



K L Deemed to be University
Department of Computer Science and Engineering-Honors -- KLVZA
Course Handout
2022-2023, Even Sem

Course Title	:SOFTWARE ENGINEERING
Course Code	:21CS2111AA
L-T-P-S Structure	: 3-1-2-0
Pre-requisite	:
Credits	: 5
Course Coordinator	:P Ithaya Rani
Team of Instructors	:
Teaching Associates	:

Syllabus :Software and Software Engineering: Nature of software, software application domains, unique nature of web applications, software engineering, software process, software engineering practice, software myths. Process Models: Generic process model, prescriptive process models, specialized process models, unified process, personal and team process models, product and process, Reverse Engineering: Reverse Engineering to Understand Data, Reverse Engineering to Understand Processing, Reverse Engineering User Interfaces Understanding Requirements: Identify stakeholders, recognizing multiple viewpoints, eliciting requirements, Building requirement model, negotiating requirements, validating requirements, SRS Vs User Stories. Agile Modeling: Extreme Programming, Adaptive Software Development (ASD), Dynamic Systems Development Method (DSDM), Crystal Feature Driven Development (FDD) Scrum: Creating a Behavioral and Requirements Modeling, Design Concepts, design model, Design issues Scrum Introduction, Scrum Principles, Lifecycle of scrum, Adoption Strategies, common mistakes and misunderstandings of scrum, Process Mixtures of scrum. Kanban: Kanban Introduction, Kanban Foundational Principles,6 Core Practices of the Kanban,WIP Limits in Kanban, SAFe Methodology: SAFe Methodology Introduction, Foundations of Scaled Agile Framework, SAFe Lean-Agile Principles, principles of Agile Manifesto.. Test Driven Development: Basics a strategic approach to software testing, strategic issues, test strategies for conventional software, Black-Box and White-Box testing, validation testing, system testing. Performing Test Driven Development (TDD) Test, TDD Vs Traditional Testing, Acceptance TDD and Developer TDD, Scaling TDD via Agile Model Driven Development (AMDD), TDD Vs. AMDD, Examples of TDD, and Benefits of TDD. JUnit, The CMMI process improvement framework: CMMI, Levels, Staged CMMI model, Continuous CMMI model, Six Sigma Model.

Text Books :1. Roger S.Pressman, "Software Engineering – A Practitioner's Approach" 7th Edition, Mc Graw Hill, (2014). 2. Ian Sommerville, "Software Engineering", Tenth Edition, Pearson Education, (2015). 3. Agile and Iterative Development: A Manager's Guide, Craig Larman, Addison-Wesley 4. Jim Arlow, Ila Neustadt, "UML 2 and the Unified Process: Practical Object - Oriented Analysis and Design", 2nd Edition, Pearson, (2005).

Reference Books :Jim Arlow, Ila Neustadt, "UML 2 and the Unified Process: Practical Object - Oriented Analysis and Design", 2nd Edition, Pearson, (2005). Agile and Iterative Development: A Manager's Guide, Craig Larman, Addison-Wesley

Web Links :1. <https://www.digitel.com/kanban/what-is-kanban/> 2. <http://www.scaledagileframework.com> 3. <https://www.guru99.com/test-driven-development.html> 4. <https://junit.org/junit5/>

MOOCs :1. Professional scrum master™ IP Professional Scrum Master™ I | Scrum.org 2. <https://www.guru99.com/agile-scrum-certification.html> 3. Agile Development-<https://www.coursera.org/specializations/agile-development> 4. Software Architecture & Design-<https://www.udacity.com/course/software-architecture-design--ud821> 5. Software Development Process - <https://www.udacity.com/course/software-development-process--ud805>

Course Rationale :Software Engineering is about the discipline needed to develop high quality software that can be understood, maintained and adapted over long period of time by many different people. In order, to enable the student to develop quality software, the course provides an overview of the software engineering discipline,

introducing the fundamental principles and methods in software engineering and highlights the need for an engineering approach to translate the problem into software. It provides an opportunity for the students to gain knowledge of industrial approach to real-world projects and importance of team environment. The course covers various methods and models to train the student to learn the process of gathering user requirements, analyzing them, and design models based on the analysis, emphasizing system constraints incorporating Quality assurance. The students exposed to code and test the software with quality focus that can be delivered to the user so that he can operate and maintain software.

Course Objectives : The objective Software Engineering is to enable the student to understand, grasp and practice the software development process, various software models that evolved till date, analyze a given problem in a domain, design software solution to the problem including the design of interface, improve quality of software through testing and deliver the software for operation and maintenance.

