

Course Title: Certified SCRUM Master

Duration: 2-days

Course Objective:

SCRUM is a Framework for effective, iterative project management that better enables IT organizations to develop, deliver, and improve valuable products and services.

The SCRUM Master acts as the “servant leader” of a SCRUM team. As the team’s coach and facilitator, the role of the SCRUM Master is to ensure effective working of the Scrum team by protecting the team from external influences, helping to address potential roadblocks for the team, and utilizing SCRUM principles, aspects, and practices to successfully manage projects.

The 2-day SCRUM Master course creates knowledge and skills in

- The six key SCRUM principles
- The five aspects of a SCRUM project
- The 19 processes to initiate, plan and estimate, implement, review and retrospect, and release a project successfully.

Course Outline

- 1) Introduction to SCRUM
 - a. Traditional Waterfall SDLCs
 - b. The Agile Manifesto
 - c. The Creation of SCRUM
- 2) Key SCRUM principles
 - a. Empirical Process Control
 - i. Transparency
 - ii. Inspection
 - iii. Adaptation
 - iv. Self-Organization
 - v. Collaboration
 - b. Self-organization
 - i. Leverage cross-functional team expertise
 - ii. Proactive seeking of work
 - iii. Execution
 - iv. Openness to learning
 - v. Continuous upgrading of knowledge and skills
 - vi. Delivering results
 - vii. Understanding project vision
 - c. Collaboration
 - i. Creating Awareness

- ii. Articulation of Work
 - iii. Appropriation of technology to new situations
 - iv. Mitigation of Risk
 - v. Value of Colocation
 - d. Value-based Prioritization
 - e. Time-boxing
 - i. Efficiency
 - ii. Reduction in overheads
 - iii. High velocity
 - iv. Sprints
 - v. Daily Standup Meetings
 - vi. Sprint Planning Meetings
 - vii. Sprint Review Meetings
 - viii. Retrospect Sprint meetings
 - f. Iterative Development
 - i. Waterfall
 - ii. Progressive Elaboration
 - iii. Scrum vs Traditional Waterfall approaches
- 3) The SCRUM Aspects
- a. Organization
 - i. Scrum Project Roles
 - 1. Core
 - a. Product Owners (VOC)
 - b. ScrumMaster
 - c. Scrum team
 - 2. Non-core
 - a. Other Stakeholders
 - i. Customers
 - ii. Users
 - iii. Sponsor
 - b. Vendors
 - c. Scrum Guidance Body (SGB)
 - ii. Product Owner
 - 1. Responsibilities
 - 2. Voice of Customer (VOC)
 - 3. Chief Product Owners in Larger Projects
 - iii. Scrum Master
 - 1. Responsibilities
 - 2. Chief Scrum Master
 - 3. Scrum of Scrums
 - iv. Scrum Team
 - 1. Responsibilities

- 2. Personnel
 - 3. Team Development and Sizing
- v. Projects, Programs, and Portfolios
- vi. Stakeholder Involvement
- vii. Roles and Responsibilities
- viii. HR Team Models
 - 1. Tuckman's Model (Forming, Storming, Norming, and Performing)
 - 2. Conflict Management
 - 3. Leadership Styles
 - a. Servant Leadership
 - b. Ten Effective Leadership Traits
 - 4. Maslow's Hierarchy of Needs
 - 5. Theory X and Theory Y
- b. Business Justification
 - i. Value Driven Delivery
 - ii. Roles and Responsibilities
 - iii. Key Factors
 - 1. Project reasoning
 - 2. Business Needs
 - 3. Project Benefits
 - 4. Opportunity Cost
 - 5. Major Risks
 - 6. Timescales
 - 7. Costs
 - iv. Assess Business Case
 - v. Continuous Value Justification
 - 1. Earned Value Analysis
 - 2. Cumulative Flow Diagrams
 - 3.
 - vi. Confirming Benefits Realization
 - 1. Prototypes
 - 2. Simulations
 - 3. Demonstrations
 - vii. Justification Techniques
 - 1. Return on Investment (ROI, NPV, IRR)
 - 2. Value Planning
 - a. Value Stream Mapping
 - b. Prioritizing
 - i. Simple Schemes
 - ii. MoSCoW
 - iii. Monopoly Money
 - iv. 100 Point

