SIDDAGANGA INSTITUTE OF TECHNOLOGY, TUMAKURU
LECTURE PLAN FOR THE ACADEMIC YEAR 2023 – 2024

Faculty	Mrs. Vidhya Shree N S	Dept.	Information Science and Engineering
Class	B.E. 7th Sem	Course	RISE29: Agile software technology

Course Objectives

The objectives of this course are:

1. Understand traditional testing activities versus agile methodologies.
2. Apply agile development practices, design achieve agility.
3. Understand roles and responsibilities of scrum master and product owner.
4. Understand testing activities with an agile project development.

Sl.No	Date	Topics	Remarks
		UNIT 1	
		Chapter 1-Introduction	
1	4/10/2023	Introduction to agile software technologies	
2	6/10/2023	What Is Agile Testing, anyway? Agile Values What Do We Mean by Agile Testing?	
3	9/10/2023	A Little Context for Roles and Activities on an Agile Team	
4	11/10/2023	How Is Agile Testing Different, Whole-Team Approach?	
		Chapter 2 -Ten principles for Agile Testers	
5	13/10/2023	What's an Agile Tester?	
6	16/10/2023	The Agile Testing Mind-Set x CONTENTS	
7	18/10/2023	Applying Agile Principles and Values	
8	20/10/2023	Adding value.	Assignment
		UNIT 2	
		Chapter 3-Organizational challenges	
9	25/10/2023	Cultural Challenges, Organizational Culture	
10	27/10/2023	Barriers to Successful Agile Adoption by Test/QA Teams	
11	30/10/2023	Introducing Change, Management Expectations, Change Doesn't Come Easy.	
		Chapter 4-Transitioning Typical processes	
12	3/11/2023	Seeking Lightweight Processes,	
13	6/11/2023	Metrics,	
14	8/11/2023	Defect Tracking,	
15	10/11/2023	Test Planning,	
16	13/11/2023	Existing Processes and Models.	Assignment'
		UNIT 3	
		Chapter 5- The Agile Testing Quadrants	
17	15/11/2023	The Agile Testing Quadrants	

		Chapter 6-Technology- facing Tests that support the team	
18	20/11/2023	An Agile Testing Foundation, Why Write and Execute These Tests?	
19	22/11/2023	Where Do Technology-Facing Tests Stop?	
20	24/11/2023	What If the Team Doesn't Do These Tests?	
		Chapter 7- Business- Facing tests that support the team	
21	27/11/2023	Driving Development with Business-Facing Tests,	
22	29/11/2023	The Requirements Quandary,	Assignment
23	1/12/2023	Thin Slices, Small Chunks,	
24	4/12/2023	How Do We Know We're Done?	
		UNIT 4	
		Chapter 8-The science of Scrum	
25	6/12/2023	Empirical Process Control, Complex Software Development	
26	8/12/2023	The Skeleton and Heart of Scrum,	
27	1/12/2023	Scrum Roles,	
28	4/12/2023	Scrum Flow,	
29	6/12/2023	Scrum Artifacts	
		Chapter 9- New Management Responsibilities	
30	8/12/2023	The ScrumMaster at MetaEco,	
31	11/12/2023	The Product Owner at MegaEnergy	Assignment
32	13/12/2023	The Team at Service1st	
		UNIT 5	
		Chapter 10- The scrum master	
33	15/12/2023	The Untrained ScrumMaster at Trey Research	
34	18/12/2023	The Untrained ScrumMaster at Litware,	
		Chapter 11- The product owner	
35	20/12/2023 22/12/2023	Customer and Team Collaboration	
36	27/12/2023	Getting Service1st's Management Back in Action,	
37	1/1/2024	Fixing the Problem of XFlow at MegaFund,	
		Chapter 14-Scaling Projects Using Scrum	
38	5/1/2024	Scaling at MegaFund,	
39	8/1/2024	Scrum Scaling,	
40	12/1/2024	Scrum Scaling.	Assignment

Test-1 16th,17th and 18th November	Test-2 2nd,3rd and 4th January

Text Books:

1.	Lisa Crispin, Janet Gregory, Agile Testing: Practical guide for Testers and Agile team, Copyright © 2009 Pearson Education, Inc. ISBN-13: 978-0-321-53446-0
2.	Ken Schawber, Agile project management with Scrum. Microsoft press Publication, ©2004 ,ISBN 0-7356-1993-X

Reference Books:

1.	Robert C. Martin, Agile Software Development, Principles, Patterns, and Practices, Prentice Hall; 1st edition, 2002.
2.	Craig Larman, "Agile and Iterative Development A Manger's Guide", Pearson Education, First Edition, India,2004.