COURSE OUTCOMES (COs):

CO NO	Course Outcome (CO)	PO/PSO	Blooms Taxonomy Level (BTL)
CO1	Understand the software development life cycle and associated process models and Reverse Engineering.	PSO2,PO1	2
CO2	Applying Requirement modeling and Agile and Extreme Programming, Other Agile Process Models.	PO3,PSO2	3
CO3	Examine Requirement Modeling, Agile Models such as Scrum, kanban and SAFe Methodology.	PSO2,PO2	4
CO4	Categorize various Design Concepts, testing strategies, Test Driven Development and CMMI, Six Sigma techniques	PSO2,PO2	4
CO5	Develop UML Specification for software designs and programs..	PSO2,PO5	5

COURSE OUTCOME INDICATORS (COIs)::

Outcome No.	Highest BTL	COI-1	COI-2	COI-3	COI-4	COI-5
CO1	2	Btl-1 Understand the software development life cycle	Btl-2 Understand the software development life cycle and associated process models and Reverse Engineering.			
CO2	3	Btl-1 Applying Requirement modeling and Agile and Extreme Programming, Other Agile Process Models.	Btl-2 Applying Requirement modeling and Agile and Extreme Programming, Other Agile Process Models.	Btl-3 Applying Requirement modeling and Agile and Extreme Programming, Other Agile Process Models.		
CO3	4	Btl-1 Examine	Btl-2 Examine	Btl-3 Examine	Btl-4 Examine	

		Requirement Modeling, Agile Models such as Scrum, kanban and SAFe Methodology.	Requirement Modeling, Agile Models such as Scrum, kanban and SAFe Methodology.	Requirement Modeling, Agile Models such as Scrum, kanban and SAFe Methodology.	Requirement Modeling, Agile Models such as Scrum, kanban and SAFe Methodology.	
CO4	4	Btl-1 Categorize various Design Concepts, testing strategies, Test Driven Development and CMMI, Six Sigma techniques	Btl-2 Categorize various Design Concepts, testing strategies, Test Driven Development and CMMI, Six Sigma techniques	Btl-3 Categorize various Design Concepts, testing strategies, Test Driven Development and CMMI, Six Sigma techniques	Btl-4 Categorize various Design Concepts, testing strategies, Test Driven Development and CMMI, Six Sigma techniques	
CO5	5	Btl-4 Develop UML Specification for software designs and programs..	Btl-4 Develop UML Specification for software designs and programs..	Btl-4 Develop UML Specification for software designs and programs..	Btl-5 Develop UML Specification for software designs and programs..	Btl-5 Develop UML Specification for software designs and programs..

PROGRAM OUTCOMES & PROGRAM SPECIFIC OUTCOMES (POs/PSOs)

Po No.	Program Outcome
PO1	Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences
PO3	Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations
PO4	Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems that cannot be solved by straightforward application of knowledge, theories and techniques applicable to the engineering discipline.
PO5	Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
PO6	The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice
PO9	Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions

PO11	Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.				
PO12	Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.				
PSO1	An ability to design and develop software projects as well as Analyze and test user requirements.				
PSO2	An Ability to gain working Knowledge on emerging software tools and technologies.				

Lecture Course DELIVERY Plan:

Sess.No.	CO	COI	Topic	Book No[CH No] [Page No]	Teaching-Learning Methods	Evaluation Components
1	CO1	COI-1	Course Handout, Software and Software Engineering: , Nature of software , Software application domains , Unique nature of web applications	T BOOK [1], CH1.1,1.2, Page no 1-11	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,SEM-EXAM1
2	CO1	COI-1	Software engineering , software process , Software engineering practice , Software myths	T BOOK [1], CH1.3-1.6, Page no 12-23	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,SEM-EXAM1,Tutorial
3	CO1	COI-1	Process Models , Generic process model , prescriptive process models	T BOOK [1],CH 2.1-2.3, Page no 30-49	Chalk,LTC,PPT,Talk	ALM,Continuous Evaluation - Lab Exercise,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM1,Tutorial
4	CO1	COI-2	Process Models , Generic process model , prescriptive process models	T BOOK [1], CH 2.1-2.3, Page no 30-49	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,SEM-EXAM1,Tutorial
5	CO1	COI-2	Specialized process models , unified process	T BOOK [1], CH 2.4,2.5, Page no 50-55	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,SEM-EXAM1,Tutorial
6	CO1	COI-	Personal and	T BOOK [1], CH	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,SEM-

Sess.No.	CO	COI	Topic	Book No[CH No] [Page No]	Teaching-Learning Methods	Evaluation Components
		2	team process models , product and process	2.6,2.8, Page no 56-61		EXAM1,Tutorial
7	CO1	COI-2	Reverse Engineering : Reverse Engineering to Understand Data , Reverse Engineering to Understand Processing , Reverse Engineering User Interfaces	T BOOK [1], CH 29.6, Page no 772-776	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,SEM-EXAM1
8	CO1	COI-2	Reverse Engineering : Reverse Engineering to Understand Data , Reverse Engineering to Understand Processing , Reverse Engineering User Interfaces. continued	T BOOK [1], CH 29.6, Page no 772-776	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,SEM-EXAM1,Tutorial
9	CO2	COI-1	Understanding Requirements : Identify stakeholders , recognizing multiple viewpoints , eliciting requirements	T BOOK [1], CH 5.1-5.3, Page no 120-133	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,SEM-EXAM1,Tutorial
10	CO2	COI-2	Building requirement model , negotiating requirements , validating requirements , SRS Vs User Stories.	T BOOK [1], CH 5.5-5.7, Page no 138-144	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,SEM-EXAM1,Tutorial
11	CO2	COI-	Agile: Agile	T BOOK [3],CH 3,	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester

