

## **BCS Foundation Certificate** in Business Change Syllabus

Version 3.2

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# **BCS Foundation Certificate in Business Change Syllabus**

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## **BCS Foundation Certificate in Business Change**

## **Change History**

Version Number	Changes Made
Version 3.2 September 2012	The addition of business change frameworks, models and techniques
Version 3.1 July 2012	Named changed from IT Enabled Business Change. Added in details of extra time for foreign language candidates. Sections 7 & 8 removed. Sections 1 – 6 extended. Section 1 was 15% now 10%. Section 2 was 15% now 20%. Section 3 was 10% now 20%. Section 4 was 15% now 20% Section 5 was 15 % remains 15%.
Version 3.0	Added Learning hours to Format of the Examination. ISEB replaced with BCS throughout the document. No change to the technical content of the syllabus.
Version 2.0	Re-formatted based on new branding guidelines – no change to content.

## Introduction

The BCS Foundation Certificate in Business Change provides an entry qualification for anyone wishing to understand the process and techniques used in delivering business change.

The syllabus is based upon a business change lifecycle which incorporates the techniques, frameworks and models used in business change activities. The certificate is relevant for anyone who requires an understanding of business change.

The certificate provides a foundation for the BCS Certificates in Business Analysis Practice, Requirements Engineering, IS Consultancy Practice, Benefits Management and Business Acceptance, and Modelling Business Processes.

## The BCS Foundation Certificate in Business Change

The BCS Foundation Certificate in Business Change delivers a holistic view of the business change lifecycle and the activities, techniques and models employed when carrying out business change work. Much of the focus is on the use of Information Technology (IT) to enable business change. It is important to consider IT in the context of business needs and as a driver for business change, if the benefits from using IT are to be maximised.

The BCS Foundation Certificate in Business Change will be awarded to candidates who are able to demonstrate knowledge and understanding of the principles, approaches and techniques used to conduct business change activities. The key areas of the syllabus include:

- Business and IS strategy
- Business improvement definition
- Business change design and implementation
- Benefits management and realisation

## Studying for the Foundation Certificate in Business Change

Candidates can study for this certificate in two ways: by attending training courses provided by Accredited Training Organisations or by self study. An accredited training course will require a minimum of 21 hours of study run over a minimum of three days. A reading list to support self-study is provided below.

## **Entry Requirements**

There are no formal entry requirements for accredited courses.

#### The Duration and Format of the Examination

A one-hour closed book examination consisting 40 multiple-choice questions. The pass mark is 26/40.

## Additional Time for Candidates requiring Reasonable Adjustments

Candidates may request additional time if they require reasonable adjustments. Please refer to the reasonable adjustments policy for detailed information on how and when to apply.

## Additional Time for Candidates whose business language is not English

An additional 15 minutes will be allowed for candidates sitting the examination:

- in a language which is not their mother tongue, and
- where the language of the exam in **not** their primary business language

Foreign language candidates who meet the requirements above are also entitled to the use of a paper dictionary (to be supplied by the candidate). Electronic dictionaries are not permitted.

The candidate registration form asks for the candidate to state if they think they are entitled to additional time, if they are BCS will automatically allocate additional time.

## **Excerpts from BCS Books**

Training Providers 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 do this. If you are interested in taking out a licence to use BCS published material you should contact the Head of Publishing at BCS outlining the material you wish to copy and the use to which it will be put.

## **Syllabus**

## 1. Business Change Principles (10%)

Learning Objective: To appreciate the principles, process and roles involved in business change.

- 1.1. The distinction between IT projects, pure business change projects and the IT enabled business change projects
- 1.2. The distinction between IT as a driver and IT as an enabler
- 1.3. The degrees of business change
- 1.4. The distinction between improving business operations and improving business information
- 1.5. IT as a core competence and the implications for the outsourcing business model
- 1.6. The business change lifecycle
- 1.7. The stages in the business change life cycle
- 1.8. The identification, analysis and management of stakeholders
- 1.9. The business, project and external stakeholders
- 1.10. The roles and responsibilities of key stakeholders:
  - Sponsor/Senior Responsible Officer
  - Business Analyst
  - Programme Manager
  - Project Manager
  - Business Change Manager
  - Business Actor
  - Developer

## 2. Business and IT Alignment (20%)

Learning Objective: To understand the importance of aligning the organisation with external and internal influences and the approaches used to do this.

- 2.1. Aligning the organisation with the External Environment, the Vision, Mission, Objectives, Strategy and Tactics, and the Enterprise Architecture
- 2.2. The external and internal business environments for organisations
  - The importance of understanding external environment influences
  - The importance of analysing the internal organisational capability
  - The importance of understanding culture
- 2.3. Organisational Cultures
- 2.4. National Cultures
- 2.5. The implications of culture for business change projects
- 2.6. Corporate and IT governance and the relevance to benefits management and risk management
- 2.7. Elements of an Enterprise Architecture

## 3. Business Improvement Definition (20%)

Learning Objective: To understand the business analysis approach and techniques used to identify business improvements.

- 3.1. Investigating the business situation: rationale and techniques
- 3.2. Holistic approach and systems thinking
- 3.3. Gap analysis: purpose and approach
- 3.4. Business requirements elicitation and analysis
- 3.5. The contents of the business case
  - Options
  - Costs
  - Benefits
  - Risks
  - Impacts
  - Decisions
- 3.6. Stakeholder responsibilities and the business case
- 3.7. The business case lifecycle
- 3.8. Programme definition
  - The change programme
  - The relationship between programmes and projects
  - The role of the programme office

## 4. Business Change Design (20%)

Learning Objective: To design the inter-related elements required to implement successful business change.

- 4.1. Aspects of organisational change
  - The organisation structure: boundaries and relationships
  - Organisation performance measurement
- 4.2. Aspects of people change
  - Defining roles and jobs
  - Defining required skills and competencies
  - Managing performance of individuals
  - Communications planning
- 4.3. Aspects of process change
  - The distinction between the functional and process views
  - The elements of a business process
  - 'As is' and 'To be' business processes
  - Modelling tasks
  - Improving business processes
- 4.4. Information analysis and modelling
  - Information management modelling
  - Levels and types of information
  - Information modelling and the representation of business rules
- 4.5. Aspects of information technology
  - Systems development lifecycles: bespoke and off the shelf software solutions
  - Architecture and service management concerns

## 5. Business Change Implementation (15%)

Learning Objective: To understand the processes that should be employed to deploy business change effectively.

