SOFTWARE DESIGN AND SYSTEM INTEGRATION

(Honors)

Course Code		**Year**	III	**Semester**	I
Course Category	Honors	**Branch**	IT	**Course Type**	Theory
Credits	4	**L-T-P**	4-0-0	**Prerequisites**	**Software Engineering**
Continuous Internal Evaluation :	30	**Semester End Evaluation:**	70	**Total Marks:**	100

Course Outcomes		
Upon successful completion of the course, the student will be able to:		
CO1	Understand basic concepts, methods and technologies related to system integration	L2
CO2	Identify commonly used tools for integrating information systems, describing the benefits of using each.	L2
CO3	Implement alternative strategies for systems integration.	L3
CO4	Analyze the problem and design feasible integration solutions to address the problem.	L3

Syllabus		
Unit No	**Contents**	**Mapped CO**
I	**Introduction:** Software and Systems Integration Methods, Program and Project Planning, Systems Design, Software Requirements, Software Design/Development Software Implementation, Software Integration, Software and Systems Integration, Software Sub contractor, Software and Systems Integration Delivery, Product Evaluation Program and Project Planning: Introduction, Program, Project, Planning	CO1,CO2
II	**Systems Design**: Introduction, Definition of System Design, System Engineering Plan, Software Architecture Evaluation Software Requirements: Introduction, Definition of Software Requirements, Requirements Documentation, Requirements Documentation, Released Software Requirements	CO1, CO2, CO4
III	**Software Design**: Introduction, Development Plan, Software Design Decisions, Peer Reviews, Software Design/Development Suggestions Software Implementation: Introduction, Configuration Management, Configuration Management Tools, Software Media and Data, Future Trends	CO1, CO3,CO4
IV	**Software Integration**: Introduction, Software Integration Strategy, Development Facility, Software Integration Setup, Software Integration Log, Software Test Completion, Integration Verification and Validation, Configuration Reviews and Audits	CO1,CO4

V	**Software and Systems Integration**: Introduction, Software and Systems Integration Plan, Software and Systems Integration Facility, Integration Setup, Formal Engineering Build, Test Team, Quality Participation in Software and Systems Integration, Risk Management Systems/Software Design, Continuous Integration	CO1,CO4

Learning Resources	
Text Books	
1.	Effective methods for Software and Systems Integration BoydL.Summers,,CRC,2013
References :	
1	Enterprise Integration by Fred A. Cummins, John Wiley and Sons 2002
2	Wiley] Enterprise Application Integration: A Wiley Tech Brief, by William A. Ruh, Francis X. Maginnis and William J. Brown, John Wiley & Sons © 2001
e-Resources and other Digital Material	
1	https://nptel.ac.in/courses/106108102