VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SCHOOL OF COMPUTER SCIENCE AND ENGINEERING (SCOPE)

M.TECH. INTEGRATED SOFTWARE ENGINEERING

SWE2029 – AGILE DEVELOPMENT PROCESS

WINTER SEMESTER 2020

Slot : G1 + TG1 **Lesson Plan** **Faculty : Rajesh M**

LECTURE NO	LECTURE TOPIC
1	**Module 1: Introduction to Agile**
2	"Introduction to Agile Software Process Model - Agile Methodology & Principles"
3	Agile methods Types – Benefits
4	Life Cycle, Agile Project Management
5	Design and Construction
6	Agile Testing
7	Agile Tools
8	**Module 2: AGILE PROCESSES**
9	Key Process Areas in CMM – Quality Improvement models
10	Six Sigma : Six Sigma Overview, DMAIC
11	DMADV
12	Lean Overview, rules, principles
13	The 8 Forms of Waste
14	Lean Tool s - 5 Why's, Pareto
15	**Module 3: AGILE REQUIREMENTS**
16	Meeting the requirements challenge iteratively
17	Requirements for Agile approach
18	gathering & analysis
19	Behaviour Driven Development (BDD)
20	Acceptance Test Driven Development (ATDD)

21	Designing storyboards and scrums in Agile approach
22	**Module 4: AGILE METHODOLOGIES**
23	Pair Programming
24	Refactoring
25	Dynamic Systems Development (DSD)
26	Feature Driven Development (FDD)
27	Test Driven Development (TDD)
28	Agile Unified Process
29	Agile Failure Models - Various reasons why agile fails?
30	**Module 5: SCRUM**
31	Scrum Foundations
32	Scrum Roles: - Scrum Master
33	Product Owner
34	Team - Scrum Meetings
35	Scrum Artifacts – Product Backlog - Sprint Backlog, Burn-down Charts
36	Manager in Scrum
37	**Module 6: AGILE PLANNING and ESTIMATION**
38	Principles of Agile Metrics
39	Principles of Agile Metrics (Contn.,)
40	Release, Planning and Estimation in Scrum
41	**Module 7: ADVANCED CONCEPTS & CASE STUDIES**
42	Scrum and Large Projects
43	Distributed Scrum, Agile Adoption
44	A case study of a scrum project, Scrum Success Stories
45	**Module 8:** **Applications of Agile software development in industry.** **(Covered by Guest Lecture)**

Course Faculty
Dr. Rajesh M
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