



Institute for Apprenticeships & Technical Education

Higher technical qualification submission form

Awarding body information

Awarding body information

What is the name of the awarding body?

New College Durham

Is the awarding body a higher education provider?

Yes

Is the awarding body on the Office for Students 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?

FdSc Business Computing

Is the qualification on the Ofqual register?

No

If the qualification is not regulated by Ofqual, the organisation owning the qualification must be OfS regulated. This is typically the case of qualifications from Higher Education Providers. For organisations which are Ofqual regulated, the specific qualification must be on the Ofqual register for the application to be progressed. The form will not prevent continuing if this is not completed, but your application cannot be progressed by the approval managers following submission if the awarding organisation is regulated by Ofqual but the qualification is not.

What is the level of the qualification?

Level 5

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?

Work Related Learning 1 (Legislation, regulations and ethical standards) page 71-73 Validation Document

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?

Work Related Learning 1 (Legislation, regulations and ethical standards) page 71-73 Validation Document

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?

Business Information Systems page 76-78 Validation Document

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?

Business Information Systems page 76-78 Validation Document

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?

Personal and Professional Development 1 page 66-68 Validation Document, Database Design and Development page 80-82 Validation Document

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?

Personal and Professional Development 1 page 66-68 Validation Document, Database Design and Development page 80-82 Validation Document

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?

Business Information Systems page 76-78 Validation Document, Database Design and Development

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?

Work Related Learning 1 (Legislation, regulations and ethical standards) page 71-73 Validation Document, Business Information Systems page 76-78 Validation Document, Database Design and Development page 80-82 Validation Document

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?

Business Information Systems page 76-78 Validation Document, UX Design & Web Development page 84-86 Validation Document, Mobile Application Development page 113-115 Validation Document, Software Development Methods page 117-119 Validation Document

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?

Business Information Systems page 76-78 Validation Document, Database Design and Development page 80-82 Validation Document, Software Development Methods page 117-119 Validation Document

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?

Business Information Systems page 76-78 Validation Document, Advanced Database Concepts page 3-5 Modification Document

KSB 12

K12 Organisational data architecture.

Is the statement covered within the qualification?

Fully covered

Where within the qualification is the statement covered?

Business Information Systems page 76-78 Validation Document, Work Related Learning 2 (Risk Assessment) page 101-103 Validation Document

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?

Personal and Professional Development 1 page 66-68 Validation Document, Data Analyst apprentices are required to demonstrate knowledge of the principles of statistics for analysing datasets in their submission for assessment of this module.

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?

Personal and Professional Development 1 page 66-68 Validation Document, Data Analyst apprentices are required to demonstrate knowledge of the principles of descriptive, predictive & prescriptive analytics in their assessment of this module.

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?

Personal and Professional Development 1 page 66-68 Validation Document, Work Related Learning 1 (Legislation, regulations and ethical standards) page 71-73 Validation Document

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?

Work Related Learning 1 (Legislation, regulations and ethical standards) page 71-73 Validation Document, Personal and Professional Development 2 (Security Case Development) page 93-95 Validation Document

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?

Database Design and Development page 80-82 Validation Document, Advanced Database Concepts page 3-5 Modification Document

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?

Business Information Systems page 76-78 Validation Document, Database Design and Development page 80-82 Validation Document, Work Related Learning 2 (Risk Assessment) page 101-103 Validation Document

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?

Business Information Systems page 76-78 Validation Document, Database Design and Development page 80-82 Validation Document, Work Related Learning 2 (Risk Assessment) page 101-103 Validation Document

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?

Business Information Systems page 76-78 Validation Document, UX Design & Web Development page 84-86 Validation Document,

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?

Personal and Professional Development 2 (Security Case Development) page 93-95 Validation

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?

Work Related Learning 2 (Risk Assessment) page 101-102 Validation Document data analyst apprentices will demonstrate this skill in their job role and will provide evidence for assessment in this module

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?

Work Related Learning 2 (Risk Assessment) page 101-102 Validation Document data analyst apprentices will demonstrate this skill in their job role and will provide evidence for assessment in this module

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?

