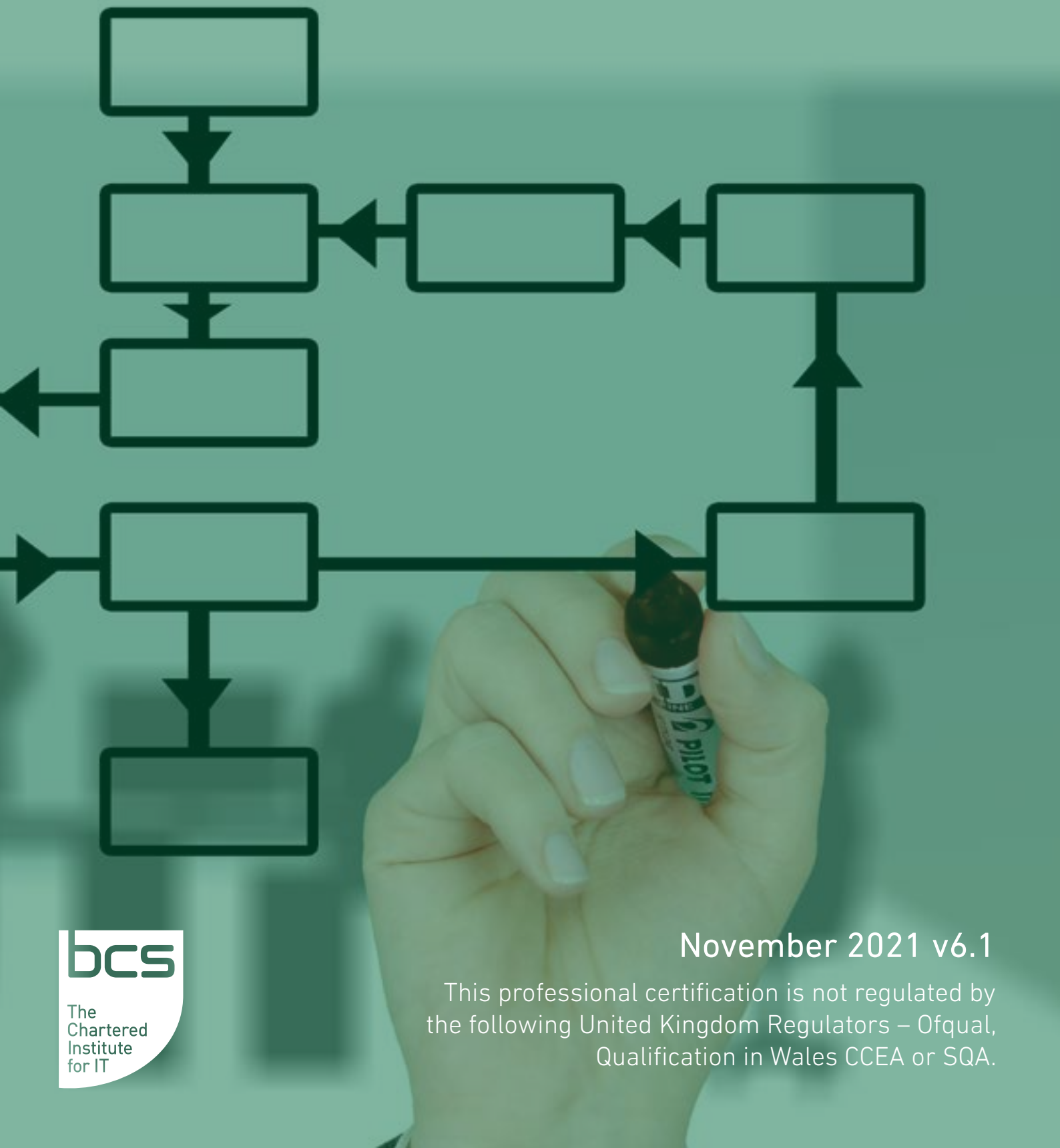
Modelling Business Processes

BCS Practitioner Certificate



November 2021 v6.1

This professional certification is not regulated by the following United Kingdom Regulators – Ofqual, Qualification in Wales CCEA or SQA.

The Chartered Institute for IT

CONTENTS

3. Introduction

4. Qualification Suitability and Overview

4. Trainer Criteria

5. SFIA Levels

6. Learning Outcomes

7. Syllabus

15. Examination Format

15. Question Weighting

16. Recommended Reading

16. Using BCS Books

17. Document Change History

Introduction

The BCS Practitioner Certificate in Modelling Business Processes is designed for those who wish to gain understanding of a range of business process modelling and analysis techniques, know how they are used, and identify when to use them.

