K L Deemed to be University
Department of CSE -- KLVZA
Course Handout
2020-2021, Odd Sem

Course Title	:SE
Course Code	:19CS2211
L-T-P-S Structure	: 2-2-0-0
Pre-requisite	:
Credits	: 4
Course Coordinator	:VENKATA DURGA KIRAN KASULA
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, Scrum, Kanban, SAFe Methodology. 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 TDD Test, TDD Vs Traditional Testing, Acceptance TDD and Developer TDD, Scaling TDD via Agile Model Driven Development (AMDD), Test Driven Development (TDD) Vs. Agile Model Driven Development (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).

Reference Books : Agile and Iterative Development: A Manager's Guide, Craig Larman, Addison-Wesley

Web Links :1. https://www.digite.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. https://www.digite.com/kanban/what-is-kanban/ 2. http://www.scaledagileframework.com 3. https://www.guru99.com/test-driven-development.html 4. https://junit.org/junit5/ 5. coursera 6.simplilearn

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 of 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,PO2	2
CO2	Illustrate Requirement modelling and Agile and Extreme Programming	PSO2,PO2,PO3	3
CO3	Examine Agile Models such as Scrum, kanban and SAFe Methodology.	PSO2,PO1,PO2	4
CO4	Categorize various testing strategies, Test Driven Development and CMMI, Six Sigma techniques	PO2,PSO2,PO1	4

COURSE OUTCOME INDICATORS (COIs)::

Outcome No.	Highest BTL	COI-1	COI-2	COI-3	COI-4
CO1	2	**Btl-1** Understand various types of Process Models	**Btl-2** Summarize Perspective, Evolutionary, Specialized and Unified Process Models		
CO2	3	**Btl-1** Understand the need of requirement modeling	**Btl-2** Compare and Contrast Agile and XP	**Btl-3** Utilize XP as a part of Agile	
CO3	4	**Btl-1** Understand Agile Models such	**Btl-2** Compare and Contrast Agile	**Btl-3** Build Agile Models such as	**Btl-4** Examine Agile Models such as

		as Scrum, kanban and SAFe Methodology	Models such as Scrum, kanban and SAFe Methodology	Scrum, kanban and SAFe Methodology	Scrum, kanban and SAFe Methodology
CO4	4	**Btl-1** Define CMMI and Six Sigma	**Btl-2** Compare and Contrast various Test Strategies	**Btl-3** Build CMMI and Six Sigma	**Btl-4** Examine CMMI and Six Sigma

PROGRAM OUTCOMES & PROGRAM SPECIFIC OUTCOMES (POs/PSOs)