Work Related Learning 2 (Risk Assessment) page 101-102 Validation Document data analyst apprentices will demonstrate this skill in their job role and will provide evidence for assessment in this module

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?

Work Related Learning 2 (Risk Assessment) page 101-102 Validation Document data analyst apprentices will demonstrate this skill in their job role and will provide evidence for assessment in this module

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?

Work Related Learning 2 (Risk Assessment) page 101-102 Validation Document data analyst apprentices will demonstrate this skill in their job role and will provide evidence for assessment in this module

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?

Work Related Learning 2 (Risk Assessment) page 101-102 Validation Document, Advanced Web Development page 105-107 Validation Document, Mobile Application Development page 113-115 Validation Document

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?

Business Information Systems page 76-78 Validation Document

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?

Work Related Learning 2 (Risk Assessment) page 101-102 Validation Document data analyst apprentices will demonstrate this skill in their job role and will provide evidence for assessment in this module

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?

Database Design and Development page 80-82 Validation Document, Advanced Database Concepts

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?

Personal and Professional Development 1 page 66-68 and all modules Validation Document

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?

Fully covered

Where within the qualification is the statement covered?

Personal and Professional Development 1 page 66-68 and all modules Validation Document

KSB 33

B3 Works independently and collaboratively.

Is the statement covered within the qualification?

Fully covered

Where within the qualification is the statement covered?

Personal and Professional Development 1 page 66-68 and all modules Validation Document

KSB 34

B4 Logical and analytical.

Is the statement covered within the qualification?

Fully covered

Where within the qualification is the statement covered?

Personal and Professional Development 1 page 66-68 and all modules Validation Document

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?

Fully covered

Where within the qualification is the statement covered?

Personal and Professional Development 1 page 66-68 and all modules Validation Document

KSB 36

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

Is the statement covered within the qualification?

Fully covered

Where within the qualification is the statement covered?

Personal and Professional Development 1 page 66-68 and all modules Validation Document

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?

Fully covered

Where within the qualification is the statement covered?

Work Related Learning 2 (Risk Assessment) page 101-102 Validation Document

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

Work Related Learning 2 (Risk Assessment)

Please give a short description of the additional content

This module includes opportunities for apprentices to demonstrate a comprehensive range of knowledge, skills and behaviours specific to their job role

Where within the qualification is the additional content covered?

page 101-103 Validation Document

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

This module includes opportunities for apprentices to demonstrate a comprehensive range of knowledge, skills and behaviours as detailed in the standard and specific to the employer business needs by contributing to the completion of a project

Item 2

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

Personal and Professional Development 1

Please give a short description of the additional content

This module includes opportunities for apprentices to demonstrate a comprehensive range of knowledge, skills and behaviours specific to their job role

Where within the qualification is the additional content covered?

Page 66-68 Validation Document

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

Apprentices will identify any KSBs not specifically included in modules and undertake independent learning to develop competence in these areas ready for assessment.

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.

Personal Professional Development 1: Assessed by a Personal Development Project enables apprentices to identify personal KSB gaps, source appropriate CPD and engage in Independent Learning demonstrating effective implementation of a personal development plan and ensuring an ability to show current and future employers the ability to independently learn and apply new knowledge and skills as required in the computing sector.

Work Related Learning 1 (Legislation, regulations and ethical standards): Assessed with a Research Project ensuring the ability to maintain currency in legislation, regulations and ethical standards which is appropriate as standards and regulations change and apprentices must be able to keep up to date. Also assessed with an Interview/presentation to ensure apprentices are able to relate the key concepts and benefits appropriate to their job role, the apprenticeship standard and ISO standards.

Principles of Programming: Assessed with a report and presentation for 50% of the module and by the development of a Product and associated documentation for the remaining 50% of the module. assessment appropriately measures the level of understanding of the knowledge and understanding

balanced against the practical application to measure the skills associated in this module.

Database Design & Development: Assessed with development of appropriate design documents, report and product which appropriately enables apprentices to applying appropriate analysis of a problem and design a solution with associated design documents, build and test documents, the product and an evaluative report. The assessment is contextualised to the apprenticeship standard and apprentice job role where appropriate.

