

Award in IEMA Environmental Sustainability (0271-01/02)

July 2013



Qualification at a glance

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|---------------------------------------|---|
| Subject area | Environmental Sustainability |
| City & Guilds number | 0271 |
| Age group approved | All |
| Entry requirements | Level 2 |
| Assessment | Assignment |
| Fast track | N/A |
| Support materials | Centre handbook. A full range of training materials are available for Centres wishing to deliver these qualifications. These have been developed in partnership with the professional body for the environment – IEMA Please contact alljobsgreener@iema.net for further information. |
| Registration and certification | Consult the Walled Garden/Online Catalogue for last dates |

| Title and level | City & Guilds number | Accreditation number |
|---|---------------------------------|-----------------------------|
| Level 2 IEMA Working with Environmental Sustainability | 0271-01 | n/a |
| Level 4 IEMA Managing with Environmental sustainability | 0271-02 | n/a |

This qualification come with associated training courses with structured delegate work books & training manuals. Please contact **alljobsgreener@iema.net** for further details.

A suite of learning and training materials to support the delivery of this qualification is also available through the Walled Garden.



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1 Introduction

Structure

To achieve the Level 2 Award for IEMA Working with Environmental Sustainability learners must achieve the mandatory unit.

| | | |
|---|--------------------------------------|--|
| Level 2 Award for IEMA Working with Environmental Sustainability | | |
| Unit accreditation number | City & Guilds unit number | Unit title |
| Mandatory | 201 | Level 2 Award for IEMA Working with Environmental Sustainability |

To achieve the Level 4 Award for IEMA Managing with Environmental Sustainability learners must achieve the mandatory unit.

| | | |
|--|--------------------------------------|---|
| Level 4 Award for IEMA Managing with Environmental Sustainability | | |
| Unit accreditation number | City & Guilds unit number | Unit title |
| Mandatory | 401 | Level 4 Award for IEMA Managing with Environmental Sustainability |



2 Centre requirements

Resource requirements

Centre staffing

All staff who assess (tutor/ deliver) these qualifications must:

- Have recent relevant experience in the specific area they will be assessing;
- Be technically competent in the area for which they are delivering training and/or have experience of providing training;
- Be competent in making accurate assessment decisions: it is recommended that assessors hold, or be working towards, the relevant Assessor/ (D/A/V/TAQA) units for their role in delivering, assessing and internal quality assuring these qualifications or meet the relevant experience requirements outlined above.
- City & Guilds deems it as good practice to hold, or be working towards, the relevant Assessor/ IQA (D/A/V/TAQA) units for roles involving delivery, assessing and internally quality.

These qualifications come with associated training courses with structured delegate work books & training manuals.

Internal quality assurance

Approved centres must have effective quality assurance systems to ensure optimum delivery and assessment of qualifications.

Quality assurance includes initial centre approval, qualification approval and the centre's own internal procedures for monitoring quality. Centres are responsible for internal quality assurance, and City & Guilds is responsible for external quality assurance. The IQA is responsible for sampling the training for the qualifications.

Full details and guidance on the internal and external quality assurance requirements and procedures to be in line with 'Our Quality Assurance Requirements' and the following documents, which explain the tasks, activities and responsibilities of quality assurance staff:

- *Supporting Customer Excellence Centre manual*
- *Guidance on Internal Quality Assurance of Qualifications forms and documents*
- *Guidance on Internal Quality Assurance of Qualifications*
- *Recording Forms for centres and candidates*
- *Guide to extracting pages from a PDF document to create a new PDF document*

Internal Quality Assurers (IQAs – previously called IVs) and assessors must have verifiable and relevant current industry experience and competence of the occupational working area at or above the level being assessed, and evidence of the quality of occupational experience to ensure the

credibility of the assessment judgements. Staff must only assess or quality assure in their acknowledged area of occupational competence.

Appropriate evidence of technical competence will include CVs, References, Qualification Certificates, CPD records or membership of professional organisations such as IEMA eg Associate membership or greater or equivalent. This list is not exhaustive and other relevant methods may be considered. Please contact your Qualification Consultant for guidance.

