CS102-52 Computer Science II Syllabus - Spring 2017

(Course content subject to change throughout the semester)

Class Meeting Time: Monday & Wednesday, 9:00-10:15 am, SP 309
Lab Time: Monday 3:10 to 5:10 pm

Instructor	Professor Jennifer Walter
Office phone:	437-7449
Office:	306 SP
Email:	`jewalter at vassar dot edu`
Office hours:	Tuesday, Wednesday, and Thursday: 10:30 am to noon
Coaches:	Rachel Fisher, Tyler Kugler, and Marian Lam

Text

Introduction to Programming Using Java, David J. Eck (http://math.hws.edu/javanotes.)

Oracle, The Java Tutorial (http://docs.oracle.com/javase/tutorial/)

Programming by Doing, Graham Mitchell (https://programmingbydoing.com)

Course Goals

By the end of the semester you should:

- be proficient using the Java programming language,
- be familiar with standard abstract data types (data structures) and the object-oriented paradigm,
- know when it is appropriate to use different data structures,
- know how to look up classes in the Java API,
- have a good understanding of well-known algorithms and the data structures that are used to implement them, and
- be proficient using commands at the Linux command line.

Course Content (not in strict order)

- Introduction to the structure of computers, object-oriented programming, compilers and interpreters, history of Java, networks – Eck Chapter 1
- Intro to Java Programming Language, problem with input to Java Programs - Eck Chapter 2 through and including Sect 2.6.2.
- Flow of control: decision and looping statements, algorithms, pseudo-code, the main method - Eck Chapter 3
- Subroutines (generally called static methods or functions) - Eck Chapter 4
- Objects, instance methods and instance variables, references, constructors, inheritance and polymorphism, extending superclasses by writing subclasses, interfaces (SKIP PARTS ABOUT JAVA 8) - Eck, Chapter 5.

- Arrays, arraylists, and parameterized types - Eck, Chapter 7.
- Generic programming and collection classes - Eck, Chapter 10.

Grading

First Exam - Monday, March 6th in lab	30%
Final Exam (date TBA)	40%
Assignments	15%
Labs	10%
Class Participation	5%

Requirements for the course consist of two exams and 8 to 10 programs. You are responsible for keeping up with the reading and for all material covered in class and the readings. This includes lecture notes, assignments, handouts, additional readings, etc. If you miss a class for any reason, you are responsible for making arrangements with classmates to provide you with all information disseminated in class that day. No make-up exams or quizzes will be given unless you present an official excuse from Baldwin, the Dean of Studies, or get advance permission from the instructor.

Rules for Program Preparation and Submission

One goal of this course is to develop your facility to create and analyze algorithms, so individual completion of assignments is extremely important. Assignments and due dates are included as they are determined on the course web page.

Academic accommodations

Academic accommodations are available for students with disabilities who are registered with the Office of Disability and Support Services. Students in need of disability accommodations should schedule an appointment with me early in the semester to discuss any accommodations for this course which have been approved by Office of Disability and Support Services, as indicated in your DSS accommodation letter.