



Higher National Unit specification: general information

Unit title: Supply Chain: Storage and Distribution

Unit code: H31J 35

Superclass: BF

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Unit purpose

This Unit is designed to provide the learner with detailed knowledge of storage and distribution in the supply chain.

It also provides a comprehensive overview of methods, techniques, and factors concerned with the storage and transport of physical stocks, and will explain how added value can be created in the storage and movement of goods.

This Unit will enable learners to demonstrate their understanding of distribution systems, the techniques used to manage the storing and warehousing of goods and the importance of added value in the system.

It is primarily intended for learners who aspire to take up a management position in any organisation where the supply chain will play a major role. It would also be appropriate for those involved in the various functions associated with service, retail, public and manufacturing organisations, including inventory, stores, production, distribution planning, demand management and purchasing.

Outcomes

On successful completion of the Unit the learner will be able to:

- 1 Determine the objectives of a distribution system from stored goods through to customer receipt.
- 2 Describe the methods, techniques and equipment used in the storage and warehousing of goods.
- 3 Explain 'adding value' to the storage and distribution of goods.

General information (cont)

Unit title: Supply Chain: Storage and Distribution

Credit points and level

1 Higher National Unit credit at SCQF level 8: (8 SCQF credit points at SCQF level 8*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Recommended entry to the Unit

Access to this Unit is at the discretion of the centre. However, learners are expected to have work experience relevant to the activities of supply chain management. It is not necessary that learners hold a team leader, supervisory or management position.

Learners are also expected to have competency in numeracy and communication skills to at least SCQF level 5. This may be evidenced by possession of the Core Skills Units in *Numeracy* and *Communication* or similar qualifications or experience.

Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes for this Unit specification.

There is no automatic certification of Core Skills or Core Skill components in this Unit.

Context for delivery

If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

The Assessment Support Pack (ASP) for this Unit provides assessment and marking guidelines that exemplify the national standard for achievement. It is a valid, reliable and practicable Instrument of Assessment. Centres wishing to develop their own assessments should refer to the ASP to ensure a comparable standard. A list of existing ASPs is available to download from SQA's website (<http://www.sqa.org.uk/sqa/46233.2769.html>).

Equality and inclusion

This Unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

Higher National Unit specification: Statement of standards

Unit title: Supply Chain: Storage and Distribution

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Outcome 1

Determine the objectives of a distribution system from stored goods through to customer receipt.

Knowledge and/or Skills

- ◆ Modern distribution methods
- ◆ Central/in-house distribution centres
- ◆ Current transport legislation
- ◆ Storage and distribution operations
- ◆ Health and safety and environmental legislation

Evidence Requirements

Learners will need evidence to demonstrate all aspects of their Knowledge and/or Skills in this Outcome by showing that they can:

- ◆ explain the concept of modern distribution methods
- ◆ explain the concept of central/in-house distribution centres
- ◆ outline current legislation with regard to transport, drivers and goods vehicles
- ◆ evaluate storage and distribution operations within different industries for **three** of the following:
 - transshipment
 - cross-docking
 - milk-run
 - flow-through warehousing
 - random location storage
- ◆ outline health and safety and environmental legislation in distribution

Higher National Unit specification: Statement of standards (cont)

Unit title: Supply Chain: Storage and Distribution

Outcome 2

Describe the methods, techniques and equipment used in the storage and warehousing of goods.

Knowledge and/or Skills

- ◆ Constraints placed upon storage functions
- ◆ Machine types and storage equipment types
- ◆ Storage requirements
- ◆ Legislation relating to storage of goods

Evidence Requirements

Learners will need evidence to demonstrate all aspects of their Knowledge and/or Skills in this Outcome by showing that they can:

- ◆ identify and examine the constraints placed on storage functions
- ◆ describe the machine types and storage equipment types used in stores and warehousing
- ◆ compare storage requirements for different organisations
- ◆ outline the legislation relating to the storage of goods

Outcome 3

Explain 'adding value' to the storage and distribution of goods.

Knowledge and/or Skills

- ◆ Links between distribution and reverse distribution
- ◆ Stock holding techniques
- ◆ Economics involved in storage and distribution
- ◆ Methods of adding value in the stores area

Evidence Requirements

Learners will need evidence to demonstrate all aspects of their Knowledge and/or Skills in this Outcome by showing that they can:

- ◆ describe the links between distribution and reverse distribution
- ◆ explain how stock holding techniques are linked with purchasing strategies
- ◆ explain the economics involved in the storage and distribution of goods
- ◆ evaluate the methods of adding value in the stores area

Higher National Unit: Support Notes

Unit title: Supply Chain: Storage and Distribution

Unit Support Notes are offered as guidance and are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

Guidance on the content and context for this Unit

This Unit is likely to form part of a Group Award such as the HND Supply Chain Management. It is designed to enable learners to understand the methods, techniques and factors concerned with the storage and transport of physical stocks and how added value can be created in the storage and movement of goods.

It is recommended that the learner should have experience of working in a supply chain or associated function.

There may be opportunities for learners who successfully achieve this Unit to gain exemptions for a number of professional bodies. Learners should contact the relevant professional bodies to ascertain their current exemption policies.

There may also be opportunities for learners to progress to a supply chain related degree qualification.

Outcome 1 looks at the objectives of a distribution system from the stored goods to customer receipt.

- ◆ modern distribution systems
- ◆ central and in-house distribution centres
- ◆ legislation relating to transport, drivers and goods vehicles
- ◆ storage and distribution operations within a variety of industries
- ◆ health and safety and environmental legislation relating to distribution

Outcome 2 focuses on the methods, techniques and equipment used in the storage and warehousing of goods.