- 5.1. Planning the acquisition, deployment and acceptance
- 5.2. Acquiring the solution
  - Pros and cons of bespoke deployment
  - Pros and cons of off the shelf software solutions
  - Business acceptance testing
- 5.3. Deploying the solution
  - Roles required to deploy business change
  - Approaches to deploying business change
  - The change process unfreeze, transition, refreeze
- 5.4. Ensuring acceptance
  - Emotional impact of changes
  - The learning cycle
  - Analysing the forces that assist and resist change
- 5.5. Reviewing the change
  - Purpose of post-implementation review
  - The distinction between PIR and benefits review

## 6. Benefits Management and Realisation (15%)

Learning Objective: To manage the classification, review and realisation of benefits.

- 6.1. Benefits management in the business change lifecycle
- 6.2. Classifying benefits
- 6.3. Investment appraisal techniques
- 6.4. Benefits and the Balanced Business Scorecard, CSFs and KPIs
- 6.5. Roles and responsibilities in benefits management
- 6.6. The purpose, conduct and outcomes of a benefits review
- 6.7. Benefits realisation: significance and challenges

## **Business Change Frameworks, Models and Techniques**

#### **Business change principles**

The section of the syllabus introduces the key models, principles and concepts used in business change work.

## **Business Change Lifecycle**

The business change lifecycle is made up of five stages. These are:

**Business and IT** Ensuring the alignment of the organisation with external and

Alignment internal influences.

**Business Improvement** The analysis of business situations and the definition of the

Definition programme of required business improvements.

**Business Change Design** The design of the inter-related elements comprising the

business changes.

**Business Change** The deployment of the business changes. **Implementation** 

**Benefits Realisation** The review and realisation of the predicted business

benefits.

#### Venkatraman's Business Transformation Model

Venkatraman's model shows five degrees of IT Enabled Business Transformation. These levels represent increasing levels of business change and benefits:

**Evolutionary** Localised Exploitation Deployment of individual systems. For

> example, the use of a specific system such as a sales support package within a customer services environment.

Use of IT across a business process. Integral Integration May include a replacement of existing

systems by an integrated package, for example to link distribution to customer

services.

Revolutionary **Business Process** IT is used as a lever to redesign the

> Redesign organisation and the business

> > processes. Use of IT to change the relationships

**Business Network** 

Redesign and information exchange across the

participants in a business network of

organisations.

Business Scope The use of IT to redefine the business Redefinition

scope, including partnerships with other

organisations.

#### 4-view Model

The 4-view model is used to ensure a holistic view is taken of a business situation. The four areas are:

Organisation: the structure, roles and resources the actors carrying out the work

**Processes:** the business processes that deliver the products and services **Technology:** the infrastructure and systems that support the work or the

organisation

#### Stakeholder Wheel

A stakeholder can be defined as anyone with an interest in the business change. The stakeholder wheel sets out categories of stakeholder, both internal and external to the organisation.

Internal: Employees, Managers, Owners

**External:** Customers, Partners, Suppliers, Regulators, Competitors.

## Stakeholder Analysis

Stakeholders may be analysed and categorised using the power/interest grid. Individual stakeholders or groups of stakeholders are plotted on the grid using the two axes: level of power of the stakeholder; level of interest the stakeholder has in the business change project.

This categorisation helps form the basis for engaging with stakeholders and managing stakeholder communication.

## **Business and IT Alignment**

This section of the syllabus considers the forces that influence the direction and strategy of an organisation.

## **PESTLE**

PESTLE provides a framework that may be used to analyse the forces within an organisation's external business environment. The results of a PESTLE analysis are used to populate the opportunities and threats elements of the SWOT.

**Political:** Political factors derive from Government policies and priorities.

**Economic:** Economic factors relate to the state of the economy (or

economies for multi-national organisations).

**Socio-Technical:** Socio-cultural factors derive from the needs of the market and

the customers.

**Technological:** Technological factors are concerned with developments in

technology, including information technology.

**Legal:** Legal factors derive from laws and regulations.

**Environmental:** Environmental factors derive from concerns about the natural

environment.

#### Porter's 5-Forces

Porter's 5-Forces model is used to analyse a business domain or industry. The results of a 5-forces analysis may be used to populate the opportunities and threats elements of the SWOT. The five forces that are analysed are:

- Threat of new entrants
- Rivalry among existing firms
- Bargaining power of suppliers
- Bargaining power of buyers
- Threat of substitute products or services

#### **VMOST**

VMOST provides a framework for the examination of the direction and focus of an organisation. The results of a VMOST analysis can be used to populate the strengths and weaknesses elements of the SWOT.

**Vision:** The overall vision of the future for the organisation.

**Mission:** The high level direction set for the organisation.

**Objectives:** The defined goals to be achieved by the organisation.

**Strategy:** The means of achieving the goals over the medium to long

term.

**Tactics:** The detailed means of delivering the strategy over the short

term.

#### **SWOT**

A SWOT analysis provides a summary of the key strengths and weaknesses of the organisation and the external opportunities and threats that face it.

## Handy's Organisational Culture

Handy identified four types of organisational culture:

**Power Culture:** A culture where power is centralised with the most senior

person in the organisation.

**Role Culture:** A culture where a bureaucracy exists with highly structured,

well-documented procedures.

**Task Culture:** A culture where work is done through empowerment, flexibility

and teams.

**Person Culture**: A culture that is focused around individuals who are likely to be

connected by strong values.

#### Hofstede's International Culture

Hofstede researched the culture of different nations, initially identifying four dimensions and later adding a fifth. The dimensions are measured along a spectrum from high to low.

**Power Distance** A society with high power distance is one in which the members

expect that power is distributed unequally and are less likely to

question the person at the top.

