**JSPM Narhe Technical Campus**

**Department: MCA**

**Academic Year – 2020-21**

**Teaching, Learning and Assessment tool Plan**

**Name of Faculty : - Prof. Sachin R. Lende Subject: - Software Project Management (IT-22)**

**Semester: II Year: 2021 Division: A Planned Duration: 60 Hrs**

**Course or Subject Objective:-**

1. To learn process of Software Project Management.

2. To Study role of Project Manager in Project Management.

3. To learn Agile Project Management Framework.

4. To study various role of Agile Team and Tools.

5. To understand project planning and tracking.

**Course Outcome :**

CO1: Understand the process of Software Project Management Framework and

Apply estimation techniques. (Apply)

CO2: Learn the philosophy, principles and lifecycle of an agile project. (Understand)

CO3: Demonstrate Agile Teams and Tools and Apply agile project constraints and

trade-offs for estimating project size and schedule (Apply)

CO4: Explain Project Tracking and Interpretation of Progress Report (Understand)

CO5: Analyze Problem statement and evaluate User Stories (Analyze)

**Unit -1] Linear Project Management Framework**

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| Sr. No | Content | Planned Date | Actual Date | Course outcome to fulfill | Teaching model | Teaching activity | Teaching material | References | Student activity | Student Learning material | Assessment tool |
| 1 | Syllabus Discussion | 17/06/2021 | 17/06/2021 | CO-1 | Inductive Thinking & concept attainment Model | Direct instructions | University Syllabus | T1 ,T2 | understand the concept and solving problem | Notes | Feedback |
| 2 | Overview of Project Management | 18/06/2021 to 21/06/2021 | 18/06/2021 to 21/06/2021 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 3 | Project management life cycle-IEEE Life Cycle. | 24/06/2021 To 28/06/2021 | 24/06/2021 To 28/06/2021 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 4 | Project Management Process. | 02/07/2021 & 05/07/2021 | 02/07/2021 & 05/07/2021 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T1 ,T2 | understand the concept and solving problem | Notes | Feedback |
| 5 | Roll of Project Manager | 08/07/2021 | 08/07/2021 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 6 | Quality Metrics | 09/07/2021 | 09/07/2021 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 7 | Risk Management Process | 10/07/2021 | 10/07/2021 | CO-1 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T1 ,T2 | understand the concept and solving problem | Notes | Feedback |
| 8 | Risk Identification, Risk Analysis | 12/07/2021 | 12/07/2021 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 9 | Risk Mitigation & RMMM | 15/07/2021 | 15/07/2021 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 10 | Hands of MS Project Tools Resource Allocation, Scheduling and Gantt chart | 16/07/2021 | 16/07/2021 |  |  |  |  |  |  |  |  |

**Unit - 2] Linear Software Project Estimation**

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| Sr. No | Content | Planned Date | Actual Date | Course outcome to fulfill | Teaching model | Teaching activity | Teaching material | References | Student activity | Student Learning material | Assessment tool |
| 11 | Different Methods of Cost Estimation | 19/07/2021 | 19/07/2021 | CO-1 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T1 ,T2 |  | Notes | Feedback |
| 12 | COCOMO I & II Model (Problem Statement) | 22/07/2021 to 24/07/2021 | 22/07/2021 to 24/07/2021 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 13 | Delphi Cost Estimation | 26/07/2021 | 26/07/2021 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | understand the concept and solving problem | Notes | Feedback |
| 14 | Function Point Analysis (Problem Statement) | 29/07/2021 to 31/07/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 15 | The SEI Capability Maturity Model CMM | 02/08/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 16 | Software Configuration Management | 03/08/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 17 | Case Study and Rayleigh Curve | 04/08/2021 |  | CO-1 | Inductive Thinking & concept attainment Model | Direct instructions | Notes |  | Notes | Feedback |

