Add-ON Training

Objectives

To provide trainings focused on certification to students pursuing Graduation / Post Graduation and Professionals which will give them an edge in their pursuit of challenging career opportunities.

Certification

Agile

Add-On training is the professional organization accredited with BCS (British Computer Society). This certificate would help an individual to understand the core of Agile and various tools used in the project along with various methodologies in Agile.

Following are the **10 different Modules** as per BCS standards for Foundation in Agile Certification which would be covered in **3 days**

Each of the Certification Package will include:

➔ Hand-Outs Material
➔ Reference Book
➔ Mock test
➔ Paper based Exam
➔ Globally recognized Certificate from BCS, The Charted Institute of IT

Benefits

For Employees

▸ Gain industry recognition as a professional Agile

▸ Validate your skills and knowledge of critical concepts

▸ Based on best practice with practical learning techniques

▸ Globally Recognized

▸ Can align their certification to IT Skills Framework (SFIAplus) which is industry recognised

▸ Helps them benchmark their skills against industry standards

▶ Professional development and advancement for employees

▶ Employees gain practical skills and increase their value to the business

▶ Aligned with SFIAplus providing a clear development path

▶ Greater reliability and higher quality results through use of industry standard practices

▶ Regular assessment process increases employee responsibility

▶ Supports your organisation to retain, motivate and recruit the best people in Agile

What are the learning outcomes?

Candidates should be able to demonstrate knowledge and understanding of Agile Principles and Techniques. Key areas are:
  ➢ Recall the origins of Agile methods
  ➢ Understand and apply the core values and principles of Agile methods
  ➢ Know the difference between the defined process and the empirical processes used in Agile
  ➢ Explain the issues identified in the traditional / waterfall approach
  ➢ Recognize myths that are often attributed with Agile practices
  ➢ Know the different approaches to the empirical model for improvement and change
  ➢ Explain the business culture and the economic case required for Agile
  ➢ Understand the implication of Agile practices on individuals, teams and businesses
  ➢ Explain the way in which we engage customers into an Agile project
  ➢ Know how we respond to change in an Agile project
  ➢ Describe the common Agile roles, techniques and practices

Structure of the Exam

▶ The examination consists of a one hour exam with 40 multiple choice questions.

▶ It will be a 'closed book' examination i.e. no notes or books will be allowed into the examination room.

▶ The pass mark is 65% (26 out of 40).

Who is it aimed at?
The certificate is relevant to anyone requiring an understanding of Agile as well as organizational leaders and managers wanting to understand the value of Agile practices, or those who work in an

Agile environment, including software testers, developers, product owners, business analysts and Scrum Masters.

Entry Requirements

There are no specific pre-requisites for entry to the examination Course Content

DAY 1:

1. **The Agile Manifesto**

   The Agile Manifesto is a set of 4 values and 12 principles that encapsulate the mind set and philosophy at the core of the agile movement and its different methods**.**

   a. Values
   b. Principles

2. **Rationale & Benefits of Agile**

   Agile is an umbrella term describing an approach to work built around transparency, inspection, adaption, collaboration and frequent releases. This section will introduce the rationale behind Agile, its applicability to IT and other relevant industries. It will cover how Agile can help deliver better products compared to traditional approaches and the different models for improvement and change as well as how different business cultures may embrace or resist the introduction of Agile practices.
   a. History of Agile
   b. Empirical and defined processes
   c. The pillars of the empirical process
   d. The waterfall approach
   e. The iron triangle of project constraints
   f. Working with uncertainty and volatility
   g. Agile myths
   h. Empirical models for improvement and change
   i. Business culture and Agile
   k. The economic case for Agile
   l. The lifecycle of product development

3. **Individuals and their Interactions over Processes and Tools**

   Agile puts a very significant emphasis in the human dimension of work. One of its key values reinforces the preference for focus on people and how people work together to deliver improved products. This section will introduce and elaborate on why this is the case
   a.   Motivated and Talented Individuals

b. Emergent design from Self-Organizing Teams

4. **Working Systems over Comprehensive Documentation**

The Agile Manifesto refers to the term 'Working Software'. As Agile is not limited to software development, for the purpose of this syllabus we shall refer to 'Working Systems'. The delivery of working valuable system / product is a key measure of success for an agile development. This section will introduce these values and elaborate on how the delivery of value will enforce the success of agile development

a. Satisfy the Customer with Continuous Delivery of Value
b. Deliver Working Systems Frequently
c. Working Systems as a Measure of Progress
d. Technical Excellence and Good Design