Course Outcomes:

Upon completion of this course the student will be able to:

CO1: Analyze the various principles of agile Testers and purpose of agile testing

CO2: Discuss various Organizational Challenges and Agile Testing Quadrants.

CO3: Interpret the business values of adopting agile development.

CO4: Apply the role of the scrum master in handling the real time projects.

CO5: Apply scrum for Scaling the Projects and planning.

Mapping of Course Outcomes (COs) to Program Outcomes (POs) & Program Specific Outcomes (PSOs)

		POs												PSOs		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
COs	CO1	2												2		
	CO2	2												2		
	CO3	2												2		
	CO4	2		2										2		
	CO5	2												2		

--	COs				
Direct AT	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**
CIE (Individual)	✓	✓	✓	✓	✓
SEE (Individual)	✓	✓	✓	✓	✓
Assignments (Individual/Group)	✓	✓	✓	✓	✓
Micro Projects (Group)	--	--	--	--	--
Topic seminar (Individual)	--	--	--	--	--
Case studies (Individual/Group)	--	--	--	--	--
Online courses (Individual)	--	--	--	--	--
Indirect AT					
Course end survey (Students)	✓	✓	✓	✓	✓
Student profile (Faculty)	--	--	--	--	--

Course delivery methods, assessment tools and sample questions:

CO1	Analyze the various principles of agile Testers and purpose of agile testing
Delivery Methods	Chalk and talk
Assessment Tools	CIE- Test 1, SEE
Sample Questions	1. Explain various roles in Agile process. How are these roles different from traditional roles (L1, PO1, 6M) 2. What is the working principle of Agile? What value is provided by Agile? Discuss. (L1, PO1, 6M) 3. Discuss about agile testers mindset. (L1, PO1, 5M) 4. Write a short note on adding values. (L1, PO1, 5M) 5. What are the main manifesto of agile testers and their teams. (L1, PO1,8M)

CO2	Explain various Organizational Challenges and Agile Testing Quadrants.
Delivery Methods	Chalk and Talk
Assessment Tools	CIE-Test 1, SEE
Sample Questions	1. Explain barriers for adoption of agile development methods encountered by testers and QA teams. (L1, PO1, 5M) 2. Explain the change model up front and set expectations. (L1, PO1, 5M) 3. Explain about how testers want to get their team to change in positive ways. (L1, PO1, 5M) 4. Explain organizational culture before making any kind of change. (L1, PO1, 5M) 5. Define light weight processes. (L1, PO1, 2M) 6. How to use metrics to help agile testers and their teams. (L3, PO1, 5M) 7. Briefly, Explain overview of quadrants. (L2, PO1, 5M)

CO3	Interpret the business values of adopting agile development
Delivery Methods	Chalk and Talk
Assessment Tools	CIE: Test 2, SEE, Assignment
Sample Questions	1.Explian in detail about why write and execute these tests. (L1, PO1, 6M) 2.In briefly explain about the tool kits (L1, PO1, 6M) 3.Explain the requirements quandary. (L1, PO1, 6M)

4. How traditional models and processes coexists with agile development methods. (L2, PO1, 7M)

5. Discuss the purpose of quandrant2. (L2,PO2,8M)

6. Explain different factors which include our coding. (L1, PO1,4M)

CO4	**Apply** the role of the scrum master in handling the real time projects.
Delivery Methods	Chalk and Talk
Assessment Tools	CIE: Test 2, SEE, Assignment
Sample Questions	1. Discuss about complex software development with diagram. (L1, PO3, 7M) 2. Write a short note on scrum roles scrum flow and scrum artifacts. (L1, PO1, 5M) 3. Explain briefly about wolves strike. (L1, PO1, 5M) 4. Define Agile Scrum. What are its various roles. (L1, PO1, 5M) 5. Write overview on scrum master. (L1, PO1, 4M) 6. Discuss the different scrum artifacts (L2, PO2,6M)

CO5	**Apply** scrum for Scaling the Projects and planning.
Delivery Methods	Chalk and Talk
Assessment Tools	CIE: Test 2, SEE, Assignment
Sample Questions	1.Discuss about sprint review meeting. (L1, PO1, 6M) 2. Explain how to fix the problem of XFlow at MegaFund. (L1, PO1, 8M) 3. What progress will have been made by the end of each Sprint? (L2, PO1, 6M) 4.Explain about management view of project technology architecture. (L1, PO1, 6M) 5. How scrum helped in Techcore system, Explain with example. (L1, PO1,6M)

Faculty 30/9/23   HOD 03/10/2023   Principal 03/10/202

PRINCIPAL
Siddaganga Institute of Technology
TUMKUR