**Individualism** A society with high individualism is one in which the ties between

individuals are loose. People are expected to look after themselves and their family. The opposite is Collectivism.

**Masculinity** A society with high masculinity is one where values such as

assertiveness and competitiveness are prevalent and where women are less likely to be treated as equals. The opposite is

Femininity.

**Uncertainty** A society may have a low tolerance for uncertainty and ambiguity

**Avoidance** or a high tolerance for uncertainty and ambiguity.

**Orientation** A society may value perseverance and have a long-term

orientation or alternatively may have a short-term orientation.

Hofstede added this fifth dimension later.

## **Enterprise Architecture**

The business change cycle recognises the importance of the alignment of business and IT strategy in the initial phase. An Enterprise Architecture (EA) is a target model of the organisation covering both business components (processes and information) and technology components (applications and infrastructure).

These give rise to the four main components of an EA:

- Business processes
- Information (and data)
- IT Applications
- IT Infrastructure

#### Zachman

One of the most well-known Enterprise Architecture frameworks is the Zachman framework. This model contains the following two dimensions:

The rows: six levels – Scope (Contextual), Business Model (Conceptual), System Model (Logical), Technology Model (Physical), Component model (Configurable), Functioning Enterprise (Operational).

The columns: six core questions – What? (Data), How? (Function), Where? (Network), Who? (People), When? (Time), Why? (Motivation).

The intersection of the levels and questions results in a matrix of 36 cells. Traditionally IT has focused on the bottom three levels of the Zachman framework whereas business change is mostly concerned with the top three levels. This syllabus is concerned with the top three levels of the model.

#### **TOGAF**

The Open Group Architecture Framework (TOGAF) is a framework for developing an Enterprise Architecture. There are four elements to the framework.

- Business architecture
- Data architecture
- Applications architecture
- · Technology architecture

## **Risk Heat Maps**

A risk heat map is used to plot risks against two axes: level of impact and level of probability. Appropriate risk strategies may be considered depending upon the cell of the heat map to which the risk is allocated. For example; low probability, low impact risks would fall into a 'green' cell so the strategy may be to accept the risk; a high probability, high impact risk would fall into a 'red' cell and so would require actions to be taken to manage the risk.

## **Business Improvement Definition**

The objective of this section of the syllabus is to provide an understanding of the business analysis approach to identifying business improvements. It introduces tools and approaches used to investigate business situations, model business systems and evaluate options for business improvement through the production of a business case.

- Investigation techniques
- Interviews
- Workshops
- · Background research
- Observation

## Soft Systems Methodology (SSM)

A methodology devised by Professor Peter Checkland and his team at Lancaster University. The methodology comprises seven stages and provides an approach to the investigation and analysis of problem situations in organisations.

#### Stages:

- The problem situation: unstructured and expressed
- Root definitions of relevant systems
- Conceptual models
- Comparison of the expressed model with the conceptual model
- Feasible, desirable changes
- Action to improve the situation

#### **CATWOE**

An approach devised by Professor Peter Checkland to analyse perspectives on a business system. CATWOE stands for:

CustomerThe beneficiaries of the systemActorThose performing the transformation

**Transformation** The activities that convert the input into the output

World View (or The stakeholder's beliefs, values and priorities regarding the

Weltanschauung) system

**Owner** The person with the power to start up or close down the system,

as well as to make key decisions regarding the transformation.

**Environment** The external constraints outside the scope of the system and

the control of the owner. These constraints have to be taken as

given.

## Requirements engineering framework

The requirements engineering framework is a process for undertaking a disciplined and rigorous approach to the requirements process. There are five areas:

**Requirements Elicitation** Gathering the requirements.

**Requirements Analysis**Reviewing the requirements to remove

inconsistencies and duplication, organising the requirements and prioritising the requirements. External review of the requirements to ensure

**Requirements Validation**External review of the requirements to ensure that they have been defined at the required level

of accuracy and detail.

**Requirements Documentation**Recording the information about the requirements

and modelling the requirements.

Requirements Management Managing changes to the requirements in order

to ensure traceability.

## Requirements classification

Requirements are classified into four major types. These are:

Functional requirements Features the solution must offer

**Non-functional requirements** The level of performance provided by the solution

in areas such as speed of response, usability,

capacity and security.

General requirements

Business constraints and business policies with

which the solution must comply.

**Technical requirements**Hardware and software constraints with which the

solution must comply.

## **Business case lifecycle**

Lifecycle stage	Business case stage
Feasibility study	Initial business case produced to assess feasibility before major resources committed
Requirements analysis and specification	Business case confirmed after detailed requirements defined
Solution design	Business case reviewed and confirmed once detailed development costs have been estimated
Solution development and implementation	Business case revisited before deployment of the solution
Post implementation	Benefits predicted in the business case are reviewed

## **Business Change Design**

This section of the syllabus covers the main areas required to design business changes effectively, including the organisational, people, information, technology and process aspects.

#### Porter's value chain

A model that may be used to identify and analyse the primary activities that collaborate to deliver value to an organisation's customers. The model also identifies areas of support activity that enable the primary activities to work effectively.

## **Business process modelling**

A modelling technique used to show the following aspects of a business process:

Event triggering the process

- Actors (swimlanes)
  - Tasks
  - Decisions
  - Process flow
  - Outcome

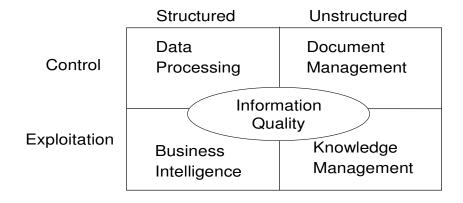
## **Information Management Model**

The Information Management Model categorises information according to two dimensions:

Information can be categorised as structured or unstructured. Structured data includes financial numbers, such as price or sales revenue, which will normally be held in a fixed format. Examples of unstructured data include a free format address or a picture.

Information may also be controlled or exploited. Controlled means ensuring that it is secure and legally compliant. Exploited means analysed and used for organizational advantage.

These dimensions are shown in the *Information Management Model*.