Po No.	Program Outcome
PO1	Engineering Knowledge :An ability to apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization for the solution of complex engineering problems in engineering
PO2	Problem Analysis :An ability to identify, formulate, research literature, analyze complex engineering problems in mechanical engineering using first principles of mathematics, natural sciences and engineering sciences
PO3	Design/ development of solutions :An ability to design solutions for complex engineering problems and system component or processes that meet the specified needs considering public health & safety and cultural, societal & environment
PO4	Conduct investigations of complex problems :An ability to use research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of the information to obtain solutions to engineering problems
PO5	Modern tool usage :Ability to create, select and apply appropriate techniques, resources and modern engineering activities, with an understanding of the limitations
PO6	The engineer and society :Ability to 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 Ability to demonstrate the knowledge of engineering solutions, contemporary issues understanding their impacts on societal and environmental contexts, leading towards sustainable development
PO8	Ethics : An ability to apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice
PO9	Individual and team work :An ability to function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings
PO10	Communication :Ability to communicate effectively oral, written reports and graphical forms on complex engineering activities
PO11	Project management and finance :Ability to demonstrate knowledge and understanding of the engineering and management principles and apply those one’s own work, as a member and leader in team, to manage projects and in multi-disciplinary environments
PO12	Lifelong learning An ability to recognize the need for and having the preparation and ability to engage independent and life-long learning in 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	EvaluationComponents
1	CO1	COI-1	Software engineering and software process Discussion on Software engineering practice, Software myths & Video	T BOOK [1],CH1.1,1.2, Page no 1-11	PPT,Talk	ATTN,End Semester Exam,SEM-EXAM1
2	CO1	COI-1	Software engineering and software process Discussion on Software engineering practice, Software myths & Video	T BOOK [1],CH1.3-1.6, Page no 12-23	PPT,Talk	ALM,End Semester Exam,SEM-EXAM1
3	CO1	COI-1	Various Process Models and Generic process models	T BOOK [1],CH 2.1-2.3, Page no 30-49	PPT,Talk	ALM,End Semester Exam,SEM-EXAM1
4	CO1	COI-2	Specialized & Unified process models	T BOOK [1],CH 2.4,2.5, Page no 50-55	PPT,Talk	ALM,End Semester Exam,SEM-EXAM1
5	CO1	COI-2	Personal and team process models	T BOOK [1],CH 2.6,2.8, Page no 56-61	PPT,Talk	ALM,End Semester Exam,Home Assignment,SEM-EXAM1
6	CO1	COI-2	Reverse Engineering to Understand Processing	T BOOK [1], CH 29.6, Page no 772-776	PPT,Talk	ALM,End Semester Exam,SEM-EXAM1
7	CO2	COI-1	Understanding the basic need of software Requirements	T BOOK [1],CH 5.1-5.3, Page no 120-133	PPT,Talk	ALM,ATTN,End Semester Exam,SEM-EXAM1
8	CO2	COI-2	Describe requirement model	T BOOK [1], CH 5.5-5.7, Page no 138-144	PPT,Talk	ALM,End Semester Exam,SEM-EXAM1
9	CO2	COI-2	Explaining and introduction to Agile Development	T BOOK [3], CH 3, Page no 25-30	PPT,Talk	ALM,End Semester Exam,SEM-EXAM1
10	CO2	COI-2	Explain the difference between Empirical vs. Defined	T BOOK [3], CH 3, Page no 31-38	PPT,Talk	ALM,End Semester Exam,Home Assignment,SEM-EXAM1

Sess.No.	CO	COI	Topic	Book No[CH No][Page No]	Teaching-Learning Methods	EvaluationComponents
11	CO2	COI-3	Give an introduction to Extreme Programming	T BOOK [3], CH 8, Page no 138-154	PPT,Talk	ALM,End Semester Exam,SEM-EXAM1
12	CO2	COI-3	Explain in detail about Adoption Strategies	T BOOK [3], CH 8, Page no 165-170	PPT,Talk	ALM,End Semester Exam,SEM-EXAM1
13	CO3	COI-1	Basic understanding of SCRUM	T BOOK [3], CH 7, Page no 109-129	PPT,Talk	ALM,ATTN,End Semester Exam,SEM-EXAM2
14	CO3	COI-2	Basic understanding of SCRUM History and Adoption Strategies	T BOOK [3], CH 7, Page no 130-135	PPT,Talk	ALM,End Semester Exam,SEM-EXAM2
15	CO3	COI-2	Basic understanding of Kanban	Web Reference [1]	PPT,Talk	ALM,End Semester Exam,SEM-EXAM2
16	CO3	COI-3	Kanban in Lean/ Agile development models student can understand	Web Reference [1]	PPT,Talk	ALM,End Semester Exam,Home Assignment,SEM-EXAM2
17	CO3	COI-4	Why we have to SAFe	Web Reference [2]	PPT,Talk	ALM,End Semester Exam,SEM-EXAM2
18	CO3	COI-4	Student is able to find out the Differences with other agile practices, Different Levels in SAFe.	Web Reference [2]	PPT,Talk	ALM,End Semester Exam,SEM-EXAM2
19	CO4	COI-1	Describe Software testing	T BOOK [1], CH17.1-17.3 Page no 450-464	PPT,Talk	ALM,ATTN,End Semester Exam,SEM-EXAM2
20	CO4	COI-2	Compare black and white box testing	T BOOK [1], CH17.7,17.7,18.3,18.6 Page no 467-472, 485, 495-501	PPT,Talk	ALM,End Semester Exam,SEM-EXAM2

