

**SWARNANDHRA
COLLEGE OF ENGINEERING AND TECHNOLOGY
(AUTONOMOUS)**

**SEETHARAMPURAM, NARSAPUR-534280, WG- DT, AP
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS**

TEACHING PLAN

Course Code	Course Title	Year / Sem	Branch	Contact Hr/ week	Academic Year	Date of Commencement of class work
20MC2T03	OOPS Using JAVA	I/II	MCA	6	2023-24	20-03-2024

COURSE OUTCOMES: Upon the successful completion of this course the student will be able

1. Describe the uses OOP concepts.
2. Apply OOP concepts to solve real world problems.
3. Distinguish the concept of packages and interfaces.
4. Demonstrate the exception handling, multithread applications with synchronization.
5. Design the GUI based applications using AWT and Swings.

Week. NO	Outcome	Blooms Level	TOPIC/ACTIVITY	Text Books	Contact Hours	Delivery Method	
1 2 3	Describe the uses OOP concepts and Apply OOP concepts to solve real world problem	K2	UNIT- I				Chalk & Board, Programming Demonstration
			1.1	Need for OO paradigm, A way of viewing world- Agents, Responsibility, Messages, Methods	T1	1	
			1.2	Classes and instances, Class hierarchies	T1	1	
			1.3	Method binding, Overriding and Exceptions	T1	1	
			1.4	Data types, Variables, scope and life time of variables	T1	1	
			1.5	Arrays and Operators	T1	2	
			1.6	Expressions and Control Statements	T1	1	
			1.7	Type conversion and casting and Simple java program	T1	1	
			1.8	Classes and Objects-	T1	2	

				Concepts of Classes and Constructors Methods				
			1.9	Access control, this keyword and Garbage Collection	T1	1		
			1.10	Overloading methods and Constructors	T1	1		
			1.11	Parameter passing, Recursion, String handling	T1	1		
			UNIT- II					
			2.1	Inheritance	T1	2		
			2.2	Forms of Inheritance	T1	1		
			2.3	Member access rules, super uses	T1	1		
			2.4	using final with inheritance, polymorphism	T1	2		
			2.5	Abstract classes	T1	1		
			2.6	Packages	T1	2		
			2.7	Interfaces	T1	2		
			2.8	differences between classes and interfaces	T1	1		
			2.9	applying interfaces variables in interface and extending interfaces	T1	1		
4 5 6	Distinguish the concept of packages and interfaces	K3						Chalk & Board, Programming Demonstration
			UNIT- III					
			3.1	Concepts of exception handling	T1	1		
			3.2	Benefits of exception handling	T1	1		
			3.3	Termination or presumptive models	T1	1		
			3.4	Exception hierarchy	T1	1		
			3.5	usage of try, catch, throws and finally	T1	2		
			3.6	Built in exceptions	T1	1		
			MID EXAM- I					
			3.7	Creating own	T1	1		
7 8 9	Demonstrate the exception handing, multithread applications with synchronization	K2						Chalk & Board, Programming Demonstration

			exception sub classes				
			3.8 Differences between multi threading and multitasking,	T1	1		
			3.9 Thread life cycle	T1	1		
			3.10 Creating threads	T1	1		
			3.11 Synchronizing threads, Daemon threads, , threadgroups	T1	2		
			UNIT- IV				
10 11 12	Discuss the Collection Framework	K5	4.1 Events, Event sources, Event classes, Event Listeners, Delegation event model	T1,T2	2	Chalk & Board, Programming Demonstration	
			4.2 Handling mouse and keyboard events	T1,T2	2		
			4.3 Adapter classes, inner classes	T1, T2	1		
			4.4 The AWT class hierarchy	T1, T2	1		
			4.5 User-interface Components- , button, canvas, scrollbars, text components, check box, check box groups, choices	T1, T2	2		
			4.6 List panes- scroll pane, dialogs, menu bar, graphics	T1, T2	2		
			4.7 Layout Manager-boarder, grid, flow, card and grid bag	T1, T2	2		
			UNIT- V				
13 14	Design the GUI based applications using AWT and Swings	K5	5.1 Concepts of Applets, differences between applets and applications	T1,T3	2	Chalk & Board, Programming Demonstration	
			5.2 Lifecycle of an applet, types of applets	T1,T3	3		
			5.3 Introduction, limitations of AWT, MVC architecture, components, containers	T1, T3	3		
			5.4 Exploring swing-JApplet, JFrame	T1, T3	3		

			and JComponent		
		5.5	Icons and Labels, text fields, buttons- The JButton class, Check boxes, Radio Buttons, Combo boxes, Tabbed panes, Scroll panes, Trees and Tables	T1,T3	3
MID EXAM -II					
TOTAL CLASSES- 65					

Recommended Text Books for Reading:

1. Herbert schildt, Java-The complete reference,7/e,TMH,2007.
2. Dietal,JAVA: How to program, 9/e,PHI,2011.
3. S.Dean,Introduction of programming with JAVA,TMH,2007.

Reference Books:

1. Cay.S.Horstmann, Gary Cornell,Pearson,Core Java 2, Vol 1(Vol 2) Fundamentals(Advanced), 7/e, 2004.
2. Cay.S. Horstmann,Wiley, Big Java2,3/e, 2016.
3. P.RadhaKrishna,Object Oriented Programming through Java,University Press,2007.
4. John Hunt,JAVA& Object Orientation an Introduction, 2/e, Springer,2002.
5. Y. Daniel Liang, Introduction to JAVA Programming, 7/e, Pearson.,TMH,2009.


Faculty


Head of the Department


Principal