



National Unit Specification: general information

UNIT How a Supply Chain Works (SCQF level 5)

CODE F4SX 11

SUMMARY

This Unit may be delivered as part of a National Qualification Group Award or as a free-standing Unit. The Unit is suitable for candidates who wish to develop knowledge and understanding of supply chain structures and processes. The Unit provides candidates with an introduction to the typical structure of relatively simple supply chain models and their constituent parts. Candidates will be able to identify the constituent parts of a given supply chain and explain their interaction through the various flows that exist within that supply chain. Candidates will also demonstrate their awareness of potential problems within the supply chain and of good working relationships with colleagues and other stakeholders.

OUTCOMES

- 1 Explain the process for a given supply chain.
- 2 Explain the major flows within a supply chain.
- 3 Explain the key issues that may arise in the operation of a supply chain.

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would normally be expected to have attained the following, or equivalent:

- ◆ Communication Access 3
- ◆ Numeracy Access 3
- ◆ Problem Solving Access 3

Administrative Information

Superclass: VB

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CREDIT VALUE

1 credit at Intermediate 2 (6 SCQF credit points at SCQF level 5*).

**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.*

CORE SKILLS

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

Opportunities for developing Core Skills are highlighted in the support notes of this Unit Specification.

National Unit Specification: statement of standards

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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

Explain the process for a given supply chain.

Performance Criteria

- (a) Identify stakeholders within a supply chain and explain the role each one has.
- (b) Describe the different tiers of suppliers and how they interact to provide materials to the main organisation, including scheduling and availability of resources.
- (c) Describe the different tiers of customers and how they interact to provide the final customer with his/her goods/service.
- (d) Explain what is meant by internal customers within the main organisation.
- (e) Explain how the final customer demand may impact on upstream suppliers.

OUTCOME 2

Explain the major flows within a supply chain.

Performance Criteria

- (a) Describe how materials flow through the given supply chain.
- (b) Explain clearly the importance of information flow within the given supply chain.
- (c) Identify the financial flows and explain their importance within the given supply chain.
- (d) Describe the difference between communication within the given supply chain and the flow of information.

OUTCOME 3

Explain the key issues that may arise in the operation of a supply chain.

Performance Criteria

- (a) Identify and explain potential problems associated with the supply chain.
- (b) Suggest how problems in the supply chain may be resolved.
- (c) Explain the importance of good working relationships within the supply chain and describe what steps can be taken to promote and maintain these relationships.

National Unit Specification: statement of standards (cont)

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EVIDENCE REQUIREMENTS FOR THIS UNIT

Written and/or oral evidence is required to demonstrate that candidates have achieved all Outcomes and Performance Criteria.

A holistic approach to generating assessment evidence for all of the Outcomes is recommended. In relation to Outcome 1 candidates must identify a minimum of **3** stakeholders within a supply chain and explain the role each one has and in Outcome 3 identify and explain a minimum of **three** potential supply chain problems from a variety of areas that are likely to occur within the supply chain.

Evidence will be produced in open-book conditions on one or more occasions at appropriate points throughout the Unit. The evidence may be derived from practical activity undertaken by the candidate where they have the opportunity to operate their own supply chain or from a case study of a given supply chain model provided by the tutor.

Evidence may be based on a supply chain that the candidate has created. This must have been approved by the assessor.

Where the candidate answers orally the assessor must complete an assessor checklist.

The Assessment Support Pack for this Unit provides sample assessment material. Centres wishing to develop their own assessments should refer to the Assessment Support Pack to ensure a comparable standard.

National Unit Specification: support notes

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This part of the Unit Specification is offered as guidance. The support notes 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 intended for candidates who wish to develop knowledge and understanding of supply chain structures and processes. This is a mandatory Unit on the National Progression award in Supply Chain Operations at SCQF level 5.

This Unit may be delivered as part of a National Qualification Group Award or as a freestanding Unit. Where it is being delivered as a Group Award it should be delivered early in the programme as the content underpins and will assist candidates in their understanding of other Units.

Outcome 1 introduces the candidates to the concept of a supply chain and examines the structure and key elements within a supply chain. The major flows — materials, information and money should be discussed as should the organisational objectives for the main organisation in the supply chain. Candidates should be aware of what is meant by the term ‘internal customer’ and should also look at resources and scheduling in this Outcome but not at a detailed level. The final customer should also be considered, especially how the demand that they create will affect the upstream suppliers. Candidates should also be aware of the variety of stakeholders involved in a supply chain and the role that each one has.