UX Design & Development: Assessment mirrors the development lifecycle in industry and is contextualised to the apprenticeship standard and apprentice job role. The problem is analysed and client and user requirements considered in the development of design documents which are pitched via a presentation, upon approval the product (website) is developed including testing and refinement and a report evaluating and justifying the design and implementation is produced.

Object Oriented Programming: assessment of development of appropriate design documentation for a given problem and then of the product and report produced.

Personal Professional Development 2 (Security Case Development): Apprentices will submit a Security Case Project and deliver a Presentation to demonstrate all of the learning outcomes which are contextualised to their job role and apprenticeship standard.

Work Related Learning 2 (Risk Assessment): Assessed by Report, Product and Interview/Presentation covering all of the module outcomes and ensuring the flexibility to contextualise the assessment against the apprentice job role and the standard. Apprentices will engage in a project in their workplace approved by the module tutor and apprentice skills coordinator to provide the evidence for this module.

Advanced Web Development: working with a live client, the apprentice will design a prototype website with backend database and will be assessed by a presentation in which the propose a solution with prototype design documents and the after development and testing, present the product incorporating an appropriate range of web services and justifying all decisions.

Advanced Database Concepts: Assessed by report, product and time constrained assessment which is appropriate to demonstrate sufficient competence in relational databases.

Mobile Application Development: Assessed by report to establish a level of understanding of how data is presented using a range of tools and technologies and then by design, application and report for the remaining learning outcomes.

Software Development Methods: This module is assessed by presentation to ensure apprentices understand how to effectively implement an appropriate systems development methodology for a given business scenario justifying not only the chosen method, but also why others were eliminated from consideration.

The range of assessment methods are appropriate to the modules and have been developed to prepare apprentices to become work ready and allow for contextualisation to the apprentice's job role and their apprenticeship standard where appropriate.

The range of assessment methods are appropriate to the modules and have been developed to prepare apprentices to become work ready and allow for contextualisation to the apprentice's job role and their apprenticeship standard where appropriate. The vast majority of learning is made up of hands on practical activities to allow students to develop confidence in transferable skills and formative assessment is ongoing and individual throughout. All modules are developed to enable contextualisation to ensure apprentices are able to be assessed for all of the KSBs detailed in the standard.

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.

All Foundation Degrees are designed in collaboration with employers from the computing & digital sector with an interest in the specific course knowledge skills and behaviours. Additionally, it is an essential requirement of validation that an employer with expertise in the subject as well as a subject specialist academic is a member of the validation panel.

Focus Groups

All foundation degrees in computing have been mapped to the associated standard and so already have a significant employer contribution. When designing a Foundation Degree, a focus group is established to encourage employers to consider the knowledge skills and behaviours they value from students who achieve.

Discussions among the employers help to ensure that in addition to relevant and valid modules, learning outcomes are sufficiently clear to ensure the standards are met and sufficiently vague to allow the content within the modules to be contextualised to a higher apprentice job role. This ensures that the higher apprentice has the opportunity to cover the knowledge, skills and behaviours required by the standard between the foundation degree and work based learning.

In developing the FdSc Business Computing Foundation Degree, employers from the following organisations contributed to the design in preparation for validation and/or have provided positive support throughout delivery of the course:

Leighton Group
British Airways
Opta
NVIDIA
British Telecom

Fujitsu
Durham County Council
Waterstons
Nissan

The Validation of all Foundation Degrees at New College Durham requires that all validation documents are scrutinised by an employer from the associated sector and an academic who specialises in the subject. Both the employer and the academic sit on the Validation Panel and interrogate the curriculum team regarding subject content, assessment methods, employer engagement activities, relevance to apprenticeship standards where appropriate and academic standards in relation to the UK Quality Code and QAA. Validation is only approved when the panel is fully satisfied that the Foundation Degree content, assessment methods, occupational relevance and academic standards are assured.

Please refer to:

- Stage 2, item (ii), page 2
 - Stage 1, paragraph 2, page 5
 - Questions for the panel to consider, item (iv) page 6
 - Stage 2, paragraphs 2 and 3, page 7
 - Documentation required for Validation, Notes, item (ii) page 9
 - Stage 4, paragraph 2 page 13
- of the attached Validation Process Document