



PART OF **nocn** GROUP

QUALIFICATION SPECIFICATION

NOCN Level 2 Certificate in Skills for Employment and Study in Science and Engineering

Qualification No: 601/6278/8

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To know more about NOCN:

- Visit the NOCN website: www.nocn.org.uk
- Call the Customer Service Team: 0300 999 1177

www.nocn.org.uk

Introduction

NOCN is a leading awarding organisation that has been creating amazing opportunities for learners for over 30 years. It is the organisation preserving the proud heritage of the Open College Network (OCN) in the UK and is a brand trusted by learners, colleges, training providers and employers who recognise NOCN qualifications as an indicator of competence and quality. An NOCN qualification can provide a learner with the skills and knowledge they need to get on in life, progress to further education or training, improve their job prospects and increase their health and personal wellbeing.

This handbook is a resource for NOCN centres who wish to offer the NOCN Level 2 Certificate in Skills for Employment and Study in Science and Engineering.

The qualification is relevant to organisations that currently engage with learners who aim to progress to Level 3 programmes of learning within Science and Engineering.

The handbook details the qualification specification and provides guidance to the training provider on assessment criteria and evidence requirements.

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1. NOCN Level 2 Certificate in Skills for Employment and Study in Science and Engineering

The NOCN Level 2 Certificate in Skills for Employment and Study in Science and Engineering is designed to provide learners with essential knowledge and skills that will support their progression into employment in roles such as a research scientist, project engineer and other specialisms within science and engineering or progression on to higher education within science and engineering. Learners will acquire an understanding of distinct vocational areas within the science and engineering and develop a range of practical and cognitive study skills. Additionally, learners will have the opportunity to enhance their Maths and English skills.

The qualification will prepare learners for transition to Level 3 learning within science and engineering.

Achievement of a standalone qualification that offers an introduction to specific disciplines within science and engineering and the opportunity to develop a range of cognitive and practical study skills.

The qualification is for:

Learners who wish to:

- Prepare for Level 3 studies within science and engineering;
- Develop confidence in their own ability to undertake further study;
- Optimise their progression to Level 3 learning through the acquisition of a wide range of essential study skills

1.1. Entry Requirements

There are no formal entry requirements for learners undertaking this qualification.

This qualification is suitable for learners **aged 16 years or over**

1.2. Progression Routes

Learners will gain the knowledge and skills required to progress on to science and engineering related level three learning programmes.

The qualification will support progression onto an appropriate Level 3 Access to Higher Education Diploma

1.3. Qualification Structure

The learner must achieve a minimum of 30 credits through the following combination:

- A maximum of 3 credits must be achieved from Mandatory Group A.
- A minimum of 12 credits must be achieved from Mandatory Group B.
- A minimum of 9 credits from Mandatory Group C.
- The remaining 6 credits may be achieved from any combination of units from Mandatory Group B, Mandatory Group C and/or Optional Group D.

This qualification has **214** Guided Learning Hours (GLH) with a Total Qualification Time (TQT) of **300** hours.

Mandatory Group A

The learner must achieve a maximum of 3 credits from this group.

Title	Level	Credits	Ofqual Unit Reference Number
Introducing Engineering	2	3	J/507/2675
Introducing Physical Science	2	3	L/507/2676
Introducing Life Science	2	3	R/507/2677
Introducing Environmental and Land-Based Science	2	3	Y/507/2678

Mandatory Group B

The learner must achieve a minimum of 12 credits from the units in this group.

Title	Level	Credits	Ofqual Unit Reference Number
Introduction to the Scientific Method	2	1	M/505/2100
Forensic Science	2	3	K/505/4766
Plant Science	2	3	J/504/2494
Science and Cosmetics	2	3	L/505/4792
Working in Science and Technology	2	3	T/505/5354
Health and Safety in Scientific Investigations	2	5	F/507/8071
Practical Scientific Project	2	5	A/502/5000
Selecting Engineering Materials	2	5	A/507/8070

Introduction to Engineering Equipment and Materials	1	4	A/501/7009
Engineering Maintenance	2	4	J/507/8069
Plant and Soil Science	2	6	A/602/4438
STEM (Science, Technology, Engineering, Mathematics) Enrichment Activity	2	1	F/602/5963
Applications of Physical Science	2	5	R/502/4998
Fundamentals of Physics	2	3	M/507/8065
Science in the World	2	5	F/507/8068
Fundamentals of Process Science	2	6	M/602/5943
Environmental Science	2	6	T/507/8066
Working in the Engineering Sector	2	3	A/507/8067
Science Skills	2	3	J/507/8072
Investigating a Vocational Area	2	2	T/600/3250
Career Development and Employability	1	2	D/602/5937

Mandatory Group C

The learner must achieve a minimum of 9 credits from the units in this group.

