

SQA Advanced Unit Specification

General information for centres

Unit title: Supply Chain: Tactics and Techniques

Unit code: HP5L 49

Superclass: VB

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Unit purpose

This Unit is designed to provide the learners with detailed knowledge of contemporary tactics and operational techniques that are used to manage and control the supply chain. It is primarily intended for learners who wish to aspire to a managerial position within procurement and who wish to understand the challenges of tactics and operational activities both in their own organisation and throughout the supply chain.

Outcomes

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

- 1 Demonstrate a range of contemporary skills and techniques relevant to sourcing operations and tactics.
- 2 Critically evaluate the risks and economics associated with inventory management for dependent and independent demand items.
- 3 Evaluate global procurement processes.

Credit points and level

1 SQA Credit at SCQF level 9: (8 SCQF credit points at SCQF level 9*)

**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 National 1 to Doctorates.*

SQA Advanced Unit Specification

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.

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.

Unit specification: statement of standards

Unit title: Supply Chain: Tactics and Techniques

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

Demonstrate a range of contemporary skills and techniques relevant to sourcing operations and tactics.

Knowledge and/or Skills

- ◆ Vendor assessment and development
- ◆ Vendor rating
- ◆ Early supplier and buyer involvement
- ◆ Introduction of supplier management teams
- ◆ Value analysis and value engineering
- ◆ Make or buy decisions
- ◆ Outsourcing

Evidence Requirements

Learners will need evidence to demonstrate all aspects of their Knowledge and/or Skills in this Outcome by demonstrating a range of contemporary skills and techniques relevant to sourcing operations and tactics, showing that they can:

- ◆ explain the need for vendor assessment and development
- ◆ describe a typical quantitative and qualitative vendor rating system
- ◆ describe the advantages of early involvement with both buyers and suppliers
- ◆ describe the benefits of a supplier management team
- ◆ explain the advantages of value analysis and value engineering in relation to procurement
- ◆ explain the criteria for the decision-making process on make or buy
- ◆ describe the procedures involved with 'outsourcing'

Outcome 2

Critically evaluate the risks and economics associated with inventory management for dependent and independent demand items.

Knowledge and/or Skills

- ◆ Economics of stock management
- ◆ Fixed order quantities
- ◆ Materials Requirements Planning (MRP) and Manufacturing Resource Planning (MRPII)
- ◆ Distribution Requirement Planning systems (DRP)
- ◆ Kanban and Just in Time (JIT) systems
- ◆ Consumables and maintenance, repair and operational supplies
- ◆ Forecasting
- ◆ Purchasing for resale

SQA Advanced Unit Specification

Evidence Requirements

Learners will need evidence to demonstrate all aspects of their Knowledge and/or Skills in this Outcome by evaluating the risks and economics associated with inventory management for dependent and independent demand items, by showing that they can:

- ◆ explain **two** techniques that can be used to ensure an economic inventory management system operates in an organisation
- ◆ describe the advantages and disadvantages of using fixed order quantities
- ◆ analyse the types of inventory generated by the use of a Materials Requirements Planning (MRP) system and a Manufacturing Resource Planning system (MRPII)
- ◆ analyse the types of inventory generated by the use of a Distribution Requirements Planning (DRP) system
- ◆ explain the use of Kanban and Just in Time (JIT) systems and their effect on inventory levels
- ◆ explain the management of inventory associated with consumables, maintenance, repair and operational supplies
- ◆ critically evaluate the use of forecasting
- ◆ explain the process of purchasing for resale

Outcome 3

Evaluate global procurement processes.

Knowledge and/or Skills

- ◆ Global procurement
- ◆ Domestic and international processes
- ◆ Import procedures
- ◆ Information requirements
- ◆ Negotiation considerations

Evidence Requirements

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

- ◆ explain the advantages and disadvantages of global procurement
- ◆ compare the domestic and international procurement processes
- ◆ describe import procedures and the Incoterms used
- ◆ explain the information required when procuring goods from abroad
- ◆ explain the considerations required when negotiating foreign contracts

SQA Advanced Unit Specification

Unit specification: support notes

Unit title: Supply Chain: Tactics and Techniques

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 an SQA Advanced Supply Chain Management Group Award. It is designed to enable learners to understand the tactics and techniques that may be employed in relation to procurement processes both domestically and internationally and the risks associated with inventory for independent demand items.