Sess.No.	CO	² COI	Development , Classification Topic	Page No[Book No/CH No/ [Page No]	Teaching-Learning Methods	Evaluation Components
			of Methods , The Agile Manifesto and Principles , Agile Project Management , Embrace Communication and Feedback			
12	CO2	COI-2	Simple Practices and Project Tools , Empirical vs. Defined & Prescriptive Process, Principle-Based versus Rule-Based , Agile Hype, Specific Agile Methods	T BOOK [3], CH 3, Page no 31-38	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,SEM-EXAM1,Tutorial
13	CO2	COI-3	Extreme Programming: Method Overview	T BOOK [3], CH 8, Page no 138-154	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,SEM-EXAM1,Tutorial
14	CO2	COI-3	Scrum Overview	T BOOK [3], CH 8, Page no 165-170	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,SEM-EXAM1,Tutorial
15	CO2	COI-3	Adaptive Software Development (ASD) , Dynamic Systems Development Method (DSDM)	T BOOK [1], CH 3.5.1-3.5.3, Page no 81-84	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM1,Tutorial
16	CO2	COI-3	Crystal , Feature Driven Development (FDD) , Agile Modeling (AM)	T BOOK [1], CH 3.5.4-3.5.7, Page no 85-88	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM1,Tutorial
17	CO3	COI-1	Creating a Behavioral Model	T BOOK [1], CH 7.3, Page no 195-198	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM2,Tutorial
18	CO3	COI-	Patterns for	T BOOK [1], CH 7.4,	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester

Sess.No.	CO	COI	Topic	Book No[CH No] [Page No]	Teaching-Learning Methods	Evaluation Components
		1	Requirements Modeling	Page no 199-204		Exam,Hackathon,MOOCs Review,SEM-EXAM2,Tutorial
19	CO3	COI-1	Requirements Modeling for WebApps	T BOOK [1], CH 7.5, Page no 205-209	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM2,Tutorial
20	CO3	COI-3	Functional Model for WebApps	T BOOK [1], CH 7.5.6, Page no 210-212	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM2,Tutorial
21	CO3	COI-3	Functional Model for WebApps continued	T BOOK [1], CH 7.5.6, Page no 210-212	Chalk,LTC,PPT,Talk	ALM,ATTN,SEM-EXAM2,Tutorial
22	CO3	COI-3	Scrum: Scrum Introduction, Scrum Principles, Lifecycle of scrum	T BOOK [3], CH 7, Page no 109-129	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,SEM-EXAM2,Tutorial
23	CO3	COI-3	Sample Projects , Process Mixtures , Adoption Strategies , Fact versus Fantasy , Strengths versus "Otter" , History.	T BOOK [3], CH 7, Page no 130-135	Chalk,LTC,PPT,Talk	ALM,ATTN,SEM-EXAM2,Tutorial
24	CO3	COI-4	Kanban: Origin, Foundational Principles, Core Practices, WIP Limits,	Web Reference [1]	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,SEM-EXAM2,Tutorial
25	CO3	COI-3	Kanban in Lean/ Agile development.	Web Reference [1]	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,SEM-EXAM2,Tutorial
26	CO3	COI-4	WIP Its usage in IT & Software	WIP Its usage in IT & Software	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM2
27	CO3	COI-4	SAFe Methodology:	Web Reference [2]	Chalk,LTC,PPT,Talk	ALM,ATTN,Hackathon,MOOCs Review,SEM-EXAM2,Tutorial

Sess.No.	CO	COI	Topic	Book No[CH No] [Page No]	Teaching-Learning Methods	Evaluation Components
			Definition, Foundations of Scaled Agile Framework, Scaled Agile Framework usage,			
28	CO3	COI-4	Differences with other agile practices, Different Levels in SAFe.	Web Reference [2]	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM2,Tutorial
29	CO3	COI-4	Design Concepts, Design model, Design issues, Sequence and Activity Diagrams	T BOOK [1], CH 8.2 Page no 222-238	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM2,Tutorial
30	CO4	COI-4	Software testing : A strategic approach to software testing , Strategic issues . test strategies for conventional software	T BOOK [1],CH11.4.3 Page no 331-334	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM2,Tutorial
31	CO4	COI-3	Identify strategic approach to software testing	T BOOK [1], CH11.4.3 Page no 331-334	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,Hackathon,MOOCs Review,Sem-Exam-III,SEM-EXAM2,Tutorial
32	CO4	COI-4	Black-Box and White-Box testing , Validation testing , system testing	T BOOK [1], CH17.1-17.3 Page no 450-464	Chalk,LTC,PPT,Talk	ALM,ATTN,Hackathon,MOOCs Review,SEM-EXAM2,Tutorial
33	CO4	COI-4	Black-Box and White-Box testing , Validation testing , system	T BOOK [1], CH17.7,17.7,18.3,18.6 Page no 467-472, 485, 495-501	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,HA,Hackathon,MOOCs Review,SEM-EXAM2,Tutorial

