelearningdrc@foothill.edu
- Call DRC at 650-949-7017 to make an appointment

If you already have an accommodation notification from DRC, please contact the instructor privately to discuss your needs.

Course Summary:

Date	Details	
Sun Apr 21, 2019	**Assignment #1** (https://foothillcollege.instructure.com/courses/9145/assignments/238148)	due by 11:59pm
Sun May 5, 2019	**Assignment #2** (https://foothillcollege.instructure.com/courses/9145/assignments/238149)	due by 11:59pm
Mon May 6, 2019	**Quiz #1** (https://foothillcollege.instructure.com/courses/9145/assignments/238350)	due by 11:59pm
Sun May 19, 2019	**Assignment #3** (https://foothillcollege.instructure.com/courses/9145/assignments/238184)	due by 11:59pm
Mon May 27, 2019	**Quiz #2** (https://foothillcollege.instructure.com/courses/9145/assignments/238351)	due by 11:59pm
Sun Jun 2, 2019	**Assignment #4** (https://foothillcollege.instructure.com/courses/9145/assignments/238193)	due by 11:59pm

Date	Details	
Sun Jun 16, 2019	**Assignment #5** (https://foothillcollege.instructure.com/courses/9145/assignments/238196)	due by 11:59pm
Mon Jun 24, 2019	**Quiz #3** (https://foothillcollege.instructure.com/courses/9145/assignments/238352)	due by 11:59pm
Wed Jun 26, 2019	**Final Exam** (https://foothillcollege.instructure.com/courses/9145/assignments/238353)	due by 11:59pm