Institute for Apprenticeships & Technical Education

Higher technical qualification submission form

Awarding body information

Awarding body information

What is the name of the awarding body?
BCS, The Chartered Institute for IT

Is the awarding body a higher education provider?
No

Is the awarding body on the Ofqual register?
Yes

Qualification information

Qualification information

You can only submit one qualification for each form. If you are submitting multiple qualifications you must start a new form for each qualification. Please include the name of the qualification as it appears on Ofqual register or UCAS. Include the size of the qualification. e.g. award, certificate, diploma

What is the name of the qualification?
BCS Level 4 Diploma in Data Analysis Tools and Concepts

Is the qualification on the Ofqual register?
Yes

What is the level of the qualification?
Level 4

Route and occupational standards

Route and occupational standards

Awarding bodies must demonstrate that a qualification will enable a person to demonstrate that they have attained as many of the knowledge, skills and behaviours set out in the standard as may be reasonably expected by undertaking a course of education.

Please note:

- Qualifications will only be considered for approval against occupational standards approved by the

Institute.

If qualifications have optional units or pathways, we will only approve qualifications where every possible combination of units/ pathways ensures that a learner achieves competence in at least one occupation for which there is a standard. Qualifications with optional units that do not ensure this should be redesigned or remove optional units that do not align to occupations.

Awarding bodies must fill out all sections of this form. They must also submit supporting documentation to provide evidence of the following:

- The content of the qualification (for example, the specification of content)
- Evidence of employer engagement in the development and validation of the qualification (for example this could be within the qualification design and validation documentation that was used through the development of the qualification which evidences where and how employers were involved)

Which route does the qualification fall under?
Digital

Which occupational standards are aligned to the qualification?
Data analyst/Level: 4

Attach documents

Please attach the following documents:

- The content of the qualification (for example, the specification of content)
- Evidence of employer engagement in the development and validation of the qualification (for example this could be within the qualification design and validation documentation that was used through the development of the qualification which evidences where and how employers were involved)

Data analyst

Data analyst

Knowledge, skills and behaviours coverage within the qualification

Please identify which knowledge, skill and behaviour statements from the occupational standard are covered within the qualification.

Where knowledge, skill and behaviour statements are covered, please provide a reference to the qualification content. This should be a unit or module reference along with associated page/paragraph/line numbers (as appropriate) in the attached specification. Please be as specific as possible which content in the qualification aligns to the statement in the standard.

Where knowledge, skill or behaviour statements are partially covered or not covered, you will be asked to provide a rationale for the exclusion of this content from the qualification. The employer engagement evidence provided should support this rationale.

The following questions assess how knowledge, skill and behaviour statements from the occupational standards are covered within the qualification.

This page has automatically generated an item for each knowledge, skill and behaviour statement (KSB) contained within the chosen standard. So please do not remove or add any further KSBs, as it requires the exact number.

KSBgenerator

KSB

KSB 1

K1 Current relevant legislation and its application to the safe use of data.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
5.1, 7.1, 7.2, 7.3 (pages 21, 26)

KSB 2

K2 Organisational data and information security standards, policies and procedures relevant to data management activities.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
1.1, 1.2, 1.3, 4.2, 7.1, 7.2, 7.3, 10.1, 10.2 (pages 18, 19, 20, 26, 29, 30)

KSB 3

K3 Principles of the data life cycle and the steps involved in carrying out routine data analysis tasks.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
2.1, 2.2 (page 19)

KSB 4

K4 Principles of data, including open and public data, administrative data, and research data.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
1.2 (page 18)

KSB 5

K5 The differences between structured and unstructured data.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
1.1, 1.2, 1.3, 3.1, 3.2, 3.3, 3.4, 3.5 (pages 18, 19, 20)

KSB 6

K6 The fundamentals of data structures, database system design, implementation and maintenance.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
1.1, 1.2, 1.3, 3.1, 3.2, 3.3, 3.4, 3.5, 9.1, 9.2, 9.3, 9.4, 9.5 (pages 18, 19, 20, 27, 28, 29)

