Qualification Specification for:

OCN NI Level 3 Award in Artificial Intelligence for Industry

- **Qualification No: 610/1735/8**

Qualification Regulation Information

OCN NI Level 3 Award in Artificial Intelligence for Industry
Qualification Number: 610/1735/8

Operational start date: 15 December 2022
Operational end date: 30 November 2027
Certification end date: 30 November 2030

Qualification operational start and end dates indicate the lifecycle of a regulated qualification. The operational end date is the last date by which learners can be registered on a qualification and the certification end date is the last date by which learners can claim their certificate.

All OCN NI regulated qualifications are published to the Register of Regulated Qualifications (**http://register.ofqual.gov.uk/**). This site shows the qualifications and awarding organisations regulated by CCEA Regulation and Ofqual.

OCN NI Contact Details

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Foreword

This document explains OCN NI's requirements for the delivery and assessment of the following regulated qualification:

→ **OCN NI Level 3 Award in Artificial Intelligence for Industry**

This specification sets out:

- Qualification features
- Centre requirements for delivering and assessing the qualification
- The structure and content of the qualification
- Unit details
- Assessment requirements for the qualification
- OCN NI's quality assurance arrangements for the qualification
- Administration

OCN NI will notify centres in writing of any major changes to this specification. We will also publish changes on our website at **www.ocnni.org.uk**

This specification is provided online, so the version available on our website is the most up to date publication. It is important to note that copies of the specification that have been downloaded and printed may be different from this authoritative online version.

Contents

About Regulation

OCN NI

Open College Network Northern Ireland (OCN NI) is a regulated Awarding Organisation based in Northern Ireland. OCN NI is regulated by CCEA Regulation to develop and award professional and technical (vocational) qualifications from Entry Level up to and including Level 5 across all sector areas. In addition, OCN NI is regulated by Ofqual to award similar qualification types in England.

The Regulated Qualifications Framework: an overview

The Regulated Qualifications Framework (RQF) was introduced on 1st October 2015: the RQF provides a single framework for all regulated qualifications.

Qualification Level

The level indicates the difficulty and complexity of the knowledge and skills associated with any qualification. There are eight levels (Levels 1-8) supported by three 'entry' levels (Entry 1-3).

Qualification Size

Size refers to the estimated total amount of time it could typically take to study and be assessed for a qualification. Size is expressed in terms of Total Qualification Time (TQT), and the part of that time typically spent being taught or supervised, rather than studying alone, is known as Guided Learning Hours (GLH).

Qualification Features

Sector Subject Area

6.1 ICT for practitioners

This qualification relates to the following National Occupational Standards:

NOS - Artificial Intelligence

UCAS Tariff

The OCN NI Level 3 Award in Artificial Intelligence for Industry qualification is recognised by UCAS, with 8 points allocated.

Qualification Aim

The OCN NI Level 3 Award in Artificial Intelligence for Industry qualification will enable the learner to develop an understanding of artificial intelligence (AI) and its applications.

Qualification Objectives

The objectives of the OCN NI Level 3 Award in Artificial Intelligence for Industry are to enable the learner to understand the history, benefits, challenges and future scope of AI from an industry applications perspective. The learner will be able to understand:

- AI readiness
- AI and emerging technologies
- digital transformation
- machine learning and AI
- neural networks and deep learning
- AI its implications

Grading

Grading for this qualification is pass/fail.

Qualification Target Group

The qualification is targeted at learners who wish to develop an understanding of AI and its applications.

Progression Opportunities

The OCN NI Level 3 Award in Artificial Intelligence for Industry qualification enables progression into higher level qualifications in AI and information technology.

Entry Requirements

There are no specific entry requirements for this qualification although learners should be at least 18 years old to complete the qualification and have sufficient literacy and numeracy skills to successfully complete the qualification.

Qualification Support

A Qualification Support pack is available for OCN NI centres within the login area of the OCN NI website (https://www.ocnni.org.uk/my-account/), which includes additional support for teachers, eg planning and assessment templates, guides to best practice, etc.

Delivery Languages

This qualification is available in English only at this time. If you wish to offer this qualification in Welsh or Irish (Gaeilge) then please contact OCN NI who will review demand and provide as appropriate.

Centre Requirements for Delivering the Qualification

Centre Recognition and Qualification Approval

New and existing OCN NI recognised centres must apply for and be granted approval to deliver the qualification prior to the commencement of delivery.

Centre Staffing

Centres are required to have the following roles in place as a minimum, although a member of staff may hold more than one role*:

- Centre contact
- Programme Co-ordinator
- Tutor
- Assessor
- Internal Verifier

*Note: A person cannot be an internal verifier for their own assessments.