Source: Dr Sharm Manwani, Henley Management College

The contents of the quadrants are:

**Data Processing** The processing and control of structured data.

**Document** The control of unstructured data.

Management Business

The consolidation and analysis of structured data.

Intelligence

**Knowledge** The process of sharing knowledge; some that is written down **Management** (explicit) and some that is understood but not stated (tacit).

**Information Quality** This central element ensures that the information contained in all four quadrants is fit for purpose.

#### Information modelling – Entity Relationship Diagram notation

The structured approach to modelling information sets. Key components:

- Entities
- Relationships
- Degree and optionality of the relationships

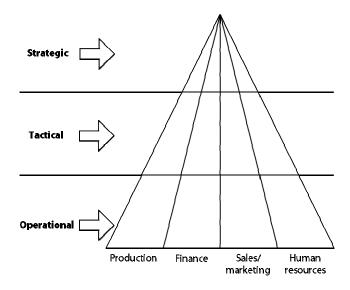
## Information modelling - Class Diagram notation

The UML approach to modelling information sets. Key components:

- Classes
- Attributes
- Operations
- Associations
- Multiplicity of the associations

## **Anthony's Triangle**

This model shows three horizontal views of organisational data: operational, tactical and strategic levels. These views are then sectioned vertically to take a functional view of the data across the three levels.



## **Systems Development Lifecycles**

Approaches used to develop IT systems. Systems development lifecycles include:

- The waterfall approach
- The V model
- The incremental model
- The spiral model

## **Business Change Implementation**

This part of the syllabus concerns the activities that should be employed in the implementation of business change programmes.

## Implementation approaches

Approaches to implementing business change:

- Pilot
- Parallel running
- Phased
- 'Big bang'.

## Force field analysis

A technique used to consider the forces supporting a change proposal and those forces that will oppose it. The strength of each force is also considered.

## Learning cycle

The four stages of learning:

- Unconscious incompetence
- Conscious incompetence
- · Conscious competence,
- Unconscious competence

#### **Emotional curve**

This is a model representing the emotions felt during the change process. Two scales - self-esteem and time are modelled. Five emotional stages are identified: shock, anger, rejection, acceptance and hope.

## **Benefits Management**

One of the most essential parts to any business change programme is to ensure that the benefits are identified, classified and managed so that they are realised. This section covers the benefits management process.

## Benefits management process

A process for ensuring that benefits are identified, classified, quantified (when possible) monitored and realised. During a change project, benefits are reviewed when relevant to ensure that they are still valid or to assess the impact of changes upon the benefits. Following the deployment of the change, a series of benefits reviews should take place, comparing actual benefits with those that have been predicted. A benefits realisation report will be produced as a result of these reviews. Further actions may be identified which will support the realisation of the benefits.

- Benefits classification
- Observable
- Measurable
- Quantifiable
- Financial

Investment appraisal techniques

Investment appraisal concerns the financial evaluation of a proposed investment. Three key techniques:

PaybackCashflow forecast for the investment using current valuesDiscounted CashCashflow forecast for the investment using discounted values to

Flow/Net Present take account of the time value of money

Value

Internal Rate of Calculation of a percentage discount rate that returns a Net

**Return** Present Value of zero

## Balanced business scorecard, CSFs, KPIs

Definition of business performance measures using four perspectives:

- Financial
- Customer
- Internal business process
- Learning and Growth

#### Reading References

IT-Enabled Business Transformation: from Automation to Business Scope Redefinition. N Venkatraman, Sloan Management Review, Winter 1994, Page 73.

Business Analysis Techniques: 72 Essential Tools for Success. J Cadle, D Paul, P Turner. BCS IT-Enabled Business Change. S Manwami. BCS

## Levels of Knowledge

This course will provide candidates with the levels of difficulty / knowledge highlighted within the following table, enabling them to develop the skills to operate at the levels of responsibility indicated. The levels of knowledge are explained in the following text. Note that each K level subsumes lower levels. For example, a K4 level topic is one for which a candidate must be able to analyse a situation and extract relevant information. A question on a K4 topic could be at any level up to and including K4. As an example, a scenario requiring a candidate to analyse a scenario and select the best risk identification method would be at K4, but questions could also be asked about this topic at K3 and a question at K3 for this topic might require a candidate to apply one of the risk identification methods to a situation.

## Level 1: Remember (K1)

The candidate should be able to recognise, remember and recall a term or concept but not necessarily be able to use or explain. Typical questions would use: define, duplicate, list, memorise, recall, repeat, reproduce, state.

#### Level 2: Understand (K2)

The candidate should be able to explain a topic or classify information or make comparisons. The candidate should be able to explain ideas or concepts. Typical questions would use: classify, describe, discuss, explain, identify, locate, recognise, report, select, translate, paraphrase.

#### Level 3: Apply (K3)

The candidate should be able apply a topic in a practical setting. The candidate should be able to use the information in a new way. Typical questions would use: choose, demonstrate, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write.

#### Level 4: Analyse (K4)

The candidate should be able to distinguish/separate information related to a concept or technique into its constituent parts for better understanding, and can distinguish between facts and inferences. Typical questions would use: appraise, compare, contrast, criticise, differentiate, discriminate, distinguish, examiner, question, test.

#### Level 5: Synthesise (K5)

The candidate should be able to justify a decision and can identify and build patterns in facts and information related to a concept or technique, they can create new meaning or structure from parts of a concept. Typical questions would use: appraise, argue, defend, judge, select, support, value, evaluate.

## Level 6: Evaluate (K6)

The candidate should be able to provide a new point of view and can judge the value of information and decide on its applicability in a given situation. Typical questions would use: assemble, contract, create, design, develop, formulate, write.

## Levels of Skills and Responsibility (SFIA Levels)

The levels of knowledge above will enable candidates to develop the following levels of skill to be able to operate at the following levels of responsibility (as defined within the SFIA framework) within their workplace:

#### Level 1: Follow

Work under close supervision to perform routine activities in a structured environment. They will require assistance in resolving unexpected problems, but will be able to demonstrate an organised approach to work and learn new skills and applies newly acquired knowledge.