KSB 7

K7 Principles of user experience and domain context for data analytics.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
11.1, 11.2 (page 30)

KSB 8

K8 Quality risks inherent in data and how to mitigate/resolve these.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
5.1,5.2, 5.3, 5.4 (pages 21, 22)

KSB 9

K9 Principal approaches to defining customer requirements for data analysis.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
4.1, 4.2, 4.3, 4.4 (pages 20, 21)

KSB 10

K10 Approaches to combining data from different sources.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
3.3, 6.5 (pages 20, 23)

KSB 11

K11 Approaches to organisational tools and methods for data analysis.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
4.1,4.2, 4.3, 4.4 (pages 20, 21)

KSB 12

K12 Organisational data architecture.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
6.1, 6.2, 6.3, 6.4, 6.5 (pages 22, 23, 24, 25, 26)

KSB 13

K13 Principles of statistics for analysing datasets.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
6.4 (page 25)

KSB 14

K14 The principles of descriptive, predictive and prescriptive analytics.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?

11.1, 11.2 (page 30)

KSB 15

K15 The ethical aspects associated with the use of and collation of data.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
10.1, 10.2 (pages 29, 30)

KSB 16

S1 Use data systems securely to meet requirements and in line with organisational procedures and legislation, including principles of Privacy by Design.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
7.1, 7.2, 7.3 (page 26)

KSB 17

S2 Implement the stages of the data analysis lifecycle.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
9.3, 9.4 (pages 28, 29)

KSB 18

S3 Apply principles of data classification within data analysis activity.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
8.1, 8.2 (page 27)

KSB 19

S4 Analyse data sets taking account of different data structures and database designs.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
6.1, 6.2, 6.3, 6.4, 6.5 (pages 22, 23, 24, 25, 26)

KSB 20

S5 Assess the impact on user experience and domain context on the data analysis activity.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
11.1, 11.2 (page 30)

KSB 21

S6 Identify and escalate quality risks in data analysis with suggested mitigation/resolutions as appropriate.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
5.1, 5.2, 5.3, 5.4 (pages 21, 22)

KSB 22

S7 Undertake customer requirements analysis and implement findings in data analytics planning and outputs.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
4.1, 4.2, 4.3, 4.4 (pages 20, 21)

KSB 23

S8 Identify data sources and the risks, challenges to combination within data analysis activity.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
5.1, 5.2, 5.3, 5.4, 3.4, 3.5 (pages 21, 22, 20)

KSB 24

S9 Apply organizational architecture requirements to data analysis activities.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
10.1, 10.2 (pages 29, 30)

KSB 25

S10 Apply statistical methodologies to data analysis tasks.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
6.4 (page 25)

KSB 26

S11 Apply predictive analytics in the collation and use of data.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
6.4 (page 25)

KSB 27

S12 Collaborate and communicate with a range of internal and external stakeholders using appropriate styles and behaviours to suit the audience.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
3.5, 6.4, 6.5 (pages 20, 25, 26)

KSB 28

S13 Use a range of analytical techniques such as data mining, time series forecasting and modelling techniques to identify and predict trends and patterns in data.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
6.4, 6.5 (pages 25, 26)

KSB 29

S14 Collate and interpret qualitative and quantitative data and convert into infographics, reports, tables, dashboards and graphs.

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
6.4, 6.5 (pages 25, 26)

KSB 30

S15 Select and apply the most appropriate data tools to achieve the best outcome.

Is the statement covered within the qualification?

Fully covered

Where within the qualification is the statement covered?
6.5 (page 26)

KSB 31

B1 Maintain productive, professional and secure working environment

Is the statement covered within the qualification?
Fully covered

Where within the qualification is the statement covered?
7.1, 7.2, 7.3 (page 26)

KSB 32

B2 Shows initiative, being resourceful when faced with a problem and taking responsibility for solving problems within their own remit.