Sess.No.	CO	COI	Topic	Book No[CH No][Page No]	Teaching-Learning Methods	EvaluationComponents
21	CO4	COI-3	Organize TDD test	Web Reference [3]	PPT,Talk	ALM,End Semester Exam,SEM-EXAM2
22	CO4	COI-3	Compare Test Driven Development (TDD) Vs. Agile Model Driven Development (AMDD)	Web Reference [3]	PPT,Talk	ALM,End Semester Exam,Home Assignment,SEM-EXAM2
23	CO4	COI-4	Apply JUnit on examples	Web Reference [4]	PPT,Talk	ALM,End Semester Exam,SEM-EXAM2
24	CO4	COI-4	Analyze CMMI, Six sigma model	T BOOK [1], T BOOK [2], CH30.3, Page no 787-790	PPT,Talk	ALM,End Semester Exam,SEM-EXAM2

Lecture Session wise Teaching – Learning Plan

SESSION NUMBER : 1

Session Outcome: 1 1. Software and Software Engineering and Nature of software

Session Outcome: 2 2. Software application domains

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Overview of the Course Handout Overview of the Course, Introduction to Software engineering, Nature of S/w, application domains.	1	PPT	--- NOT APPLICABLE ---
20	Ask for any doubts through Public chat/ Break	1	Talk	--- NOT APPLICABLE ---
10	Conclusion & Summary	1	Talk	--- NOT APPLICABLE ---

SESSION NUMBER : 2

Session Outcome: 1 Software engineering and software process.

Session Outcome: 2 Software engineering practice & Software myths.

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Software engineering and software process Discussion on Software engineering practice, Software myths & Video	2	PPT	--- NOT APPLICABLE ---
10	Attendance/ Poll/Pop Question	2	PPT	--- NOT APPLICABLE ---
10	Ask for any doubts through Public chat/ Break , Discussion ,Conclusion	2	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS	2	PPT	Quiz/Test Questions

SESSION NUMBER : 3

Session Outcome: 1 Various Process Models

Session Outcome: 2 Generic and perspective process models

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Various Process Models and Generic process models with video	2	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question	2	PPT	--- NOT APPLICABLE ---
10	Creating a Breakout Room and Doubts can be asked in Public Chat	2	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	2	PPT	Quiz/Test Questions

SESSION NUMBER : 4

Session Outcome: 1 Specialized process models

Session Outcome: 2 Unified process model

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Specialized & Unified process models with video	2	PPT	--- NOT APPLICABLE ---

10	Attendance/ Recap /Poll/Pop Question	2	PPT	--- NOT APPLICABLE ---
10	Creating a Breakout Room and Doubts can be asked in Public Chat	2	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS	2	PPT	Quiz/Test Questions

SESSION NUMBER : 5

Session Outcome: 1 Personal and team process models

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Discussion on Personal and team process models and video	2	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question	2	Talk	--- NOT APPLICABLE ---
20	Problems as Assignment/Quiz (ALM) Doubts can be asked in Public Chat	2	PPT	Quiz/Test Questions

SESSION NUMBER : 6

Session Outcome: 1 Reverse Engineering to Understand Processing and interfaces

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Discussion on Reverse Engineering to Understand Data and processing.	2	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question	2	PPT	--- NOT APPLICABLE ---
10	Creating a Breakout Room and Doubts can be asked in Public Chat	1	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	1	PPT	Quiz/Test Questions