The learning in this practitioner certificate explores the context in which modelling techniques are used to improve business processes, examines how modelling occurs at the three levels of the business process hierarchy and considers how change can be managed and implemented.

This syllabus provides an outline of the qualification including the learning objectives and assessment. Further guidance on each **learning objective** (the "what", i.e. what you expected to know and be tested on) has been provided within each topic in the syllabus through the inclusion of **indicative content** (the "how", i.e. the main points/concepts to be covered in the learning and assessment) as well as general **guidance** (the "why", i.e. the relevance, context and expectations on how candidates may be tested on a particular learning objective where there is an need to apply or demonstrate their understanding of a topic).

Qualification Suitability and Overview

While there are no mandatory pre-requisites for candidates to be able to undertake this practitioner certificate, information within the BCS Foundation Certificate in Business Analysis (launched December 2020) precedes the knowledge level of this certificate. It is therefore recommended that the Business Analysis Practice and Requirements Engineering core modules are completed prior to this certificate and candidates have some practical experience of business analysis. Candidates will also need to possess a good standard of written English.

It is recommended that candidates who are inexperienced in the field of business analysis, or who have not previously completed the core modules of the BCS Foundation Certificate in Business Analysis, should thoroughly understand the Business Analysis 4th Edition textbook prior to embarking on further study.

This qualification has been designed to provide valuable learning for those in roles such as business analysts, business managers and members of their team, business change managers and project managers.

This certificate provides value for candidates in entry-level, associate and management level roles. Candidates can study for this certificate by attending a training course provided by a BCS accredited training provider or through self-study.

Total Qualification Time

18 hours

Assessment Time

1 hour

Trainer Criteria

It is recommended that to effectively deliver this certification, trainers should possess one or more of the following:

- Hold a relevant qualification in Business Analysis or another, relevant discipline.
- Have a minimum of 2 years' training experience.
- Have a minimum of 3 years' practical experience in the relevant subject area.

SFIA Levels

This award provides candidates with the level of knowledge highlighted within the table, enabling candidates to develop the skills to operate successfully at the levels of responsibility indicated.

Level	Levels of Knowledge	Levels of Skill and Responsibility (SFIA)
K7		Set strategy, inspire and mobilise
K6	Evaluate	Initiate and influence
K5	Synthesise	Ensure and advise
K4	Analyse	**Enable**
K3	**Apply**	**Apply**
K2	**Understand**	**Assist**
K1	**Remember**	**Follow**

SFIA Plus

This syllabus has been linked to the SFIA knowledge, skills and behaviours required at level 4 for an individual working in Requirements Definition and Management.

KSB01

Acquiring a proper understanding of a problem or situation by breaking it down systematically into its component parts and identifying the relationships between these parts. Selecting the appropriate method/tool to resolve the problem and reflecting critically on the result, so that what is learnt is identified and assimilated.

KSB02

Acquiring understanding and insights regarding the underlying issues in complex problems or situations through the development of abstract representations, the identification of patterns and the analysis of hypotheses.

KSC04

Applying techniques which help investigating, analysing, modelling and recording a business area or system of interest. Example, but not limited to: business environment analysis and process modelling.

KSC04

Using tools (manual or automated) to record the structure, relationships and use of information within an organisation. Examples, but not limited to class diagram and relational data model.

KSC19

Applying standards, practices, codes, and assessment and certification programmes relevant to the IT industry and the specific organisation or business domain.

Further detail around the SFIA Levels can be found at www.bcs.org/levels.

Learning Outcomes

Upon achievement of the certificate, candidates will be able to demonstrate a practical understanding of:

1. The context in which business process modelling occurs.
2. How to construct organisational models of business process at the enterprise level.
3. The use of modelling techniques at the event-response level.
4. The use of modelling techniques at the actor-task level.
5. The approaches used for improving business processes.
6. Considerations when managing and implementing change.

Syllabus

1. The Context for Business Processing Modelling (15%) (K3)

Learners will be able to:

1.1 Demonstrate an understanding of the purpose and benefits of business process modelling.

Indicative content	Guidance
a. Benefits for customers. b. Benefits for business staff. c. Benefits for the organisation.	Candidates should be able to explain the reasons for using business process models and what value these bring to various stakeholders and the organisation.

1.2 Identify the three levels of the business process hierarchy.

Indicative content	Guidance
a. Enterprise level. b. Event-response level. c. Actor-task level.	Business process models provide an organised hierarchy of the value stream and the business processes and tasks. Candidates should be able to describe the activities and processes each level represents and how they relate to each other.

