City University of Hong Kong

Information on a Course
offered by Department of Electronic Engineering
with effect from Semester A 2012/13

Part I

Course Title:	Java Network Programming
Course Code:	EE5805
Course Duration:	One Semester (13 weeks)
No. of credits:	3
Level:	P5
Medium of Instruction:	English
Prerequisites:	Nil
Precursors:	CS2363 Computer Programming or equivalent;
	Experiences in software design, and knowledge in Data Structures and Relational Database are preferred.
Equivalent Course :	Nil
Equivalent to the Old Course:	Nil
Exclusive Courses:	Nil

Part II

Course Aims:

The aim of this course is to provide students with an understanding of the concepts and techniques of object-oriented design and Internet application development. Java, a prime object-oriented programming language for Internet application, is used as the instruction and implementation tool.

Course Intended Learning Outcomes (CILOs)
Upon successful completion of this course, students should be able to:

No.	CILOs
1.	Solve general computation problems using the Java language.
2.	Implement event-driven graphical user interface to interact with users
3.	Implement Java programs to manipulate data stored in a relational database.
4.	Design web-based applications using Applet, Servlet, JSP, and JavaScript .

Teaching and Learning Activities (TLAs)
(Indicative of likely activities and tasks designed to facilitate students' achievement of the CILOs. Final details will be provided to students in their first week of attendance in this course)

CILO 1-4	Lectures, tutorials, assignments, self-study

Timetabling Information

Pattern	Hours
Lecture:	*26*
Tutorials:	*13*
Laboratory:	*0*
Other activities:	*0*

Assessment Tasks/Activities
(Indicative of likely activities and tasks designed to assess how well the students achieve the CILOs. Final details will be provided to students in their first week of attendance in this course)

	Type of assessment tasks	*Weighting (if applicable)*
Continuous Assessment	Tests, tutorial exercises, assignments	50%
Examination	Written exam	50%　　2 hours

Remarks: To pass the course, students are required to achieve at least 35% in course work and 35% in the examination.

Grading of Student Achievement:

Letter Grade	Grade Point	Grade Definitions
A+ A A-	4.3 4.0 3.7	Excellent
B+ B B-	3.3 3.0 2.7	Good
C+ C C-	2.3 2.0 1.7	Adequate
D	1.0	Marginal
F	0.0	Failure

Constructive Alignment with Programme Outcomes

PILO	How the course contribute to the specific PILO(s)
1, 2, 3, 4	This course provides essential knowledge and techniques for designing and implementing software applications in Java. Students will acquire hands-on experiences and improve their programming skills through the practical trainings offered in this course.

Part III

Keyword Syllabus:

Overview of Object-oriented principles and design
Objects and classes; information hiding; encapsulation; data abstraction; inheritance and polymorphism; discovering class relationships; unified modeling language (UML) and diagrams;

Basic features of the Java language
Java technologies and platform; basic Java syntax and conventions; classes and interfaces; packages; inheritance and dynamic binding; data structures and collections; generic programming; binary and text I/O; exceptions and assertions; threads and issues in multithreaded program design

GUI programming
Frame and Applet; graphical user interface components; layout management; event-driven processing.

Processing data stored in relational database
Overview of relational database; Database queries using SQL; Java Database Connectivity.

Web-based applications
Overview of the HTTP protocol; HTML form processing; Java Servlet and Java Server Page; JavaScriptAccessing relational database in web applications. .

Recommended Reading:
Y. Daniel Liang, Introduction to JAVA Programming Brief Version, 7/E, Prentice Hall, 2008, ISBN: 013604258

H. M. Deitel, and P. J. Deitel, Internet & World Wide Web How to Program, 4th Ed., Prentice Hall 2008, ISBN: 0-13-175242-1

Online Resources (if any)

Java SE 6 API Specification http://java.sun.com/javase/6/docs/api/
Java EE 5 API Specification http://java.sun.com/javaee/5/doces/api/
Sun Java Tutorials http://java.sun.com/docs/books/tutorial/index.html