

## Higher National Unit Specification

### General information for centres

**Unit title:** Design of Charts and Diagrams

**Unit code:** DV5Y 34

**Unit purpose:** This Unit is designed to introduce candidates to the various types of charts and diagrams and the basic principles of constructing them. The Unit is aimed at those wishing to develop skills in the area of constructing charts and diagrams.

On completion of this Unit, the candidate should be able to:

- 1 Identify and describe chart and diagram types and their characteristics.
- 2 Construct charts and diagrams.
- 3 Create solutions to a design brief for charts and diagrams.

**Credit points and level:** 1 HN Credit at SCQF level 7: (8 SCQF credit points at SCQF level 7\*).

*\*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 prior knowledge and skills:** Access to this Unit is at the discretion of the centre. It would be beneficial if the candidate had competence in the manipulation of basic graphical elements.

**Core Skills:** There are opportunities to develop the Core Skills of Problem Solving and Numeracy at SCQF level 6 in this Unit, although there is no automatic certification of Core Skills or Core Skills components. Further details are provided in the support notes.

**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.

**Assessment:** Outcome 1 should consist of short written response or multiple-choice questions or equivalent. Outcomes 2 and 3 should be practical.

The assessment for Outcome 1 should be undertaken by candidates at one single event lasting one hour. The questions should be composed of a suitable balance of short answers, restricted response and structured questions and/or as a multiple-choice paper. Assessment should be conducted under closed-book conditions.

## **General information for centres (cont)**

Outcome 2 should be assessed as a series of assignments. In the assignments, candidates should be asked to create the charts and diagrams types identified in the Evidence Requirements. The series of assignments should be devised by the tutor delivering the Unit and candidates should be allowed to refer to relevant course material.

Outcome 3 should be assessed as a practical exercise. The evidence created by the candidate should be in response to a design brief. The design brief should be devised by the tutor delivering the Unit and candidates should be allowed to refer to relevant course material.

It is essential that centres ensure that evidence generated is the candidate's own work.

## Higher National Unit specification: statement of standards

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The sections of the Unit stating the Outcomes, knowledge and/or skills, and Evidence Requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the knowledge and/or skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

### Outcome 1

Identify and describe chart and diagram types and their characteristics

#### Knowledge and/or skills

- ◆ Chart types: line graph, bar chart, pie chart, isotype, flow chart
- ◆ Chart characteristics
- ◆ Diagram types: schematic, illustrative
- ◆ Diagram characteristics

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by showing that they can:

- ◆ identify the following chart types: line graph, bar chart, pie chart, isotype, flow chart
- ◆ describe the characteristics of each chart type
- ◆ identify the following diagram types: schematic, illustrative
- ◆ describe the characteristics of each diagram type

Evidence should be generated through questions composed of a suitable balance of short answers, restricted response and structured questions and/or as a multiple choice paper. The assessment should be conducted under controlled, supervised conditions.

#### Assessment guidelines

The assessment for this Outcome should take the form of a single written exercise or equivalent. The assessment can be carried out after the topic has been delivered, or at the end of the Unit. This is at the discretion of the presenting centre. It is recommended that the time allocated for the assessment is one hour. It is recommended that centres develop checklists to support the assessment requirements for each of the knowledge and/or skills items.

## Higher National Unit specification: statement of standards (cont)

**Unit title:** Design of Charts and Diagrams

### Outcome 2

Construct charts and diagrams

#### Knowledge and/or skills

- ◆ Select chart and diagram types
- ◆ Construct chart and diagram types

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by showing that they can:

- ◆ select chart and diagram types to suit the given information and a target audience
- ◆ construct chart and diagram types to suit the given information that will be readily understood by a target audience

Chart types should include one of each of the following:

- ◆ line graph
- ◆ bar chart
- ◆ pie chart
- ◆ isotype
- ◆ flow chart

Diagrams types should include one of each of the following:

- ◆ schematic diagram
- ◆ illustrative diagram

Evidence should be generated by a series of seven practical assignments — one example of each type of chart or diagram listed — lasting 35 minutes each.