1.3 Explain the importance of the process view versus the functional view of an organisation.

Indicative content	Guidance
a. Organisation chart. b. Enterprise level process.	Deconstructing organisations into functional departments and mapping the ways in which products or services are created are two approaches that enable organisations to manage business processes. Candidates should be able to explain of the advantages and disadvantages of each view.

2. Modelling at the Enterprise Level (15%) (K3)

Learners will be able to:

2.1 Interpret the construction of an organisational model of business process.

Indicative content	Guidance
a. Porter's value chain. b. Value proposition. c. SIPOC. d. Harmon's Organisational Model.	Candidates should demonstrate understanding of activities, elements and areas of models residing at the enterprise level and explain what business processes they represent.

2.2 Explain how the processes on the organisational model support the delivery of the value proposition.

Indicative content	Guidance
a. Product/service attributes that define the product itself (functionality, price, quality, choice, availability or timing). b. Customer relationship aspects. c. Image and reputation aspects.	A value proposition is a key concept for organisations. Its areas of focus clarify outcomes offered by an organisation, demonstrate that what is delivered will meet what customers desire or need, and differentiates organisations from their competitors. An understanding of the organisation's value proposition is essential in helping analysts define the focus and objectives of the business process hierarchy.

3. Modelling at the Event-Response Level (30%) (K3)

Learners will be able to:

3.1 Interpret the construction of a business process model.

Indicative content	Guidance
a. Event. b. Actor. c. Task. d. Swimlane. e. Decision point. f. Fork and join. g. Outcome. h. Process flow. i. Timeline.	Candidates can expect to be tested on their ability to interpret a business process model and explain the role of each element. This may include selecting the correct element.

3.2 Explain why using a standard notation set is important.

Indicative content	Guidance
a. Unified Modelling Language (UML). b. Business Process Model and Notation (BPMN).	All standards for modelling business processes have a defined notation set that includes common elements such as layout, symbols and sequencing. Whether using UML or BPMN, it is important to have a standard way of writing process in order to promote a consistent understanding of operations within and across organisations, avoid ambiguity, improve communication and enable continuous service improvement. Candidates are required to explain the benefits of standardisation and be able to identify the consequences of disregarding conventions.

3.3 Apply knowledge to distinguish between modelling business process terms and describe how they relate to each other.

Indicative content	Guidance
a. Process. b. Task. c. Step.	The term 'process', 'task' and 'step' relate to levels within the business process hierarchy. Candidates will be expected to classify aspects of a given scenario as items to be modelled as 'processes', 'tasks' or 'steps'.

3.4 Demonstrate that a task typically involves one person (actor) at one place at one time, and that it is represented as a single 'box' on a process model.

Indicative content	Guidance
a. OPOPOT (one person, one place, one time).	Each instance of a task is carried out by an actor in one location at a single point in time. This convention is applied to aid the clarity and readability of a process model as it avoids the need to draw each step in a task as an individual box.

3.5 Identify the different types of business events.

Indicative content	Guidance
a. External. b. Internal. c. Time-based.	Business events occur outside the business process under consideration and trigger the process to begin. The events may be internal to the organisation or take place outside of it. Some events are time-related where a business process is automatically initiated at a point in time. Candidates are required to describe and classify various types of events.

3.6 Explain the purpose of process performance measures and the difference between internal performance measures and customers' expectations of performance.

Indicative content	Guidance
a. Financial. b. Customer experience. c. Process efficiency.	Process measures are used to monitor the organisation's performance when delivering products and services and to identify where improvements are required. Measurements should be defined at the three levels of the process hierarchy (enterprise level, event-response level and actor-task level). Candidates should understand issues that may arise if organisations focus on internal performance measures at the expense of customer concerns.

4. Modelling at the Actor-Task Level (15%) (K3)

Learners will be able to:

4.1 Construct a task description.

Indicative content

a. The name of the task.
b. The actor (or role) carrying out the task.
c. The trigger or business event that initiates the task.
d. Any inputs to the task.
e. The outputs expected from the task.
f. The costs associated with the task.
g. The measures that are applicable to the task.
h. The standards that constrain the task.
i. A detailed breakdown of the steps within the task.
j. The business rules that are to be followed in performing the task.

Guidance

The actor-task level of the process hierarchy is concerned with the work conducted within each individual task. While an 'as is' business process model provides insights into some issues, further investigation is required in order to understand improvements needed. Each task within the business process model needs to be analysed, with consideration given to each aspect. To clarify the steps involved in completing a task, candidates should identify and describe the appropriate method of modelling (Structured English, UML activity diagrams, use case descriptions).

