



Higher National Graded Unit specification

General information for centres

This Graded Unit has been validated as part of the HNC Wastes Management. 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: Wastes Management: Graded Unit 1

Graded Unit code: F1GR 34

Type of Graded Unit: Project

Assessment Instrument: Practical Assignment

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.*

Purpose: This Graded Unit is designed to provide evidence that the candidate has achieved the following principal aims of the HNC Wastes Management:

- ◆ Equip the candidates with the knowledge and understanding to recognise critical legal requirements relating to the management of wastes within both the public and the private sectors.
- ◆ Develop a range of management skills to enhance the managerial effectiveness of the candidate.
- ◆ Support the development of innovative and creative approaches to work and enable to quick responses to the challenges posed by changes in wastes industry environment.
- ◆ Develop an understanding of the scientific principles which underpin the management of wastes and pollution control.
- ◆ Develop the knowledge and understanding of relevant national and local wastes strategies.

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:

- ◆ *Managing and Working with People*
- ◆ *Management: Managing Financial Resources*
- ◆ *Wastes Industry: Managing Operations*
- ◆ *Wastes Industry: Managing Legal and Environmental Issues*
- ◆ *Wastes Industry: Applying Environmental Science to the Management of Wastes*

Core Skills: The achievement of this Unit gives automatic certification of the Core Skill of *Problem Solving* at SCQF level 5. There are also further opportunities to develop the Core Skill of *Written Communication* components at SCQF level 6 and *Information Technology* at SCQF level 5 in this Unit.

Assessment: This Graded Unit will be assessed by the use of a Practical Assignment. The developed practical assignment 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: F1GR 34

Graded Unit title: Wastes Management: Graded Unit 1

Original date of publication: August 2007

Version: 01

History of changes:

Version	Description of change	Date

Source: SQA

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Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates

Graded Unit title: Wastes Management: Graded Unit 1

Conditions of assessment

The candidate should be given a date for completion of the practical assignment. 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

Project brief

The underlying purpose of the practical assignment is to provide candidates with an opportunity to demonstrate that they possess the personal competences needed to operate effectively as a manager within the wastes industry. It should also enable them to apply the theoretical concepts of management to tackle a particular situation and to deal with contingencies arising from it. The practical assignment should also enable candidates to apply the knowledge and understanding of relevant environmental and legal issues and relevant scientific concepts to the particular situation.

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

Candidates should choose an activity, or related group of activities, which requires them to take responsibility for the achievement of a specific Outcome or a cluster of related Outcomes pertinent to the overall goals of an organization. This could be something that is part of their normal work experience as a manager or one-off assignment. The latter could be one which the candidate has been asked to complete as part of their work role or it could be one which the candidate has chosen especially for the purposes of this Unit. Candidates who are not currently working in a managerial capacity are likely to follow this route.

The practical assignment should involve the following stages:

Stage 1: Planning

- ◆ A brief outline of the activity and why it has been chosen
- ◆ Set specific objectives for the achievement of the activity and identify how these fit with relevant national, local and European strategies for wastes
- ◆ Set personal objectives for the assignment
- ◆ Identify the human and non-human resources required to complete the activity
- ◆ Identify key legal issues and/or scientific principles relating to the activity
- ◆ Identify actions required to complete the activity
- ◆ Prepare a timetable for the completion of the activity
- ◆ Determine criteria to judge managerial effectiveness
- ◆ Complete a risk assessment

Stage 2: Implementing

- ◆ Obtain resources needed to carry out the plan
- ◆ Communicate objectives for the activity to others involved in the activity
- ◆ Monitor the actual progress of the plan against the planned timetable
- ◆ Take corrective action as required

Stage 3: Evaluating

- ◆ Assess the extent to which personal objectives have been met
- ◆ Assess the planning and implementation of the activity
- ◆ Use the pre-determined criteria to judge the personal effectiveness as a manager and the contribution to which personal competences have made to managerial effectiveness during the activity
- ◆ Recommend action to enhance personal competences which will contribute to improved effectiveness as a manager in future managerial activities within the wastes industry

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.