#### Level 2: Assist

Works under routine supervision and uses minor discretion in resolving problems or enquiries. Works without frequent reference to others and may have influence within their own domain. They are able to perform a range of varied work activities in a variety of structured environments and can identify and negotiate their own development opportunities. They can also monitor their own work within short time horizons and absorb technical information when it is presented systematically and apply it effectively.

#### Level 3: Apply

Works under general supervision and uses discretion in identifying and resolving complex problems and assignments. They usually require specific instructions with their work being reviewed at frequent milestones, but can determines when issues should be escalated to a higher level. Interacts with and influences department/project team members. In a predictable and structured environment they may supervise others. They can perform a broad range of work, sometimes complex and non-routine, in a variety of environments. They understand and use appropriate methods, tools and applications and can demonstrate an analytical and systematic approach to problem solving. They can take the initiative in identifying and negotiating appropriate development opportunities and demonstrate effective communication skills, sometimes planning, scheduling and monitoring their own work. They can absorb and apply technical information, works to required standards and understand and uses appropriate methods, tools and applications.

#### Level 4: Enable

Works under general direction within clear framework of accountability and can exercise substantial personal responsibility and autonomy. They can plan their own work to meet given objectives and processes and can influence their team and specialist peers internally. They can have some responsibility for the work of others and for the allocation of resources. They can make decisions which influence the success of projects and team objectives and perform a broad range of complex technical or professional work activities, in a variety of contexts. They are capable of selecting appropriately from applicable standards, methods, tools and applications and demonstrate an analytical and systematic approach to problem solving, communicating fluently orally and in writing, and can present complex technical information to both technical and non-technical audiences. They plan, schedule and monitor their work to meet time and quality targets and in accordance with relevant legislation and procedures, rapidly absorbing new technical information and applying it effectively. They have a good appreciation of the wider field of information systems, their use in relevant employment areas and how they relate to the business activities of the employer or client.

#### Level 5: Ensure and advise

Works under broad direction, being fully accountable for their own technical work and/or project/supervisory responsibilities, receiving assignments in the form of objectives. Their work is often self-initiated and they can establish their own milestones, team objectives, and delegates responsibilities. They have significant responsibility for the work of others and for the allocation of resources, making decisions which impact on the success of assigned projects i.e. results, deadlines and budget. They can also develop business relationships with customers, perform a challenging range and variety of complex technical or professional work activities and undertake work which requires the application of fundamental principles in a wide and often unpredictable range of contexts. They can advise on the available standards, methods, tools and applications relevant to own specialism and can make correct choices from alternatives. They can also analyse, diagnose, design, plan, execute and evaluate work to time, cost and quality targets, communicating effectively, formally and informally, with colleagues, subordinates and customers. They can demonstrate leadership, mentor more junior colleagues and take the initiative in keeping their skills up to date. Takes customer requirements into account and demonstrates creativity and innovation in applying solutions for the benefit of the customer.

#### Level 6: Initiate and influence

Have a defined authority and responsibility for a significant area of work, including technical, financial and quality aspects. They can establish organisational objectives and delegates responsibilities, being accountable for actions and decisions taken by them self and their subordinates. They can influence policy formation within their own specialism to business objectives, influencing a significant part of their own organisation and customers/suppliers and the industry at senior management level. They make decisions which impact the work of employing organisations, achievement of organisational objectives and financial performance, developing high-level relationships with customers, suppliers and industry leaders. They can perform highly complex work activities covering technical, financial and quality aspects. They contribute to the formulation of IT strategy, creatively applying a wide range of technical and/or management principles. They absorb complex technical information and communicate effectively at all levels to both technical and non-technical audiences, assesses and evaluates risk and understand the implications of new technologies. They demonstrate clear leadership and the ability to influence and persuade others, with a broad understanding of all aspects of IT and deep understanding of their own specialism(s). They take the initiative in keeping both their own and subordinates' skills up to date and to maintain an awareness of developments in the IT industry.

## Level 7: Set strategy, inspire and mobilise

Have the authority and responsibility for all aspects of a significant area of work, including policy formation and application. They are fully accountable for actions taken and decisions made, by both them self and their subordinates. They make decisions critical to organisational success and influence developments within the IT industry at the highest levels, advancing the knowledge and/or exploitation of IT within one or more organisations. They develop long-term strategic relationships with customers and industry leaders, leading on the formulation and application of strategy. They apply the highest level of management and leadership skills, having a deep understanding of the IT industry and the implications of emerging technologies for the wider business environment. They have a full range of strategic management and leadership skills and can understand, explain and present complex technical ideas to both technical and non-technical audiences at all levels up to the highest in a persuasive and convincing manner. They have a broad and deep IT knowledge coupled with equivalent knowledge of the activities of those businesses and other organisations that use and exploit IT. Communicates the potential impact of emerging technologies on organisations and individuals and analyses the risks of using or not using such technologies. They also assess the impact of legislation, and actively promote compliance.

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

## Format of the Examination

This syllabus has an accompanying examination at which the candidate must achieve a pass score to gain the BCS Foundation Certificate in Business Change.

Туре	40 Question Multiple Choice
Duration	1 Hour - Candidates sitting the examination in a language other than
	their primary business language may request an additional 15
	minutes as well as the use of a paper dictionary
Pre-requisites	Accredited training is strongly recommended but is not a pre-requisite
Supervised/Invigilated	Yes
Open Book	No
Pass Mark	26/40
Learning Hours	21 hours
Distinction Mark	None
Delivery	Paper based examination only

## **Glossary of Terms**

## **Activity Sampling**

An investigation technique carried out to determine the amount of time individuals spend on different aspects of their work. Activity sampling is a form of observation and involves the collection of data that may be used for statistical analysis.

#### Actor

A role that is modelled on a swimlane diagram or a use case diagram. Actors are usually user roles and show the work carried out by an individual or a group of individuals. An actor may also be another system or time.

#### **Balanced Scorecard**

A Balanced Business Scorecard supports a strategic management system by capturing both financial and non-financial measures of performance. There are usually four quadrants – Financial, Customer, Process, Learning & Growth. The balanced business scorecard was developed by R. S. Kaplan, and D. P. Norton.