External quality assurance

Quality Consultants/Systems Consultants are appointed by City & Guilds to approve centres, and to externally monitor the assessment and internal quality assurance carried out by centres. External quality assurance is carried out to ensure that there is validity, reliability and good practice in centres.

To carry out their quality assurance role, QCs must have appropriate occupational and verifying knowledge and expertise. City & Guilds QC's attend training and development designed to keep them up-to-date, to facilitate standardisation between IQA's and to share good practice.

The role of the QC is to:

- provide advice and support to centre staff
- ensure the quality and consistency of assessments within and between centres by the use of systematic sampling
- visit centres in line with *Our Quality Assurance Requirements* document
- provide feedback to centres and City & Guilds.

External quality assurance for the qualifications will be provided by City & Guilds quality assurance process following guidelines in the *Supporting Customer Excellence Centre Manual* and *Our Quality Assurance Requirements*.

Continuous professional development (CPD) in VRQs

Centre staff must continue to meet the requirements for occupational expertise for the specific qualification(s) they assess or quality assure. Assessors and IQA's must be able to demonstrate how they keep their technical skills and knowledge up-to-date and to the occupational level in which they are assessing and/or quality assuring .

Continuing Professional Development (CPD) must take place throughout the careers of assessors and quality assurers.

Recognition of prior learning (RPL)

RPL is **not** allowed for this qualification.



3 Assessment

Level 2 IEMA Working with Environmental Sustainability

| Unit Number | Unit Title | Assessment method | Where to obtain assessment materials |
|-------------|---|-------------------|--|
| 201 | IEMA Working with environmental sustainability | Assignment | www.cityandguilds.com |
| 401 | IEMA Managing with environmental sustainability | Assignment | www.cityandguilds.com |

Assessment strategy

Each of the units within the environment sustainability qualifications is assessed by assignment.

The Level 2 assignment consists of a paper-based multiple-choice test. The test has **two** versions, A and B to accommodate re-sits or multiple cohorts of candidates.

The Level 4 assignment consists of a written analysis task and a paper-based short-answer question test.

An assessment pack is available for **each** level. They contain:

- tasks
- assessor guidance
- candidate assessment record documentation.

An answer pack is also available for **each** level. They contain the answer keys for the L2 assessment, and the grading criteria and model answers for the Level 4 assessments.

All documents can be downloaded from **www.cityandguilds.com** – passwords available from the Walled Garden.

Centres will be required to enter candidate results when the assessment is completed.

Test specification

The test specification for the unit 201 multiple-choice question test is shown below:

Unit 201 IEMA Working with environmental sustainability

Duration: 1 hour

| Unit | Outcome | Number of questions | % |
|------|--|---------------------|------------|
| 201 | 1 Know the main environmental risks and opportunities for organisations | 9 | 26 |
| | 2 Know the importance of resource efficiency | 9 | 26 |
| | 3 Know the impact of pollution, prevention, control and environmental legislation in organisations | 11 | 31 |
| | 4 Know the impact of transport on the environment and organisations | 2 | 6 |
| | 5 Know how employees support environmental sustainability | 4 | 11 |
| | Total | 35 | 100 |

The test specification for the unit 401 short-answer test is shown below:

Unit 401 IEMA Managing with environmental sustainability

| Unit | Outcome | Number of marks per outcome |
|------|--|-----------------------------|
| 401 | 1 Know the main environmental risks and opportunities for organisations | 8 |
| | 2 Know the importance of resource efficiency | 11 |
| | 3 Know the impact of pollution, prevention, control and environmental legislation in organisations | 6 |
| | 4 Know the impact of transport on the environment and organisations | 24 |
| | 5 Know how employees support environmental sustainability | 9 |
| | Total | 58 |

This test consists of 15 questions.