**Unit – 3] Agile Project Management Framework**

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| Sr. No | Content | Planned Date | Actual Date | Course outcome to fulfill | Teaching model | Teaching activity | Teaching material | References | Student activity | Student Learning material | Assessment tool |
| 18 | Introduction and Definition Agile, Agile  Project Life Cycle | 05/08/2021 |  | CO-2 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 | understand the concept and solving problem | Notes | Feedback |
| 19 | Agile Manifesto: History of Agile and Agile  Principles | 06/08/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 20 | Key Agile concept ,User Story & Story Points | 07/08/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 21 | Product Backlog | 09/08/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 22 | Sprint Backlog | 10/08/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 23 | Sprint Velocity | 11/08/2021 |  | CO-2 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 | Notes | Feedback |
| 24 | Swim Lanes | 12/08/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 | understand the concept and solving problem | Notes | Feedback |
| 25 | Minimum Viable Product (MVP) | 13/08/2021 |  | CO-2 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 | Notes | Feedback |
| 26 | Version & Releases | 14/08/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 27 | Agile Project Management v/s Traditional  Project Management | 16/08/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 28 | Case study on Agile | 17/08/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
|  |  |  |  |  | Mid Term Exam | | | | | | |  |  |  |

**Unit - 4] Agile Team , Size & Schedule**

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| Sr. No | Content | Planned Date | Actual Date | Course outcome to fulfill | Teaching model | Teaching activity | Teaching material | References | Student activity | Student Learning material | Assessment tool |
| 29 | Dynamic System Development Method | 18/08/2021 |  | CO-3 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 | understand the concept and solving problem | Notes | Feedback |
| 30 | Value- Driven Development | 19/08/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 31 | Team & roles of an Agile Team | 20/08/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 32 | Scrum Master | 21/08/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 33 | Product Owner | 23/08/2021 |  | CO-3 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  |  |  |
| 34 | Development Team | 24/08/2021 |  | CO-3 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  |  |  |
| 35 | Product Vision & Product Roadmap | 25/08/2018 |  | CO-3 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  |  |  |
| 36 | Project Objective & Key Metrics | 26/08/2021 |  | CO-3 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  |  |  |
| 37 | Introduction to User Stories | 27/08/2021 |  | CO-3 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  |  |  |
| 38 | Estimate the Product Backlog | 28/08/2021 |  | CO-3 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  |  |  |
| 40 | Techniques for Estimating Story Points | 30/08/2021 |  | CO-3 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  |  |  |
| 41 | Plan Product Release | 31/08/2021 |  | CO-3 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  |  |  |
| 42 | Product Prioritization | 01/09/2021 |  | CO-3 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  |  |  |
| 43 | Case study | 02/09/2021 |  | CO-3 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  |  |  |

**Unit -5] Tracking Agile Project & Reports**

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| Sr. No | Content | Planned Date | Actual Date | Course outcome to fulfill | Teaching model | Teaching activity | Teaching material | References | Student activity | Student Learning material | Assessment tool |
| 44 | Introduction | 03/09/2021 |  | CO-4 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 | understand the concept and solving problem | Notes | Feedback |
| 45 | Plan & Execute Iteration | 03/09/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 46 | Facilitate Retrospective, Making Team  Decisions and Closing out Retrospective | 04/09/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 47 | Agile Daily Reports | 06/09/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 48 | Sprint Burn down Chart and Reports | 07/09/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 49 | Benefits of Agile Project Management | 08/09/2021 |  | CO-4 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 | understand the concept and solving problem | Notes | Feedback |
| 50 | Case Study | 09/09/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
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**Unit-6] Implementation with Agile Tools**