#### Benefits Realisation

A process that is concerned with the delivery of the predicted business benefits defined in the business case. This process includes managing projects such that they are able to deliver the predicted benefits and, after the project has been implemented, checking progress on the achievement of these benefits and taking any actions required to enable their delivery.

#### Benefits Review

The benefits review focuses on the business benefits that the business change was meant to deliver. These benefits will have been defined in the business case and will include those which have been quantified in the investment appraisal. Benefits are typically predicted for a number of years and so the benefits review is really a series of annual reviews. The benefits review identifies which benefits have been achieved, which have not been achieved (and why) and it will also consider unanticipated benefits that have occurred as a result of the business change. Actions may be agreed, with the benefit owner, for realizing the predicted benefits which have not yet been achieved. Lessons learnt from the benefits review will be fed back into the organization's benefits management process. The benefits review might also commission work to help quantify business benefits which were presented as intangible benefits in the business case, because they could not be reliably estimated in advance.

#### **Business Actor**

Someone who has an interest in a project, either because they have commissioned it, they work within the business system being studied or they will be the users of a proposed new IT system. See Stakeholder.

#### **Business Analysis**

An internal consultancy specialism that has the responsibility for investigating business situations, identifying options for improving business systems and bridging the needs of the business with the use of IT.

#### **Business Capability**

The capacity of an organisation to provide services to customers.

#### **Business Case**

A document that describes the findings from a business analysis study and presents a recommended course of action for senior management to consider. A business case would normally include an introduction, management summary, description of the current situation,

options considered, analysis of costs and benefits, impact assessment, risk assessment, recommendations, plus appendices that provide detailed supporting information.

## **Business Activity Model**

A conceptual model that shows the set of business activities that would be expected to be in place given the business perspective from which it has been developed. There are five typical types of business activity represented on a business activity model. These are: planning, enabling, doing, monitoring and controlling activities. See Business Perspective.

## Business Change Lifecycle

The stages of a business change project. These are:

Business and IT Alignment
Business Improvement Definition
Business Change Design
Business Change Implementation
Benefits Management and Realisation

#### **Business Change Management**

The process of managing the organisation through the business change lifecycle.

## **Business Continuity**

The process and procedures an organisation puts in place to ensure that essential functions can continue during and after a disaster. Business continuity planning seeks to prevent interruption of mission-critical services, and to re-establish full operation as swiftly and smoothly as possible.

#### **Business Environment**

See External Business Environment, Internal Business Environment.

#### **Business Event**

A business event triggers the business system to do something. Typically this is to initiate the business process that forms the business system response to the event. In effect, the business events tell us when a business activity should be triggered; it fires into life the process that carries out the activity. There are three types of business event: external, internal and time-based business events.

#### Business Intelligence

Summary information that is used to manage the business of an organisation. It is derived from internal operational data and information about the external environment.

#### **Business Option**

A key step in developing a Business Case is to identify the options available to address the business problem or opportunity. A business option describes what a proposed solution is intended to achieve in business terms. See Technical Option.

## **Business Perspective**

A view of the business system held by a stakeholder. The business perspective will be based upon the values and beliefs held by the stakeholder. There may be several divergent business perspectives for any given business situation. See CATWOE.

## **Business Process**

A set of tasks performed by a business in response to a business event. The business process receives, manipulates and transfers information or physical items, in order to produce an output of value to a customer. See Business Process Model.

#### **Business Process Model**

A diagram showing the tasks that need to be carried out in response to a business event, in order to achieve a specific goal. See Swimlane Diagram.

## Business Requirements Elicitation

The proactive investigation and collection of requirements for a solution required to resolve a business problem or enable a business opportunity. See Requirements Elicitation

#### **Business Rule**

Business rules define how business activities are to be performed. It is important that these rules are considered when modelling the processing to carry out the activity. There are two main types of business rule: constraints that restrict how an activity is performed; operational guidance that describe the procedures for performing activities.

## **Business Sponsor**

A senior person in an organisation who is accountable for delivering the benefits from a business change.

## **Business Strategy**

A strategy describes the medium to long-term approach defined for an organisation in order to achieve the organisational objectives.

## **Business System**

A set of business components working together in order to achieve a defined purpose. The components of a system include people, IT systems, processes and equipment. Each component may be a system in its own right. See IT System.

#### **Business User**

An individual member of staff involved in a business change project from the customer side of the equation. A business user may adopt a number of business roles including business sponsor, domain expert and end user of a solution.

#### Catwoe

A technique from the Soft Systems Methodology that provides a framework for defining and analysing business perspectives. The mnemonic stands for: C – customer, A – actor, T – transformation, W – world view (or weltanschauung), O – owner, E – environment. See Business Perspective, Soft Systems Methodology.

## Change Control

A process whereby changes to requirements are handled in a controlled fashion. The change control process defines the process steps to be carried out when dealing with a proposed change. These steps include documenting the change, analysing the impact of the change, evaluating the impact of the change in order to decide upon the course of action to take. The analysis and decisions should be documented in order to provide an audit trail relating to the proposed change.

## Change Management

An approach used to facilitate the transition from an existing business state to a desired business state. The change management process supports stakeholders, helping them to accept and adopt the business changes.

## Class

A class is a definition of the attributes and operations shared by a set of objects within a business system. Each object is an instance of a particular class. See OBJECT.

#### Class Model

A model from the Unified Modeling Language (UML). A class model describes the classes in a system and their associations with each other.

#### Competency

A competency is a skill or quality an individual needs to perform his or her job effectively.

## Computer-Aided Software Engineering (Case)

An automated tool that provides facilities to support requirements engineering work. These facilities will include the production and storage of documentation, management of cross-references between documentation, restriction of access to documentation and management of document versions. A tool providing a sub-set of this is sometimes known as a Computer-Aided Requirements Engineering (Care) Tool.

#### Core Competence

A business capability that provides customer benefits and is hard for competitors to imitate.

#### Cost-Benefit Analysis

A technique that involves identifying the initial and ongoing costs and benefits associated with a business change initiative. These costs and benefits are then categorised as tangible and intangible and a financial value calculated for those that are tangible. The financial values are analysed over a forward period in order to assess the potential financial return to the organisation. This analysis may be carried out using standard investment appraisal techniques. See Payback Period (or Break-even Analysis) and Discounted Cash Flow/Net Present Value Analysis.