Sess.No.	CO	COI	Topic	Book No[CH No] [Page No]	Teaching-Learning Methods	Evaluation Components
			testing continued			
34	CO4	COI-4	Performing TDD Test, TDD Vs Traditional Testing, Acceptance TDD and Developer TDD, Scaling TDD via Agile Model Driven Development (AMDD),	Web Reference [3]	Chalk,LTC,PPT,Talk	ATTN,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM2,Tutorial
35	CO4	COI-4	Test Driven Development (TDD) Vs. Agile Model Driven Development (AMDD), Examples of TDD, and Benefits of TDD.	Web Reference [3]	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM2,Tutorial
36	CO4	COI-4	Compare Test Driven Development (TDD) Vs. Agile Model Driven Development (AMDD)	Web Reference [4]	Chalk,LTC,PPT,Talk	ALM,ATTN,Hackathon,MOOCs Review,SEM-EXAM2,Tutorial
37	CO4	COI-4	JUnit.	Web Reference [4]	Chalk,LTC,PPT,Talk	ALM,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM2,Tutorial
38	CO4	COI-4	Apply JUnit on examples	Web Reference [4]	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM2
39	CO4	COI-4	The CMMI , Six Sigma Model	T BOOK [1], T BOOK [2], CH30.3, Page no 787-790	Chalk,LTC,PPT,Talk	ALM,ATTN,End Semester Exam,Hackathon,MOOCs Review,SEM-EXAM2

Lecture Session wise Teaching – Learning Plan

SESSION NUMBER : 1

Session Outcome: 1 Software and Software Engineering: , Nature of software , Software application domains , Unique nature of web applications

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance	2	Talk	--- NOT APPLICABLE ---
40	Software and Software Engineering: , Nature of software , Software application domains ,	2	PPT	Group Discussion
45	Unique nature of web applications	2	PPT	Group Discussion

SESSION NUMBER : 2

Session Outcome: 1 Software engineering , software process , Software engineering practice , Software myths

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
40	Software engineering , software process , Software engineering practice , Software myths	2	PPT	Group Discussion
5	Software engineering , software process , Software engineering practice , Software myths	2	PPT	Group Discussion

SESSION NUMBER : 3

Session Outcome: 1 Process Models , Generic process model , prescriptive process models

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	1	Chalk	--- NOT APPLICABLE ---
30	Process Models , Generic process model , prescriptive process models	2	PPT	Group Discussion
10	conclusion and recap models	2	PPT	Group Discussion

SESSION NUMBER : 4

Session Outcome: 1 Process Models , Generic process model , prescriptive process models

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods

10	Attendance/Recap/ Poll/Pop Question	2	PPT	--- NOT APPLICABLE ---
30	Process Models , Generic process model , prescriptive process models	2	PPT	Group Discussion
10	conclusion and recap models	2	PPT	Group Discussion

SESSION NUMBER : 5

Session Outcome: 1 Specialized process models , unified process

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
30	Specialized process models , unified process	2	PPT	Group Discussion
10	conclusion and recap models	2	PPT	Group Discussion

SESSION NUMBER : 6

Session Outcome: 1 Personal and team process models , product and process

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
30	Personal and team process models , product and process	2	PPT	Group Discussion
10	conclusion and recap models	2	PPT	Group Discussion

SESSION NUMBER : 7

Session Outcome: 1 Reverse Engineering : Reverse Engineering to Understand Data , Reverse Engineering to Understand Processing , Reverse Engineering User Interfaces

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
30	Reverse Engineering : Reverse Engineering to Understand Data , Reverse Engineering to Understand Processing , Reverse Engineering User Interfaces	2	PPT	Group Discussion

10	conclusion and recap models	2	PPT	Group Discussion
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SESSION NUMBER : 8

Session Outcome: 1 Reverse Engineering : Reverse Engineering to Understand Data , Reverse Engineering to Understand Processing , Reverse Engineering User Interfaces. continued

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	1	Talk	--- NOT APPLICABLE ---
30	Reverse Engineering : Reverse Engineering to Understand Data , Reverse Engineering to Understand Processing , Reverse Engineering User Interfaces	2	PPT	Group Discussion
10	conclusion and recap models	2	PPT	Group Discussion

SESSION NUMBER : 9

Session Outcome: 1 Understanding Requirements : Identify stakeholders , recognizing multiple viewpoints , eliciting requirements

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
30	Understanding Requirements : Identify stakeholders , recognizing multiple viewpoints , eliciting requirements	2	PPT	Group Discussion
10	conclusion and recap models	2	PPT	Group Discussion

SESSION NUMBER : 10

Session Outcome: 1 Building requirement model , negotiating requirements , validating requirements , SRS Vs User Stories.