SESSION NUMBER : 7

Session Outcome: 1 Understanding the basic need of software Requirements

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

20	What is software requirements and types ,stakeholders & eliciting requirements with video	2	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question	1	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	2	PPT	Quiz/Test Questions

SESSION NUMBER : 8

Session Outcome: 1 Describe requirement model

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Building requirement model & Types of requirements, SRS with video	1	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	1	Talk	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question	1	PPT	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	2	PPT	Quiz/Test Questions

SESSION NUMBER : 9

Session Outcome: 1 Explaining and introduction to Agile Development

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	The Agile Manifesto and Principles & Agile Project Management with video	2	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question	1	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	PPT	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	2	PPT	Quiz/Test Questions

SESSION NUMBER : 10

Session Outcome: 1 Explain the difference between Principle-Based versus Rule-Based

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Agile Project Management with example, Principle-Based versus Rule-Based	2	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question/video	2	PPT	--- NOT APPLICABLE ---
20	Problems as Assignment/Quiz (ALM) Doubts can be asked in Public Chat	2	PPT	Quiz/Test Questions

SESSION NUMBER : 11

Session Outcome: 1 Explain the types and methods of Adoption Strategies

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Introduction to Extreme Programming, Work products, Roles, and Practices	2	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question/video	2	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	2	PPT	Quiz/Test Questions

SESSION NUMBER : 12

Session Outcome: 1 Explain the difference between Fact versus Fantasy

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Adoption Strategies process with example, Strengths versus Other and history	3	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question	2	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	1	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	2	PPT	Quiz/Test Questions

SESSION NUMBER : 13

Session Outcome: 1 Studies Life Cycle and Values

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	SCRUM: Method Overview- Life Cycle and Key Practices, Work Products, Roles and Practices	2	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question/video	2	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	1	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	1	PPT	Quiz/Test Questions

SESSION NUMBER : 14

Session Outcome: 1 Compare Facts Vs Fantasy and Strength Vs Other

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Sample Projects, Process Mixtures , Adoption Strategies	4	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question/video	2	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	3	PPT	Quiz/Test Questions

SESSION NUMBER : 15

Session Outcome: 1 Understand Core Practices and Principles

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Kanban: Origin, Foundational Principles, WIP Limits	3	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question/video	2	PPT	--- NOT APPLICABLE ---

10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	3	PPT	Quiz/Test Questions

SESSION NUMBER : 16

Session Outcome: 1 With WIP the bottle neck problem is identified and resolving with above methods

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	WIP usage in IT & Software, Kanban method, Developments of the methods	3	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question/video	2	PPT	--- NOT APPLICABLE ---
20	Problems as Assignment/Quiz (ALM) Doubts can be asked in Public Chat	3	PPT	Quiz/Test Questions

SESSION NUMBER : 17

Session Outcome: 1 Foundations of Scaled Agile Frame work

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	SAFe Methodology: Definition, how it is different from Agile framework, Principles of SAFe	2	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question/video	2	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	3	PPT	Quiz/Test Questions

SESSION NUMBER : 18

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

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Different levels in SAFe	3	PPT	--- NOT APPLICABLE ---

10	Attendance/ Recap /Poll/Pop Question/video	2	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	3	PPT	Quiz/Test Questions

SESSION NUMBER : 19

Session Outcome: 1 Identify strategic approach to software testing

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Software testing ,A strategic approach to software testing	3	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question/video	2	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	3	PPT	Quiz/Test Questions

SESSION NUMBER : 20

Session Outcome: 1 Compare black and white box testing

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Black-Box and White-Box testing, Validation testing, system testing	3	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question/video	2	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	3	PPT	Quiz/Test Questions

SESSION NUMBER : 21

Session Outcome: 1 Summerize TDD via Model driven development

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	TDD Vs Traditional Testing, Acceptance TDD and Developer TDD Scaling	3	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question/video	2	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	1	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	3	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 22

