



# C. U. Shah University, Wadhwan City

Faculty of Computer Science

Name of Program: Master of Science Information Technology

(Web Technology)

Semester : II

w.e.f. June – 2016

## Teaching & Evaluation Scheme

Sr. No	Subject Code	Subject Name	Teaching Hours/Week				Credits	Evaluation Scheme/Semester							
			Th	Tu	Pr	Total		Theory				Practical			Total Marks
								Sessional Exam		University Exam		Internal		Uni.	
								Mks	Hrs	Mks	Hrs	Pr	TW	Pr	
1	5CS02WJA1	Advance Java Programming	4	-	-	4	4	30	1.5	70	3	-	-	-	100

**Objectives:** At the end of the syllabus student can develop security based dynamic web site using JSP,Servlet.Pre-requisites:Student should have the knowledge of Core java Programming.he/she have the fundamental Programming and some basic programming of c or c++ Programming.

**Pre- Requisite:** Knowledge of programming language.

### Course Outline:

Ch No	Chapter Name	Course Contents	Lect.H ours
1	Swing	Layout managers(FlowLayout, BorderLayout, CardLayout,GridBagLayout, GridLayout with constraints, spring, box,group,no layout) What is swing, Swing Vs AWT, Container class, Swing Components (Japplet, JLabel, JButton, JCheckBox, JCheckboxgroup, JChoice, JTextField, JTextArea, JList, JScrollbar, JPanel, JFrame, JMenu, JMenuBar, JMenuItem, JPasswordField, JRadioButton)	06
2.	The J2EE Platform	Introduction to J2EE, Enterprise Architecture Styles: Two-TierArchitecture,Three-TierArchitecture N-Tier Architecture Introduction to J2EE Apls (Servlet, JSp, EJB, JMS, JavaMail, JSF, JNDI), Tomcat as a Web Container	03
3.	RMI	RMI overview, RMI'architecture, Stub and Skeleton, Developing and Executing RMI app	03
4.	JDBC	Introduction of JDBC,Data types in JDBC, Database Exception Handling, Types of JDBC Drivers, JDBC API for Database connectivity (java.sql package) Statement, PreparedStatement, CallableStatement,ResultSetMeta Data, DatabaseMetaData,	5
5.	Servlet	Servlet introduction, servlet API (Javax,servlet and avax.servlet.http) Servlet Life Cycle, Developing and Deploying Servlets Handling Servlet Requests and Responses, Reading Initialization parameters, session Tracking Approaches (uRL Rewriting, Hidden Form	5

		Fields,Cookies, Session Apl), Servlet Collaboration, Servlet with JDBC	
6.	JSP	Introduction to JSP and JSP Basics, JSP vs. Servlet, Life cycle of JSP JSP Elements: Directive Elements, scripting Elements, Action Elements - - Directives Elements (page, include, taglib) Scripting Elements(Declaration, scriptlet,expression), Action Elements (Jsp:param, Jsp:include,Jsp:Forward, .Jsp:plugin) - JSP Implicit Objects, JSP Scope Including and Forwarding from JSP pages: include Action, forward Action Working with Session & Cookie in JSP, Error Handling and Exception Handling with JSP, JDBC with JSP	6
7	Java Beans	Javabeans Properties, JavaBean Methods, Common JavaBean Packaging.	4
8	MVC Architecture	Introduction to MVC, Implementation of MVC Architecture,	3
9	EJB	Introduction , Benefits of EJB, Restrictions on EJB, Types of EJB,	3
10	Hibernate	Introduction to Hibernate, Need for Hibernate, Features of Hibernate, Disadvantage of Hibernate, Exploring Hibernate Architecture, Downloading and Configuring and necessary files to Hibernate in Eclipse, Jars file of Hibernate, Hibernate Configuration file, Hibernate Mapping file, Basic example of Hibernate, Annotation,	6
11	Spring	Introduction of Spring framework, Spring Architecture, Spring and MVC, Spring context definition, Inversion of control (IOC) in Spring, Aspect Oriented Programming in Spring (AOP)	5
12	Struts	Understanding Struts framework, Comparison with MVC using request dispatcher and EL, Struts flow of Control, Processing request with action objects, Handling request parameters with formbeans, Prepopulating and Redisplaying Input Forms, Using Properties files	5
<b>TOTAL</b>			<b>55</b>

Teaching Methodology:Revision, Paper Solving, Seminar, Expert Talk, MCQ Quiz, Viva Test, Programming test

#### Books Recommended:

1. Java 2 (Jdk 5 Ed.) Programming Black Book 6 Ed. Dreamtech Press Steven Holzner ISBN :817722655X
2. Java 2:The Complete Reference Tata McGraw-Hill Schildt ISBN : 0070495432

#### Reference Books:

1. Advance java Technology Dreamtech Prof. M.T.Savaliya ISBN :9789350042076
2. The CompleteReference J2EE Tata McGraw-Hill James Keogh ISBN : 007222472X
3. Java Servlet Programming "O'Reilly Media" Janson Hunter ISBN : 1449390676
4. Professional JSP J2EE 1.3 Dreamtech Press CedricBuest ISBN : 8181287576
5. Beginning Java EE 7 Apress Antonio Goncalves ISBN : 143024626X