4.2 Demonstrate an ability to document the steps and business rules within a task.

Indicative content

a. UML activity diagram notation.
b. Structured English.
c. Use case descriptions.

Guidance

Candidates need to be able to interpret the following standard ways of modelling at the task level: UML activity diagram notation, Structured English and Use case descriptions. Candidates may be asked to identify inconsistencies and mistakes that are presented to them in accordance with a scenario.

Candidates need to be able to interpret the following Structured English constructs:

Sequence: DO...ENDO

Selection: IF...ENDIF, IF...THEN...ELSE...ENDIF

Iteration: DOWHILE...ENDWHILE, DOUNTIL...ENDUNTIL

5. Improving Business Processes (20%) (K3)

Learners will be able to:

5.1 Apply approaches to improving business processes.

Indicative content	Guidance
a. Simplification. b. Redesign. c. Bottleneck removal. d. Change task sequence. e. Redefine boundary. f. Automate processing. g. Robotic Process Automation (RPA).	Generic business process improvement strategies may be applied individually or in combination and candidates are expected to identify suitable improvement strategies for given processes or scenarios. Robotic Process Automation is the building, deployment and management of software robots that emulate human actions interacting with digital systems and software. Candidates are expected to identify that RPA should be used for simple repetitive tasks performed by humans on singular or across multiple IT systems. Candidates should also identify RPA's advantages such as increased consistency, accuracy and quality of data entry, as well as increased time and cost effectiveness.

5.2 Show understanding of the need to challenge business rules and assumptions when improving or automating business processes.

Indicative content	Guidance
a. Simplification. b. Redesign. c. Bottleneck removal. d. Change task sequence.	Business analysts should avoid making assumptions and should be prepared to challenge existing process models. Candidates should be examined on their ability to evaluate given processes and identify aspects that should be challenged.

5.3 Identify the areas of a business process that may contribute to unsatisfactory performance.

Indicative content	Guidance
a. Lack of required skills. b. Insufficient resources. c. Lack of ownership. d. Lack of supporting systems. e. Constraints posed by out-of-date business rules.	Candidates should show understanding of the reason business initiative improvements may fail to be adopted by an organisation.

5.4 Explain the need to test processes through use of business scenario analysis.

Indicative content	Guidance
a. Strengths of scenario analysis.	Scenario analysis involves telling the story of a task or transaction. Scenarios are useful when analysing or redesigning business processes as they help both the staff member and the analyst to think through the steps followed to carry out a piece of work. This enables them to visualise the steps more clearly and to identify where the standard approach may need to deviate.

5.5 Prepare a gap analysis on a 'to be' business process model, in order to identify the functional requirements that could be supported by an IT solution.

Indicative content	Guidance
a. Functional requirements.	IT solutions can be used as an enabler to support business process. Candidates will be given a scenario and asked to identify functional requirements within a process that could be supported by an IT system.

6. Managing and Implementing Change (5%) (K2)

Learners will be able to:

6.1 Describe the considerations of introducing a new process design.

Indicative content	Guidance
a. People, Organisation, Process, Information, Technology (POPIT™). b. The value of POPIT™ in impact assessment.	The POPIT™ model shows the different aspects to be considered when analysing business improvements and identifying required business changes. All areas of the model should be analysed to uncover where problems lie and what improvements might be necessary if the business is to become more effective and efficient. Candidates should be able to explain the importance of considering all elements when introducing a new process design.

6.2 Discuss the use of implementation strategies for implementing business change.

Indicative content	Guidance
a. Direct changeover. b. Parallel running. c. Pilot running. d. Phased implementation.	For change implementation to be successful, the strategy most appropriate in the given context must be selected. Candidates need to consider the advantages and disadvantages of available strategies and choose the one most suitable.

Examination Format

This certificate is assessed through completion of an invigilated online exam which candidates will only be able to access at the date and time they are registered to attend.