Tutors

Tutors delivering the qualification should be occupationally competent and qualified to at least one level higher than the qualification and have a minimum of one relevant year's experience.

Assessors

The qualification is assessed within the centre and is subject to OCN NI's quality assurance processes. Units are achieved through internally set, internally assessed, and internally verified evidence.

Assessors must:

- be occupationally competent to at least one level higher than the qualification
- have a minimum of one year's experience in the area they are assessing
- have direct or related relevant experience in assessment
- assess all assessment tasks and activities

Internal Verification

OCN NI qualifications must be scrutinised through the centre's internal quality assurance processes as part of the recognised centre agreement with OCN NI. The centre must appoint an experienced and trained centre internal verifier whose responsibility is to act as the internal quality monitor for the verification of the delivery and assessment of the qualifications.

The centre must agree a working model for internal verification with OCN NI prior to delivery of the qualifications.

Internal Verifiers must:

- have at least one year's occupational experience in the areas they are internally verifying
- attend OCN NI's internal verifier training if not already completed

Internal verifiers are required to:

- support tutors and assessors
- sample assessments according to the centre's sampling strategy
- ensure tasks are appropriate to the level being assessed
- maintain up-to-date records supporting the verification of assessment and learner achievement

Structure and Content

OCN NI Level 3 Award in Artificial Intelligence for Industry

In order to achieve the qualification learners must complete all units - 11 credits.

Total Qualification Time (TQT) for this qualification: 110 hours
Guided Learning Hours (GLH) for this qualification: 77 hours

Unit Reference Number	OCN NI Unit Code	Unit Title	Credit Value	GLH	Level
T/650/4703	CBG107	Understanding Artificial Intelligence	1	7	Three
Y/650/4704	CBG109	Applications of Artificial Intelligence	1	7	Three
A/650/4705	CBG110	Understanding Artificial Intelligence Readiness	1	7	Three
D/650/4706	CBG111	Artificial Intelligence and Emerging Technologies	2	14	Three
F/650/4707	CBG112	Digital Transformation	2	14	Three
H/650/4708	CBG113	Machine Learning and Artificial Intelligence	1	7	Three
J/650/4709	CBG114	Neural Networks and Deep Learning	1	7	Three
M/650/4710	CBG115	Artificial Intelligence and its Implications for the World of Work	2	14	Three

Unit details

Title	Understanding Artificial Intelligence
Level	Three
Credit Value	1
Guided Learning Hours (GLH)	7
OCN NI Unit Code	CBG107
Unit Reference No	T/650/4703
Unit purpose and aim(s): This unit will enable the learner to understand what is meant by artificial Intelligence (AI) readiness, its origins, uses and history.	

Learning Outcomes	Assessment Criteria
1. Understand the development and implications of AI for society and individuals.	1.1. Explain the development of AI including its current and potential implications for society and individuals.
2. Be aware of different characteristics and applications of AI.	2.1. Explain the different characteristics and applications of AI including: a) machine learning b) natural language processing c) computer vision d) cognitive computing
3. Understand the ethical implications of AI.	3.1. Summarise the current and potential ethical implications of the use of AI including: a) societal and environmental wellbeing b) transparency c) accountability

Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

Assessment Method	Definition	Possible Content
Portfolio of evidence	A collection of documents containing work undertaken to be assessed as evidence to meet required skills outcomes OR A collection of documents containing work that shows the learner's progression through the course	Learner notes/written work Learner log/diary Peer notes Record of observation Record of discussion
Practical demonstration/assignment	A practical demonstration of a skill/situation selected by the tutor or by learners, to enable learners to practise and apply skills and knowledge	Record of observation Learner notes/written work Learner log
Coursework	Research or projects that count towards a learner's final outcome and demonstrate the skills and/or knowledge gained throughout the course	Record of observation Learner notes/written work Tutor notes/record Learner log/diary
E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Applications of Artificial Intelligence
Level	Three
Credit Value	1
Guided Learning Hours (GLH)	7
OCN NI Unit Code	CBG109
Unit Reference No	Y/650/4704
Unit purpose and aim(s): This unit will enable the learner to understand the applications of artificial intelligence (AI)	

Learning Outcomes	Assessment Criteria
1. Understand the application of AI to emerging technologies.	1.1. Explain the application of AI to the Internet of Things (IoT). 1.2. Evaluate the application of AI in: a) robotics b) additive manufacturing
2. Understand the application of AI in human machine interactions.	2.1. Explain the application of AI to the following human machine interactions: a) image recognition and generation b) extended reality c) natural language processing

Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

Assessment Method	Definition	Possible Content
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Title	Understanding Artificial Intelligence Readiness
Level	Three
Credit Value	1
Guided Learning Hours (GLH)	7
OCN NI Unit Code	CBG110
Unit Reference No	A/650/4705
Unit purpose and aim(s): This unit will enable the learner to understand what is meant by Artificial Intelligence (AI) readiness, its implementation and benefits	

Learning Outcomes	Assessment Criteria
1. Understand AI readiness.	1.1. Summarise the key attributes for AI readiness. 1.2. Explain the potential barriers to AI readiness. 1.3. Analyse the actions which may be taken to promote AI readiness.
2. Understand the technical preconditions required for AI implementation.	2.1. Summarise the technical preconditions which should be in place prior to AI implementation including: a) AI eco system b) Technology Readiness Levels (TRL) c) information architecture d) data readiness
3. Be able to evaluate key benefits of AI to the environment and humanity.	3.1. Evaluate the potential benefits of AI to a) humanity b) environment

Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

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Title	Artificial Intelligence and Emerging Technologies
Level	Three
Credit Value	2
Guided Learning Hours (GLH)	14
OCN NI Unit Code	CBG111
Unit Reference No	D/650/4706
Unit purpose and aim(s): This unit will enable the learner to understand the connection between Artificial Technology (AI) and emerging technologies.	

Learning Outcomes	Assessment Criteria
1. Understand what is meant by emerging technologies.	1.1. Explain using examples what is meant by the term emerging technologies.
2. Understand the connections between AI and emerging technologies.	2.1. Explain using examples the connections between AI and different emerging technologies.
3. Understand how AI may be applied to Big Data to enhance business operations.	3.1. Explain how AI may be applied to Big Data to enhance business operations.
4. Understand AI use in cloud and blockchain applications.	4.1. Explain using examples how AI may be used in cloud and blockchain applications.

Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

Assessment Method	Definition	Possible Content
Portfolio of evidence	A collection of documents containing work undertaken to be assessed as evidence to meet required skills outcomes OR A collection of documents containing work that shows the learner's progression through the course	Learner notes/written work Learner log/diary Peer notes Record of observation Record of discussion
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Coursework	Research or projects that count towards a learner's final outcome and demonstrate the skills and/or knowledge gained throughout the course	Record of observation Learner notes/written work Tutor notes/record Learner log/diary
E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Digital Transformation
Level	Three
Credit Value	2
Guided Learning Hours (GLH)	14
OCN NI Unit Code	CBG112
Unit Reference No	F/650/4707
Unit purpose and aim(s): This unit will enable the learner to understand what is meant by digital transformation and organisational conditions required to support it.	

Learning Outcomes	Assessment Criteria
1. Understand digital transformation.	1.1. Explain what is meant by the following terms: a) digital transformation b) digital disruption 1.2. Summarise the components of a digital transformation strategy. 1.3. Summarise the drivers of digital transformation.
2. Be aware of the organisational phases of an AI integration.	2.1. Summarise the key characteristics of the following organisational phases of an AI integration process and strategy: a) foundational b) approaching c) aspirational d) mature
3. Understand the phases of a digital transformation process and strategy.	3.1. Explain contexts that underpin the six phases of a digital transformation process and strategy.
4. Understand the organisational conditions required to support digital transformation.	4.1. Analyse the organisational conditions required to support digital transformation.

Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

Assessment Method	Definition	Possible Content
Portfolio of evidence	A collection of documents containing work undertaken to be assessed as evidence to meet required skills outcomes OR A collection of documents containing work that shows the learner's progression through the course	Learner notes/written work Learner log/diary Peer notes Record of observation Record of discussion
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E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Machine Learning and Artificial Intelligence
Level	Three
Credit Value	1
Guided Learning Hours (GLH)	7
OCN NI Unit Code	CBG113
Unit Reference No	H/650/4708
Unit purpose and aim(s): This unit will enable the learner to understand machine learning in Artificial Intelligence (AI) applications.	