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
30	Building requirement model , negotiating requirements , validating requirements , SRS Vs User Stories.	3	PPT	Group Discussion
10	conclusion and recap models	2	PPT	Group Discussion

SESSION NUMBER : 11

Session Outcome: 1 Agile: Agile Development , Classification of Methods , The Agile Manifesto and Principles , Agile Project Management , Embrace Communication and Feedback

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	Group Discussion
30	Agile: Agile Development , Classification of Methods , The Agile Manifesto and Principles , Agile Project Management , Embrace Communication and Feedback	3	PPT	Group Discussion
10	conclusion and recap models	3	PPT	Group Discussion

SESSION NUMBER : 12

Session Outcome: 1 Simple Practices and Project Tools , Empirical vs. Defined & Prescriptive Process, Principle-Based versus Rule-Based , Agile Hype, Specific Agile Methods

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	PPT	--- NOT APPLICABLE ---
30	Simple Practices and Project Tools , Empirical vs. Defined & Prescriptive Process, Principle-Based versus Rule-Based , Agile Hype, Specific Agile Methods	2	PPT	Group Discussion
10	conclusion and recap process models	2	PPT	Group Discussion

SESSION NUMBER : 13

Session Outcome: 1 Extreme Programming: Method Overview

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	Group Discussion
30	Extreme Programming: Method Overview	3	PPT	Group Discussion
10	conclusion and recap models	3	PPT	Group Discussion

SESSION NUMBER : 14

Session Outcome: 1 Scrum Overview

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods

10	Attendance/Recap/ Poll/Pop Question	2	Talk	Group Discussion
30	Scrum Overview	3	PPT	--- NOT APPLICABLE ---
10	conclusion and recap models	3	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 15

Session Outcome: 1 Adaptive Software Development (ASD) , Dynamic Systems Development Method (DSDM)

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
30	Adaptive Software Development (ASD) , Dynamic Systems Development Method (DSDM)	3	PPT	--- NOT APPLICABLE ---
10	conclusion and recap models	3	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 16

Session Outcome: 1 Crystal , Feature Driven Development (FDD) , Agile Modeling (AM)

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
30	Crystal , Feature Driven Development (FDD) , Agile Modeling (AM)	3	PPT	Group Discussion
10	conclusion and recap models	3	PPT	Group Discussion

SESSION NUMBER : 17

Session Outcome: 1 Creating a Behavioral Model

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	PPT	--- NOT APPLICABLE ---
30	Creating a Behavioral Model	2	PPT	Group Discussion

10	conclusion and recap models	2	PPT	Group Discussion
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SESSION NUMBER : 18**Session Outcome:** 1 Patterns for Requirements Modeling

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
30	Patterns for Requirements Modeling	2	PPT	Group Discussion
10	conclusion and recap models	2	PPT	Group Discussion

SESSION NUMBER : 19**Session Outcome:** 1 Requirements Modeling for WebApps

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
30	Requirements Modeling for WebApps	3	PPT	Group Discussion
10	conclusion and recap models	3	PPT	Group Discussion

SESSION NUMBER : 20**Session Outcome:** 1 Functional Model for WebApps

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	PPT	--- NOT APPLICABLE ---
30	Functional Model for WebApps	3	PPT	Group Discussion
10	conclusion and recap models	2	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 21**Session Outcome:** 1 Functional Model for WebApps continued

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Chalk	--- NOT APPLICABLE ---
30	Functional Model for WebApps continued	2	PPT	Group Discussion
10	conclusion and recap models	3	PPT	Group Discussion

SESSION NUMBER : 22

Session Outcome: 1 Scrum: Scrum Introduction, Scrum Principles, Lifecycle of scrum

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
30	Scrum: Scrum Introduction, Scrum Principles, Lifecycle of scrum	3	PPT	Group Discussion
10	conclusion and recap models	4	PPT	Group Discussion

SESSION NUMBER : 23

Session Outcome: 1 Sample Projects , Process Mixtures , Adoption Strategies , Fact versus Fantasy , Strengths versus "Otter" , History.

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
30	Sample Projects , Process Mixtures , Adoption Strategies , Fact versus Fantasy , Strengths versus "Otter" , History.	3	PPT	Group Discussion
10	conclusion and recap models	4	PPT	Group Discussion

SESSION NUMBER : 24

Session Outcome: 1 Kanban: Origin, Foundational Principles, Core Practices, WIP Limits,

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---

30	Kanban: Origin, Foundational Principles, Core Practices, WIP Limits,	4	PPT	Group Discussion
10	conclusion and recap models	4	Talk	--- NOT APPLICABLE ---

SESSION NUMBER : 25

Session Outcome: 2 Kanban in Lean/ Agile development.

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
30	Kanban in Lean/ Agile development.	4	PPT	Group Discussion
10	conclusion and recap models	4	PPT	Group Discussion

SESSION NUMBER : 26

Session Outcome: 1 WIP Its usage in IT & Software

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	3	PPT	--- NOT APPLICABLE ---
30	WIP Its usage in IT & Software	4	PPT	Group Discussion
10	conclusion and recap models	4	PPT	Group Discussion

SESSION NUMBER : 27

Session Outcome: 2 SAFe Methodology: Definition, Foundations of Scaled Agile Framework, Scaled Agile Framework usage,

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	PPT	Group Discussion
30	SAFe Methodology: Definition, Foundations of Scaled Agile Framework, Scaled Agile Framework usage,	4	PPT	Group Discussion
10	conclusion and recap models	4	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 28

Session Outcome: 1 Differences with other agile practices, Different Levels in SAFe.

