SQA Advanced Unit Specification

General information for centres

Unit title: Supply Chain: An Introduction to Enterprise Planning

Unit code: HP5W 49

Superclass:	AE
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Version:	01

Unit purpose

This Unit introduces learners to the complex concept of Enterprise Planning as a fully integrated, organisation wide, harmonised planning and control system. Learners will understand that Enterprise systems provide an 'umbrella' approach to tie together the wide variety of specialised systems within an organisation delivering a complete solution to business-reporting on a local, national or global basis.

It is primarily intended for learners who aspire to take up a management role in a supply chain environment with any manufacturing, service or logistics organisation. It is also appropriate for those involved in the various functions associated with planning, procurement, distribution, marketing and finance.

Outcomes

On completion of the Unit the learner should be able to:

1   Investigate how an organisation operates its integrated systems aspects of Enterprise Planning information systems.
2   Describe how an Enterprise Planning system is a complex function that unifies people, processes and technology.
3   Prepare information flow diagrams illustrating business systems and the movement of data through the supply chain.
4   Explain the business processes that will benefit from integration into an Enterprise Planning system.

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.

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 a manufacturing, service or logistics organisation. 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 of the Core Skills framework. 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.

Unit specification: statement of standards

Unit title: Supply Chain: An Introduction to Enterprise Planning

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

Investigate how an organisation operates its integrated systems aspects of Enterprise Planning information systems.

Knowledge and/or Skills

♦ Organisation information systems
♦ Flow and usage of information
♦ Co-ordination aspects of organisation systems

Evidence Requirements

Learners will need evidence to demonstrate all aspects of their Knowledge and/or Skills in this Outcome by investigating how an organisation operates its integrated systems aspects of Enterprise Planning information systems, showing that they can:

♦ identify systems and sub-systems used to process information making reference to **three** of the following:
— data entry systems
— accounting systems
— planning systems
— spreadsheets
— shipping and despatch systems
♦ describe the information handling aspects of the organisation's database making reference to **three** of the following:
— sales data input
— financial data input
— planning data input
— information processing
— output from the system generated by the information
♦ identify co-ordination aspects of an organisation's systems

Outcome 2

Describe how an Enterprise Planning system is a complex function that unifies people, processes and technology.

Knowledge and/or Skills

♦ Usage of information within an organisation
♦ Sources and causes of data errors
♦ Effects of inaccurate information

Evidence Requirements

Learners will need evidence to demonstrate all aspects of their Knowledge and/or Skills in this Outcome by describing how an Enterprise Planning system is a complex function that unifies people, processes and technology, showing that they can:

♦ trace the flow of information into, through and out of, the system making reference to **each** of the following:
  — information from customers
  — information from suppliers
  — information relevant to the organisation's processes
♦ trace and identify the source of erroneous data making reference to **each** of the following:
  — stock record errors
  — sales order entry errors
  — order delivery promising errors
♦ demonstrate the effect on the system of erroneous data making reference to **each** of the following:
  — stock record errors
  — sales order entry errors
  — order delivery promising errors

Outcome 3

Prepare information flow diagrams illustrating business systems and the movement of data through the supply chain.

Knowledge and/or Skills

♦ Structure of an organisation's information system
♦ Flow and usage of information
♦ The relationship between customers, the organisation and suppliers
♦ Use of standard flow diagrams

Evidence Requirements

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

♦ prepare a flow diagram illustrating the movement and use of information through an enterprise organisation, making reference to **three** of the following:
  — sales order processing
  — purchase order processing
  — production planning systems
  — stock management systems
  — customer invoice processing

Outcome 4

Explain the business processes that will benefit from integration into an Enterprise Planning system.

Knowledge and/or Skills

♦ Structure and purpose of an organisation information system
♦ The flow and usage of information
♦ Relationship between customers, the organisation and suppliers

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 structure and purpose of an organisation installing a fully integrated information system
♦ explain the flow and usage of information within an organisation and examine the benefits and shortcomings that the information system creates
♦ analyse the relationships between customers, the organisation and suppliers created by the integrated information system

Unit specification: support notes

Unit title: Supply Chain: An Introduction to Enterprise Planning

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 concept of Enterprise Planning and the integration of information systems through an organisation. Learners should be able to understand the links between customers, logistics and suppliers and the movement of information between these entities.

It is recommended that learners should have experience of working in an administrative or associated function.

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

Outcome 1 covers the integrated systems aspects of Enterprise Planning information systems.

♦ Systems and sub-systems
  — data entry
  — accounting
  — planning
  — spreadsheets
  — shipping and despatch
♦ Information handling aspects of the organisation's database
  — sales data input
  — financial data input
  — planning data input
  — information processing
  — output from the system generated by the information

Outcome 2 looks at how an Enterprise Planning system unifies people, processes and technology.

♦ Information flow into, through and out of the system
  — information from customers
  — information from suppliers
  — information relevant to the organisation's processes
♦ Source of erroneous data
  — stock record cards
  — sales order entry errors
  — order delivery promising errors
♦ Effects on the system of erroneous data
  — stock record errors
  — sales order entry errors
  — order delivery promising errors

Outcome 3 involves the preparation of information flow diagrams.

♦ Structure of information system
♦ Flow and usage of information
♦ Customer/organisation/supplier relationships
♦ Use of standard flow diagrams

Outcome 4 focuses on the business processes that benefit from integration into an Enterprise Planning system.