5. **Customer Collaboration over Contract Negotiations**

Successful Agile projects need to have productive collaboration between the development team and the customer. This section will explain how business people need to engage into an agile project, and how to maintain good communication

a. Business People and Developers Must Work Together
b. Face-to-face Communications
c. Reflect and Adjust Regularly

DAY 2:

6. **Responding to Change over Following a Plan**

An advantage of agile practice is the ability to manage changing requirements. This section will explain how changing requirements are accepted, without the development team being overworked.

a. Embrace Change
b. Sustainable Pace
c. Simplicity – The Art of Maximizing the Amount of Work Not Done

7. **Common Agile Roles**

The roles of individuals in an Agile project are important to establish and understand. This section will explain the roles of Customers, Team members, Agile Leaders and Stakeholders. Explaining the generic mind-set and specific roles for differing methodologies.

    a. The Role of the Customer
    b. The Role of the Team
    c. The Role of the Agile Leader
    d. The Role of Stakeholders
    e. The Agile Mindset

8. **Common Agile Techniques**

Defining the requirements in an agile project is an emergent process. This section will examine the techniques used to create requirements as user stories, estimate and prioritize them in the agile emergent way.

    a. User Stories
    b. Acceptance Criteria and Scenarios
    c. MoSCoW Prioritization
    d. Estimation using Story Points
    e. Agile quality assurance and testing

DAY 3:

9. **Common Agile Practices**

There are several practices that are required of an agile development team to fulfill the values and principles of Agile and the empirical process. This section we go through the agile practices used by an agile team, such as Time boxing, Definition of Done, Enough Design Up Front, Big Visible Charts, Reviews and Retrospectives

    a. Short Feedback Loops
    b. Focus on Quality
    c. Emergent Documentation
    d. Visual Boards
    e. Team Synchronization Meeting
    f. Show and Tells
    g. Retrospectives
    h. Continuous Improvement

10. **Relevant Methods and Approaches for Agile Teams**

There are several established methods, frameworks and approaches sympathetic to the principles and values of the Agile Manifesto. This section briefly introduces each of these

a. Scrum
    i. Overview
    ii. Scrum Roles
        - Scrum Master
        - Product Owner
        - Development Team
    iii. Scrum Activities and Artifacts
        - Scrum Framework
    iv. Scrum Process
    v. Product Backlog
    vi. Sprints
    vii. Sprint Planning
    viii. Sprinting
    ix. Daily Scrum
    x. Sprint Review
    xi. Sprint Retrospective

b. XP
    i. The ethos of eXtreme Programming.
    ii. XP principles
        o Fundamental Principles
        o Further Principles
    iii. XP practices
        o Planning Game
        o Small Releases
        o Metaphor
        o Simple Desing
        o Testing
        o Refactoring
        o Pair Programming
        o Collective Ownership
        o Continuous Integration
        o Forty-hour Week
        o On-Site Customer
        o Coding Standards

c. DSDM Atern
    i.DSDM Philosophy and the 8 Principles

ii.Roles and Responsibilities

iii.DSDM Process

iv.Products

v.Practices

- MoSCoW
- Facilitated Workshops
- Modelling
- Time-Boxing
- Iterative Development

vi.DSDM Structured

vii.Project Management

d. Kanban
  i. Six Core Practices
      - Visualise the work; Limit
      - Work-in-progress (WIP)
      - Make policies explicit
      - Measure and manage flow
      - Implement feedback loops
      - Improve collaboratively, evolve experimentally.
  ii. Kanban Models
  iii. Origins
  iv. Kanban and Scrum comparison

e. Lean
  i. Seven Lean Software development principles
      o Estimate Waste
      o Build In Quality
      o Create Knowledge
      o Defer Commitment
      o Deliver Fast
      o Respect People
      o Optimize the Whole
  ii. Twenty two Lean Software development tools

f. Lean Startup
  i. Value hypothesis
  ii. Growth hypothesis
  iii. SAFE (Scaled Agile Framework)
      o SAFe Process Model
      o SAFe Team Level
      o SAFe Program Level

- SAFe Agile Architecture
- SAFe Portfolio Level