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Grade A	Grade C
<p>Is a seamless, coherent piece of work which:</p> <ul style="list-style-type: none"> ◆ Demonstrates clear and explicit links between the three stages of the assignment ◆ Refers to a broader range of personal competences which cover managing a variety of human and non-human resources ◆ Provides a convincing illustration of the way in which the personal competences of the candidate have influenced her/his managerial effectiveness ◆ Effectively applies and integrates knowledge and understanding of the managerial, legal and/or scientific concepts from the course Units to all stages of the practical assignment ◆ Demonstrates a comprehensive and imaginative approach to the project brief so that it provides a challenging context within which the candidate can deploy her/his personal competences to operate with as high degree of managerial effectiveness ◆ Contains criteria for evaluation which are coherently related to the candidate's personal objectives and provide a strong basis for judging the candidate's personal effectiveness ◆ Includes a detailed evaluation of the candidate's managerial effectiveness and makes realistic and carefully justified recommendations for future action which are firmly grounded in the candidate's experience during the activity ◆ Demonstrates a high degree of autonomy during all stages of the practical assignment but responds to advice and guidance in a constructive, reasoned manner 	<p>Is a co-ordinated piece of work which:</p> <ul style="list-style-type: none"> ◆ Contains sufficient evidence to meet the requirements of each of the three stages of the practical assignment ◆ Considers a range of personal competences which cover managing of human and non-human resources ◆ Illustrates a connection between the personal competences of the candidate and her/his managerial effectiveness ◆ Applies knowledge and understanding of managerial, legal and/or scientific concepts for the course Units across all stages of the practical assignments and makes use of a range of concepts ◆ Approaches the project brief in a manner which successfully allows the candidate to use her/his personal competences to display managerial effectiveness ◆ Contains criteria for evaluation related to the candidate's personal objectives ◆ Includes an evaluation of the candidate's managerial effectiveness and provides justified recommendations for future action ◆ Responds to advice and guidance

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

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 — Planning 40% of marks	<p>Produce an account of the implementing stage which includes:</p> <ul style="list-style-type: none"> ◆ A brief outline of the activity and why it has been chosen ◆ Specific objectives for the achievement of the activity ◆ Personal objectives for the assignment ◆ The human and non-human resources required to complete the activity ◆ Identification of relevant legislation and regulatory requirements ◆ The actions required to complete the activity to include those of the candidate and of others ◆ Criteria to judge managerial effectiveness which should refer to the candidate's current level of personal competence ◆ An assessment of the relevance of the resources required to complete the activity and the actions required to complete the project ◆ The impact of Health and Safety on the activity <p>This plan should be 1,000 to 1,500 words long or equivalent. It may include charts or diagrams.</p> <p><i>The candidate must achieve all of the minimum evidence specified above in order to pass the Planning stage. This can be demonstrated by submitting evidence relating to all nine aspects of the Planning stage and achieving a mark of at least 20/40.</i></p>

