

Ahmadu Bello University, Zaria, Nigeria

Department of Computer Science

COSC 211: Object Oriented Programming I First Semester 2016/2017

Course Description

Prerequisite: COSC101 or Equivalence

Overview of computers and computing; Introduction to object-orientation as a technique for modeling computation. Introduction of a typical object-oriented language, such as Java; Basic data types and operators; Basic object-oriented concepts; Introduction to Strings; Simple I/O; Logical expressions, control structures, algorithms and problem solving; Arrays; Simple recursive algorithms; inheritance; polymorphism.

Course Resources

- **Web site:** <http://dcs.abu.edu.ng/courses/cosc211/>
- **Discussion Forum:** <http://moodle.abu.edu.ng/>
- **Course Timetable:** <http://dcs.abu.edu.ng/timetable/>

Marks Distribution Plan

Activity	Weight
Lab. Attendance (0.5 marks per Lab)	6%
Lab. Tests and Projects	14%
Common Tests (Written and CBT)	20%
Final Examination	60%

Lecture and Laboratory Schedule

Lecture	Week	Topic	Lab No	Lab Topic
1	1	Computer Systems Anatomy	0	Programming Environment Setup
2		Overview of Programming Languages		
3	2	Programming Languages Translation	1	Simple Print Programs
4		Fundamental Data Types		
5	3	Algorithms	2	Data Types, String Class
6		Basic OO Concepts		
7	4	Introduction to Strings	3	Reading Input: the Scanner Class
8		Introduction to Console I/O		
9	5	Introduction to Classes I	4	Classes, Methods, Instance & static Variables
10		Introduction to Classes II		
11	6	Selection	5	Selection and Iteration
12		Iteration		
13	7	String Tokenization	6	Constructor Overloading, toString Method
14		More About Methods I		
15	8	More About Methods II	7	1-D Arrays
16		D Arrays		
17	9	Dynamic Arrays	8	2-D Arrays
18		2-D Arrays		
19	10	Introduction to Recursion	9	File I/O
20		Exception Handling		
21	11	Text File I/O	10	Recursion
22		Inheritance I		
23	12	Inheritance II	11	Revision
24				