



# SCRUM MASTER PRO

## Syllabus



## iSQI Scrum Master Pro



The International Software Quality Institute (iSQI GmbH), headquartered in Potsdam (DE) with branch offices in Amstelveen (NL), London (UK) and Boston (USA) is a leading provider of certification examinations all over the world.

For more than 10 years, iSQI plays a large role in certifying the know-how of IT professionals in over 90 countries on 6 continents in 10 languages. With over 25,000 certifications per year, iSQI paves the way for successful career development.

iSQI examinations are supported by a global network of accredited training providers. Their expertise in education assists professionals in polishing their knowledge and skills for the certification exams.

iSQI's ISO 9001 compliance is the independently confirmed guarantee for its business partners that all contracts are fulfilled in a secure and high-quality manner. Its ISO 17024 compliant certification processes meet all strict requirements in the day-to-day business practice.

Moreover, iSQI assembles professionals by regularly hosting international conferences. These platforms for experts from the industry and academia foster experience exchanges and business development as well as advancements towards software quality engineering as a matured discipline.

# iSQI Scrum Master Pro

## Course Outcomes

- Understand Scrum as a lightweight agile project management framework and why the Scrum Master needs to understand the framework to effectively facilitate the team through the Scrum process.
- Identify the attributes of Scrum, the Scrum values, core practices, artefacts and ceremonies as the Scrum Master needs to understand these key activities to facilitate, guide and mentor teams and help them become self-managing and self-organising.
- Recognise the format and content of User Stories and how they are estimated and prioritised in order to coach and mentor the team in producing clear and concise user stories and acceptance criteria.
- Appreciate Scrum Planning and the importance of planning in the Scrum process as the Scrum Master has to understand both the release and sprint planning process so that they can effectively facilitate these meetings.
- Comprehend sprints and the design, development and testing within a sprint as the Scrum Master is required to support these processes and be available to remove roadblocks for the team.
- Know why retrospectives and continuous improvement is important to be incorporated in each sprint.

## Syllabus

### Module 1: Origins of Scrum as a Project Management Framework (105 mins)

What is Scrum?	K1
LO 1.1 Overview of Scrum Framework	K1
LO.1.1.0 Be familiar with scrum as a project management framework	
LO 1.2 What is Agile?	K1
LO.1.2.0 Recognise scrum as an iterative and incremental methodology	
LO 1.3 What makes traditional models fail?	K1
LO 1.3.0 Appreciate why traditional models fail	
LO 1.4 History and Background of Agile	K1
LO 1.4.0 Recall the history and background of agile	
LO1.5 Agile Manifesto	K2
LO 1.5.0 Describe the Agile Manifesto	
LO 1.6 Twelve Principles of Agile	K2
LO 1.6.0 Explain the twelve principles of agile	
LO 1.7 Common Attributes of Agile	K1
LO 1.7.0 Recollect the common attributes of agile	
LO 1.8 Just Enough	K3
LO 1.8.0 Recount why “just enough” is important in the Scrum process	
LO 1.9 What Agile is not	K1
LO 1.9.0 Recognise what agile is not	
LO 1.10 How does this relate to the Scrum Master	K2
LO 1.10.0 Explain why the Scrum Master has to understand the Project Management framework	

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**Module 2: Scrum Methodology****(100 mins)**

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LO 2.1 Overview of Framework and Ceremonies	K1
LO 2.1.0 Identify the Scrum framework and ceremonies	
LO 2.2 Attributes of Scrum	K1
LO 2.2.0 Remember the attributes of Scrum	
LO 2.3 Scrum Values	K2
LO 2.3. Explain why Scrum values are important to the scrum team	
LO 2.4 Scrum Core Practices	K1
LO 2.4.0 0 Recall the Scrum core practices	
LO 2.5 Typical Scrum Artefacts	K1
LO 2.5.0 Identify the typical Scrum artefacts	
LO 2.6 Typical Scrum Ceremonies	K2
LO 2.6.0 Understand the typical Scrum ceremonies	
LO 2.7 Scrum Teams	K1
LO 2.7.0 Be aware of the scrum team structure and attributes	
LO 2.8 Roles and Responsibilities	K3
LO 2.8.0 Apply the different roles and responsibilities of the Scrum team	
LO2.9 Balanced Set of Skills	K2
LO 2.9.0 Understand why there is a need for a balanced set of skills for individuals working in Scrum teams	
LO 2.10 How does this relate to the Scrum Master	K2
LO 2.10.0 Explain why Scrum Master has to understand Scrum Methodology	

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**Module 3: User Stories****(165 mins)**