Type	40 multiple choice and multiple response questions
Duration	60 minutes
Supervised	Yes
Open Book	No (No materials can be taken into the examination room.)
Passmark	26/40 (65%)
Delivery	Digital

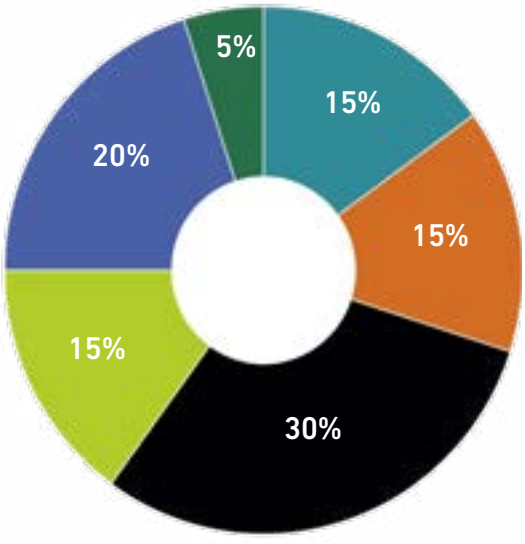
Adjustments and/or additional time can be requested in line with the BCS reasonable adjustments policy for candidates with a disability, or other special considerations including English as a second language.

Question Weighting

Each major subject heading in this syllabus is assigned a percentage weighting. The purpose of this is:

1. Guidance on the proportion of content allocated to each topic area of an accredited course.
2. Guidance on the proportion of questions in the exam.

Syllabus Area	Question type	
1. The Context for Business Processing Modelling	Multiple choice and multiple response	**15%**
2. Modelling at the Enterprise Level	Multiple choice and multiple response	**15%**
3. Modelling at the Event-Response Level	Multiple choice and multiple response	**30%**
4. Modelling at the Actor-Task Level	Multiple choice and multiple response	**15%**
5. Improving Business Processes	Multiple choice and multiple response	**20%**
6. Managing and Implementing Change	Multiple choice and multiple response	**5%**



Recommended Reading

The following titles are suggested reading for anyone undertaking this award. Candidates should be encouraged to explore other available sources.

Title:	Business Analysis (4th Edition)
Author:	Debra Paul and James Cadle
Publisher:	BCS
Publication Date:	July 2020
ISBN:	9781780175102

Note: This title is **required reading** for this certification rather than recommended.

Title:	Business Analysis Techniques:123 essential tools for success
Author:	James Cadle, Debra Paul, Jonathan Hunsley, Adrian Reed, David Beckham, Paul Turner
Publisher:	BCS
Publication Date:	August 2021
ISBN:	9781780175690

Using BCS Books

Accredited Training Organisations may include excerpts from BCS books in the course materials. If you wish to use excerpts from the books you will need a license from BCS. To request a license, please contact the Head of Publishing at BCS outlining the material you wish to copy and the use to which it will be put.

Document Change History

The below summarises any revisions made to this document since first publication.

Version Number	Changes Made
Version 6.1 November 2021	Guidance updated for learning outcomes 3.2, 4.2, 5.1.
Version 6.0 August 2021	Syllabus review and amendments. Introduction and Target Audience sections updated.
Version 5.2 June 2021	Replacement of "or" to "and" on Learning Outcome 4.2.
Version 5.1 March 2020	Amended to closed book. Pass mark details amended post Angoff review. LO 4.2 updated to reflect the use of structured English. Recommended reading list confirmed. Additional guidance added.
Version 4.0 July 2017	Syllabus finalised. Duplicated information removed. Exam format table moved to front. SFIA information moved to front: K-Level adjusted. Information pertinent to ATOs grouped to one section. Examination methodology changed to MCQ Syllabus review and amendments. Change History introduction updated; Standardisation of use of capitals; full stops added to end of every bullet/paragraph; 'Objectives' changed to 'Learning Objectives' throughout and formatting updated to achieve uniformity across the portfolio. Strapline regarding regulated statement has been added. All syllabus sections converted to learning outcome. Refresh on all syllabus content.
Version 3.3 March 2015	Updated language requirements for extra time and use of dictionaries. Standardised the trainer requirements.
Version 3.2 May 2014	Added updated syllabus sections and related comment. Reading list updated.
Version 3.1 August 2012	Added details of extra time for foreign language candidates.
Version 2.2 September 2012	Updated BCS logos and strapline. Standardised headings. Added table of contents, levels of knowledge, levels of skill and responsibility, format of examination, change history and definition terminology. Technical content: Removed Section 2.5 Importance of metrics and measurements.

CONTACT

For any queries relating to this document or the delivery of this award, please contact;

T: 01793 417445

E: bcssales@bcs.uk

If you have any queries relating to the online assessments, please contact;
Service Delivery - eprofessional@bcs.uk

For further information please contact:

BCS
The Chartered Institute for IT
3 Newbridge Square
Swindon
SN1 1BY

T +44 (0)1793 417 445

www.bcs.org

bcs
The Chartered Institute for IT