4 Units

Availability of units

Below is a list of the learning outcomes for all the units. If you want to download a complete set of units, go to www.cityandguilds.com

Structure of units

These units each have the following:

- City & Guilds reference number
- title
- level
- learning outcomes which are comprised of a number of assessment criteria

Unit 201

IEMA Working with environmental sustainability

Level: Level 2

GLH: 7

Learning outcome

The learner will:

1. Know the main environmental risks and opportunities for organisations

Assessment criteria

The learner can:

- 1.1 define environmental sustainability
- 1.2 identify the **causes** of key environmental issues
- 1.3 describe how organisations **impact** the environment
- 1.4 describe how the environment **impacts** organisations
- 1.5 identify the **benefits** of good environmental performance

Range

Causes:

Climate Change
Ozone Layer Depletion
Biodiversity Loss
Resource Depletion

Impact (1.3)

Pollution to air, land & water
Use of resources
Noise
Nuisance

Impact (1.4)

Changing climate

Flooding
Drought
Seasonality
Sea Level

Access to and Cost of Resources

Customer
Customer and shareholder requirement
Community concern

Benefits

Improved reputation
Reduced risk of fines and prosecutions
Saving money through more efficient use of resources
Making money through new products and services

Learning outcome

The learner will:

2. Know the importance of resource efficiency

Assessment criteria

The learner can:

- 2.1 define resource efficiency
- 2.2 define **key terms** in resource efficiency
- 2.3 Identify **natural resources** used by organisations
- 2.4 describe the **responsibilities** organisations have in relation to resource efficiency
- 2.5 describe the **benefits** of resource efficiency

Key terms

inputs
operations
outputs

Natural resources**Renewable**

Wind
Solar/Light
Water
Crops and plants
Animals

Non-renewable

Minerals
Fossil fuels
Metals

Responsibilities

Social
Environmental
Economic

Benefits

Reduce costs and increased profit
Financial savings
Protect natural resources on which businesses depend.
Reduced waste to landfill
Improved reputation

Learning outcome

The learner will:

3. Know the impacts of pollution, prevention, control and environmental legislation in organisations

Assessment criteria

The learner can:

- 3.1 define pollution
- 3.2 identify **key terms** used in relation to pollution
- 3.3 describe **ways** to prevent pollution in organisations
- 3.4 describe potential **consequences** if organisations cause pollution of the environment
- 3.5 State the **purpose** of environmental legislation
- 3.6 Identify the core principles and **benefits of environmental management systems**

Range**Key terms**

source
pathway
receptor

Ways

Adequate storage
Spill kits
Emergency response procedures
Sampling/monitoring
Training and Awareness
Technological concepts

Consequences

fines
clean up costs
loss of an organisation's reputation
damage to the environment.
Civil lawsuits by stakeholders

Purpose

Protect the natural environment from human activities

Benefits of environmental management systems

improved environmental performance
improved reputation
improved compliance
reduced costs
fewer accidents
improved public image
meeting customer requirements

| |
|---|
| <p>EMS ISO 14001 Plan Do Check Act</p> |
|---|

| |
|---|
| <p>Learning outcome</p> |
| <p>The learner will: 4. Know the impact of transport on the environment and organisations</p> |
| <p>Assessment criteria</p> |
| <p>The learner can: 4.1 describe different uses of transport within organisations 4.2 identify the environmental impacts of transport</p> |

| |
|--|
| <p>Range</p> |
| <p>Uses of transport Staff travelling to and from work Visitors and customers travelling to and from the site Employees travelling during the course of work, for example to meetings Deliveries of goods, raw materials and fuels Waste being collected and disposed of Distribution of finished products to customers Use of plant in daily activities.</p> <p>Environmental impacts climate change air pollution environmental noise resource depletion</p> |

| |
|---|
| <p>Learning outcome</p> |
| <p>The learner will: 5. Know how employees support environmental sustainability</p> |
| <p>Assessment criteria</p> |
| <p>The learner can: 5.1 identify the practical actions employees can undertake to support environmental sustainability 5.2 describe the environmental management structure within organisations</p> |

| |
|---|
| <p>Range</p> |
| <p>Practical actions In relation to energy, water and material consumption, transport to and from work</p> <p>Environmental Management Structure Environmental manager Environmental champions HSE Manager QE Manager</p> |

Sustainability manager
Environmental focus groups
Environmental emergency response team/employee.