It is recommended that learners 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.

Outcome 1 covers tactics and techniques relevant to procurement operations.

- ◆ vendor assessment and development
- ◆ quantitative and qualitative vendor rating systems
- ◆ advantages of suppliers and buyers being involved at the early stages of the procurement process
- ◆ the benefits of setting up supplier management teams
- ◆ advantages of value analysis and value engineering in relation to procurement
- ◆ the process involved in deciding to make an item or to buy it
- ◆ procedures involved in outsourcing items

Outcome 2 allows the learner to evaluate the risks and the economics of inventory control for independent demand items.

- ◆ techniques to ensure economic stock management systems
- ◆ advantages and disadvantages of fixed order quantities
- ◆ inventory generated by the use of a Materials Requirements Planning (MRP) system and Manufacturing Resource Planning (MRPII) system
- ◆ inventory generated by the use of a Distribution Requirements Planning (DRP) system
- ◆ the effect on inventory when using Kanban and Just in Time (JIT) systems
- ◆ managing inventory for consumables and maintenance, repair and operational supplies
- ◆ use of forecasting
- ◆ purchasing for resale

Outcome 3 examines global procurement processes.

- ◆ advantages and disadvantages of global procurement
- ◆ comparison of domestic and international procurement processes
- ◆ import procedures including the use of Incoterms
- ◆ the information necessary when importing goods
- ◆ considerations required when negotiating foreign contracts

Guidance on approaches to delivery of this Unit

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 the 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 types of 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.

To achieve this Unit the learners must produce satisfactory assessment evidence that shows they have achieved all of the Unit Outcomes. This Unit could be assessed by a report based on the learner's experience of working in a supply chain related environment or by questions based on a case study.

Where a workplace situation is used, care should be taken to ensure that it would provide learners with sufficient opportunity to meet the Evidence Requirements for the Unit. Reports can be supplemented by additional questions to ensure all aspects of the Evidence Requirements are met. The report may be presented in any suitable format.

Where evidence is presented as a written report it is recommended that each of the three sections covering each Outcome is approximately 1,000 words in length.

However, it is recognised that not all learners will have the necessary industrial experience when embarking on the Course and where this is the case learners may be assessed using an appropriate case study. Learners will require to answer questions based on a case study covering all Evidence Requirements for all three Outcomes. Where a case study is used this may be issued to the learners 2–3 weeks in advance of the assessment event at which the questions will be distributed. The assessment should be carried out under open-book supervised conditions.

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*; the Using Number component of the Core Skill of *Numeracy*; and the Core Skills of *Information and Communication Technology (ICT)*, *Problem Solving* and *Working with Others* all at SCQF level 6.

***Communication* — Written Communication at SCQF level 6**

All three Outcomes will 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**

The opportunity to develop numerical skills occurs in Outcomes 1 and 2.

In Outcomes 1 and 2 learners are expected to work with, and make decisions, from a variety of numeric-based sources of information.

***Information and Communication Technology (ICT)* — Accessing Information at SCQF level 6**

The opportunity to develop ICT skills will occur in Outcomes 1, 2 and 3.

The opportunity to develop skills in accessing information will occur in all three Outcomes. For example, learners will use ICT to carry out complex searches across a range of tasks, ie Outcome 1 from vendor assessments, Outcome 2 from Material Requirements Planning (MRP) and Outcome 3 from import procedures.

***Information and Communication Technology (ICT)* — Providing/Creating Information at SCQF level 6**

The opportunity to develop skills in Providing/Creating Information will occur mainly in Outcomes 1 and 2. For example, learners may use ICT to carry out tasks relating to the decision to 'make or buy' and actions to be taken as a result of a MRP output.

SQA Advanced Unit Specification

***Problem Solving* — Critical Thinking at SCQF level 6**

The opportunity to develop *Problem Solving* skills may occur in Outcomes 1 and 2.

In Outcomes 1 and 2 learners will have the opportunity to develop their Critical Thinking skills, for example, through value analysis and forecasting relating to inventory management.