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| Sr. No | Content | Planned Date | Actual Date | Course outcome to fulfill | Teaching model | Teaching activity | Teaching material | References | Student activity | Student Learning material | Assessment tool |
| 51 | Introduction to Agile tools | 11/09/2021 |  | CO-5 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 | understand the concept and solving problem | Notes | Feedback |
| 52 | Hands on Github | 13/09/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 53 | Create Project Using Kanban | 14/09/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 54 | Project Repositories | 15/09/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 55 | Continuous Integration | 16/09/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 56 | Project Backlog | 17/09/2021 |  | CO-5 | Inductive Thinking & concept attainment Model | Direct instructions | Notes |  | understand the concept and solving problem | Notes | Feedback |
| 57 | Team Management | 18/09/2021 |  | Inductive Thinking & concept attainment Model | Direct instructions | Notes | Notes | Feedback |
| 58 | Progress Tracking | 20/09/2021 |  |  | Direct instructions | Notes | Notes | Feedback |
| 59 | Releases | 21/09/2021 |  | CO-5 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  | Notes | Feedback |
| 60 | Implementation of Problem statement with  Agile Tools- GitHub | 22/09/2021 |  | CO-5 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  | Notes | Feedback |
| 61 | Designing Product Vision, Product Backlog, | 23/09/2021 |  | CO-5 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  | Notes | Feedback |
| 62 | Sprint Backlog, Estimate Story Points | 24/09/2021 |  | CO-5 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  | Notes | Feedback |
| 63 | Iteration Release | 25/09/2021 |  | CO-5 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  | Notes | Feedback |
| 64 | Case study | 27/09/2021 |  | CO-5 | Inductive Thinking & concept attainment Model | Direct instructions | Notes | T3,T4 & T5  R2 to R11 |  | Notes | Feedback |

Name and Signature: Faculty Program Coordinator HOD

Role: (Prepared By) (Reviewed by) (Approved by)

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Copy To: (Soft copy of Signed document be provided)

1. Program Coordinator
2. Website coordinator

**Text Books (T) :**

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| 1. Software engineering principles and practice, McGraw-Hill, Waman S.  Javadekar  2. Software Engineering by Pressman  3. Agile Project Management For Dummies, 2nd Edition  4. Coaching Agile Teams: A Comparison for Scrum Masters, Agile Coaches,  and Project Managers in Transition, Lyssa Adkins  5. Agile Project Management: Creating Innovative Products (2nd Edition) by  Jim Highsmith, Addison-Wesley Professional  **Reference Book (R) :** |  |  |
| 1. Mark C. Layton, Steven J. Ostermiller  2. Agile Estimating and Planning by Mike Cohn Robert C Martin Series  3. Introduction to Software Project Management by By Adolfo Villafiorita,  CRC Press  4. Agile Project Management with Scrumby Ken Schwaber, Microsoft Press  2004  5. Agile Project Management QuickStart Guide : The Simplified Beginners  Guide To Agile Project Management by ClydeBank Business  6. Agile Product Management with Scrum: Creating Products that Customers  Love by Roman Pichler.  7. Scrum Mastery: From Good to Great Servant-Leadership by Geoff Watts  8. Agile Project Management for Dummies by Mark C. Layton  9. The Agile Enterprise: Building and Running Agile Organizations by Mario E.  Moreira  10. Scrum: The Art of Doing Twice the Work in Half the Time by Jeff  Sutherland  11. Essential Scrum: A Practical Guide to the Most Popular Agile Process by  Kenneth S. Rubin  12.Agile Project Management with Kanban By Eric Brechner  13.Agile Constraints: Creating and Managing Successful Projects with Scrum,  Multiple authors |  |  |
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**C] Assignment Details:**

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| **Sr. No.** | **Chapter No.** | **Chapter Name** | **Topic** | **Date of Assignment** | **Date of Submission** | **Remarks** |
| 1 | 1. | Linear Project Management Framework | Design Project Management plan with Risk Management |  |  |  |
| 2 | 2. | Linear Software Project Estimation | Create Project Estimation with COCOMO and FPA |  |  |  |
| 3 | 3 | Agile Project Management Framework | Design Project Management with Agile project Life cycle |  |  |  |
| 4 | 4 | Agile Team, Size & Schedule | Design Role of Agile Team Member with respect to Product Owner and Scrum Master |  |  |  |
| 5 | 5 | Tracking Agile Project & Reports | Track the Project with Agile Methodology and create burn down chart with retrospective meeting |  |  |  |
| 6 | 6 | Implementation with Agile Tools | Implement Project management with Github |  |  |  |