

## BCS Systems Development Essentials using Agile Course with Online Exam

Duration: 3 Days    Course Code: SSDE

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### Overview:

Designed for business analysts and anyone new to Agile software development, this course will give you a solid grounding in the essentials of systems development using Agile. **Systems Development Essentials** is a Specialist Practitioner module on the internationally recognised [BCS Diploma in Business Analysis](#).

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### Target Audience:

Business analysts, solution developers, project managers and anyone who needs a thorough practical understanding of the various systems development approaches including the Agile framework. Systems Development Essentials is also a Specialist Practitioner module on the BCS (ISEB) International Diploma in Business Analysis.

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### Objectives:

- An overview of the issues and concepts involved in developing quality business solutions using Agile, the **Systems Development Essentials** course is perfect for business analysts and anyone wishing to learn about Agile software development. Study a number of systems development life cycles, both defined and evolutionary, and examine the context in which different lifecycles could be applied, before focusing on an Agile approach.
  - Topics covered include examining how the systems development effort can be organised; understanding requirements; stakeholders and roles in an agile environment and techniques that support iterative development such as prototyping, hothousing and scenarios.
  - When combined with our **Systems Modelling Techniques** course, this module provides you with the core tools and techniques you'll need to become an effective systems analyst, development team analyst or technical business analyst.
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### Testing and Certification

During this three day course you'll receive all the training you need to prepare for the BCS Systems Development Essentials exam. A pass will contribute (as a Specialist Practitioner module) towards the BCS International Diploma in Business Analysis.

**For delegates attending a classroom, virtual or online course, the exam is a written, scenario based exam, and is to be taken online from your home or office using our remote proctored service, TestReach. The pass mark is 25/50. Please contact us for further details, available dates and to make a booking.**

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## Content:

During this course, you will cover:

### Introduction

- Characteristics of software quality
- The purposes, objectives and tasks of systems development
- Roles and responsibilities in systems development
- Technical and interpersonal skills of the business analysts and solution developers

### Systems architecture

- Enterprise, systems and infrastructure levels of architecture
- Inputs at an enterprise level
- Inputs at system and infrastructure level
- Model Driven Architecture

### Development approaches

- Bespoke development
- Commercial off the shelf (COTS) software package solutions
- Configuring and customising COTS software package solutions
- Component-based systems development
- Service-based solutions and other approaches
- Evolutionary prototyping

### Systems development lifecycles

- Waterfall model
- V model
- Incremental model
- Spiral (evolutionary) model
- Advantages and disadvantages of each approach
- Selection of an appropriate development approach

### Methods and approaches

- Detailed study of the Agile approach including life cycle, deliverables and roles
- Iterative systems development using the DSDM Atern methodology
- Other agile development methodologies (The Unified Process (UP), Scrum, eXtreme Programming)

### Modelling techniques

- Models of the Unified Modeling Language (UML)
- Interpretation and principles of:

- Use case diagram

- Use case description

- Class diagram

- State machine diagram

■ Validating models using a CRUD matrix

Requirements in an Agile environment

■ Fact finding approaches:

- Workshops

- Interviewing

- Questionnaires

- Scenario analysis, storyboarding, user stories and hot-housing

- Model office and focus groups

- Functional requirements definition
- Non-functional requirements definition
- Documenting ; prioritising requirements
- Human aspects of systems investigation and introducing change

Iterative systems development

- Features of iterative development approach
- Prototyping
- Categories of prototype
- Timeboxing
- Prototype development plans

Systems design, implementation and maintenance

- Design principles and constraints (legal, ethical, financial)
- Systems deployment and hand over
- Post-implementation reviews
- Different types of maintenance
- Estimation and development planning

Quality assurance

- Definitions of software quality
- The V model
- Requirements-driven testing
- Static testing: types of walkthrough and inspection
- Post-project reviews

CASE and CAST tools

- Features of Computer-aided Software Engineering (CASE) and Computer-aided Software Testing tools (CAST)
- Life-cycle coverage
- Requirements traceability
- Advantages and disadvantages of software development support tools

### Additional Information:

If this course is part of your BCS Diploma in Business Analysis programme you have a choice of further modules which include the core BA Diploma modules, Business Analysis Practice and Requirements Engineering. Candidates who have already completed Systems Development Essentials also need to pass one of the Foundation Specialisms; in Business Analysis, IS Project Management, Business Change or Commercial Awareness. The structure of the certification is shown [here](#).

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### Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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