♦ Structure and purpose of an organisation information system
♦ Flow and usage of information
♦ Customer/organisation/supplier relationships

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. Where this Unit is delivered as part of an SQA Advanced Supply Chain Management Group Award it should be delivered towards the end of the Course.

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.

It is strongly recommended that 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.

In order to achieve the Outcomes it is recommended that the learner should carry out extensive research by gaining access to companies who have an Enterprise Resource Planning System and also through internet-based research.

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.

It is suggested that a holistic approach is taken for this Unit. One assessment could be used for all four Outcomes.

The assessment for this Unit may be integrated with learners submitting a report covering the Evidence Requirements of all four Outcomes. It is recommended that the report comprise of four sections — each section reflecting an individual Outcome. The report may be submitted in four stages so that learners may remediate before progressing to the next stage. This also

enables assessors to monitor each learner's progress. It is suggested that the report comprise of approximately 3,000 words. This should include appropriate diagrams plus the flow diagram(s) in Outcome 3. It should also include the description of the flow diagram(s) in Outcome 3 and the conclusions of the integrated formal report. The report will comprise of four sections reflecting each Outcome. Sections 1, 2 and 4 should be approximately 1,000 words in length.

The report will be produced under open-book conditions.

Where possible, the report should be based on the learner's own organisation, or one they have knowledge of, but where this is not possible the centre should supply suitable case study material.

The assessment should ensure that the learner is able to understand the generic concepts of how the system operates, and is managed, to ensure value for both the customer and the organisation. It should ensure that the learner can determine, review and recommend system integration identifying the benefits for an organisation at all levels from local to global operations where appropriate.

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 Core Skills of *Communication, Numeracy, Information and Communication Technology (ICT)* and *Problem Solving* all at SCQF level 6 and the Working Co-operatively with Others component of the Core Skills of *Working with Others* at SCQF level 5 in this Unit.

Communication — Written Communication at SCQF level 6

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

Opportunities will occur where learners present written responses as part of their work throughout the Unit, but especially in the assessment, particularly Outcomes 1, 2 and 4, where evidence may be presented as a written report. Learners will have to produce a well-structured report which evaluates a substantial body of information in-depth. The report will use a format, layout and word choice effective in meeting the purpose.

Communication — Oral Communication at SCQF level 6

Where the assessment of this Unit takes the form of a report, learners will have the opportunity to develop their oral communication skills. Learners may meet with individuals from their own organisation, along with other specialists, to gather information so will use vocabulary and a range of spoken languages structures in a consistent and effective manner.

Learners may present their findings as an oral presentation and must convey all essential information and ideas and respond to questions. Within an oral presentation, it is possible that specialist vocabulary may be used.

Numeracy — **Using Number at SCQF level 6**

In Outcome 1, where learners look at systems and information handling, they may carry out a number of sustained, complex calculations to solve complex work-related problems.

Numeracy — **Using Graphical Information at SCQF level 6**

In Outcome 3, learners have to prepare a flow diagram showing the flow of information through the enterprise thereby enabling learners to use graphs to communicate information.

Information and Communication Technology — **Accessing Information at SCQF level 6**

Learners may use ICT independently to carry out complex searches across a range of tasks.

Learners may have to carry out complex searches and evaluate the reliability of the information.

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

Learners may use ICT independently to carry out a range of processing tasks. They could select and launch appropriate software to perform complex tasks and evaluate information against chosen criteria.

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

All four Outcomes provide learners with the opportunity to develop their problem solving skills.

Where a combined assessment is used, learners may have to investigate an organisation unfamiliar to them and analyse their Enterprise Planning system. They will have to identify factors involved and assess the relevance of these and thereafter evaluate the situation.

Where a case study is used, learners may have to analyse variables which may be complex and will have to evaluate the situation prior to responding to the questions.

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

Learners will have to identify and obtain resources, from a wide range of familiar and unfamiliar sources — particularly when dealing with an unfamiliar organisation — to carry out the assessment tasks. Learners will have to decide how the task will be managed and carry it out — this could include allocation of tasks in a group context.

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

Learners will have to review and evaluate their findings in Outcome 1. In Outcome 4, learners will have to review and recommend system integration identifying the benefits for an organisation at all levels.

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Working with Others **— Working Co-operatively with Others at SCQF level 5**

The opportunity to develop skills in Working with Others occurs in the Outcomes.

One example of Working Co-operatively with Others will be the learner's involvement in a group approach to assessment. Learners will have to organise and carry out their role, proactively seek and offer support to and from others.

Working with Others **— Working Co-operatively with Others at SCQF level 5**

Administrative information

Version	Description of change	Date

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: An Introduction to Enterprise Planning

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.

You will cover a number of aspects of Enterprise Planning within supply chain management.

There are four Outcomes in the Unit.

In Outcome 1, you will look at the integrated systems aspects of Enterprise Planning information systems.

In Outcome 2, you will study how the Enterprise Planning function unifies people, processes and technology.

In Outcome 3, you will prepare information flow diagrams illustrating business systems and the movement of data through the supply chain.

Outcome 4 looks at the benefits gained from integrating processes into an Enterprise Planning system.

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

In order to achieve the Outcomes, it is recommended that you should carry out extensive research by gaining access to companies who have an Enterprise Resource Planning System and also through internet-based research.

There may be an opportunity to integrate the assessments for this Unit to cover all four Outcomes. In Outcome 3, you will be required to prepare a flow chart illustrating business systems and the movement of data through the supply chain. The other Outcomes may be assessed by reports. Where possible, the reports should be based on your own organisation, or one you have knowledge of, but where this is not possible the centre can supply suitable case study material.

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.