

## Higher National Graded Unit specification

### General information for centres

This Graded Unit has been validated as part of the HND Printing. Centres are required to develop the assessment instrument in accordance with this validated specification. Centres wishing to use another type of Graded Unit or assessment instrument are required to submit proposals detailing the justification for change for validation.

**Graded Unit title:** Printing: Graded Unit 2

**Graded Unit code:** F1E5 35

**Type of Graded Unit:** Project

**Assessment Instrument:** Case Study

**Credit points and level:** 2 HN credits at SCQF level 8: (16 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.*

**Purpose:** This Graded Unit is designed to provide evidence that the candidate has achieved the following principal aims of the HND Printing:

- ◆ To provide knowledge of the processes and disciplines within the modern printing industry environment.
- ◆ To equip students with the broad based and specialist technical skills necessary for operating within printing management or printing production processes or print finishing and bookbinding.
- ◆ To equip students with advanced skills in using printing industry management techniques and British Printing Industry Federation systems.
- ◆ To equip students with advanced skills in using printing industry management techniques and British Printing Industry Federation (BPIF) systems.
- ◆ To provide additional range and depth of knowledge of management subjects.
- ◆ To equip students with additional range and depth of knowledge and skills in print production areas.
- ◆ To equip students with an understanding of the relationships between the component parts of the printing production workflow.
- ◆ To provide students with an understanding of the linkages between management decisions and production methods.

## General information for centres (cont)

**Recommended prior knowledge and skills:** It is recommended that the candidate should have completed or be in the process of completing the following Units relating to the above specific aims prior to undertaking this Graded Unit:

|         |   |
|---------|---|
| D7LW 34 | <i>Communication: Using Information Technology and Desktop Publishing</i> |
| DE3M 35 | <i>Statistics for Business</i>  |
| DE5D 34 | <i>Recording Financial Information</i>                                    |
| DH8K 35 | <i>Law and the Communication Industries</i>                               |
| F0P2 34 | <i>Single Colour Offset Litho Printing</i>                                |
| F0P8 34 | <i>Design for Print: Digital Workflows and Desktop Publishing</i>         |
| F0PF 34 | <i>Print Finishing Processes</i>  |
| F0PH 34 | <i>Printing Industry Estimating: An Introduction</i>                      |
| F0PP 34 | <i>Printing Production Processes</i>                                      |
| F0PT 34 | <i>Printing: Quality Management Systems</i>                               |

**Core Skills:** The achievement of this Unit gives automatic certification of the following: Problem Solving at SCQF level 5.

**Assessment:** This Graded Unit will be assessed by the use of a Case Study. The ‘fleshed-out’ Case Study should provide the candidate with the opportunity to produce evidence that demonstrates she/he has met the aims of the Graded Unit that it covers.

## Administrative Information

**Graded Unit code:** F1E5 35

**Graded Unit title:** Printing: Graded Unit 2

**Original date of publication:** August 2006

**Version:** 01

### History of changes:

| Version | Description of change | Date |
|---------|-----------------------|------|
|         |                       |      |
|         |                       |      |
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## Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates

**Graded Unit title:** Printing: Graded Unit 2

### Conditions of assessment

The candidate should be given a date for completion of the Case Study. However, the instructions for the assessment task should be distributed to allow the candidate sufficient time to assimilate the details and carry out the assessment task. During the time between the distribution of the assessment task instructions and the completion date, assessors may answer questions, provide clarification, guidance and reasonable assistance. The assessment task should be marked as soon as possible after the completion date. The final grading given should reflect the quality of the candidate's evidence at the time of the completion date.

The evidence for the project is generated over time and involves three distinct stages, where each stage has to be achieved before the next is undertaken. Thus any re-assessment of stages must be undertaken before proceeding to the next stage.

If a candidate fails the project overall or wishes to upgrade, then this must be done using a *substantially different* project, ie all stages are undertaken using a new project, assignment, case study, etc. In this case, a candidate's grade will be based on the achievement in the *re-assessment*, if this results in a higher grade.