Title	Level	Credits	Ofqual Unit Reference Number
Revision and Examination Skills	2	3	R/507/2694
Undertaking a Research Project	2	3	T/507/2686
Undertaking Group Work	2	3	A/507/2687
Valuing Equality and Diversity	2	2	L/503/1013
Word Processing	2	2	K/507/2684
Deliver a Presentation	2	3	M/507/2685
Writing Skills	2	3	A/507/2690
Study Management Skills	2	3	F/507/2688
Research Skills	2	3	L/507/2693
Personal Career Planning	2	3	J/507/2689
Critical Thinking Skills	2	3	F/507/2691
Personal Learning Goals	2	2	J/507/2692

Personal Study Skills	2	3	Y/507/2695
Understanding Plagiarism	2	2	D/507/2682

Optional Group D

The learner can take up to 6 credits from this group.

Title	Level	Credits	Ofqual Unit Reference Number
Data Handling and Probability	2	3	Y/505/4035
Common Measures and Shape	2	3	M/507/2699
Spreadsheets	2	3	H/507/2697
Calculations	2	3	K/507/2698
Spelling Skills	2	3	J/505/4029
Using Grammar and Punctuation	2	2	D/507/2696

1.4. Total Qualification Time (TQT)

Through consultation with users, TQT has been agreed by considering the total number of learning hours required for the average learner to achieve this qualification.

TQT is split into two areas:

- Guided Learning Hours (GLH):
 - learning activity under the immediate guidance or supervision of a lecturer, supervisor, tutor or other appropriate provider of education or training
 - includes the activity of being assessed if the assessment takes place under the immediate guidance or supervision of a lecturer, supervisor, tutor or other appropriate provider of education or training.
- Other Learning Hours (OLH):
 - an estimate of the number of hours a learner will spend, as directed by (but not under the immediate guidance or supervision of) a lecturer, supervisor, tutor or other appropriate provider of education or training, including:
 - preparatory work
 - self-study
 - or any other form of education or training, including assessment.

Examples of GLH activities include:

- Classroom-based learning supervised by a teacher

- Work-based learning supervised by a teacher
- Live webinar or telephone tutorial with a teacher in real time
- E-learning supervised by a teacher in real time
- All forms of assessment which take place under the immediate guidance or supervision of an appropriate provider of training
- Exam time

Examples of OLH activities include:

- Independent and unsupervised research/learning
- Unsupervised compilation of a portfolio of work experience
- Unsupervised e-learning
- Unsupervised e-assessment
- Unsupervised coursework
- Watching a pre-recorded podcast or webinar
- Unsupervised work-based learning

The agreed Total Qualification Time has been used to identify the qualification's Credit Value.

2. Centre Information

2.1. Offering the qualification

Recognised Centres

If you are already recognised to offer NOCN qualifications and would like more information about offering the NOCN Level 2 Certificate in Skills for Employment and Study in Science and Engineering, please contact: business-enquiries@nocn.org.uk.

If you are ready to add the qualification to your curriculum offer, please refer to the **NOCN Curriculum Development User Guide**.

Every NOCN centre will be contacted to confirm when the centre account has been activated. Once you have received your log in details the **Additional Qualification Request and New Course Notification Form** will be completed and submitted electronically. Until you have received your log in details you can continue to submit a paper version of the form, which is available to download from Quartzweb. Please refer to the NOCN Curriculum Development User Guide for further guidance on how to submit the request for Additional Qualifications.