Learning Outcomes	Assessment Criteria
1. Understand machine learning classifications.	1.1. Analyse the use of classifications in machine learning.
2. Understand the use of decision trees in AI applications.	2.1. Explain how decision trees are used in AI.
3. Understand the main types of learning associated with machine learning.	3.1. Evaluate the following types of learning associated with machine learning and applications: a) supervised b) unsupervised c) semi supervised d) reinforcement

Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

Assessment Method	Definition	Possible Content
Portfolio of evidence	A collection of documents containing work undertaken to be assessed as evidence to meet required skills outcomes OR A collection of documents containing work that shows the learner's progression through the course	Learner notes/written work Learner log/diary Peer notes Record of observation Record of discussion
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E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Neural Networks and Deep Learning
Level	Three
Credit Value	1
Guided Learning Hours (GLH)	7
OCN NI Unit Code	CBG114
Unit Reference No	J/650/4709
Unit purpose and aim(s): This unit will enable the learner to understand neural networks and deep learning associated with artificial intelligence (AI).	

Learning Outcomes	Assessment Criteria
1. Understand neural networks and deep learning.	1.1. Explain what is meant by the terms neural networks and deep learning. 1.2. Evaluate the benefits and challenges associated with neural networks and deep learning.
2. Be aware of the applications of neural networks and deep learning in AI.	2.1. Explain the applications of neural networks and deep learning in AI.

Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

Assessment Method	Definition	Possible Content
Portfolio of evidence	A collection of documents containing work undertaken to be assessed as evidence to meet required skills outcomes OR A collection of documents containing work that shows the learner's progression through the course	Learner notes/written work Learner log/diary Peer notes Record of observation Record of discussion
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E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Artificial Intelligence and its Implications for the World of Work
Level	Three
Credit Value	2
Guided Learning Hours (GLH)	14
OCN NI Unit Code	CBG115
Unit Reference No	M/650/4710
Unit purpose and aim(s): This unit will enable the learner to understand how Artificial Intelligence (AI) is impacting on the world of work and its potential the future impact .	

Learning Outcomes	Assessment Criteria
1. Understand the potential impact of AI on the world of work.	1.1. Explain what is meant by skill polarisation. 1.2. Critically compare the potential impact of AI on the following: a) high-skilled workers b) Medium-skilled workers c) low-skilled workers
2. Understand digital transformation and its impact on people.	2.1. Explain what is meant by the term superminds. 2.2. Explain the importance of the following to the digital transformation process: a) internal communication and digital workplace b) digital employer branding c) training and digital literacy
3. Understand transformational leadership and its impact on AI implementation.	3.1. Explain why transformational leadership is important in implementing AI within an organisation and the skills required by managers.
4. Understand the digital skills framework.	4.1. Explain the key elements of the digital skills framework.

Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

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Quality Assurance of Centre Performance

External Verification

All OCN NI recognised centres are subject to External Verification. External verification visits and monitoring activities will be conducted annually to confirm continued compliance with the conditions of recognition, review the centre's risk rating for the qualifications and to assure OCN NI of the maintenance of the integrity of the qualifications.

The External Verifier will review the delivery and assessment of the qualifications. This will include the review of a sample of assessment evidence and evidence of the internal verification of assessment and assessment decisions. This will form the basis of the EV report and will inform OCN NI's annual assessment of centre compliance and risk. The External Verifier is appointed by OCN NI.

Standardisation

As a process, standardisation is designed to ensure consistency and promote good practice in understanding and application of standards. Standardisation events:

- make qualified statements about the level of consistency in assessment across centres delivering a qualification
- make statements on the standard of evidence that is required to meet the assessment criteria for units in a qualification
- make recommendations on assessment practice
- produce advice and guidance for the assessment of units
- identify good practice in assessment and internal verification

Centres offering units of an OCN NI qualification must attend and contribute assessment materials and learner evidence for standardisation events if requested.

OCN NI will notify centres of the nature of sample evidence required for standardisation events (this will include assessment materials, learner evidence and relevant assessor and internal verifier documentation). OCN NI will make standardisation summary reports available and correspond directly with centres regarding event outcomes.

Administration

Registration

A centre must register learners within 20 working days of commencement of a qualification.

Certification

Certificates will be issued to centres within 20 working days of receipt of correctly completed results marksheets. It is the responsibility of the centre to ensure that certificates received from OCN NI are held securely and distributed to learners promptly and securely.

Charges

OCN NI publishes all up to date qualification fees in its Fees and Invoicing Policy document. Further information can be found on the centre login area of the OCN NI website.

Equality, Fairness and Inclusion

OCN NI has considered the requirements of equalities legislation in developing the specification for these qualifications. For further information and guidance relating to access to fair assessment and the OCN NI Reasonable Adjustments and Special Considerations policies, centres should refer to the OCN NI website.

Retention of Evidence

OCN NI has published guidance for centres on the retention of evidence. Details are provided in the OCN NI Centre Handbook and can be accessed via the OCN NI website.

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