### Instructions for designing the assessment task

The assessment task is a project. The project undertaken by the candidate must be a complex task which involves:

- ◆ variables which are complex or unfamiliar
- ◆ relationships which need to be clarified
- ◆ a context which may be familiar or unfamiliar to the candidate

The assessment task must require the candidate to:

- ◆ analyse the task and decide on a course of action for undertaking the project
- ◆ plan and organise work and carry it through to completion
- ◆ reflect on what has been done and draw conclusions for the future
- ◆ produce evidence of meeting the aims which this Graded Unit has been designed to cover

Assessment is based on the **solution, analysis and the evaluation**.

Candidates must:

- ◆ Choose a case study from those provided
- ◆ Interpret the brief
- ◆ Gather information relative to the case study
- ◆ Develop the plan
- ◆ Maintain a working log for all of the stages
- ◆ Review and adapt the plan
- ◆ Evaluate the solution

## Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates (cont)

The project brief should sample the listed technical areas and processes from the mandatory Units:

| Unit Title   | Technical areas/Processes  |
|--|--|
| D7LW 34<br>Communication using Information Technology and Desktop Publishing | <ul style="list-style-type: none"> <li>◆ Formatting documents using a word-processing application</li> <li>◆ Document creation using industry standard desktop publishing software</li> <li>◆ Research and production of a short communication using desktop publishing software</li> </ul>  |
| DE3M 35<br>Statistics for Business   | <ul style="list-style-type: none"> <li>◆ Demonstrate an understanding of statistical techniques for collecting data</li> <li>◆ Use statistical techniques to analyse and interpret data</li> <li>◆ Produce forecasts based on formalised procedures</li> </ul>   |
| DE5D 34<br>Recording Financial Information                                   | <ul style="list-style-type: none"> <li>◆ Record business transactions into a double entry bookkeeping system, extract a trial balance and prepare a VAT return</li> <li>◆ Incorporate control mechanisms into the bookkeeping system</li> </ul>  |
| DH8K 35<br>Law and the Communication Industries                              | <ul style="list-style-type: none"> <li>◆ Explain and apply the law of defamation</li> <li>◆ Explain and apply the law of copyright</li> <li>◆ Analyse the effect of legal restrictions on reporting in the media</li> </ul>  |
| FOP2 34<br>Single Colour Offset Lithography                                  | <ul style="list-style-type: none"> <li>◆ Paper transport systems on a lithographic sheetfed press</li> <li>◆ Correct setting of a feeder, a delivery system, inking and damping system and printing pressure on a lithographic press</li> <li>◆ Production of single colour prints</li> </ul>  |
| FOP8 34<br>Design for Print: Digital Work flows and Desktop Publishing       | <ul style="list-style-type: none"> <li>◆ Application of typographic rules to the formatting of a word-processed file to be used in a desktop publishing application</li> <li>◆ Evaluate and modify bitmap and vector image files to be used for print output</li> <li>◆ Generate industry standard files for remote proofing and printing</li> </ul> |

## Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates (cont)

|  |   |
|--|---|
| <p>FOPF 34<br/>Print Finishing Processes</p>                     | <ul style="list-style-type: none"> <li>◆ Identify and select materials and equipment used in print finishing processes</li> <li>◆ Evaluate the methods of print finishing processes and products</li> <li>◆ Produce finished printed products</li> </ul>  |
| <p>FOPH 34<br/>Printing Industry Estimating: An Introduction</p> | <ul style="list-style-type: none"> <li>◆ Describe the role of the print estimator and the relationship with internal and external functions</li> <li>◆ Prepare an estimate of cost using the British Print Industry Federation system</li> <li>◆ Prepare a customer quotation to British Print Industry Federation standards</li> </ul> |
| <p>FOPP 34<br/>Printing Production Processes</p>                 | <ul style="list-style-type: none"> <li>◆ Procedures used in digital work flows</li> <li>◆ Application of the basic principles of print production by the major printing processes</li> <li>◆ Produce and evaluate finished products</li> </ul>  |
| <p>FOPT 34<br/>Printing Industry: Quality Management Systems</p> | <ul style="list-style-type: none"> <li>◆ Describe the key elements of ISO 9000 quality assurance</li> <li>◆ Describe the main components of total quality management</li> <li>◆ Evaluate the relationship between process, capability and variation</li> </ul>  |

The achievement of this Unit gives automatic certification of the following: Problem Solving at SCQF level 5. Therefore the assessment task must provide the candidate with opportunity to develop the Core Skill of problem solving incorporating critical thinking, planning, organising, reviewing and evaluating elements. Reference should be made to the relevant SQA Core Skills publication for further information. All current SQA information is held on the website [www.sqa.org.uk](http://www.sqa.org.uk).