Session Outcome: 1 Model Driven Development (AMDD), Examples of TDD

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Test Driven Development (TDD) Vs. Agile Model Driven Development (AMDD), Examples of TDD	3	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question/video	2	PPT	--- NOT APPLICABLE ---
20	Problems as Assignment/Quiz (ALM) Doubts can be asked in Public Chat	3	PPT	Quiz/Test Questions

SESSION NUMBER : 23

Session Outcome: 1 Apply JUnit on examples

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Apply JUnit on examples	3	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question/video	2	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	1	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	3	PPT	Quiz/Test Questions

SESSION NUMBER : 24

Session Outcome: 1 Analyze CMMI, Six sigma model

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	The CMMI , Six Sigma Model	4	PPT	--- NOT APPLICABLE ---
10	Attendance/ Recap /Poll/Pop Question/video	2	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
10	Quiz though LMS and Summary	3	PPT	Quiz/Test Questions

Tutorial Course DELIVERY Plan:

List of Experiments supposed to finish in Open Lab Sessions:

Lab session no	List of Experiments	CO-Mapping
1	Understand the tool Star UML	CO1
2	Understand Library Management System	CO1
3	Understand Admission process Case Study	CO2
4	Understand Admission process and Library Management Case Study	CO2
5	Understand Online Banking Case Study	CO2
6	Understand a scrum tool “Jira “	CO3
7	Understand a scrum tool “Jira” for a Library Management System	CO3
8	Understand a scrum tool “Jira “ for a Admission process	CO4

Lab session no	List of Experiments	CO-Mapping
9	Understand a scrum tool “Jira “ for a Online Banking	CO4

Tutorial Session wise Teaching – Learning Plan

SESSION NUMBER : 1

Session Outcome: 1 How to draw use case diagram

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Star UML Introduction	4	PPT	--- NOT APPLICABLE ---
20	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
20	Solving a Case Study using Star UML tool	2	PPT	--- NOT APPLICABLE ---
10	Problems Discussion	2	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
20	Use case diagram generation	4	PPT	--- NOT APPLICABLE ---

SESSION NUMBER : 2

Session Outcome: 1 Understand Library Management System

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Case Study- Library Management System	4	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---

10	Summary	2	Talk	--- NOT APPLICABLE ---
20	Solving Case Study using Star UML tool	1	PPT	--- NOT APPLICABLE ---
20	Problems Discussion	2	Talk	--- NOT APPLICABLE ---
20	Class diagram for Library Management System	4	PPT	Case Study

SESSION NUMBER : 3

Session Outcome: 1 Case Study- Admission process

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Case Study- Admission process	4	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
10	Summary	2	Talk	--- NOT APPLICABLE ---
20	Solving Case Study and generate use case diagram	2	PPT	--- NOT APPLICABLE ---
20	Class diagram for admission process	4	PPT	Case Study

SESSION NUMBER : 4

Session Outcome: 1 Case Study- Admission process, Library Management system

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Case Study- Admission process, Library Management system	4	PPT	--- NOT APPLICABLE ---
20	Creating A Breakout Room	1	Talk	--- NOT APPLICABLE ---
20	Solving Case Study and generate Activity Diagram	1	PPT	--- NOT APPLICABLE ---
20	Problems Discussion	1	Talk	--- NOT

				APPLICABLE ---
20	interaction diagram like sequence and collobartion for admission process	4	PPT	Case Study

SESSION NUMBER : 5

Session Outcome: 1 Understand Online Banking Case Study

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Case Study- Online Banking generating usecase and activity diagram	4	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	1	Talk	--- NOT APPLICABLE ---
10	Summary	2	Talk	--- NOT APPLICABLE ---
20	Solving Case Study and generate class Diagram	4	PPT	--- NOT APPLICABLE ---
40	problems discussion and interaction diagram like sequence and collaboration for the given case study	4	PPT	Case Study