#### Critical Success Factors

The areas in which an organisation must succeed in order to achieve positive organisational performance.

#### Data Warehouse

A storage facility for large amounts of data that has been collected from various locations prior to analysis and summary.

#### Discounted Cash Flow

An investment appraisal technique that takes account of the time value of money. The annual net cash flow for each year following the implementation of the change is reduced (discounted) in line with the estimated reduction in the value of money. The discounted cash flows are then added to produce a net present value. See Net Present Value.

## Enterprise Architecture

The architecture comprising the processes, information, people, technology, infrastructure and motivation of an organisation.

#### Enterprise Resource Planning

An integrated set of applications that support the operational business processes of an organisations.

#### Entity Relationship Diagram

A diagram produced using the entity relationship modelling technique. The diagram provides a representation of the data to be held in the IT system under investigation. See Entity Relationship Modelling.

**Entity Relationship Modelling** 

A technique that is used to model the data required to support an IT system. The technique models the data required to describe the 'things' the system wishes to hold data about – these are known as the 'entities' – and the relationships between those entities.

#### Explicit Knowledge

The knowledge of procedures and data that is foremost in the business users' minds, and which they can easily articulate. See Tacit Knowledge.

#### External Business Environment

The business environment that is external to an organisation and is the source of forces that may impact the organisation. Types of forces may include the introduction of new laws, social trends or competitor actions. See PESTLE Analysis, Five Forces Analysis.

## Force Field Analysis

A technique to consider those forces inside and outside the organisation that will support the adoption of a proposal and those that will oppose it. This technique was developed by Kurt Lewin and may be used in evaluating options for change and in change management.

#### **Functional Requirement**

A requirement that is concerned with a function that the system should provide, in other words 'what' the system needs to do.

## Gap Analysis

The comparison of two views of a business system, the current or 'as is' view and the 'desired' or 'to be' view. The aim of gap analysis is to determine where the current situation has problems or 'gaps' that need to be resolved. This leads to the identification of actions to improve the situation. The business activity modelling technique may be used to provide an ideal view which can then be compared with a view of the current situation. An alternative approach is to use the business process modelling technique, using 'as is' and 'to be' process models.

#### Holistic Approach

The consideration of all aspects of a business system, the people, process and organisational areas, in addition to the information and technology used to support the business system.

#### Incremental Approach

An approach that delivers a developed or procured software solution in phases.

#### Impact Analysis

The consideration of the impact a proposed change will have on a business system and on the people working within it.

#### Information

Data that has been organised and arranged in such a way that it conveys meaning within a given context.

#### Information Management

The storage, control and exploitation of information in order to enable its effective use within an organisation.

#### Intangible Benefit

A benefit to be realised by a business change project for which a credible, usually monetary, value cannot be predicted. See Tangible Benefit.

Intangible Cost

A cost incurred by a business change project for which a credible, usually monetary, value cannot be predicted. See Tangible Cost.

#### Internal Business Environment

The internal capability of the organisation that affects its ability to respond to external environment forces. Techniques such as MOST analysis or the Resource Audit may be used to analyse the capability of the internal business environment. See MOST ANALYSIS and Resource Audit.

#### Internal Rate Of Return

A calculation that assesses the return on investment from a project, defined as a percentage rate. This percentage is the discount rate at which the Net Present Value is equal to zero and can be used to compare projects to see which provides the better investment opportunities. Alternatively, this rate may be used to compare projects with an internal pre-set rate that all projects need to achieve.

#### IT-Enabled Business Change

The use of information technology as a basis for improving the operation of an organisation.

#### Interview

An investigation technique whereby a meeting is held with a business actor in order to elicit information. An interview agenda is prepared prior to the interview and distributed to participants. The interview is carried out in an organised manner and a report of the interview is produced once the interview has been concluded.

#### It Governance

The accountability framework that ensures management responsibility for the two key goals: ensuring that the investments in IT generate business value and balancing the risks associated with IT investment against the return delivered.

#### It System

A set of automated components hosted on a computer that work together in order to provide services to the system users. See Business System.

#### Key Performance Indicators

These are defined performance areas that may be measured in order to assess the performance of an organisation. Key performance indicators are often identified in order to assess the organisation's performance in the areas defined by the critical success factors. See Critical Success Factors.

## Net Present Value

The amount an investment is worth once all of the net annual cash-flows in the years following the current one are adjusted to today's value of money. The net present value is calculated using the discounted cash flow approach to investment appraisal. See Discounted Cash Flow.

#### Non-Functional Requirement

A requirement that defines a constraint or performance measure that the system or the functional requirements must comply with.

#### Object

An object is something within a business system for which a set of attributes and functions can be specified. An object is an instance of a class. See Class.

### Option

A possible solution to a business problem. Options are evaluated in a business case in terms of their costs, benefits, risks and impacts.

## Organisation Structure

A diagram showing the departments and staff of an organisation.

#### Organisation Boundary

The identification of the scope of an organisation, indicating the activities and units that are within the organisation and clarifying the interactions with external parties such as partners, suppliers and customers.

## Organisational Culture

The values, behaviours and symbols adopted by an organisation.

#### Outsourcing

The use of external suppliers to provide services in place of internal functions or departments.

## Payback Calculation

An investment appraisal technique where a cash-flow forecast for a project is produced using the current values of the incoming and outgoing cash flows, that is with no attempt to adjust them for the declining value of money over time. See Discounted Cash Flow.

#### Performance Measurement

Measures that enable managers to monitor the results from activities in order to identify successful achievement in line with organisational goals.

#### **PESTLE**

A technique used to analyse the external business environment of an organisation. The technique involves the analysis of the Political, Economic, Socio-Cultural, Technological, Legal and Environmental forces that may impact upon an organisation. See Business Environment.

#### Porter's 5 Forces

A technique used to analyse forces prevalent within an industry or business domain.