### Guidance on grading candidates

Candidates who meet the minimum Evidence Requirements will have their achievement graded as C — competent, or A — highly competent or B somewhere between A and C. The grade related criteria to be used to judge candidate performance for this Graded Unit is specified in the following table.

## Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates (cont)

| Grade A  | Grade C  |
|--|--|
| <p>Is a seamless, coherent piece of work which:</p> <ul style="list-style-type: none"> <li>◆ Produces documented evidence which provides details of each of the planning stages of the work and shows an in depth knowledge of each stage.</li> <li>◆ Produces evidence for the production of the work which demonstrates consolidated knowledge, understanding and skills through an integrated approach.</li> <li>◆ Produces well structured evidence of the control and evaluation of the case study work.</li> <li>◆ Effectively applies integrated and consolidated knowledge, understanding and skills from the course Units to complex work.</li> </ul> | <p>Is a co-ordinated piece of work which:</p> <ul style="list-style-type: none"> <li>◆ Produces documented evidence which provides details of each of the planning stages of the work.</li> <li>◆ Produces evidence for the production of the work and demonstrates an integrated approach.</li> <li>◆ Is structured and displays control and evaluation of the case study work.</li> <li>◆ Applies integrated and consolidated knowledge, understanding and skills with some lack of continuity and consistency.</li> </ul> |

The project will be marked out of 100. Assessors will mark each stage of the project, taking into account the criteria outlined. The marks will then be aggregated to arrive at an overall mark for the project. Assessors will then assign an overall grade to the candidate for this Graded Unit based on the following grade boundaries.

A = 70% — 100%  
 B = 60% — 69%  
 C = 50% — 59%

**Note:** the candidate must achieve all of the minimum evidence specified below for each stage of the project in order to achieve the Graded Unit.

## Evidence Requirements

The project consists of three stages: planning; developing; and evaluating. The following table specifies the minimum evidence required to pass each stage.

**Note:** The candidate must achieve **all of the minimum evidence** specified below for each stage of the project in order to pass the Graded Unit.

| Project stage                      | Minimum Evidence Requirements  |
|------------------------------------|--|
| Stage 1 —<br>Planning<br><br>20%   | <p>Produce a plan which includes:</p> <ul style="list-style-type: none"> <li>◆ An analysis of the project and an outline of the key requirements.</li> <li>◆ Production of an outline project plan which highlights.</li> <li>◆ Key stages in achievement of project aims with estimated timeline and sequencing of tasks.</li> <li>◆ Identification of resources required to carry out the project including reference to sources of information, availability of research and study facilities, and assessment procedures to be followed.</li> <li>◆ The process for monitoring and review of project progress and outcomes via a working log book.</li> <li>◆ Planning the identification and retrieval of relevant information.</li> </ul> <p>The plan should be 500–750 words long or equivalent.</p> <p><i>The candidate must achieve all of the minimum evidence specified above in order to pass the Planning stage and should achieve half of the marks allocated to the Planning stage.</i></p>  |
| Stage 2 —<br>Developing<br><br>60% | <p>Produce a report which provides an analysis of a given case study which includes:</p> <ul style="list-style-type: none"> <li>◆ Identifying the key factors and outline requirements of the given scenario and the procedures to be adopted within the report.</li> <li>◆ A detailed breakdown of the recommended acquisition of equipment and software, including appropriate vendors.</li> <li>◆ A detailed breakdown of the installation requirements.</li> <li>◆ Recommendations on recruitment and staff training.</li> <li>◆ A recommended timescale for implementation.</li> <li>◆ Identification of possible problem areas and development of contingency plans for likely problem areas.</li> <li>◆ Justifying the criteria on which decisions are based.</li> <li>◆ A cost analysis of the project and a payback forecast for the investment incorporating a cost-benefits analysis.</li> </ul> <p>The report should be 3,000–3,500 words long or equivalent. Plan(s) and illustrative material should be included.</p> <p><i>The candidate must achieve all of the minimum evidence specified above in order to pass the Developing stage and achieve half of the marks allocated to the Development stage.</i></p> |



## Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates (cont)

| Project stage                      | Minimum Evidence Requirements   |
|------------------------------------|---|
| Stage 3 —<br>Evaluating<br><br>20% | <p>Produce an objective review of the quality of own work which includes:</p> <ul style="list-style-type: none"> <li>◆ An assessment of the strengths and weaknesses of the original plan.</li> <li>◆ A review of the final plan and the modifications made from the original action plan in order to effect improvements. This should be done with reference to a work log book.</li> <li>◆ An objective evaluation of the quality of research, analyses and presentation achieved at each stage.</li> <li>◆ Identification of any problems encountered and any knowledge gained.</li> <li>◆ Identification of the variable factors which could influence the cost effectiveness of the plan.</li> </ul> <p>The evaluation should be 750–1,000 words or equivalent</p> |
|                                    | <p><i>The candidate must achieve all of the minimum evidence specified above in order to pass the Evaluating stage and achieve half of the marks allocated to the Evaluation stage.</i></p>   |

### Support notes

#### Some suggested topics for this case study might be:

- ◆ A development of existing production facilities within a printing company
- ◆ An extension to existing management facilities within a printing company
- ◆ An extension into new production areas within a printing company
- ◆ An extension into the production of new types of work within a printing company

#### Report skeleton

The Project Report should follow a formal structured format which may include the following elements:

#### Planning – Action Plan

- ◆ Likely resources to be used
- ◆ Strategy for carrying out report
- ◆ How the project will be managed
- ◆ Timescales for project
- ◆ Sources of information

#### Additional Guidance on Grading

The Planning stage is worth **20 marks**. The candidate must achieve all of the minimum evidence specified to pass the planning stage. The planning stage is assessed by; a concise planning document and an individual interview. The tutor's role is as a facilitator and so to gain high marks the candidate must demonstrate a high degree of autonomy in planning activities.

## Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates (cont)

For the planning stage the marks could be allocated in the following way:

- ◆ Up to **five marks** for the analysis of the project and an outline of the key requirements. For full marks the candidate should present a thorough analysis and a clearly presented outline of the project.
- ◆ Up to **10 marks** for the development and justification of a strategy for managing the project and adhering to realistic timescales. To gain full marks the candidate would be expected to fulfill the following criteria:
  - First interview with facilitator no later than two weeks from commencement of project. Candidate required to have identified the resources, strategy and schedule required to carry out the project.
  - Second interview with facilitator to examine the progress schedule and the first draft of the plan, including evidence of rationale and method. Further interviews at the discretion of the facilitator. Submission and completion date has to be established and adhered to.
- ◆ Up to **five marks** for planning the identification and retrieval of relevant information. For full marks the candidate must present a clear thorough analysis of the sources and subsequent retrieval of information required to carry out the project.

### Developing – Case Study Report

The Case Study Report should identify:

- ◆ Key factors in case study
- ◆ Acquisition of equipment and appropriate vendors
- ◆ Installation requirements
- ◆ Recruitment and staff training
- ◆ Timescale for implementation
- ◆ Identification of problem areas and development of contingency plans
- ◆ Justification for the criteria on which decisions are based
- ◆ Cost analysis for project, payback forecast incorporating a benefits-needs analysis

### Additional Guidance on Grading

This stage is worth **60 marks**. The candidates must achieve all of the minimum evidence specified to pass the report stage.

- ◆ Up to **5 marks** for analysing the scenario and identifying the key factors. For full marks the candidate would have to identify all of the relevant aims of the case study. Candidates who fail to adequately analyse the scenario and identify the key factors should be awarded lower marks.
- ◆ Up to **10 marks** for the researching of suitable equipment, software and vendors. The material gathered for the case study should be prepared to meet the requirements of the chosen plan. Full marks should be awarded to candidates who identify suitable equipment, software and vendors and explain how these will integrate into the existing production workflow, meeting all of the technical specifications for the plan. These candidates will demonstrate full justification for choice including, where relevant, comparative data. Candidates who identify equipment, software and vendors, which only meet the main technical requirements for the plan and give less adequate explanations for integration and should be awarded lower marks.

## Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates (cont)

- ◆ Up to **10 marks** for the recommended installation requirements and production of a floor plan. High marks should be awarded to candidates providing ergonomically sound plans. Candidates who provide less satisfactory but operationally viable installations should be awarded lower marks.
- ◆ Up to **five marks** for the identification and analysis of staff recruitment and staff training requirements. Candidates who produce detailed identification and analysis should be awarded a high mark.
- ◆ Up to **five marks** for the identification of a recommended timescale for implementation. High marks should be awarded to candidates who present a realistic timescale. A lower pass mark should be awarded to candidates who identify an excessively brief or extended timescale and/or provide inadequate analysis of the processes required.
- ◆ Up to **five marks** for the identification of problem areas and development of contingency plans. High marks should be awarded to candidates who present a realistic appraisal of the problem areas and workable contingency plans. A lower pass mark should be awarded to candidates who identify some problem areas and/or provide inadequate details of the contingency plans.
- ◆ Up to **10 marks** for the production of a suitable plan. For full marks the candidate would have to show the suitability of the decisions made, as well as consideration of alternatives and analysis of the decision making process. Candidates who make poor decisions and who fail to adequately explore alternative solutions should be awarded lower marks.
- ◆ Up to **10 marks** for the presentation of a cost analysis of the project and a payback forecast for the investment. High marks should be awarded to candidates who present a detailed and realistic analysis using suitable statistical methods to calculate the payback forecast. A lower pass mark should be awarded to candidates who provide adequate costing and less well thought out payback forecast.

### Evaluation

- ◆ Review of final plan
- ◆ Review of the quality of research, evaluation and presentation
- ◆ Identification of problems
- ◆ Identification of variable factors and their possible influence on the cost effectiveness of the plan
- ◆ Conclusions

This stage is worth **20 marks**. The candidate must achieve the minimum criteria specified to pass the evaluation stage. The evaluation stage is assessed by a review. The tutor's role is as a facilitator and so candidates should demonstrate a high degree of autonomy in evaluating activities. The marks for this stage could be allocated in the following way:

- ◆ Up to **four marks** could be given to those candidates who are able to review the quality of their own work with some reflection shown. Candidates who can identify areas of new learning and can relate the activity to the plan, including identification of gaps or omissions should be awarded a high mark. Full marks should be awarded to candidates who can identify the impact of any new learning on their practice.

## Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates (cont)

- ◆ Up to **four marks** for a discussion of the strengths and weaknesses of the original plan and analysis of whether the plan was sufficient in meeting the aims of the case study. High marks could be given where a candidate has detailed changes and improvements to their original plan. Candidates who show that changes to the original plan resulted in improvements in quality should be awarded full marks.
- ◆ Up to **eight marks** could be given for the review of the whole plan, identifying any modifications or improvements, including recommendations, which would be achievable and realistic if implemented in future, analogous activities. The candidate who does this should receive full marks. A candidate who identifies some modifications or improvements but does not always relate them to the plan should receive a pass mark. The candidate who does not identify any modifications or improvements and who has not related the evaluation of their work across the whole project should not pass this section.
- ◆ Up to **four marks** could be awarded for identification of the variable factors which could influence the cost effectiveness of the plan. A candidate who does not identify any factors or fails to relate them to the plan should not pass this section.

### 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 assessment arrangements. For information on these, please refer to the SQA document *Guidance on 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**

This Unit provides you with the opportunity to complete a case study project that involves planning, developing and evaluating your solution to a printing management task.

You will be provided with a brief that has to be satisfied, however this will still give a good degree of scope for you to use your own ideas.

The project will enable you to bring together the various elements of knowledge and skills that you have gained via study involved in the mandatory Units of the course. You will be able to demonstrate your ability to draw on your knowledge of printing processes and equipment, the requirements of print production and printing management techniques.

The work on your project will enable you to extend your problem solving skills in both the planning and developing stage of the project and for you to explain the decision making process you used.

The final stage of the project will involve you in providing an evaluation of your work both in the planning and developing of your project.