Is the statement covered within the qualification?
Not covered

Please provide an explanation for the omission or partial coverage of this statement from the qualification.
This is a behaviour that needs to be developed in a context or situation such as a workplace or an activity which allows the learner to show initiative and take responsibility for solving problems.

KSB 33

B3 Works independently and collaboratively.

Is the statement covered within the qualification?
Not covered

Please provide an explanation for the omission or partial coverage of this statement from the qualification.
This is a behaviour that needs to be developed in a context or situation such as a workplace or an activity which allows the learner to show initiative and take responsibility for solving problems and an opportunity to work independently and collaboratively.

KSB 34

B4 Logical and analytical.

Is the statement covered within the qualification?
Partially covered

Where within the qualification is the statement covered?
5.2 (page 21)

Please provide an explanation for the omission or partial coverage of this statement from the qualification.
This is a behaviour that needs to be developed in a context or project to allow the learner to show a

logical and an analytical approach to the activity.

KSB 35

B5 Identifies issues quickly, enjoys investigating and solving complex problems and applies appropriate solutions. Has a strong desire to push to ensure the true root cause of any problem is found and a solution is identified which prevents recurrence.

Is the statement covered within the qualification?
Not covered

Please provide an explanation for the omission or partial coverage of this statement from the qualification.
This is a behaviour that needs to be developed in a context or situation such as a workplace or an activity which allows the learner to show initiative and take responsibility for solving complex problems.

KSB 36

B6 Demonstrates resilience by viewing obstacles as challenges and learning from failure.

Is the statement covered within the qualification?
Not covered

Please provide an explanation for the omission or partial coverage of this statement from the qualification.
This is a behaviour that needs to be developed in a context or situation such as a workplace or an activity which allows the learner to show initiative and take ownership of project outputs and outcomes.

KSB 37

B7 Demonstrates an ability to adapt to changing contexts within the scope of a project, direction of the organisation or Data Analyst role.

Is the statement covered within the qualification?
Not covered

Please provide an explanation for the omission or partial coverage of this statement from the qualification.
This is a behaviour that needs to be developed in a workplace context or situation to show adaptability.

Additional occupationally relevant content

Additional occupationally relevant content

Item 1

As well as the content aligned to the knowledge, skills and behaviours in the occupational standard, the qualification can include additional occupationally relevant content which is deemed of value to employers. Awarding bodies are asked to justify any content that does not directly align to the occupational standard, using evidence from employers.

Content should be identified at a unit or modular level and each item should be added separately by using the Add Item button. If the qualification does not include any additional content, please leave this section blank.

Unit or module containing additional content

Please give a short description of the additional content

Where within the qualification is the additional content covered?

Please provide an explanation of how the content is relevant to the occupation, including evidence from employers that supports its inclusion in the qualification.

Assessment methods
Assessment methods

Please confirm that the assessment covers all of the content relevant to the knowledge, skills and behaviours in the occupational standard.
Yes

Please outline the methods used to assess the content and provide a rationale for why these methods are valid for the qualification.
Multiple Choice Questions, dynamic exam bank.

Employer engagement
Employer engagement

Please describe how employers and industry practitioners were consulted throughout the development of the qualification, including:

- the process of identifying and recruiting relevant employers

- how employers were involved in the development, review and validation of the qualification materials.

Please describe how employers and industry practitioners were consulted throughout the development of the qualification.
During the original development process, a 'blueprint' session was held for each of the modules. The blueprint session is a feedback meeting where the draft syllabus learning outcomes are shared with the providers and they are asked to give their opinion on whether the learning outcomes:

- Are suitable to test the knowledge
- Are pitched at the right level
- Contain the appropriate depth and breadth in order for them to teach the content
- Are missing anything

The session was carried out in person and active discussion was encouraged. The feedback was then taken away, considered, and acted on appropriately.

Over 700 candidates have taken these modules as part of their apprenticeship programme, for context this data puts this qualification suite as one of the most popular for BCS.

One of our leading Approved Training Providers confirmed in December 2020 that Sainsbury's and Argos see value in this qualification.