Unit 401 IEMA Managing with Environmental sustainability

| | |
|---------------|---------|
| Level: | Level 4 |
| GLH: | 14 |

| |
|---|
| Learning outcome |
| The learner will: 1. Understand the strategic opportunities and constraints of environmental sustainability for organisations |
| Assessment criteria |
| The learner can: 1.1 define environmental sustainability 1.2 define key terms relating to environmental sustainability 1.3 analyse how environmental sustainability can impact organisational growth |

| |
|---|
| Range |
| 1.2 Key terms of environmental sustainability: <ul style="list-style-type: none">• Resource efficiency• Accounting• Environmental management system• Foot printing• Water foot printing• Life cycle thinking 1.3 Impacts on Growth <ul style="list-style-type: none">•opportunities to environmental sustainability•constraints to environmental sustainability |

| |
|--|
| Learning outcome |
| The learner will: 2. Understand the importance of resource efficiency |
| Assessment criteria |
| The learner can: 2.1 define resource efficiency 2.2 define key terms in resource efficiency |

- 2.3 explain the **impact** of resource consumption
- 2.4 evaluate the **impact** of natural resource scarcity on organisations
- 2.5 evaluate **methods** for optimising resource efficiency within organisations
- 2.6 explain the **benefits** of resource efficiency.

| |
|--|
| <p>Range</p> <p>2.2 Key terms on resource efficiency include:</p> <ul style="list-style-type: none"> • inputs • operations • outputs <p>2.3 Impact of resource consumption</p> <ul style="list-style-type: none"> • on organisations • economic • environmental <p>2.4 Resource scarcity:</p> <ul style="list-style-type: none"> • Energy scarcity • Water scarcity • Raw material scarcity. <p>2.5 Resource efficiency methods:</p> <ul style="list-style-type: none"> • Waste hierarchy • Substitution • Energy conservation • Carbon management • Water minimisation • Lean manufacturing. <p>2.6 Benefits include:</p> <ul style="list-style-type: none"> • Financial • Environmental • Social |
|--|

| |
|---|
| <p>Learning outcome</p> <p>The learner will:</p> <ul style="list-style-type: none"> 3. Understand the impact of environmental sustainability across the value chain |
| <p>Assessment criteria</p> <p>The learner can:</p> <ul style="list-style-type: none"> 3.1 explain the relationship between environmental sustainability and value creation 3.2 evaluate environmental sustainability in different areas of the value chain 3.3 describe the implications of environmental sustainability in different areas the value chain |

Range

3.1

- Brand Value Resilience
- Asset Utilisation
- Product Differentiation
- Resource Security
- Consumer understanding
- Market Development

3.2 The value chain includes the following:

- Extraction
- Product and service design and development
- Purchasing & procurement
- Production, processing and manufacturing
- Sales, Marketing & Finance
- Distribution & logistics
- Retail
- Use
- Governance

3.3 Implications:

- Financial costs
- Reputation
- Environmental benefit
- Organisational resources
- Enhanced supply chain development
- Enhanced product development
- Enhance service development.

Learning outcome

The learner will:

4. Know the impacts of pollution, prevention, control and environmental legislation in organisations

Assessment criteria

The learner can:

- 4.1 define pollution
- 4.2 identify **key terms** used in relation to pollution
- 4.3 describe **ways** to prevent pollution in organisations
- 4.4 describe potential **consequences** if organisations cause pollution of the environment
- 4.5 State the **purpose** of environmental legislation
- 4.6 Identify the core principles and **benefits of environmental management systems**

| |
|---|
| Range |
| <p>Key terms</p> <ul style="list-style-type: none"> •source •pathway •receptor <p>Ways</p> <ul style="list-style-type: none"> •Adequate storage •Spill kits •Emergency response procedures •Sampling/monitoring •Training and Awareness •Technological concepts <p>Consequences</p> <ul style="list-style-type: none"> •fines •clean up costs •loss of an organisation's reputation •damage to the environment. •Civil lawsuits by stakeholders <p>Purpose</p> <ul style="list-style-type: none"> •Protect the natural environment from human activities <p>Benefits of environmental management systems</p> <ul style="list-style-type: none"> •improved environmental performance •improved reputation •improved compliance •reduced costs •fewer accidents •improved public image •meeting customer requirements <p>EMS</p> <ul style="list-style-type: none"> •ISO 14001 •Plan Do Check Act |

| |
|--|
| Learning outcome |
| The learner will: 5. Know how employees support environmental sustainability |
| Assessment criteria |
| The learner can: 5.1 identify the practical actions employees can undertake to support environmental sustainability 5.2 describe the environmental management structure within organisations |

