

## SYLLABUS

Course Name:	<b>Software Project Management (Advanced Topic)</b>
Course Code:	SWM501
No of credits:	03
Time Allocation:	<i>Study hours (150h)</i> - Online (45h) + Offline: 3 slots of mentors - Final assessment (3h) - Self-study (102h)
Prerequisite:	No

### I. DESCRIPTION

This course provides students with knowledge and skills to manage software projects effectively using modern Agile methodologies. The course focuses on Agile mindset, user-centered value creation, backlog development, and Agile team management.

To align with the learning objectives and teaching load, the course officially uses two core MOOCs from the Agile Development Specialization:

1. Agile Meets Design Thinking
2. Managing an Agile Team

Additionally, students are encouraged to explore two supplemental MOOCs to expand their knowledge and get the Spec Certificate

- Hypothesis-Driven Development
- Product Analytics and AI.

### II. MAIN OBJECTIVES

- Explain the Agile mindset and principles in software project management.
- Apply design thinking techniques to understand user needs and translate them into actionable requirements.
- Apply Agile management practices to coordinate and lead an Agile team.
- Execute Agile ceremonies such as Sprint Planning, Daily Stand-ups, Review, and Retrospective.

- Use continuous improvement practices to enhance team performance and project outcomes.
- Apply learned concepts and tools to manage a small virtual project as part of the applied learning project.

### Mapping CLOs to PLOs

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CLO1			X									
CLO2			X									
CLO3			X			X						
CLO4						X						
CLO5			X									X
CLO6			X									X

### III. TEACHING METHODS

In order to achieve the best course objectives, teaching methods and activities are used spontaneously, including:

- Video lectures: Engaging video content delivered by industry expert Christy Bozic, PhD, PMP, covering essential project management topics.
- Readings: Accessible materials providing deeper insights into project management concepts and methodologies.
- Quizzes: Regular quizzes to assess understanding and reinforce learning objectives.
- Peer reviews: Opportunities for peer evaluation and feedback to enhance understanding and collaboration.
- Hands-on projects: Application of learned concepts through the completion of a small virtual project

In addition, during the learning process, faculty can use different methods to achieve the teaching goals in the best way

#### IV. STUDENT'S TASK

- Students must complete the required Coursera courses.
- Attend video lectures and engage with course materials regularly.
- Participate in quizzes to assess comprehension and reinforce learning.
- Collaborate with peers in peer review activities to enhance understanding and learning.
- Complete hands-on projects, including the applied learning project, to apply learned concepts in practical scenarios.

#### V. TEACHING & LEARNING MATERIALS

**Required MOOC courses:**

<https://www.coursera.org/learn/uva-darden-getting-started-agile>

<https://www.coursera.org/learn/uva-darden-agile-team-management>

**Optional MOOC courses:**

<https://www.coursera.org/learn/uva-darden-agile-testing>

<https://www.coursera.org/learn/uva-darden-agile-analytics>

#### VI. SCHEDULE

Module	Domain	Content	CLO
1	Agile Meets Design Thinking	<b>Problems Agile Solves</b>  The agile practices that deliver excellent product are well understood, but they take focus, energy, and confidence to apply. This week, we'll identify what's hard about creating excellent products and how agile can help. We'll begin with a discussion of the Agile Manifesto- what motivated it and how it defines agile. Then we'll get into the practical part- the problems agile solves, how to focus your time and energy, and how you'll know if your practice of agile is working	CLO1, CLO5

2		<p><b>Focus Your Agile with Personas, Jobs-to-be-Done, and Alternative</b></p> <p>The best way to avoid building something nobody wants is to start with somebody in mind. In the design world, we talk about that "somebody" through a 'persona'. Personas and problem scenarios (aka 'jobs-to-be-done') focus development on driving toward a valuable outcome for your user vs. just generating output. In this module, you'll learn to focus your work by developing personas, problem scenarios, and alternatives using best practices from design thinking.</p>	CLO2, CLO5
3		<p><b>Getting to Great Agile User Stories</b></p> <p>Now we're going to transition from drafting personas and hypothesizing user needs to testing those assumptions and translating what you've learned into agile user stories. We'll step through how you create an interview guide to ask your users the right questions and then we'll dive into agile user stories. User stories are a standard feature of agile and serve as a day-to-day focal point for driving to value</p>	CLO3, CLO5
4		<p><b>Focus on Customer Value with User Stories</b></p> <p>The agile user story is your day-to-day focal point for making sure you're building something valuable for your user. It's how you discuss that within your team and how you anchor your subsequent testing. In this module, you'll</p>	CLO3, CLO6

		learn how to facilitate the creation and use of stories within your team	
5	<b>Manage an Agile Team</b>	<b>The Agile Team</b> This week we'll introduce the four fundamental jobs of software development to help you define what's important to your team and, hence, which of the many agile practices might make the most sense for you to try out. Then we'll talk about achieving alignment with your company while maintaining autonomy through an agile team charter. We'll close by stepping through the leading agile methodologies--Scrum, XP, and kanban. You'll finish the week with an understanding of how to pair what's important to your team with the best of what agile has to offer	CIO5, CLO6
6		<b>Learning and Deciding</b> One of the most critical focal points for any team is facilitating a focus on outcomes over output. Without this, you'll never graduate from responding to requests about your to-do list of output to driving better user outcomes that move the needle for your company. This week, you'll learn how to define and prioritize what's important to your team in the areas of learning and deciding, and to pair those with relevant agile practices from Scrum, XP, and kanban	CIO5, CLO6
7		<b>Building and Managing</b> This week we'll dive into the jobs of building software and the core	CIO5, CLO6

		management jobs in running an agile team. Agile--and XP in particular--offers a rich body of work on specific coding practices. We'll step through a few of the most prominent and discuss key linkages with the other concepts and practices you've learned. On the job of managing, we'll dive deeper into what that means and what works in an agile context	
8		<b>Practicing Agile</b> Now that you've learned about the four jobs of software development, you'll have a chance to think through how they relate to your work in this week's peer-reviewed assignment. You'll finish the course with a clear plan to accomplish the jobs of learning, deciding, building, and managing for your project	CLO5, CLO6

## VII. ASSESSMENT

**Conditions for taking the final assessment (FE):** Students must complete all the modules and receive a course completion certificate provided by Coursera.

**Course grade:** The course grade is the weighted average of the following scores:

Assessment type	Symbol	Weight	How
ON-GOING (Coursera)	C	40%	Recorded by Coursera
FINAL ASSESSMENT (Assignment)	FE	60%	- The assignment given by the lecturer - Minimum score: 4/10
Course grade = $C \times 40\% + FE \times 60\%$ Completion Criteria: Course grade $\geq 5$ & Final assessment $\geq 4$ (Score:10) Detailed assessment in the Appendix			

## APPENDIX: DETAILED ASSESSMENT

Assessment Category	Assessment Type	Weight	Minimum value to meet completion criteria	Duration	Learning outcomes	Number of questions	Scope of knowledge and skill of question	How
Assignment	Final	60	4		CLO1-CLO6	1	Summary of the content of all topics	Evaluation based on the requirements of the question