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	PPT	--- NOT APPLICABLE ---
30	Differences with other agile practices, Different Levels in SAFe.	3	PPT	Group Discussion
10	conclusion and recap models	4	PPT	Group Discussion

SESSION NUMBER : 29**Session Outcome:** 1 Design Concepts, Design model, Design issues, Sequence and Activity Diagrams

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	4	PPT	--- NOT APPLICABLE ---
30	Design Concepts, Design model, Design issues, Sequence and Activity Diagrams	4	PPT	Group Discussion
10	conclusion and recap models	4	Talk	Group Discussion

SESSION NUMBER : 30**Session Outcome:** 2 Software testing : A strategic approach to software testing , Strategic issues . test strategies for conventional software

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	Group Discussion
30	Software testing : A strategic approach to software testing , Strategic issues . test strategies for conventional software	4	PPT	--- NOT APPLICABLE ---
10	conclusion and recap models	4	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 31**Session Outcome:** 2 Identify strategic approach to software testing

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods

10	Attendance/Recap/ Poll/Pop Question	2	PPT	--- NOT APPLICABLE ---
30	Identify strategic approach to software testing	4	PPT	Group Discussion
10	conclusion and recap models	4	PPT	Group Discussion

SESSION NUMBER : 32

Session Outcome: 2 Black-Box and White-Box testing , Validation testing , system testing

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	3	PPT	--- NOT APPLICABLE ---
30	Black-Box and White-Box testing , Validation testing , system testing	4	Talk	Group Discussion
30	conclusion and recap models	4	PPT	Group Discussion

SESSION NUMBER : 33

Session Outcome: 2 Black-Box and White-Box testing , Validation testing , system testing continued

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	PPT	Group Discussion
30	Black-Box and White-Box testing , Validation testing , system testing continued	4	PPT	Group Discussion
10	conclusion and recap models	4	PPT	Group Discussion

SESSION NUMBER : 34

Session Outcome: 2 Performing TDD Test, TDD Vs Traditional Testing, Acceptance TDD and Developer TDD, Scaling TDD via Agile Model Driven Development (AMDD),

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	3	PPT	Group Discussion
30	Performing TDD Test, TDD Vs Traditional Testing, Acceptance TDD and Developer TDD, Scaling TDD via Agile Model Driven Development (AMDD),	4	PPT	Group Discussion
10	conclusion and recap models	4	PPT	Group Discussion

SESSION NUMBER : 35

Session Outcome: 2 Test Driven Development (TDD) Vs. Agile Model Driven Development (AMDD), Examples of TDD, and Benefits of TDD.

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	PPT	--- NOT APPLICABLE ---
30	Test Driven Development (TDD) Vs. Agile Model Driven Development (AMDD), Examples of TDD, and Benefits of TDD.	3	PPT	Group Discussion
10	conclusion and recap models	4	PPT	Group Discussion

SESSION NUMBER : 36

Session Outcome: 2 Compare Test Driven Development (TDD) Vs. Agile Model Driven Development (AMDD)

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
30	Compare Test Driven Development (TDD) Vs. Agile Model Driven Development (AMDD)	3	PPT	Group Discussion
10	conclusion and recap models	4	PPT	Group Discussion

SESSION NUMBER : 37

Session Outcome: 2 JUnit.

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	PPT	--- NOT APPLICABLE ---
30	JUnit.	4	PPT	Group Discussion
10	conclusion and recap models	3	PPT	Group Discussion

SESSION NUMBER : 38

Session Outcome: 2 Apply JUnit on examples

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods

10	Attendance/Recap/ Poll/Pop Question	2	PPT	--- NOT APPLICABLE ---
30	Apply JUnit on examples	4	PPT	Group Discussion
10	conclusion and recap models	4	PPT	Group Discussion

SESSION NUMBER : 39

Session Outcome: 2 The CMMI , Six Sigma Model

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	PPT	Group Discussion
30	The CMMI , Six Sigma Model	4	PPT	Group Discussion
10	conclusion and recap models	4	PPT	Group Discussion

Tutorial Course DELIVERY Plan:

List of Experiments supposed to finish in Open Lab Sessions:

Lab session no	List of Experiments	CO-Mapping
1	Organization Of The StudentLab Workbook	CO1
2	Use Case, Class, Sequence, Activity and State chart diagram by using star UML for online Ticket reservation system	CO1
3	Use case, Class, Sequence, Activity and State chart Diagram for Library Management System using waterfall model	CO1
4	Working on a project Student Admission System using Water fall model	CO2
5	Working on a project, Online bank ATM using Increment mode	CO3
8	Working on the Project KLU ERP through scrum model inGitHub	CO4
9	Working on the Project Pollution Analysis through scrum model inGitHub	CO4

Tutorial Session wise Teaching – Learning Plan

SESSION NUMBER : 1

Session Outcome: 1 Organization Of The StudentLabWorkbook

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance	1	PPT	Group Discussion
40	Organization Of The StudentLabWorkbook	2	PPT	Group Discussion

SESSION NUMBER : 2

Session Outcome: 1 Use Case, Class, Sequence, Activity and State chart diagram by using star UML for online Ticket reservation system

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	3	PPT	Group Discussion
40	Use Case, Class, Sequence, Activity and State chart diagram by using star UML for online Ticket reservation system	3	PPT	Group Discussion

SESSION NUMBER : 3

Session Outcome: 1 Use case, Class, Sequence, Activity and State chart Diagram for Library Management System using waterfall model