***Problem Solving* — Planning and Organising at SCQF level 6**

In Outcomes 1 and 2 learners will have the opportunity to develop their Planning and Organising skills, for example, through carrying out tasks in connection with outsourcing and the Kanban system.

***Problem Solving* — Reviewing and Evaluating at SCQF level 6**

In Outcomes 1 and 2 learners will have the opportunity to develop their Reviewing and Evaluating skills, for example, through the review and evaluation of activities relating to vendor assessment and development, and Manufacturing Resources Planning (MRPII).

***Working with Others* — Working Co-operatively with Others at SCQF level 6**

The opportunity to develop skills in *Working with Others* occurs in Outcome 1.

One example of Working Co-operatively with Others will be the learner's involvement in supplier management teams. Where the learner is involved in a supplier management team they will work with others to analyse and organise the requirements of their own role and the roles of others. The learner will have to negotiate working methods and may have to modify behaviour.

***Working with Others* — Reviewing Co-operative Contribution at SCQF level 6**

One example of Reviewing Co-operative Contribution will be the outcomes from value analysis and value engineering. Learners, working in teams, will have to review work with others considering their own involvement and the involvement of others.

Administrative information

Version	Description of change	Date

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SQA acknowledges the valuable contribution that Scotland's colleges have made to the development of SQA Advanced Qualifications.

FURTHER INFORMATION: Call SQA's Customer Contact Centre on 44 (0) 141 500 5030 or 0345 279 1000. Alternatively, complete our [Centre Feedback Form](#).

General information for learners

Unit title: Supply Chain: Tactics and Techniques

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 a number of aspects of tactics and operations related to supply chain management. It may be studied as a standalone Unit or as part of an SQA Advanced Diploma and is designed to enable you to gain knowledge and develop practical skills related to supply chain management.

Outcome 1 looks at the range of contemporary skills relevant to procurement operations, techniques and tactics. You will examine vendor assessment and development, and how to carry out both a quantitative and qualitative vendor rating. You will further examine the advantages of the buyers and suppliers being involved in the process at the earliest opportunity, and the benefits of setting up supplier management teams. You will look at the advantages of using value analysis and value engineering in relation to procurement. You will study the decision-making process in relation to whether an organisation would be better to make an item or purchase it and you look at the procedures involved with 'outsourcing'.

Outcome 2 covers the risks and economics associated with inventory management for dependent and independent demand items. You will learn about a number of techniques that can be used to ensure an economic inventory management system operates in an organisation. One way of ordering items is by using fixed order quantities and you will learn about the advantages and disadvantages of using this system. Most of the larger manufacturing companies will use a Materials Requirements Planning (MRP) system, a Manufacturing Resources Planning (MRPII) system and a Distribution Requirements Planning (DRP) system, all of which will produce an inventory at various stages in an operation and you will analyse the types of inventory generated by each system.

Methods of reducing inventory levels is by the use of Kanban and Just in Time (JIT), and you will study how they are used and the effect they have on inventory levels. In addition to customer demand, other areas of demand will include consumables and maintenance, repair and operational supplies, and you will look at the inventory management requirements for these items. In some types of organisations it is necessary to forecast demand, and you will evaluate the use of forecasting and how it may affect inventory levels and, finally, you will study the purchasing of goods for resale.

Outcome 3 focuses on global procurement processes. You will look at the advantages and disadvantages of global procurement, and compare the processes involved in procuring goods from the domestic markets with international markets. Procuring goods internationally will mean that you will need to be aware of import procedures and be able to explain these procedures together with the Incoterms used in importing goods.

Procuring goods internationally can be more difficult, and you will study the type of information that an organisation is likely to require prior to and during the procurement of goods from abroad. Dealing with foreign suppliers will mean that certain aspects of the negotiations will need to be considered and you will be expected to understand and explain these aspects when negotiating foreign contracts.

The assessment for this Unit may be integrated, ie cover all three Outcomes and may be achieved in one of two ways. Where you have industrial experience in a supply chain

SQA Advanced Unit Specification

environment you may be assessed by means of an integrated report which covers **all** the Evidence Requirements for the three Outcomes. Alternatively, you may be assessed by the use of a relevant case study with associated questions. Where this approach is used assessment will be carried out under open-book supervised conditions.

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.