NORTH SOUTH UNIVERSITY
Department of Electrical and Computer Engineering

Course Outline for CSE 215 Programming Language II
Summer 2019 Semester

Course Information

Course: **CSE 215 Programming Language II (Section 13 and 14)**
Credit Hours: **3+1 (CL) = 4**

Prerequisite: **CSE 115 Programming Language I**

Faculty Information

Name: **Mohammad Rezwanul Huq, PhD**
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Class Time:	Theory – ST 08:00-09:30	Lab – RA 08:00 – 09:30 (Section 13)
	Theory – ST 09:40-11:10	Lab – RA 09:40 – 11:10 (Section 14)
Class Room:	Theory – SAC 203	Lab – LIB 610 (Section 13)
	Theory – LIB 604	Lab – LIB 610 (Section 14)
Office Hour:	SR 11:20 – 12:20 (appointment basis)	

Course Summary

This course introduces the basic concepts and techniques of object-oriented programming. Actual computer programs are constructed by apply object-oriented programming concepts and using an OOP language. Java is primarily chosen as the programming language in this course. The following topics are covered in this course: Java syntax with elementary programming, primitive data types, strings, operators, statements, arrays and methods, introduction to OOP, classes and objects, constructor, polymorphism, abstract classes and interfaces, file IO operations, handling exceptions in Java, GUI, multithreading, generics and related concepts.

Course Objectives

The objectives of this course are

- to become use to the basics of elementary programming such as variables, conditional and iterative execution, arrays and methods in Java;
- to understand the attributes of object-oriented programming (encapsulation, polymorphism, etc.) and concepts of OOP such as method overloading, method overriding, static and dynamic binding, abstract class, interface, visibility modifiers;
- to design a programming solution using the object-oriented programming concept, and apply the concepts of exception handling, graphical user interface (GUI), event-driven programming, multi-threaded programming, generics in Java;
- to introduce Java SDK and Java IDE tools to develop Java applications with debugging;
- to work in a project team to support as a team member to develop applications.

Course Outcomes (COs)

Upon successful completion of this course students will be able to:

CO1	apply the basics of elementary programming such as variables, conditional and iterative execution, arrays and methods in Java;
CO2	apply the attributes of object-oriented programming (encapsulation, polymorphism, etc.) and concepts of OOP such as method overloading, method overriding, static and dynamic binding, abstract class, interface, visibility modifiers;
CO3	design a programming solution using the object-oriented programming concept, and apply the concepts of exception handling, graphical user interface (GUI), event-driven programming, multi-threaded programming, generics in Java;
CO4	use Java SDK and Java IDE tools to develop Java applications with debugging;
CO5	support as a team member to develop applications as a project team;

Course Content & Tentative Teaching Schedule

Week	Lecture Topic(s)	Teaching Material and References
1	Introduction to Java Programming	Lecture Slide and Textbook (Liang Ch. 1, 2)
2	Revising concepts of conditional branching, looping, methods and implementing them in Java	Lecture Slide and Textbook (Liang Ch. 3, 5, 6)
3	Useful Java Functions and Array handling in Java	Lecture Slide and Textbook (Liang Ch. 4, 7, 8)
	Mid-Term I (30 June 2019)	
4	Introduction to Objects and Classes	Lecture Slide and Textbook (Liang Ch. 9, 10)
5		
6	Discussion on Inheritance and Polymorphism	Lecture Slide and Textbook(LiangCh. 11)
7	**Mid-Term II (30 July 2019)**	
8	Exception Handling and Text I/O	Lecture Slide and Textbook(LiangCh. 12)
9	Abstract Classes and Interfaces	Lecture Slide and Textbook(LiangCh. 13)
10	Java GUI Programming	Lecture Slide and Textbook(LiangCh. 14, 15)

11	Multithreading	Lecture Slide and Textbook(LiangCh. 30)
12	Selected Topics in Java and Revision	
	Final Exam	

Teaching Materials/Equipment

Textbook:

1. **Y. Daniel Liang, *Introduction to Java Programming (comprehensive version)*, Pearson (10th edition)**
2. Walter Savitch, *Absolute Java*, Pearson (5th edition)
3. Bert Bates and Kathy Sierra, *Head First Java*, O'Reilly Media (2nd edition)
4. Paul Deitel and Harvey Deitel, *Java How to Program,* Prentice Hall (9th edition)

Teaching Materials: Textbook, Lecture Slides*, Lab Manuals*.
Teaching-Learning Method: Lectures, Discussions, Assignments, Lab Exercises.

** Lecture Slides and Lab Manuals will be made available to the students during the class. They can be also downloaded from* http://bit.ly/nsucse215

Assessment Weightage (Evaluation and Grading Policy)

The relative contributions of exams, lab work, and reports are as follows:

Theory Part	
Attendance and Class Participation	5%
Assignments	15%
Class Tests (best two of four)	20%
Mid-Term I	10%
Mid-Term II	20%
Final Exam	30%
Lab Part	
Lab Attendance	10%
Regular Lab Performance	30%
Online Weekly Assessment	20%
Lab Exam	20%
Project Implementation and Demonstration	20%

Grading System

Marks (%)	Letter Grade	Grade Point	Marks (%)	Letter Grade	Grade Point
93-100	A Excellent	4.00	73-76	C Average	2.00
90-92	A-	3.70	70-72	C-	1.70
87-89	B+	3.30	67-69	D+	1.30
83-86	B Good	3.00	60-66	D Poor	1.00
80-82	B-	2.70	Below 60	F	0.00
77-79	C+	2.30			

The exact cut off points for assigning letter grades is at the, discretion of individual instructor. The same applies to the assignment of + or - after a letter grade. It is meant to give more flexibility so that shades of performance can be distinguished and rewarded. The + and - has a value of 0.3 grade point. (Source: http://www.northsouth.edu/academic/grading-policy.html)

Exam Dates

Exam	Section 9 and 10
Mid-Term I	30 June 2019
Mid-Term II	30 July 2019
Final Exam	As per the schedule of the university

Academic Code of Conduct

Academic Integrity

Any form of cheating, plagiarism, personation, falsification of a document as well as any other form of dishonest behavior related to obtaining academic gain or the avoidance of evaluative exercises committed by a student is an academic offence under the Academic Code of Conduct and **may lead to severe penalties up to and including suspension and expulsion.**

Special Instructions

- Students **MUST WEAR dresses** in conformity with the **dress code of NSU** within the lecture/lab classes and examination hall.
- Students are expected to attend all classes, labs and examinations.
- Students will not be allowed to enter into the classroom after 15 minutes of the starting time.
- For plagiarism, the grade will be automatically become zero for that exam/assignment.
- There will be **NO make-up examinations**. In case of emergency, you MUST inform me within 48 hours of the exam time. Failure to do so will mean that you are trying to take UNFAIR advantage and you will be automatically disqualified. Also proper medical certificate (if applicable) has to be presented on the next class you attend.
- All mobile phones MUST be turned to silent mode during class, lab and exam period.
- Please keep all of your quizzes, assignments and exam papers until the end of the semester as a proof in case of any grading discrepancy.
- There is **zero tolerance for cheating**. Students caught with cheat sheets in their possession, whether used or not used, and/or copying from cheat sheets, writing on the palm of hand, back of calculators, chairs or nearby walls, etc. would be treated as cheating in the exam hall.