New Centres

If you are interested in offering the NOCN Level 2 Certificate in Skills for Employment and Study in Science and Engineering, but do not currently offer any other NOCN qualifications, you will need to be recognised as an NOCN approved centre. This process includes:

- Confirmation that the organisation has an adequate infrastructure in place to support the effective delivery of NOCN qualifications.
- An agreement signed by the principal authority in the organisation confirming adherence to the specified terms and conditions. This safeguards the quality assurance standards, in relation to the delivery and assessment process.
- Have knowledge and/or experience of internal verification or quality assurance.

If you are interested in offering this qualification, but are not yet a NOCN Approved Centre and would like more information about becoming a NOCN centre and offering this qualification please see [Become a Registered Centre on our website](https://www.nocn.org.uk/customers/nocn-centres/) <https://www.nocn.org.uk/customers/nocn-centres/> and click **Become a Centre.**

External Quality Assurance

Once recognised as a Centre, NOCN will allocate an External Quality Assurer. The External Quality Assurer will have ongoing responsibility for monitoring the Centre's compliance with the requirements of centre recognised status.

External Quality Assurers will make regular visits to all Centres. During these visits he/she will:

- Monitor the Centre's compliance with the Centre Recognition agreement by reviewing course documentation, meeting managers, tutors, internal moderators, learners and administrative staff.
 - Verify recommendations for achievement submitted by the centre via Quartzweb.

Refer to the **NOCN Quality Assurance User Guide** for further information on the External Quality Assurance process.

2.2. Required Resources for Delivering the Qualification

As part of the requirement to deliver this qualification there is an expectation that staff undertaking roles as part of the delivery and assessment of the qualification have a demonstrable level of expertise.

Tutor/Assessor

NOCN expects that Tutors/Assessors are able to demonstrate the following competencies:

- Be technically competent in science and engineering and/or have experience of delivering training within the area. The minimum expectation is that the level of experience should be at the same level as the training that is to be delivered.
- An academic knowledge of Science and Engineering. The minimum expectation is that the level of knowledge should be at the same level as the training that is to be delivered.
- Hold a recognised teaching qualification or, for new tutors, undertake and complete teacher training to a minimum Level 3 standard within 12 months of taking up the tutor role.

Centre staff may undertake more than one role, e.g. tutor and assessor or internal quality assurer, but they **cannot** carry out any quality assurance activity on work that they have previously assessed.

Internal Quality Assurer

Each centre must have internal quality assurance policies and procedures in place to ensure that decisions made by assessors are appropriate, consistent, fair and transparent, and that they do not discriminate against any learner. The policies and procedures must be sufficient to secure the quality of the award, ensuring validity, reliability, and consistency.

NOCN expects that an Internal Quality Assurer is able to demonstrate the following competencies:

They should:

- Be technically competent in Science and Engineering and/or have experience of delivering training within the area. The minimum expectation is that the level of experience should be at the same level as the training that is to be delivered.
- An academic knowledge of Science and Engineering. The minimum expectation is that the level of knowledge should be at the same level as the training that is to be delivered.
- Hold an approved Internal Quality Assurance Qualification.

NOCN supports and recognises Centres' internal quality assurance systems which support the above; any system should encourage standardisation and sharing of good practice.

Continuing Professional Development (CPD)

Centres are expected to support their staff, ensuring that their subject knowledge remains current and that their members of staff are up to date with regards to best practice in delivery, assessment and verification.

3. Unit Information

The NOCN Level 2 Certificate in Skills for Employment and Study in Science and Engineering consists of a range of units, a list of which can be found in [Section 1.3](#).

To achieve this qualification a learner **must** provide evidence of learning and achievement against **all** of the assessment criteria within each unit undertaken. However a number of assessment criteria can be taught and assessed through one activity.

Due to the number of units available within this qualification the unit content and detail has been included within the Unit Specification which can be accessed at:

https://my.nocn.org.uk/Data/Asset_Downloads/NOCNLevel2CertificateinSkillsforEmploymentandStudyinScienceandEngineeringUnitBookletV2.1March2019.pdf

Assessment and Evidence

The NOCN Level 2 Certificate in Skills for Employment and Study in Science and Engineering is an **internally** set, **internally** assessed qualification. Learners must provide evidence of learning and achievement against **all** of the assessment criteria specified within each unit.

The NOCN Level 2 Certificate in Skills for Employment and Study in Science and Engineering is a **vocationally based** qualification and as such, the units offer the opportunity for learners to achieve a balance of practical skill and knowledge.

