

# PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH



## LESSON PLAN Session-2023-2024

Discipline: CSE Engg. Semester: 5<sup>th</sup>

Subject: SE (TH-3)

Name of the Teaching Faculty: P. K. SATAPATHY

Subject: SE No. of Days/per week class allotted 04

Semester From Date: 01/08/23 To Date: 30/11/23 No. of Weeks: 15

Week	Class Day	Theory /Practical Topics
1st (Topic-1)	1st	Introduction to software Engineering
	2nd	Emergence of SE characteristics
	3rd	SDLC, classical and waterfall model Iterative model
	4th	Prototyping model
2nd	1st	Evolutionary model, Incremental model
	2nd	Spiral model
(Topic-2)	3rd	Project manager and it's Responsibility
	4th	Project Planning
3rd	1st	Matrices for project size estimation
	2nd	Analytical Estimation Technique
	3rd	Empirical Estimation Technique
	4th	Heuristic Estimation Tech (Cocomo)

  
Signature of the Faculty

Subject: SE No. of Days/per week class allotted 04

Semester From Date: 01/08/23 To Date: 30/11/23 No. of Weeks: 15

Week	Class Day	Theory /Practical Topics
4th	1st	<del>SE</del> scheduling, PERT, others
	2nd	staffing
	3rd	Organization and Team structure
	4th	Risk identification, Assessment and containment
5th (Topic-3)	1st	Need for Requirement Analysis in details
	2nd	Principle of Analysis
	3rd	SRS documents, Requirements gathering and Analysis
	4th	Contents of SRS and its characteristics
6th	1st	organization of SRS
	2nd	Analysis of SRS
(Topic-4)	3rd	Important of software Design and principle, concept of Design
	4th	cohesion and it's classification

  
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Semester From Date: 01/08/23 To Date: 30/11/23 No. of Weeks: 15

Week	Class Day	Theory / Practical Topics
7th	1st	Coupling and its classification
	2nd	Software Design Approach, Structured Analysis.
	3rd	Dataflow Diagram, uses and symbol
	4th	Construction of DFD
8th	1st	Structural chart and Transformation
	2nd	Transform Analysis
	3rd	Transaction Analysis
	4th	object oriented & function oriented
9th (Topics)	1st	UID and its rules
	2nd	UID models (User, design, mental, implement)
	3rd	UID Process (Analysis, Design, construction, validation)
	4th	Comparing various Interfaces

  
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Subject: SE No. of Days/per week class allotted 04

Semester From Date: 01/08/23 To Date: 30/11/23 No. of Weeks: 15

Week	Class Day	Theory /Practical Topics
10 <sup>th</sup>	1 <sup>st</sup>	study of menu Interface
	2 <sup>nd</sup>	command language based Interface
	3 <sup>rd</sup>	Direct manipulation Interface
	4 <sup>th</sup>	GUI and Text based Interface
11 <sup>th</sup> (Topic-6)	1 <sup>st</sup>	Coding, it's standard and guidelines
	2 <sup>nd</sup>	code Inspection & software documentation
	3 <sup>rd</sup>	Unit, Integration and system testing
	4 <sup>th</sup>	black box testing, Boundary value - Analysis
12 <sup>th</sup>	1 <sup>st</sup>	Different method for white Box testing
	2 <sup>nd</sup>	White Box testing
	3 <sup>rd</sup>	Cyclomatic complexity
	4 <sup>th</sup>	Debugging Approaches

  
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Subject: SE No. of Days/per week class allotted 04

Semester From Date: 01/8/23 To Date: 30/11/23 No. of Weeks: 15

Week	Class Day	Theory / Practical Topics
13 <sup>th</sup>	1 <sup>st</sup>	Integration, Phased & Incremental testing
	2 <sup>nd</sup>	system testing, stress, Regression testing
	3 <sup>rd</sup>	Error seeding and issues
	4 <sup>th</sup>	Importance of software Reliability
14 <sup>th</sup> (Topic-7)	1 <sup>st</sup>	POFOD, MTTF, MTTR
	2 <sup>nd</sup>	Reliability growth modeling
	3 <sup>rd</sup>	Characteristics of Quality software
	4 <sup>th</sup>	Evolution of software quality management system.
15 <sup>th</sup>	1 <sup>st</sup>	ISO certification
	2 <sup>nd</sup>	software Engineering maturity model
	3 <sup>rd</sup>	Understanding CASE
	4 <sup>th</sup>	Explaining with Examples

  
Signature of the Faculty