#### Post Implementation Review

A post implementation review focuses on the delivered product (often an IT system). It takes place relatively soon after the product has been delivered. It concerns itself with such issues as: does the software reliably and correctly meet its agreed functional and non-functional requirements; how was the project conducted and are there lessons to be learnt? Actions are agreed to tackle issues raised at the review and feedback lessons learnt into organisational standards.

#### Programme

A suite of interdependent projects that are required to deliver business change.

## Programme Manager

The person responsible for planning, co-ordinating, monitoring and controlling a suite of projects that will deliver required business changes.

## **Project**

An organisation structure by which a team performs related activities within a defined scope and constraints, in order to produce required deliverables and achieve a specific objective.

#### Project Initiation Document (PID)

A document that defines the business context for a project and clarifies the objectives, scope, deliverables, timescale, budget, authorities and available resources.

Project Manager

The person responsible for planning, resourcing, monitoring and controlling a project.

#### **Process**

See Business Process.

#### Process Model

See Business Process Model.

#### Requirement

A feature that the business users need the new system to provide.

#### Requirements Catalogue

An organised set of requirements where each individual requirement is documented using a standard template. See Requirement.

#### Requirements Elicitation

Requirements Elicitation is an approach to understanding requirements that requires the analyst to be proactive in drawing out the requirements from the business users, and helping them to visualise the possibilities and articulate their requirements.

#### Requirements Management

Requirements Management aims to ensure that each requirement is tracked from inception to implementation (or withdrawal) through all of the changes that have been applied to it.

#### Rich Picture

A pictorial technique offering a free format approach that allows analysts to document whatever is of interest or significance in the business situation. This technique originated from the Soft Systems Methodology. See Soft Systems Methodology.

#### Risk

A problem situation that may arise with regard to a project or business situation. Potential risks are identified for each option in a business case and, following assessment, suitable countermeasures are identified. See Business Case.

#### Risk Management

The identification, assessment, monitoring and control of significant risks during the development, design and implementation of IT systems.

#### **Root Definition**

A perspective of a business situation based upon an individual world view that gives rise to a valid business system. See CATWOE.

#### Smart

A mnemonic used to ensure that objectives are clearly defined in that they are specific, measurable, achievable, relevant, time-framed.

## Soft Systems Methodology

A methodology that provides an approach to analysing business situations devised by Peter Checkland and his team at Lancaster University.

#### Software Package

An IT application that is purchased rather than subject to bespoke development. Often known as Commercial off-the-shelf (COTS) packages.

#### Stakeholder

An individual, group of individuals or organisation with an interest in the change. Categories of stakeholder include customers, employees, managers, partners, regulators, owners, suppliers and contractors.

#### Stakeholder Analysis

The analysis of the levels of power and interest of a stakeholder in order to assess the weight that should be attached to their issues. This technique provides a means of categorising stakeholders in order to identify the most appropriate stakeholder management approach.

## Stakeholder Management

The definition of the most appropriate means to be adopted in order to engage with different categories of stakeholder. The approach to each stakeholder will be different depending on their level of interest in the project and (b) the amount of power or influence they wield to further or obstruct it.

## Strategic Analysis

The application of techniques in order to analyse the pressures within an organisation's external business environment and the level of internal organisational capability to respond to these pressures.

#### Strategy

The direction and scope of an organisation over the longer term. The strategy is defined in order to achieve competitive advantage for the organisation through its configuration of resources within a changing business environment. The strategy also needs to fulfil the stakeholders' expectations.

#### Swimlane

A row on a business process diagram/model that indicates who is responsible for a given process or task. Typical swim lanes represent departments, teams, individuals or IT systems.

#### Swimlane Diagram

A technique used to model business processes. A swimlane diagram models the business system response to a business event. The model shows the triggering event, the business actors, the tasks they carry out, the flow between the tasks, and the business outcome. See Business Process Model.

#### **SWOT Analysis**

A technique used to summarise the external pressures facing an organisation and the internal capability the organisation has available to respond to those pressures. The mnemonic stands for Strengths, Weaknesses, Opportunities and Threats. SWOT analysis is used during strategy analysis.

#### Systemic Thinking

An approach that considers a business situation as if it were a system of integrated component systems.

#### Tacit Knowledge

Those aspects of business work that a user is unable, or omits, to articulate or explain. This may be due to a failure to recognise that the information is required or to the assumption that the information is already known to the analyst. See Explicit Knowledge.

### Tangible Benefit

A benefit to be realised by a business change project for which a credible, usually monetary, value can be predicted. See Intangible Benefit.

**Tangible Cost** 

A cost incurred by a business change project for which a credible, usually monetary, value can be predicted.

See Intangible Cost.

#### Task

On a Business Process Model Or Swimlane Diagram, a piece of work carried out by a single actor at a specific moment in time.

#### Task Modelling

A technique for developing a model which describes the human activities and task sequences required by a business system. The task model elaborates the tasks identified by mapping business processes onto specific individuals or workgroups.

## **Technical Option**

A technical option describes how a business solution may be implemented using information technology.

## Unified Modeling Language

The Unified Modeling Language (UML) is a set of models that may be used to model business and IT systems.

#### **Use Case**

A use case is something that an actor wants the business or IT system to do; it is a "case of use" of the system by a specific actor and describes the interaction between an actor and the system.

## Use Case Description

A use case description defines the interaction between an actor and a use case.

#### Use Case Model

A model from the Unified Modeling Language (UML). A use case model consists of a diagram showing the actors, the use cases and the associations between them, plus a set of use case descriptions.

#### Value Proposition

The value that a product or service delivers, or is perceived to deliver, to an organisation's customers.

#### VMOST Analysis

An analysis of an organisation's Vision, Mission, Objectives, Strategy and Tactics to identify any inherent strengths or weaknesses, for example from a lack of strategic direction or unclear objectives. See Internal Business Environment.

#### Work Practice Modelling

The classification of business staff and the definition of user roles in order to provide a basis for job design.

## Workshop

An investigation technique whereby a meeting is held with business actors from a range of business areas in order to elicit, analyse or validate information. An agenda is prepared prior to the workshop and distributed to participants. The workshop is run by a facilitator; actions and decisions are recorded by a scribe.