

Kathmandu University School of Management
BACHELOR OF BUSINESS INFORMATION SYSTEMS
Course Syllabus

Course Title	ADVANCED PROGRAMMING TECHNIQUES
Course Code Number	COM 315
Credit Hours	3
Course Objective	
Main Objective	The objective of the course is to give the participants sound knowledge of advanced features of Java programming language, so as to enable them develop applications from multimedia, networking to distributed applications with the help of Java-APIs.
Learning Unit	
Learning Unit One Net Contact Hours - 12 hrs	1. Creating GUI Using basic swing components, Layout Managers (BorderLayout, BoxLayout, CardLayout, FlowLayout, GridBagLayout, GridLayout, and GroupLayout), Event handling using Event Listener interfaces and Adapter classes, Introduction to Applet, Writing Applets, Applet's life cycle
Learning Unit Two Net Contact Hours - 6 hrs	2. JDBC Introduction, Processing SQL statements with JDBC, Using JDBC with GUI
Learning Unit Three Net Contact Hours - 6 hrs	3. Multimedia Programming Working with 2D and 3D Graphics, Using Audio and Video, Creating Animations, Java media Frameworks
Learning Unit Four Net Contact Hours - 5 hrs	4. Java Beans Introduction, Bean-writing process, Design patterns, Building applications with NetBeans
Learning Unit Five Net Contact Hours - 6 hrs	5. Networking Programming Introduction to Sockets, Creating Client-Server Application based on TCP and UDP, Java mail API
Learning Unit Six Net Contact Hours - 6 hrs	6. Java Server Programming Introduction to Servlets and Java Server Pages, Writing simple Servlets and Java Server Pages
Learning Unit Seven Net Contact Hours - 7 hrs	7. Remote Objects, Remote Method Invocation and CORBA Introduction to RMI, Writing RMI programs, Introduction to CORBA
Total Contact Hours	48 hrs (excluding assessment, lab hours, and final examination)
Basic Texts	1. Cay S. Horstmann and Gary Cornell (2013), <i>Core Java Volume I - Fundamentals</i> , 9 th Edition. 2. Cay S. Horstmann and Gary Cornell (2013), <i>Core Java Volume II - Advanced Features</i> , 9 th Edition.
Other References	1. Steven Holzner (2008), <i>Java 2 Programming - AWT, Swing, XML and Java Beans Black Book</i> , 5 th Edition. 2. Pallvi Jain and Shadab Siddiqui (2002), <i>J2EE Professional Projects</i> , Premier Press 3. https://docs.oracle.com/javase/tutorial/
Evaluation Scheme	In-Semester evaluation 50% End-Semester evaluation 50% Total 100%

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