SESSION NUMBER : 6

Session Outcome: 1 Understand a scrum tool “Jira “

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Introduction of the tool Jira	4	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	3	Talk	--- NOT APPLICABLE ---
10	Task of a story	2	PPT	--- NOT APPLICABLE ---
20	Sub-task of a story	2	PPT	--- NOT APPLICABLE ---
20	Problems Discussion	3	Talk	--- NOT APPLICABLE ---
20	A defect or bug can be an issue	4	PPT	Case Study

SESSION NUMBER : 7

Session Outcome: 1 Understand a scrum tool “Jira” for a Library Management System

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Case Study for Library Management System- Story of a project	4	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
10	Task of a story	2	PPT	--- NOT APPLICABLE ---
20	Sub-task of a story	2	PPT	--- NOT APPLICABLE ---
20	Problems Discussion	3	PPT	--- NOT APPLICABLE ---
20	A defect or bug can be an issue	4	PPT	Case Study

SESSION NUMBER : 8

Session Outcome: 1 Understand a scrum tool “Jira “ for a Admission process

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Case Study for Admission process- Story of a project	4	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
10	Task of a story	2	Talk	--- NOT APPLICABLE ---
20	Sub-task of a story	3	PPT	--- NOT APPLICABLE ---
20	Problems Discussion	3	Talk	--- NOT APPLICABLE ---
20	A defect or bug can be an issue	4	PPT	Case Study

SESSION NUMBER : 9

Session Outcome: 1 Understand a scrum tool “Jira “ for a Online Banking

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
20	Case Study for Admission process- Story of a project	4	PPT	--- NOT APPLICABLE ---
10	Creating A Breakout Room	2	Talk	--- NOT APPLICABLE ---
10	Task of a story	2	PPT	--- NOT APPLICABLE ---
20	Sub-task of a story	2	PPT	--- NOT APPLICABLE ---
20	Problems Discussion	2	PPT	--- NOT APPLICABLE ---
20	A defect or bug can be an issue	4	PPT	Case Study

Practical Course DELIVERY Plan: NO Delivery Plan Exists

Practical Session wise Teaching – Learning Plan

No Session Plans Exists

Skilling Course DELIVERY Plan: NO Delivery Plan Exists

Skilling Session wise Teaching – Learning Plan

No Session Plans Exists

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

Week	Assignment Type	Assignment No	Topic	Details	co

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 according

SELF-LEARNING:

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

S.no	Topics	CO	ALM	References/MOOCS

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

EVALUATION PLAN:

Evaluation Type	Evaluation Component	Weightage/Marks		Assessment Dates	Duration (Hours)	CO1	CO2	CO3	CO4
End Semester Summative Evaluation Total= 40 %	**End Semester Exam**	Weightage	40	28-11-2020	180	10	10	10	10
		Max Marks	100			25	25	25	25
In Semester Formative Evaluation Total= 30 %	**Home Assignment and Textbook**	Weightage	5	13-09-2020	300	1.25	1.25	1.25	1.25
		Max Marks	40			10	10	10	10
	ALM	Weightage	10	13-08-2020	300	2.5	2.5	2.5	2.5
		Max Marks	100			25	25	25	25
	Attendance	Weightage	5	16-09-2020	300	1.25	1.25	1.25	1.25
		Max Marks	100			25	25	25	25
	Tutorial	Weightage	10	16-09-2020	300	2.5	2.5	2.5	2.5
		Max Marks	40			10	10	10	10
In Semester Summative Evaluation Total= 30 %	**Semester in Exam-I**	Weightage	15	26-08-2020	120	7.5	7.5		
		Max Marks	50			25	25		
	Semester in Exam-II	Weightage	15	09-11-2020	120			7.5	7.5
		Max Marks	50					25	25

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:

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

(VENKATA DURGA KIRAN KASULA)

Signature of Department Prof. Incharge Academics & Vetting Team Member

Department Of CSE

HEAD OF DEPARTMENT:

Approval from: DEAN-ACADEMICS
(Sign with Office Seal) [object HTMLDivElement]