

**Course:** Computer Programming - I CSC111  
**Academic Year:** 1438/1439 (2017-2018)  
**Semester:** First/Fall

**Textbook**

- Java: An Introduction to Problem Solving and Programming, 7ed, W. Savitch, Pearson International (Textbook)
- Java How to Program, 7ed, Deitel and Deitel, Pearson International (reference)
- Introduction to Java Programming, Comprehensive Version, 10ed Y. Daniel Liang, Prentice Hall (reference)

**Plan**

Units	Week #	Topic	Course Materials	Labs, Lab exams	Assignments
3	1 17/9	Administrivia  Introduction to computers and Java: computer basics, Java, programming basics	Chapter 1 Introduction		
2 1	2 24/9	Variables, Data Types, Identifiers, Assignment  Simple Input / Output	Ch 2.1  Ch 2.1	LAB-1 (Hello world, variables, assignment)	Assignment-1 OUT
2 1	3 1/10	Constants, Type Casting, Arithmetic Operators, Operator precedence  Case study: vending machine change	Ch 2.1  Ch 2.1	LAB-2 (variables, IO, expressions)	Assignment-1 DUE Assignment-2 OUT
2 1	4 8/10	Increment and decrement, keyboard and screen I/O, documentation and Style  Basic if-else statement, boolean expressions	Ch 2.1, 2.3  Ch 3.1		Assignment-2 DUE Assignment-3 OUT
1 1 1	5 15/10	Nested if-else statement, multibranch if statement  Case Study, exit Method (conditional operator not included)  Comparing strings, The type boolean	Ch 3.1  Ch 3.1  Ch 3.1, 3.2	LAB-3 (if statement, boolean expressions)	Assignment-3 DUE Assignment-4 OUT

1	6 22/10	Switch statement (enumeration not included)	Ch 3.3	LAB-4 (simple loops)	Assignment-4 DUE Assignment-5 OUT
1		The while statement	Ch 4.1		
1		do-while statement, programming example	Ch 4.1		
<b>Midterm 1 as per college schedule</b>					
1	7 29/10	For statement (for-each not included)	Ch 4.1	LAB-5 (Nested loops)	Assignment-5 DUE Assignment-6 OUT
1		Nested loop	Ch 4.1		
1		Programming with loops, loop bugs, tracing variables (break and continue, assertion not included)	Ch 4.2		
1	8 5/11	Classes: Instance variable, UML	Ch 5.1		Assignment-6 DUE Assignment-7 OUT
1		Programming Example	Ch 5.1		
1		Methods, void Method, Method that return a value	Ch 5.1		
1	9 12/11	The keyword this, Local variables, blocks	Ch 5.1	LAB-6 (Objects)	Assignment-7 DUE Assignment-8 OUT
1		Parameters of a primitive type	Ch 5.1		
1		Information hiding, public and private modifiers	Ch 5.2		
2	10 19/11	Accessor(getters) and mutator methods(setters), Encapsulation, UML class diagram	Ch 5.2	LAB-7 (objects and methods)	Assignment-8 DUE Assignment-9 OUT
1		Methods calling methods	Ch 5.2		
1	11 26/11	Variable of class type (references)	Ch 5.3	LAB-8 (Information hiding, encapsulation)	Assignment-9 DUE Assignment-10 OUT
1		Defining and equals method for a class, Parameters of class type	Ch 5.3		
1		Constructors	Ch 6.1		
<b>Midterm 2 as per college schedule</b>					

1		Static variables and methods	Ch 6.2	LAB-9 (Constructors, static variables & methods, overloading)	Assignment-10 DUE Assignment-11 OUT
1	12 3/12	Overloading	Ch 6.4		
1		Array basics	Ch 7.1		
1		Array basics programming example	Ch 7.1	LAB-10 (array processing)	Assignment-11 DUE Assignment-12 OUT
1	13 10/12	Arrays in classes and methods	Ch 7.2		
1		Array of objects	Ch 7.3		
3	14 17/12	Operations on array of objects (add, search, delete)	(Instructor Notes)	LAB-11 (Array of objects)	Assignment-12 DUE Project OUT
3	15 24/12	Revision			
Final Exam					

### Assessment Methods & Policy

Homework, Quizzes and Attendance	10% 5%	Homework Assignments Class Project
Lab.	25%	2 Evaluation Exams in the Lab (10+15)
Written Midterm Exams	20%	10% Midterm exam 1 10% Midterm exam 2
Written final exam	40%	

#### Homework assignments:

Homework will be assigned and graded. All homework assignments will be given with a strict deadline, and students are required to submit assignments on or before the deadline. Cheating will not be tolerated.

#### Quizzes

In-class quizzes will be given throughout the semester to assess the desired course outcomes.

#### Continuous Evaluation Exams

There will be 3 exams each one conducted during a lab session for 2 hours under supervision of the lab Instructor. Each exam will consist of a single programming problem. The student will be presented with a detailed problem statement and asked to write, compile and run a full

Java program to solve the problem. The answer-program should be written using Eclipse (or any other IDE available for students in the lab). Unlike during regular lab sessions, the student should not expect any help from the lab instructor

### **Midterm**

Two Midterms will be given. It will be a closed book and closed note exam and will cover the studied part of the course.

**Mid Term 1:** It covers: from the beginning up to the conditional statements (usually scheduled in the 6th week of the term)

**Mid Term 2:** It covers all studied concepts but the array structure (usually scheduled in the 11th week of the term).

### **Final**

A comprehensive final examination will be given. It will be a closed book and closed note exam and will cover all course material.

### **Deadline Policy**

All homework assignments will be given a strict deadline, and students are required to submit their assignments on or before the deadline. Will be collected at the start of the class on the due date, and late submissions will not be accepted. In case of extenuating circumstances, students are advised to contact the professor as soon as possible. You are encouraged to discuss the course and the assignments with each other, however, your exams and home works should be your own work

### **Attendance Policy**

Attendance will be taken. Attendance will be graded as cited above, and may be used as a deciding factor when final average is between grades.

You will be denied final exams if they exceed 25% absence rate (including the lectures, tutorials, and labs). Excuses of absence are accepted no later than one week of the absence

### **Computer usage**

All homework assignments or project documents should be submitted using MS-Word and/or appropriate computer software. No hand written submission will be accepted.