- v. Kano Analysis
- vi. Relative prioritization Ranking
- vii. Story Mapping

c. Quality

- i. Defining Quality
 - 1. Scope
 - 2. Business Value
- ii. Acceptance Criteria and the Prioritized Product Backlog
 - 1. Minimum AC
 - 2. "Done" Criteria
- iii. Management
 - 1. Planning (integration and sustainable pacing)
 - 2. Control (PDCA)
 - 3. Assurance
- iv. Roles and Responsibilities

d. Change

- i. Approved and Unapproved Change Requests
- ii. Balancing Flexibility and Stability
 - 1. Roles
 - a. Stakeholder Management
 - b. Scrum Core Team
 - c. Senior Management
 - d. Scrum Guidance Body (SCB)
 - 2. Using time-boxing
 - 3. Using cross-functional teams
 - 4. Using value-based prioritization
 - 5. Using continuous integration
- iii. Integrating Change
 - 1. Sprint Changes
 - 2. Impact
 - 3. Grooming the Prioritized Product Backlog
- iv. Managing Changes in Programs and Portfolios
- v. Roles and Responsibilities

e. Risk

- i. Defining Risks vs Issues
- ii. Creating Risk Attitude
- iii. Risk Management
 - 1. Identification Techniques
 - 2. Risk-Based Spike
 - 3. Assessment
 - a. Risk Meetings
 - b. Probability Trees

- c. Pareto Analysis
 - d. Probability Impact Grids
 - e. Expected Monetary Value (EMV)
 - 4. Prioritization
 - 5. Mitigation
 - a. Communications - Risk Burndown Charts
 - 6. Scrum and its role in Minimizing Risk
 - 7. Risk Management in Portfolios and Programs
 - 8. Roles and Responsibilities
- 4) The SCRUM Process Phases
 - a. Initiate
 - i. Create Project Vision
 - 1. Project Vision Meeting
 - 2. JAD Sessions
 - 3. SWOT Analysis
 - 4. Gap Analysis
 - 5. Defining a Product Owner, Vision Statement, Charter, and Budget
 - ii. Identify Scrum Master and Stakeholders
 - iii. Form Scrum Team
 - 1. Collaboration Plan
 - 2. Team Building Plan
 - iv. Develop Epics
 - 1. User Group Meetings
 - 2. User Story Workshops
 - 3. Focus Groups
 - 4. Interviews
 - 5. Questionnaires
 - 6. Risk Identification
 - 7. Writing Epics and Personas
 - v. Create Prioritized Product Backlog
 - 1. Assessment and prioritization Methods
 - 2. Establishing the Backlog
 - 3. Defining Done Criteria
 - vi. Conduct Release Planning
 - 1. Release Planning Sessions
 - 2. Prioritization
 - 3. Release Planning Schedule
 - 4. Sprint Lengths
 - 5. Target Customers
 - b. Plan and Estimate
 - i. Create User stories
 - ii. Approve, Estimate, and Commit User Stories

- iii. Create Tasks
 - 1. Task Planning Meetings
 - 2. Decomposition
 - 3. Dependencies
 - 4. Task Lists
- iv. Estimate Tasks
- v. Create Sprint Backlog and Burndown chart
- c. Implement
 - i. Create Deliverables
 - 1. Scrumboard
 - 2. Impediment Log
 - 3. Change Requests
 - 4. Risk Identification and Mitigation
 - ii. Conduct Daily Standup
 - 1. Three Daily Questions
 - 2. War Room
 - 3. Video Conferencing
 - iii. Groom Prioritized Product Backlog
- d. Review and Retrospect
 - i. Convene Scrum of Scrums
 - 1. Four Questions per Team
 - 2. Leveraging SCB Expertise
 - ii. Demonstrate and Validate Sprint
 - 1. Earned Value
 - 2. Accepted and rejected Deliverables
 - 3. Risk, Planning, and Dependency Updates
 - iii. Retrospect Sprint
 - 1. ESVP
 - 2. Speedbpat
 - 3. Metrics
 - 4. Agreed Actionable Improvements
- e. Release
 - i. Ship Deliverables
 - ii. Retrospect Project