Outcome 2 looks at the flows through the supply chain in more detail and candidates will be required to consider materials flow, in particular, with reference to procurement, storage, transport and distribution systems. The discussions should focus on the key principles of these systems as they will be covered in more detail in other Units. Candidates should be aware of the differences between communication and information and their importance in terms of the effectiveness of the supply chain. Communication is a two way process where an individual can respond to information or opinions being put forward by another person.

Listening is a key aspect of good communication. Information consists of facts, data, or instructions in any medium or form. For example in an organisation there may be information on a vacancy and this will tell you what the organisation is looking for in terms of attributes required by the candidate and also what is involved in carrying out the job role eg a supplier will have information about product orders by a customer eg number needed, size, colour.

Candidates should be able to identify and discuss the relevant part of the communication and information system throughout the supply chain.

Outcome 3 requires the candidate to look at potential problems that could occur in the supply chain, therefore reducing its effectiveness. Problems can arise in a variety of areas in the supply chain and a sufficient number of these should be discussed. Examples may include scheduling, quality, sustainability, communications, environmental, but there are also many others. It is also important that candidates are aware of the working relationships that exist in a supply chain and the techniques used to maintain and improve these relationships.

National Unit Specification: support notes (cont)

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Candidates should be aware of the importance of timing with regard to communications and information flow plus the importance of communicating changes that are taking place as well as the importance of interpersonal skills, treating colleagues and customers with respect, and honouring commitments.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

The delivery of the content should be generic but specific examples could be used to illustrate the structures and processes. The examples should be kept fairly simple as supply chains can become very complex. Both Manufacturing and Service examples should be explored. For example a pencil manufacturer would be adequate for manufacturing and an Estate Agent for service.

A range of delivery techniques can be employed, including group discussion and activities, and candidates should be encouraged to draw on any experience they have. They should be encouraged to think about supply chains for any purchases that they make such as games software, clothes, food, for example, but try to ensure that at this stage the candidate does not select examples that will be too complex.

Where possible, candidates should be encouraged to examine a product that they might consider manufacturing for sale to school/college colleagues and /or family members or at trade fair. This will provide them with an opportunity to experience dealing with a supply chain and could be an ideal situation for assessment purposes.

Such an approach would reinforce the knowledge and understanding gained from the Unit in a practical, meaningful way.

Candidates should be encouraged to investigate current industry standards and organisational policies through research carried out on the Internet and other sources, such as the Sector Skills Council's website and their Professional Development Stairway.

It would be also be helpful for the candidates to gain some insight to supply chain practices through a visit, or appropriate work experience placement. The information gleaned from the organisation could be shared with other candidates during discussion sessions. It may also be useful to invite external speakers from relevant organisations to provide an input to the group on how they approach supply chain functions.

National Unit Specification: support notes (cont)

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OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

In this Unit, candidates may have the opportunity to work in groups and could develop their skills of *Working with Others* during the course of the Unit, especially if they can agree a common product that they can either manufacture or enhance in some way and sell to customers, ie develop their own supply chain. They are also likely to gain experience in Communication and Problem Solving through working with their own supply chain, as a group, because decisions will have to be made in terms of purchases, transformation methods, pricing, packaging, selling and perhaps distribution. These skills could also be enhanced through work experience and perhaps through involvement in meetings or by working along side a company mentor. Both experiences could also introduce the candidate to numeracy through planning quantities, scheduling timings and looking at purchase and selling prices. These experiences may also provide opportunities to enhance information technology skills through involvement in planning and/or financial recording. This Core Skill could also be developed when candidates undertake research using the internet.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

It is advisable that all three Outcomes are covered by one integrated Instrument of Assessment. The assessment should provide the candidates with an opportunity to report on the findings related to their own supply chain. If this is not possible or practical then candidates could be presented with a case study of a given supply chain model for a given product or service where they will be asked to report on a number of situations. In addition the assessor may wish to include one or two scenarios to ensure that the Outcomes and Evidence Requirements are fully covered. The assessment should consist of a report which will be completed under open-book conditions based on a supply chain model, and the scenarios if they are included.

Alternatively each Outcome can be assessed separately or in any combination of the Outcomes. The Instrument of Assessment that covers Outcome 1, however, should provide the candidates with a supply chain model for a given product or service.

They should present a report on the supply chain and where possible any practical experience gained through a work placement. Where the assessor feels that candidates would have difficulty in relating to the Outcomes and Evidence Requirements through work on their own supply chain or work experience then candidates could be provided with suitable scenarios and related questions.

Opportunities for the use of 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 communications technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

National Unit Specification: support notes (cont)

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CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).