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

Project Stage	Minimum Evidence Requirements
Stage 2 — Developing 30% of marks	<p>Produce an account of the implementing stage which includes:</p> <ul style="list-style-type: none"> ◆ How the resources needed to carry out the plan were obtained ◆ How the objectives were communicated to others involved in the completion of the activity including an explanation of why the methods used were chosen ◆ The methods used to monitor the actual progress of the plan against the planned timetable including why they were chosen and how they worked in practice ◆ Any corrective action which was required including reasons why it was needed – if none was required, candidates should provide reasons to explain why this was the case <p>This account of the implementation should be 750 – 1,250 words long. It may include charts and diagrams</p> <p><i>The candidate must achieve all of the minimum evidence specified above in order to pass the Developing stage. This can be demonstrated by submitting evidence relating to all four aspects of the Developing stage and achieving a mark of at least 15/30.</i></p>
Stage 3 — Evaluating 30% of marks	<p>Produce an account of evaluating managerial effectiveness during the practical assignment which includes:</p> <ul style="list-style-type: none"> ◆ An assessment of the extent to which the candidate’s personal objectives for the activity have been met ◆ An assessment of the planning and implementation of the activity in terms of which aspects went well and why and which aspects did not go quite as well and why ◆ A judgement of the candidate’s personal effectiveness as a manager and the contribution to which personal competences have made to managerial effectiveness during the activity – which should be based on the pre-determined criteria ◆ Recommendations for action to enhance personal competences which will contribute to improved effectiveness as a manager in future managerial activities <p>The evaluation should be 750–1,250 words long. It may include charts and diagrams</p> <p><i>The candidate must achieve all of the minimum evidence specified above in order to pass the Evaluating stage. This can be demonstrated by submitting evidence relating to all four aspects of the evaluating stage and achieving a mark of at least 15/30.</i></p>

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

Support notes

There are also opportunities to develop the Core Skill of *Communication: Reading and Written Skill* components at SCQF level 6 if the candidate to submit the assessment in the form of a project report. There are similarly opportunities to develop the core. The candidate may also be able to develop the Core Skills in *Information Technology* if the final report is word processed with the opportunity to include graphical displays.

The practical assignment has been selected as the instrument of assessment for the *HNC Wastes Management: Graded Unit 1* to allow the candidate to demonstrated his/her ability to manage an agreed task within the wastes industry effectively while taking account of the relevant management, legal and scientific concepts relating to that task.

By meeting the Outcomes of the practical assignment the candidate will demonstrate managerial effectiveness through developing personal competences and sound knowledge and understanding of the management, legal and scientific concepts required to meet the needs of the relevant European, national and local strategies for wastes management.

Additional guidance on grading at Grade A

Planning

This section of the practical assignment will be assessed by the submission of documentation and by an individual interview with the tutor (either face to face or remotely by telephone or other means) during which the candidate will be expected to explain the materials s/he has submitted.

This section is worth 40 marks which should be allocated as set out below. Throughout credit should be given to candidates who make valid and relevant references to concepts used in other Units in the HNC Wastes Management.

Up to 6 marks for an outline of the activity and reasons why it has been chosen. Marks should awarded on the basis of:

- ◆ The clarity and comprehensibility of the outline (maximum of 1 mark)
- ◆ The extent to which the reasons are convincing and related to the candidate's situation
- ◆ The degree of initiative shown by the candidate in making arrangements for the activity and in the selection of the activity itself

Up to 6 marks for the specific objectives for the achievement of the activity. Marks should be awarded on the basis of:

- ◆ The extent to which the objectives are consistent with the candidate's current levels of managerial effectiveness and personal competence
- ◆ The extent to which the objectives fit in with organisational and other relevant targets such as the European, national and local area wastes plans
- ◆ The extent to which the objectives are SMART

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

Up to 6 marks for personal objectives for the assignment. Marks should be awarded on the basis of:

- ◆ How closely the objectives refer to the personal competences which the candidate wishes to develop
- ◆ How clearly the objectives demonstrate that the activity will give the candidate an opportunity to reflect on how these personal competences affect his/her managerial effectiveness
- ◆ The extent to which the objectives are SMART

Up to 5 marks for the human and non-human resources required to complete the activity. Marks should be awarded on the basis of:

- ◆ The extent to which the resources needed (including time) have been clearly and fully identified (maximum of 1 mark)
- ◆ The clarity and accuracy of the explanation of how they will be obtained
- ◆ The clarity and accuracy of the explanation of the candidate's role in managing them

Up to 4 marks for the identification of the relevant legislation and the regulatory requirements which need to be addressed for the completion of the activity. Marks should be awarded on the basis of:

- ◆ Accurate identification of the legislation
- ◆ Accurate identification of the relevant regulations which have to be complied with in the completion of the activity

Up to 3 marks for the actions required to complete the activity. Marks should be awarded on the basis of:

- ◆ The extent to which all the actions which the candidate and others will have to undertake in order for the activity to be completed are included

Up to 4 marks for criteria to judge managerial effectiveness. Marks should be awarded on the basis of:

- ◆ The range of factors covered by the criteria
- ◆ The relationship between the criteria and the activity chosen by the candidate
- ◆ The extent to which the criteria reflect the candidate's own current level of personal competences
- ◆ The extent to which the criteria are likely to enable the candidate to make a valid judgement of managerial effectiveness

Up to 4 marks for a timetable for the completion of the activity. Marks should be awarded on the basis of:

- ◆ The inclusion of a final completion date and significant milestones to reaching this date
- ◆ The incorporation of likely contingencies and the validity of the justification for them
- ◆ How realistic the timetable is with respect to organisational and other targets which the candidate must meet
- ◆ The extent to which the timetable is consistent with the objectives for the activity

Up to 2 marks should be awarded for the impact of Health and Safety on the activity. Marks should be awarded on the basis of:

- ◆ A completed risk assessment pro forma

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

Developing

This section of the practical assignment will be assessed by the submission of documentation and by an individual interview with the tutor (either face to face or remotely by telephone or other means) during which the candidate will be expected to explain the materials s/he has submitted.

This section is worth 30 marks which should be allocated as set out below. Throughout credit should be given to candidates who make valid and relevant references to concepts used in other HN Units in the HNC Wastes Management.

Up to 7 marks for an explanation of how resources needed to carry out the plan were obtained. Marks should be awarded on the basis of:

- ◆ The clarity and comprehensibility of the explanation
- ◆ The extent to which the candidate was required to use his/her initiative in obtaining resources
- ◆ The methods used to obtain resources and why they were chosen

Up to 8 marks for how the objectives for the activity were communicated to the others involved in the completion of the activity. Marks should be awarded on the basis of:

- ◆ The choice of methods of communication and their appropriateness for the persons concerned
- ◆ The extent to which the methods chosen allowed the candidate to extend and develop her/his existing personal competences
- ◆ The reasons given to explain why the methods used were chosen
- ◆ Valid comments on how effective the methods were

Up to 8 marks for the analysis of the methods used to monitor the actual; progress of the plan against the planned timetable. Marks should be awarded on the basis of:

- ◆ The choice of methods of monitoring or control and their appropriateness for the parts of the activity where they were used
- ◆ The extent to which the methods chosen allowed the candidate to extend and develop her/his existing personal competences
- ◆ The reasons given to explain why the methods used were chosen
- ◆ Valid comments on how well the methods worked in practice

Up to 7 marks for an analysis of any corrective action which was required (or an analysis of why no corrective action was needed). Marks should be awarded on the basis of:

- ◆ The validity of the reasons given
- ◆ The extent to which the methods of corrective action were suitable in the circumstances (or whether suggested methods would have been suitable)
- ◆ Whether corrective action could have been avoided (or how it was actually avoided)

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

Evaluation

This section of the practical assignment will be assessed by the submission of documentation and by an individual interview with the tutor (either face to face or remotely by telephone or other means) during which the candidate will be expected to explain the material s/he has submitted.

This section is worth 30 marks which should be allocated as set out below. Throughout credit should be given to candidates who make valid and relevant references to concepts used in other Units in the HNC Wastes Management.