- ◆ constraints placed upon storage functions
- ◆ machine types and storage equipment types
- ◆ storage requirements
- ◆ legislation relating to storage of goods

Outcome 3 covers the concepts involved in 'adding value' to the way storage and distribution of goods is undertaken.

- ◆ links between distribution and reverse distribution
- ◆ stock holding techniques such as visibility storage, Radio Frequency Identification (RFID), Electronic Point of Sale (EPOS) and packaging assembly
- ◆ economics involved in storage and distribution
- ◆ methods of adding value in the stores area

Higher National Unit: Support Notes (cont)

Unit title: Supply Chain: Storage and Distribution

Guidance on approaches to delivery of this Unit

This Unit may be delivered as one of the Units within the HND Supply Chain Management.

It is anticipated that this Unit may be delivered to a variety of learner groups and, wherever possible, teaching and research should be slanted towards their individual needs. The latest materials and examples from current and business practice should be used to highlight and illustrate the differences between organisations.

In addition to the classroom explanations and discussions that this Unit provides, learners should be encouraged to make use of relevant websites to gather information for themselves. Direction may be required on the location of useful information sources, however, learners should be encouraged to use their initiative to discover other various sources of information available.

Industrial visits, or preferably work placements, should be organised and guest speakers should be invited to speak to learners, especially where the learners do not have industrial experience.

Guidance on approaches to assessment of this Unit

Evidence can be generated using different Instruments of Assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

Learners could be assessed by a report based on their experience of working within a supply chain related environment. The report could comprise of three sections — one for each Outcome. Where evidence is presented as a written report it is recommended that each section be approximately 1,000 words in length. Diagrams may be included in the report. However, as the assessment is progressive Outcome 1 should be assessed prior to the assessment of Outcome 2.

Where learners have no industrial experience, they may be assessed using questions based on a case study. The questions must cover all the specified Evidence Requirements. Where this approach is adopted, the case study may be issued 2–3 weeks in advance of the assessment event, with the questions being distributed at the assessment event. The assessment should be carried out under open-book supervised conditions.

To achieve this Unit, learners must produce satisfactory assessment evidence that shows they have achieved all of the Unit Outcomes.

Higher National Unit: Support Notes (cont)

Unit title: Supply Chain: Storage and Distribution

Opportunities for e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at www.sqa.org.uk/e-assessment.

Opportunities for developing Core and other essential skills

There are no Core Skills embedded in this Unit. However, there are opportunities for developing the Written Communication component of the Core Skill of *Communication* at SCQF level 6; the Core Skills of *Numeracy* and *Problem Solving* at SCQF level 6, and *Information and Communication Technology* at SCQF level 5.

Communication — Written Communication at SCQF level 6

All three Outcomes provide learners with the opportunity to develop their written communication skills.

Opportunities will occur where learners produce written responses as part of their work throughout the Unit, but especially if assessment evidence takes the form of a written report. Where this approach is used, learners will require to produce well-structured reports on complex topics.

Numeracy — Using Number at SCQF level 6

Opportunities to develop numerical skills occur in Outcome 1.

Learners may apply a range of numerical and statistical skills, and make decisions in terms of distribution operations.

Numeracy — Using Graphical Information at SCQF level 6

Learners may select an appropriate graphical form and use it to communicate information relating to distribution operations.

Information and Communication Technology — Accessing Information at SCQF level 5

Opportunities occur in Outcomes 1 and 3 for learners to develop their skills in gathering information from distribution methods, operations and techniques. Learners may carry out complex searches for information and then evaluate its fitness for purpose.

Higher National Unit: Support Notes (cont)

Unit title: Supply Chain: Storage and Distribution

Information and Communication Technology — Providing/Creating Information at SCQF level 5

Learners may develop their skills in Providing/Creating Information by using ICT to carry out a range of processing tasks relating to distribution methods, operations and techniques.

Problem Solving — Critical Thinking at SCQF level 6

In all three Outcomes learners will have the opportunity to develop their Critical Thinking skills in a variety of areas, including distribution methods, constraints on storage functions and distribution and reverse distribution by analysing a complex situation or issue.

Problem Solving — Planning and Organising at SCQF level 6

In Outcome 1 learners will have the opportunity to plan, organise and complete a task as they carry out the task relating to distribution operations.

Problem Solving — Reviewing and Evaluating at SCQF level 6

In Outcomes 1 and 3 learners will have the opportunity to develop their reviewing and evaluating skills as they have to evaluate storage and distribution operations and methods of 'adding value'.

History of changes to Unit

Version	Description of change	Date

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General information for learners

Unit title: Supply Chain: Storage and Distribution

This section will help you decide whether this is the Unit for you by explaining what the Unit is about, what you should know or be able to do before you start, what you will need to do during the Unit and opportunities for further learning and employment.

This Unit introduces you to storage and distribution operations within the supply chain. Supply chain professionals need to be aware of the importance of physical storage and distribution in order to appreciate the downstream activities in the supply chain.

You will gain an understanding of the nature of modern storage and distribution techniques and methods and the scope of activities associated with current distribution concepts.

Comprehensive descriptions of storage and distribution methods will be evident throughout the delivery of the Unit together with a full appreciation of the scope of distribution in current practice.

Outcome 1 focuses on the objectives of a distribution system from stored goods through to customer receipt.

Outcome 2 covers the methods, techniques and equipment used in the storage and warehousing of goods.

Outcome 3 looks at the concepts involved in 'adding value' to the way in which the storage and distribution of goods is undertaken.

You may be assessed through the production of a report or by a case study.

To achieve this Unit you must produce satisfactory assessment evidence that shows you have achieved all of the Unit Outcomes.

If you achieve this Unit there may be opportunities for you to gain exemption from a number of professional bodies. It will be your responsibility to ascertain from the professional body what is included in their current exemption policies.