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	3	PPT	Group Discussion
40	Use case, Class, Sequence, Activity and State chart Diagram for Library Management System using waterfall model	4	PPT	Group Discussion

SESSION NUMBER : 4

Session Outcome: 2 Working on a project Student Admission System using Water fall model

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	3	PPT	Group Discussion
40	Working on a project Student Admission System using Water fall model	3	PPT	Group Discussion

SESSION NUMBER : 5

Session Outcome: 2 Working on a project, Online bank ATM using Increment mode

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods

10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
40	Working on a project, Online bank ATM using Increment mode	4	PPT	Group Discussion

SESSION NUMBER : 8

Session Outcome: 1 Working on the Project KLU ERP through scrum model inGitHub

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	PPT	Group Discussion
40	Working on the Project KLU ERP through scrum model inGitHub	4	PPT	Group Discussion

SESSION NUMBER : 9

Session Outcome: 2 Working on the Project Pollution Analysis through scrum model inGitHub

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	3	PPT	Group Discussion
40	Working on the Project Pollution Analysis through scrum model inGitHub	3	PPT	Group Discussion

Practical Course DELIVERY Plan:

Tutorial Session no	Topics	CO-Mapping
1	Illustrate the Use of Star UML tool for Software Design	CO5
2	Use case diagram for Bank ATM	CO5
3	Use case diagram for Library Management System	CO5
4	Use case diagram for University Admission Process	CO5
5	Activity diagram for Bank ATM	CO5
6	Activity diagram for Library Management System	CO5
7	Class diagram for Bank ATM	CO5
8	Develop a Project for Agile Concept using GitHub	CO5

Tutorial Session no	Topics	CO-Mapping
9	Sequence diagram for University Admission Process	CO5
10	Develop a Project for Scrum concept using GitHub	CO5
11	Develop a Project for Kanban concept using GitHub	CO5
12	Develop a Project for Junits	CO5

Practical Session wise Teaching – Learning Plan

SESSION NUMBER : 1

Session Outcome: 1 Illustrate the Use of Star UML tool for Software Design

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance	2	Talk	--- NOT APPLICABLE ---
40	Illustrate the Use of Star UML tool for Software Design	4	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 2

Session Outcome: 1 Use case diagram for Bank ATM

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
40	Use case diagram for Bank ATM	4	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 3

Session Outcome: 1 Use case diagram for Library Management System

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	1	Talk	--- NOT APPLICABLE ---

40	Use case diagram for Library Management System	4	PPT	--- NOT APPLICABLE ---
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SESSION NUMBER : 4**Session Outcome:** 1 Use case diagram for University Admission Process

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	4	PPT	--- NOT APPLICABLE ---
40	Use case diagram for University Admission Process	4	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 5**Session Outcome:** 1 Activity diagram for Bank ATM

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	1	Talk	--- NOT APPLICABLE ---
40	Activity diagram for Bank ATM	3	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 6**Session Outcome:** 1 Activity diagram for Library Management System

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	3	PPT	--- NOT APPLICABLE ---
40	Activity diagram for Library Management System	4	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 7**Session Outcome:** 2 Class diagram for Bank ATM

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods

10	Attendance	3	Talk	--- NOT APPLICABLE ---
40	Class diagram for Bank ATM	4	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 8**Session Outcome: 1** Develop a Project for Agile Concept using GitHub

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance , recap	2	PPT	--- NOT APPLICABLE ---
40	Develop a Project for Agile Concept using GitHub	4	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 9**Session Outcome: 2** Sequence diagram for University Admission Process

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance/Recap/ Poll/Pop Question	3	PPT	--- NOT APPLICABLE ---
40	Sequence diagram for University Admission Process	4	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 10**Session Outcome: 2** Develop a Project for Scrum concept using GitHub

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance , recap	2	PPT	--- NOT APPLICABLE ---
40	Develop a Project for Scrum concept using GitHub	4	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 11**Session Outcome: 1** Develop a Project for Kanban concept using GitHub

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance , recap	3	PPT	--- NOT APPLICABLE ---
40	Develop a Project for Kanban concept using GitHub	4	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 12

Session Outcome: 2 Develop a Project for Junits

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Attendance , recap	3	PPT	--- NOT APPLICABLE ---
40	Develop a Project for Junits	4	PPT	--- NOT APPLICABLE ---

Skilling Course DELIVERY Plan: NO Delivery Plan Exists

Skilling Session wise Teaching – Learning Plan

No Session Plans Exists

WEEKLY HOMEWORK ASSIGNMENTS/ PROBLEM SETS/OPEN ENDED PROBLEM-SOLVING EXERCISES etc:

Week	Assignment Type	Assignment No	Topic	Details	co
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COURSE TIME TABLE:

	Hour	1	2	3	4	5	6	7	8	9
Day	Component									
Mon	Theory	--	--	--	--	--	--	--	--	--
	Tutorial	--	--	--	--	--	--	--	--	--
	Lab	--	--	--	--	--	--	--	--	--
	Skilling	--	--	--	--	--	--	--	--	--
Tue	Theory	--	--	--	--	--	--	--	--	--
	Tutorial	--	--	--	--	--	--	--	--	--
	Lab	--	--	--	--	--	--	--	--	--
	Skilling	--	--	--	--	--	--	--	--	--
Wed	Theory	--	--	--	--	--	--	--	--	--
	Tutorial	--	--	--	--	--	--	--	--	--

