CS 1A Object Oriented Programming Methodologies in Java
CANVAS: ONLINE CURRICULUM

TEXT

Liang, Y. Daniel, Introduction to Java Programming, 10th Edition, Prentice Hall.

Reference:

https://docs.oracle.com/javase/tutorial/java/nutsandbolts/index.html

Syllabus Link in Foothill College website

Assignment Due Dates Oct 3,15,24,Noc 5,14,26, Dec 5

Midterm ONE- Oct 27-28, Midterm TWO - Nov 17-18

(48 hour window, 2 hours midterms)

FINALS - DEC 11-13 (48 hour window, 2 hours final)

COURSE MODULES IN CANVAS ARE TECHNICAL CONTENT ONLY

RULES AND ASSIGNMENTS stated IN COURSE MODULES ARE BOGUS - DO NOT FOLLOW THEM

ONLY SYLLABUS IE THIS DOCUMENT STATES THE RULES OF CLASS

Assignment Section in Canvas have assignments

SYLLABUS ie this document is THE DOCUMENT for class rules.

SYLLABUS, ie this document is the FINAL SAY for all course rules and regulations.

DRC Information:

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

· 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 me privately to discuss your needs.

CS 1A SLO (Student Learning Objectives):

SLO #1 - Java Control Structures and Methods

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.

SLO #2 - Java OOP Design

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.

Course Help on Assignments:

- Ask questions in Discussion Forums in about assignments. This will help secure your success in assignment submissions and your answers. Private messages is not a forum for assignment related questions
- The STEM Success Center, in room 4213, will have CS tutors at various times each day. The STEM Center is also a place on main campus where students without their own computers can do their lab work. The schedule for the STEM Center and its tutors is at: http://www.psme.foothill.edu/?page_id=1555 Students - Please inquire about *on-line* computer science tutors at STEM

Participate in Class Discussions:

- You are required to post a question or answer at least once a week in Discussion Forum.
- A student will be dropped for non-participation.

CS1A Course Rules: These are the rules. Assignments and rules stated in course modules are invalid. For rules of class refer below.

- Assignment submissions must include source code and output of sample runs of programs. ***If output and source code is not submitted then 100% of the points will be cut***
- **Do not submit rar files, screen-shots, jpg files, png files or Image files, bin files, rich text. Windows users - please learn to submit text files and text output files for programs.**
- **Must Submit source program in text form and output in text format ONLY**
- **You are free to attach files in Canvas submission**
- **DO NOT USE RECURSION in ANY OF SUBMISSIONS. Stick to Syllabus and CS 1A material only. CS 1a does not cover recursion, any other advanced features. If you know recursion then well and good, but using them for CS 1A will NOT fetch ANY points. You will get 0 points if you do so.**
- **Again No rar, mobile screen shots, desktop screen shots, bin files, jpeg files or .class files will be accepted for any submission. Such submissions will be not graded and that means 0 points for your assignment submission.**
- Late submission of assignments will **not** be accepted.
- Email submissions of the assignments will **not** be accepted.
- Assignments and all other submissions must be through Canvas**ONLY**
- Please communicate with instructor via Canvas **ONLY**. Do not email instructor directly.
- Assignment will be graded by instructor - **ONLY** after its due date (say three to four days after its due date) -
- Learning to use an IDE for compiling Java programs is optional. CLI (command line) tools can be used compile your programs.
- Grade scale ie what is A+ A- etc. is based on Canvas grade scale. So Refer to Canvas document for grade scale.
- **You are expected to have a working computer/browser. Manage your resources to help submit assignments and exams in time using your computer. Refer to Syllabus Section if you need a lab to complete assignments/tests. Please contact PSME for lab access.**
- Assignment and exam points will show up as Zero points until instructor grades them. Note this. Also if the submission is not there then Zero points. Please make

sure your submissions are readable and executable. Submit source code and output.

- **All communication with instructor ends for this class on Dec 15, 2017, So manage your questions, grading issues before end of class. Canvas site for this course will be closed for students end of quarter. So manage your portal issues before this date.**
- Instructor will not email grade to you. You must use your school portal to look them up.
- **All grades are FINAL No adjustments will be made. Actively manage your study to manage your grade. It is a good idea to constantly manage your progress to help succeed in this programming course.**
- Absolute grading for all assignments and exams. (ie Grading is NOT done on a curve)
- This course is fully online. There are NO face to face meetings. All exams are via Canvas ONLY. All assignments are to be submitted via Canvas ONLY.
- You are expected to be computer literate and must know how to use your computer. This is a programming class in Java. Please note this.

Grading

10 assignments, 70 points, 6 points for class participation, 3 tests, 8 points each. Total 100. Absolute Grading. I do not grade on a Curve. No make-ups for tests/assignments/class participation. One chance ONLY.

Course Format

To stay on track with deadlines, refer to Syllabus and Modules and Assignments regularly. No login is required during the weekend or on holidays by participants or facilitators. It is your responsibility to complete your assignments on time. The site will be closed at midnight, on the last scheduled day for the course. NO INCOMPLETES are given.

Communicating with Instructor

All course communication happens within the course site. For course questions, contact me through Discussions. Ideally, you should post your questions in the forums so that

everyone benefits from the responses.

Special Facilities and/or Equipment Needed

Internet access and web browsing and email agility. Daily login is strongly recommended.

Advisory

Must know math and logic.
Familiarity with an IDE (Integrated development Environment) or CLI (Command line interface)

Expanded Grades

Your grades are based on programming **lab assignments** (66 points) **three exams** (= 30 points) and **class participation** (4 points)

Absolute Grading Scale

% needed for	**this grade**
97	A+
91	A
88	A-
86	B+
80	B
78	B-
75	C+
67	C
60	D
< 60	F

Expanded Content

- **Week 1** - Compilers, Eclipse, "Hello World", anatomy of a program, compiler errors vs. run-time errors, critical style rules and indention requirements. **Read chapters 1,2,3**
- **Week 2** - Numeric expressions, type declarations, console output, character, String and floating point types, type compatibility, playing computer. **Read chapters 1,2,3**
- **Week 3** - User input, selection (*if/else*), logical expressions, string manipulation, Scanner class, string-numeric conversion, formatting numeric output. **Read chapters 2,3,4,5**
- **Week 4** - Repetition (*for*, *while*, and *do* loops), brief intro to OOP, introduction to quasi-GUI programming in Java (JOptionPane), Formatting numeric output. **Read Chapters 3,4,5**
- **Week 5** - Program modularity, methods, parameter passing. the functional return, statics class variables vs. local variables, method overloading, inner classes, String class methods, optional examples in physics, medicine and climate modeling. **Read Chapter 6**
- **Week 6** - OOP programming, instance data and methods, *constructors*, *accessors* (getters), *mutators* (setters), protection of private data, separation of I/O and computation. **Read Chapter 6**
- **Week 7** - Static data, static methods, the "this" object, reference assignment, OOP program design strategies, object parameters, introduction to final. **Read Chapter 6**
- **Week 8, 9**- Arrays, array parameters, using arrays with loops, simple sort algorithms, compound data types (arrays of objects and objects containing arrays), index bounds testing, introduction to exceptions, anonymous objects. **Read Chapter 7**
- **Week 10, 11** Linear search algorithm, stack data structure, recursion, binary search algorithm. Optional
- **Week 12** - Final quiz.

You can access the official course outline of record for all **CS** courses here:

http://www.foothill.edu/schedule/catalog.php

From that page, select **Dept: Computer Science → Search**, and from there, select any CS course whose official outline you want to review.

Student learning outcomes for this and other CS courses can be found

here.