#### Assessment guidelines

The assessment for Outcome 2 should take the form of a practical exercise. The assessment can be carried out after the topic has been delivered or at the end of the Unit. This is at the discretion of the presenting centre. The recommended time allocated for each assessment is 35 minutes. It is recommended that the centres develop checklists to support the assessment requirements for each of the knowledge and/or skills items.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Design of Charts and Diagrams

### **Outcome 3**

Create solutions to a design brief for charts and diagrams

#### **Knowledge and/or skills**

- ◆ Research assimilation
- ◆ Analytical sketches
- ◆ Imagery for synthesised solutions to a brief
- ◆ Produce a work plan

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by showing that, in response to a given brief, they can:

- ◆ assimilate subject matter information
- ◆ create analytical visuals
- ◆ create a synthesised visual solution with respect to the coherent integration of graphic elements and visual explanation of the brief
- ◆ produce a work plan with respect to timescale, resources and processes involved

Evidence should be generated through a series of four practical assignments – one for each of the Evidence Requirements listed – undertaken in open conditions. Candidates should be allowed to refer to relevant course material.

#### **Assessment guidelines**

The assessment for Outcome 3 should take the form of a series of practical exercises. Assessment can be carried out after the topic has been delivered or at the end of the Unit. This is at the discretion of the presenting centre. The recommended time allocated for the assessment of each exercise is 35 minutes. It is recommended that centres develop checklists to support the assessment requirements for each of the knowledge and/or skills items.

## **Administrative Information**

<b>Unit code:</b>	DV5Y 34
<b>Unit title:</b>	Design of Charts and Diagrams
<b>Superclass category:</b>	JC
<b>Date of publication:</b>	August 2006
<b>Version:</b>	01
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## **Higher National Unit specification: support notes**

### **Unit title:** Design of Charts and Diagrams

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 has been written in order to allow candidates to develop knowledge, understanding and skills in the following areas:

- ◆ identify and describe chart and diagram types and their characteristics
- ◆ construct charts and diagrams
- ◆ create solutions to a design brief for charts and diagrams

This Unit is at SCQF level 7 and has been devised as part of the HNC/HND Visual Communication Group Award. However this does not preclude the use of the Unit in other Group Awards where qualification design teams feel this to be appropriate.

All assessment should be conducted in conditions where arrangements have been put in place to ensure the authenticity of the candidate's work.

### **Guidance on the delivery and assessment of this Unit**

This Unit is mostly practical in nature and should be delivered with that in mind.

It is expected that candidates would be experiencing this area of learning for the first time, hence overly complex reference material would be inappropriate.

The reference material used in creating the imagery should reflect the time allocation, unless part of an integrated presentation. The imagery could be created using traditional media and drawing boards or computer generated or a mixture of both where appropriate.

#### ***Opportunities for developing Core Skills***

Candidates should be given support to analyse and seek solutions to theoretical and practical problems or issues relevant to their design brief. Formative work in which they identify and consider all components, including available resources, and analyse the significance of each in order to identify an appropriate strategic approach, will provide opportunities to develop problem solving skills to an advanced level.

Candidates should have opportunities for formative work which develops skills in analysing and interpreting chart and diagram types which have been presented in complex graphical format and they should be encouraged to recognise significant features of graphical information in a range of data. Using models to demonstrate current applications will foster the ability of candidates to analyse and evaluate all aspects of chart and diagram construction and should provide opportunities for group discussion of the interpretation and communication of significant graphical data. Decisions on appropriate solutions to a design brief will further develop underpinning skills in the measurement, calculation and presentation of information in different chart and diagram types.

## **Higher National Unit specification: support notes (cont)**

**Unit title:** Design of Charts and Diagrams

### **Open learning**

This Unit could be delivered by open learning. However, it would require planning by the centre to ensure sufficiency and authenticity of candidate evidence. For further information and advice please refer to the SQA document *Assessment and Quality Assurance for Open and Distance Learning* (A1030) which is available on SQA's website [www.sqa.org.uk](http://www.sqa.org.uk).

### **Candidates with additional support needs**

This Unit specification is intended to ensure that there are no artificial barriers to learning or assessment. 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. For information on these, please refer to the SQA document *Guidance on Alternative Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs*, which is available on SQA's website: [www.sqa.org.uk](http://www.sqa.org.uk).

## **General information for candidates**

### **Unit title:** Design of Charts and Diagrams

This Unit is designed to introduce you to the various types of charts and diagrams and the basic principles of constructing them.

On completion of this Unit, you should be able to:

- 1 Identify and describe chart and diagram types and their characteristics.
- 2 Construct charts and diagrams.
- 3 Create solutions to a design brief for charts and diagrams.

The formal assessment for this Unit is mostly practical, although there is a small written assessment required.

A brief for each assessment will be prepared and given to you by your tutor.

You will be required to create a series of seven images, which will relate to the different chart and diagram types commonly used in industry.