Up to 7 marks for an assessment of the extent to which the candidate's personal objectives for the activity have been met. Marks should be awarded on the basis of:

- ◆ Making explicit connections between personal objectives and what happened during the course of the activity
- ◆ Attempts to indicate how closely objectives were met
- ◆ The strengths and validity of the reasons given to support points made
- ◆ Comprehensive coverage of all personal objectives
- ◆ The use of feedback from others in the evaluation

Up to 7 marks for an assessment of the planning and implementation of the activity in terms of which aspects went well and why and which aspects did not go quite as well and why. Marks should be awarded on the basis of:

- ◆ Making reference to several aspects of both the planning and implementing stages
- ◆ Clear identification of aspects that went well
- ◆ Clear identification of aspects that do not go as well as expected
- ◆ The strength and validity of the reasons given to support points made
- ◆ The use of feedback from others in the assessment

Up to 9 marks for a judgement of personal effectiveness as a manager and the contribution which personal competences have made to managerial effectiveness during the activity. Marks should be awarded on the basis of:

- ◆ Making explicit use of the pre-determined criteria
- ◆ Making explicit links between personal competences and managerial effectiveness to illustrate the contribution of personal competences
- ◆ A specific, valid and honest conclusion on the candidate's level of managerial effectiveness
- ◆ The strength and validity of the reasons given to support points made
- ◆ Comments on the usefulness of the criteria set for the evaluation

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

Up to 7 marks for recommendations for action to enhance personal competences which will contribute to improved effectiveness as a manager in future managerial activities within the wastes industry. Marks should be awarded on the basis of:

- ◆ The extent to which recommendations flow directly from the judgement of personal effectiveness as a manager
- ◆ How realistic the recommendations are likely to be in terms of how likely the candidate is to be able to carry them out
- ◆ The likely usefulness of the recommendations to the candidate in future work as a manager within the wastes industry
- ◆ The strength and validity of the reasons given to support points made
- ◆ Comments on the support available from others to ensure that the recommendations are carried out

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.

General information for candidates

The *HNC Wastes Management: Graded Unit 1* is assessed by means of a practical assignment. The aim is to give you the opportunity to demonstrate the application of the practical skills and knowledge and understanding to a situation that involves task management. You will be provided with a Project brief that allows you to demonstrate your creative, interpersonal and management skills directly.

The Project (practical assignment) is assessed in three stages:

- ◆ Planning 40% of total marks
- ◆ Developing 30% of total marks
- ◆ Evaluating 30% of total marks

You need to 'pass' the Planning stage of your assignment before you can progress to the Developing stage. Your tutor will mark your submission and discuss this with you on an individual basis, providing you achieve at least 20 marks out of the total 40 marks you will be able to progress to the next stage. Similarly you need to 'pass' the developing stage before you continue to the evaluating stage. Your tutor will mark this stage and meet with you on a individual basis to discuss your submission. You need to achieve at least 15 marks out of the possible 30 for the Developing stage to be allowed to progress to the evaluating stage.

Once you have submitted all three stages you will be given an overall grade for the project.

The evidence you are required to provide is:

- ◆ a plan of action
- ◆ evidence of a product or organised activity/ meeting or a performance
- ◆ evidence that documents the processes underpinning the practical hands-on activity
- ◆ evidence showing an evaluation of the practical assignment

The assessment is based on a combination of the end-result of the activity (the product or performance) and the carrying out of the activity (the process).

You will be asked to:

- ◆ interpret the brief
- ◆ gather information to clarify the brief
- ◆ decide on a product, activity, meeting or performance to develop
- ◆ select and manage materials and/or resources
- ◆ produce the product, organise the activity or meeting or deliver the performance
- ◆ evaluate the product, or activity/meeting or performance (through feedback)

Your final submission should aim to be seamless and coherent which demonstrates clear and explicit links between the three stages of the assignment. It should demonstrate your knowledge, understanding and application of the managerial, legal and/or scientific concepts for the course Units. You should also ensure that you have used your own personal competences in an innovative and imaginative way to enable you to operate with a high degree of managerial effectiveness.

You are given a high degree of autonomy during all stages of the practical assignment however your tutor is available for guidance and support as and when required.