對外經濟貿易大學
University of International Business and Economics

University of International Business and Economics
International Summer School

CS 320 Introduction to JAVA Programming

Term: May 28 – June 28, 2018
Instructor: TBD
Home Institution: TBD
Email: TBD
Class Hours: Monday through Thursday, 120 minutes each day
Office Hours: TBD
Discussion session: 2 hours each week

Total Contact Hours: 66 contact hours (45 minutes each)
Credit: 4 units

Course Description:

This summer course is for international school, for undergraduate students. No prior knowledge on computer programming is required. The course starts from the very beginning of the introduction of computers, programs, and the design philosophy of JAVA. Then the lecture advances to cover topics including elementary programming, selections, mathematical functions, loops, methods, arrays, objects and classes, objected-oriented programming, I/O, abstract classes and interfaces, basic data structures, and networking.

The course is designed to be self-contained, which covers a prodigious range from the basic of programming knowledge to J2SE, data structure and advanced programming skills. Students are suggested to take self-study before and after each given lecture.

Course Goals:

The goal is to teach from the fundamentals of java programming to high-level network programing. The key is to teach students to master the programming design, coding, compiling, and debugging skills. It starts from very beginning, from the basic elements of programming until into high level methodologies and applications. The detailed goals include:

- ✧ Let students be competent with basic coding features provided by object-oriented programing.
- ✧ Be competent with writing computer programs to implement basic applications.
- ✧ Be familiar of using basic data structure such as arrays and maps.
- ✧ Be familiar of using basic algorithm provide by JAVA SE.
- ✧ Be familiar of using computer I/Os and network programing.
- ✧ Be familiar with abstract concepts and other advanced programming ideas.

Required Text:

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

Required course materials:

- Introduction to Java Programming, Daniel Liang, 10nd Edition.
- Building Java Programs: A Back to Basics Approach, 3rd edition, by Stuart Reges and Marty Stepp

Attendance:

Require students to participate all the courses.

Grading Scale:

Graded Item	% of Grade
Midterm Exam	15%
Final Exam	25%
Homework, Closed Labs, Quizzes	35%
Project Assignments	25%

Grading Scale:

Assignments and examinations will be graded according to the following grade scale:

A	90-100	**C+**	72-74
A-	85-89	**C**	68-71
B+	82-84	**C-**	64-67
B	78-81	**D**	60-63
B-	75-77	**F**	below 60

Class Rules:

Require students to following the student rules of international school.

Course Schedule:

Date	Topics	Assignment
Day 1	Introduction to computers, programs and java	Hw1
Day 2	Elementary programming	Hw2
Day 3	Selections	Hw3
Day 4	Mathematical functions, characters and	Hw4
Day 5	Loops	Hw5
Day 6	Methods	Hw6
Day 7	Single dimensional arrays	Hw7
Day 8	Multi-dimensional arrays	Hw8
Day 9	Objects and classes	Hw9
Day 10	Object-oriented design	Hw10
Day 11	Inheritance and polymorphism	Hw11, Midterm exam
Day 12	Exception handling	Hw12
Day 13	Text I/O	Hw13,Project

Day 14	List, stack and queues	Hw14
Day 15	Sets and Maps	Hw15
Day 16	Java FX basics	Hw16
Day 17	Java Animations	Hw17
Day 18	Java UI and multimedia	Hw18
Day 19	Networking	Hw19
Day 20	Networking project	Final exam