Centres must ensure that knowledge based learning is at a sufficient level for the qualification, and relevant to the work or events likely to be encountered in progression routes into roles such as a research scientist, project engineer and other specialisms within science and engineering.

The centre must ensure that the assessment activities are:

Valid The assessment activity **must** be fit for purpose which means that the assessment tasks measure the intended outcomes of the unit. They should afford the learner an opportunity to provide sufficient evidence of learning to meet the assessment criteria at the appropriate level.

Sufficient The assessment activities afford the learner an opportunity to provide sufficient evidence of learning to meet the assessment criteria.

Reliable Assessment activities must generate clear and consistent outcomes across all assessors.

Although the activities may be applied to differing scenarios and in different contexts, with different learners, the evidence sought by the activity must be assessed with a universal standard to ensure that the resulting assessment decisions are consistent across all assessors and centres offering the qualification.

Authentic Evidence presented must be the learner's own work.

Fair and Equitable Assessment

Assessment within the NOCN Level 2 Certificate in Skills for Employment and Study in Science and Engineering must be designed to be accessible and inclusive.

The assessment methodology must be appropriate for individual assessment.

Learners with Particular Requirements

If you are a NOCN Recognised Centre and have learners with particular requirements, please see the NOCN Reasonable Adjustments Policy and Procedure found on the NOCN website at www.nocn.org.uk

This policy gives clear guidance on the reasonable adjustments and arrangements that can be made to take account of disability or learning difficulty without compromising the assessment criteria.

The NOCN Centre Recognition process requires the centre to hold policy statements on Equal Opportunities, Diversity and Disability Discrimination which will be reviewed by NOCN. Please contact assurance@nocn.org.uk for further details.

Recognised Prior Learning

Recognition of prior learning is an assessment method leading to the award of credit. The process involves considering if a learner can meet the specified assessment requirements for a unit through knowledge, understanding or skills that they possess already, as a consequence, they do not need to undertake a course of learning.

Centres are encouraged to recognise previous achievements and experience, both formal, for example through accredited units or qualifications and informal, for example through continuous learning. This involves the recognition of achievement from a range of activities that will have been assessed through any valid method of assessment.

When using the process of the recognition of prior learning, it is essential that the assessment requirements of a specific unit or, more exceptionally, a qualification have been met. The evidence of learning provided must be sufficient, reliable, authentic and valid.

Functional Skills

This qualification could contribute towards the learning for Functional Skills in the following areas:

English

- Speaking, listening and communication – could be demonstrated through evaluating own or groups performance and when writing and delivering a presentation.
- Reading - demonstrated when working when comparing revision techniques.
- Writing – could be demonstrated when writing an essay using correct grammar.

ICT

- Development of ICT skills can be demonstrated when working through the word processing unit creating documents and using various functions and formatting tools.

Mathematics

- Development of mathematics skills can be demonstrated through extracting and calculating data and estimating and calculating length, distance time etc

For more information see the Functional Skills criteria for English, ICT and/or maths on the NOCN website: www.nocn.org.uk/learning_providers/functional_skills

Assessment and Evidence for the units

Internally set assessments

Centre can use the following assessment methods:

- Portfolio of Evidence

Forms and guidance for gathering learner evidence against the individual assessment criteria are available for download in Word format on the NOCN website:

http://www.nocn.org.uk/qualifications_and_units/additional_qualification_documents.

Alternatively, centres can use their own paperwork provided they ensure that the learners' work is ordered and portfolio references provided as required.

Appendix 1 - Assessment Documentation

Learner Evidence Record

NOCN Level 2 Certificate in Skills for Employment and Study in Science and Engineering

Unit Title: Introducing Engineering

Assessment Criteria	Portfolio Ref	Evidence
1.1. Explain key topic areas within the discipline of engineering.		
1.2. Assess the contribution made by engineering to: (a) society; (b) the economy.		
1.1. Describe the purpose of engineering.		

Continue as per each unit

Learner Signature: _____

Assessor Signature: _____

Date of Achievement: _____

Appendix 2 - Unit Feedback Sheet

Tutor/Assessor Comments:

Learner comments:

Tutor/assessor signature:

Date:

Learner signature:

Date:

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