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LO 3.1 What are User Stories?	K1
LO 3.1.0 Recollect the structure of a user story	
LO 3.2 Format and Content of User Stories	K3
LO 3.2.0 Use the format and content of a user story	
LO 3.3 Techniques for gathering User Stories	K1
LO 3.3.0 Identify the techniques for gathering user stories	
LO 3.4 Epics	K1
LO 3.4.0 Identify an epic and have an understanding of why epics are broken down into user stories	
LO 3.5 Acceptance Criteria	K3
LO 3.5.0 Relate why acceptance criteria is important in the user story	
LO 3.6 Story Reviews	K3
LO 3.6.0 Use the process around a user story review	
LO 3.7 Story Prioritisation and Backlog refinement	K1
LO 3.7.0 Appreciate why the user stories are prioritised and understand why this is important	
LO 3.8 Story Estimation (Poker Planning)	K3
LO 3.8.0 Recount why estimation is important and understand how the team arrives at an estimation for a user story	
L.O 3.9 How does this relate to the Scrum Master	K2
LO 3.9.0 Explain why the Scrum Master has to understand User Stories	

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**Module 4: Planning** **(90 mins)**


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LO 4.1 Backlogs	K1
LO 4.1.0 Identify and explain difference between backlogs used in Scrum	
LO 4.2 Time Boxing and Time Boxed development	K1
LO 4.2.0 Remember the reasons for timeboxing and understand why timeboxing is used for all activities associated with Scrum	
LO 4.3 Velocity	K3
LO 4.3.0 Apply velocity and contrast the velocity of a new team with that of an existing team and understand why this changes over time	
LO 4.4 Release Planning	K2
LO 4.4.0 Explain the release planning process	
LO 4.5 Adaptive Planning	K1
LO 4.5.0 Recall adaptive planning and explain why adaptive planning is used in scrum	
LO 4.6 Sprint Planning	K2
LO 4.6.0 Summarise the sprint planning process and describe the activities of sprint planning	
LO 4.7 Scrumboards (Taskboards)	K1
LO 4.7.0 Be familiar with a Scrumboard and recollect the different types of Scrumboards that can be created and why they are used	
LO 4.8 Definition of Done	K2
LO 4.8.0 Describe the Definition of Done and explain how this is associated with a quality release	
LO 4.9 Burndown Charts	K1
LO 4.9.0 Identify the types of Burndown charts used in scrum and recall why they are used	
L.O 4.10 How does this relate to the Scrum Master?	K2
LO 4.10.0 Explain why Scrum Master has to understand Planning	

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**Module 5: Sprint** **(210 mins)**


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LO 5.1 Spikes	K1
LO 5.1.0 Recall why a team may encounter a spike and how a spike is handled in the Scrum process	
LO 5.2 Design	K1
LO 5.2.0 Identify how user stories are elaborated and decomposed and how story mapping can be used	
LO 5.3 Development	K1
LO 5.3.0 Recollect the different types of development practices and how pairing can be used	
LO 5.3.1 Recall why continuous integration and version controlling is important	
LO 5.3.2 Recognise the code refactoring process and understand the advantages of refactoring	
LO 5.4 Testing	K1
LO 5.4.0 Remember why independence in testing is still important in the Scrum process and appreciate the challenges faced when testing	
LO 5.4.1 Recall why defect and issue management in a Scrum project is often different from a traditional project and identify the factors that influence this	
LO 5.5 Technical Debt	K1
LO 5.5.0 Be aware of 'Debt' and the factors that can cause the team to go into 'Debt'	
LO 5.6 Daily Scrum	K3
LO 5.6.0 Use the daily scrum and describe the duration and questions covered in this meeting	
LO 5.7 How does this relate to the Scrum Master	K2
LO 5.7.0 Explain why Scrum Master has to understand Sprint Practices	



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**Module 6: Review, Retrospective and Enterprise Projects (90 mins)**


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LO 6.1 Sprint Review	K2
LO 6.1.0 Understand the sprint review meeting and who is involved	
LO 6.1.1 Describe why, when and how the sprint review meeting is carried out	
LO 6.2 Retrospective and Continuous Improvements	K2
LO 6.2.0. Appreciate the reasons for holding a sprint retrospective and who is involved	
LO 6.2.1 Understand when the sprint retrospective is held and the expected outcome of the meeting	
LO 6.3 Scrum for Large Projects	K1
LO 6.3.0 Recollect how Scrum can be used for large projects and identify the common practices that have been proven on large projects	
LO 6.4 Scrum Methods and Enterprise Projects	K1
LO 6.4.0 Be familiar with Scrum methods and enterprise projects and appreciate the challenges faced when using Scrum for large enterprise system development	
LO 6.5 Multi-Team Co-ordination and Planning	K1
LO 6.5.0 Identify why multi team coordination and planning are important in Scrum particularly for geographically dispersed teams	
LO 6.6 Tools and Automation	K1
LO 6.6.0 Recognise why tools and automation is important in a Scrum process	
L.O 6.7 How does this relate to the Scrum Master	K2
LO 6.7.0 Explain why Scrum Master has to understand Sprint Reviews, Retrospectives and Large projects	

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**Totals**


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K1	30
K2	16
K3	08
All	54

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## Version Control

<b>Version</b>	<b>Date</b>	<b>Change made</b>	<b>Who</b>
V1.1	20/018/2017	First Draft	Matthew Schrader
V1.4	13/09/2017	Updated per Leanne Howard	Maureen Lorenz