	Lab	--	--	--	--	--	--	--	--	--
	Skilling	--	--	--	--	--	--	--	--	--
Thu	Theory	--	--	--	--	--	--	--	--	--
	Tutorial	--	--	--	--	--	--	--	--	--
	Lab	--	--	--	--	--	--	--	--	--
	Skilling	--	--	--	--	--	--	--	--	--
Fri	Theory	--	--	--	--	--	--	--	--	--
	Tutorial	--	--	--	--	--	--	--	--	--
	Lab	--	--	--	--	--	--	--	--	--
	Skilling	--	--	--	--	--	--	--	--	--
Sat	Theory	--	--	--	--	--	--	--	--	--
	Tutorial	--	--	--	--	--	--	--	--	--
	Lab	--	--	--	--	--	--	--	--	--
	Skilling	--	--	--	--	--	--	--	--	--
Sun	Theory	--	--	--	--	--	--	--	--	--
	Tutorial	--	--	--	--	--	--	--	--	--
	Lab	--	--	--	--	--	--	--	--	--
	Skilling	--	--	--	--	--	--	--	--	--

REMEDIAL CLASSES:

Supplement course handout, which may perhaps include special lectures and discussions that would be planned, and schedule notified accordingly

SELF-LEARNING:

Assignments to promote self-learning, survey of contents from multiple sources.

S.no	Topics	CO	ALM	References/MOOCs
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DELIVERY DETAILS OF CONTENT BEYOND SYLLABUS:

Content beyond syllabus covered (if any) should be delivered to all students that would be planned, and schedule notified accordingly.

S.no	Advanced Topics, Additional Reading, Research papers and any	CO	ALM	References/MOOCs
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EVALUATION PLAN:

Evaluation Type	Evaluation Component	Weightage/Marks		Assessment Dates	Duration (Hours)	CO1	CO2	CO3	CO4	CO5
End Semester Summative Evaluation Total= 40 %	End Semester Exam	Weightage	30		120	7.5	7.5	7.5	7.5	
		Max Marks	100			25	25	25	25	
	Lab End Semester Exam	Weightage	10		40					10
		Max Marks	50							50

In Semester Formative Evaluation Total= 40 %	MOOCs Review	Weightage	7.5		80	1.875	1.875	1.875	1.875	
		Max Marks	40			10	10	10	10	
	Hackathon	Weightage	7.5		90	1.875	1.875	1.875	1.875	
		Max Marks	40			10	10	10	10	
	ALM	Weightage	10		100	2.5	2.5	2.5	2.5	
		Max Marks	40			10	10	10	10	
	Tutorial	Weightage	10		100	2.5	2.5	2.5	2.5	
		Max Marks	40			10	10	10	10	
	Continuous Evaluation - Lab Exercise	Weightage	5		110					5
		Max Marks	50							50
In Semester Summative Evaluation Total= 20 %	Semester in Exam-I	Weightage	7.5		100	3.75	3.75			
		Max Marks	50			25	25			
	Semester in Exam-II	Weightage	7.5		90			3.75	3.75	
		Max Marks	50					25	25	
	Lab In Semester Exam	Weightage	5		90					5
		Max Marks	50							50

ATTENDANCE POLICY:

Every student is expected to be responsible for regularity of his/her attendance in class rooms and laboratories, to appear in scheduled tests and examinations and fulfill all other tasks assigned to him/her in every course. In every course, student has to maintain a minimum of 85% attendance to be eligible for appearing in Semester end examination of the course, for cases of medical issues and other unavoidable circumstances the students will be condoned if their attendance is between 75% to 85% in every course, subjected to submission of medical certificates, medical case file and other needful documental proof to the concerned departments.

DETENTION POLICY :

In any course, a student has to maintain a minimum of 85% attendance and In-Semester Examinations to be eligible for appearing to the Semester End Examination, failing to fulfill these conditions will deem such student to have been detained in that course.

PLAGIARISM POLICY :

Supplement course handout, which may perhaps include special lectures and discussions

COURSE TEAM MEMBERS, CHAMBER CONSULTATION HOURS AND CHAMBER VENUE DETAILS:

Supplement course handout, which may perhaps include special lectures and discussions

Name of Faculty	Delivery Component of Faculty	Sections of Faculty	Chamber Consultation Day (s)	Chamber Consultation Timings for each day	Chamber Consultation Room No:	Signature of Course faculty:
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GENERAL INSTRUCTIONS

Students should come prepared for classes and carry the text book(s) or material(s) as prescribed by the Course Faculty to the class.

NOTICES

Most of the notices are available on the LMS platform.

All notices will be communicated through the institution email.

All notices concerning the course will be displayed on the respective Notice Boards.

Signature of COURSE COORDINATOR

(P Ithaya Rani)

Signature of Department Prof. Incharge Academics & Vetting Team Member

Department Of CSE-Honors

HEAD OF DEPARTMENT:**Approval from: DEAN-ACADEMICS**

(Sign with Office Seal) [object HTMLDivElement]