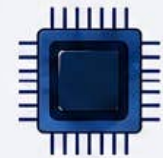
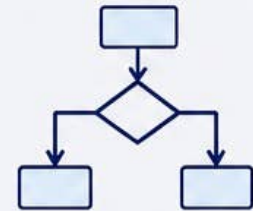




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Syllabus



Sant Gadge Baba Amravati University, Amravati

FACULTY: Science and Technology

Teaching and Learning Scheme: for the Degree of Bachelor of Science with the Major: Computer Science(112)

(Three Years- Six Semesters Bachelor's Degree Programme)

(Four Years- Eight Semesters Bachelor's Degree Programme (Honors)

(Four Years- Eight Semesters Bachelor's Degree Programme (Honors with Research)

Major Course: Core Java Programming

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exam Duration	Max Marks
5.5	V	112213	Core Java Programming	2	30	2 Hrs.	30

Course Objectives:	1. To understand the concepts and features of object-oriented programming. 2. The skills to apply OOP in Java programming in problem solving 3. To understand the concept of polymorphism and inheritance 4. To understand the creation of user defined interfaces						
Course Outcomes:	Students will be able to - 1. Understand the basic Concept of Java. 2. Knowledge and ability to implement the control structures to get desired output. 3. Students will Able Identify classes, objects, members of a class and relationships among them needed for a specific problem 4. Students will Understanding the Inheritance and polymorphism. 5. To build directories and manage applications with interfaces.						
Unit System	Contents				Workload Allotted	Weightage of Marks Allotted	Incorporation of Pedagogies
Unit I	Introduction to JAVA: History and evolution, Feature, JRE, JDK, JVM, Data types,Keywords, Operators, Structure of Java Program, Java Command line argument, Simple java programs.				8 Hrs.	8 Marks	Use any pedagogical technique

Unit II	Decision Making and Branching: Simple if statement, if...else statement, Nesting of if...else statement, Else...if ladder, switch statement. Decision Making and Looping: While statement, Do-While statement, For statement, jumps in loop.	7 Hrs.	7 Marks	suitable for the topic
Unit III	Classes, Objects and Methods: Introduction, defining a class, declaration of fields, methods, objects creation, accessing class members, method overloading, constructor and its type, constructor Overloading, use of new, delete &this keyword. Access Specifier: public, private &protected	8 Hrs.	8 Marks	
Unit IV	Inheritance: Introduction, type of Inheritance, Super &Extended class Final Variable, method & class, abstract methods and classes Interfaces: Introduction, defining interfaces, extending interfaces, Implementing interfaces.	7 Hrs.	7 Marks	
References:	Course Material/Learning Resources Text books: 1.Programming with Java A Primer, Fourth Edition- E. Balguruswami (McGraw Hill) Reference Books: 1. Java - The Complete Reference 11th edition - Herbert Schildt (McGraw Hill) 2. Introduction to Java programming 6th edition, Y. Daniel Liang, pearson education. 3. “Java Handbook” Patricks Naughton, Osborne McGraw Hill Weblink to Equivalent MOOC on SWAYAM if relevant: 1. https://onlinecourses.swayam2.ac.in/aic20_sp13/preview 2. https://onlinecourses.nptel.ac.in/noc22_cs47/preview 3. https://onlinecourses.nptel.ac.in/e-learning/preview/noc23_cs85 Any pertinent media (recorded lectures, YouTube, etc.) if relevant: 1. https://www.youtube.com/watch?v=mglWM6PKZVk 2. https://www.youtube.com/watch?v=wBJDrRBPmuY 3. https://www.youtube.com/watch?v=Og3HDmbW6I			

Assessment Rubric: Internal for Theory Course (Major)

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI THEORY EXAMINATION B.Sc. III, SEMESTER – V (NEP)			
Theory	Course Code: 112213	Course Title:Core Java Programming	Max Marks: 20
Sr. No.	Assessment Criteria		Marks
1	Any Two of the Activity (weekly or monthly assignment/ Unit Test/Class Test) (CAT-1)		10
2	Any One of the Activity includes Open Book Test, MCQ Tests, / Theory related Class activity/Task etc.) etc. (CAT-2)		5
3	Participation in any one Activity includes Quiz, Seminar, Group Discussion, Industry visit, Case Study, Mini project, innovative work, etc. based on Theory Course. Involvement in subject related activities such as Conference, Workshop, Coding Competitions etc. (CAT-3)		5