Range**Practical actions**

In relation to energy, water and material consumption, transport to and from work

Environmental Management Structure

Environmental manager

Environmental champions

HSE Manager

QE Manager

Sustainability manager

Environmental focus groups

Environmental emergency response team/employee.

Appendix 1 Sources of general information



These qualifications come with associated training courses with structured delegate work books & training manuals.

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the **Centres and Training Providers homepage** on www.cityandguilds.com.

Centre Manual - Supporting Customer Excellence contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve 'approved centre' status, or to offer a particular qualification, as well as updates and good practice exemplars for City & Guilds assessment and policy issues. Specifically, the document includes sections on:

- The centre and qualification approval process
- Assessment, internal quality assurance and examination roles at the centre
- Registration and certification of candidates
- Non-compliance
- Complaints and appeals
- Equal opportunities
- Data protection
- Management systems
- Maintaining records
- Assessment
- Internal quality assurance
- External quality assurance.

Our Quality Assurance Requirements encompasses all of the relevant requirements of key regulatory documents such as:

- Regulatory Arrangements for the Qualifications and Credit Framework (2008)
- SQA Awarding Body Criteria (2007)
- NVQ Code of Practice (2006)

and sets out the criteria that centres should adhere to pre and post centre and qualification approval.

Access to Assessment & Qualifications provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The **centre homepage** section of the City & Guilds website also contains useful information such on such things as:

- **Walled Garden:** how to register and certificate candidates on line
- **Qualifications and Credit Framework (QCF):** general guidance about the QCF and how qualifications will change, as well as information on the IT systems needed and FAQs
- **Events:** dates and information on the latest Centre events
- **Online assessment:** how to register for GOLA/e-volve assessments.

Centre Guide – Delivering International Qualifications contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve ‘approved centre’ status, or to offer a particular qualification. Specifically, the document includes sections on:

- The centre and qualification approval process and forms
- Assessment, verification and examination roles at the centre
- Registration and certification of candidates
- Non-compliance
- Complaints and appeals
- Equal opportunities
- Data protection
- Frequently asked questions.

About IEMA

These qualifications have been developed with IEMA, the Institute of Environmental Management & Assessment.

The Institute of Environmental Management & Assessment (IEMA) is the UK’s leading environmental professional membership body. IEMA is dedicated to creating a sustainable future through environmental skills, knowledge and thought leadership. IEMA is an independent and international, not for profit membership organisation that represents the views of 15,000 environmental professionals. For further information please see www.iema.net

As the interface between the environment and business, IEMA has worked with City and Guilds to develop the learning outcomes and assessment criteria to ensure they meet the needs of business and organisations more generally.

A suite of training and learning materials have been developed to support the delivery of these qualifications. Please see The Walled Garden for further information.

Centres must use the materials to support the delivery of these qualifications.

City & Guilds

Believe you can

www.cityandguilds.com



Useful contacts

| | |
|---|---|
| UK learners General qualification information | T: +44 (0)844 543 0033 E: learnersupport@cityandguilds.com |
| International learners General qualification information | T: +44 (0)844 543 0033 F: +44 (0)20 7294 2413 E: intcg@cityandguilds.com |
| Centres Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results | T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: centresupport@cityandguilds.com |
| Single subject qualifications Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change | T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 F: +44 (0)20 7294 2404 (BB forms) E: singlesubjects@cityandguilds.com |
| International awards Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports | T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: intops@cityandguilds.com |
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feedbackandcomplaints@cityandguilds.com

About City & Guilds

As the UK's leading vocational education organisation, City & Guilds is leading the talent revolution by inspiring people to unlock their potential and develop their skills. We offer over 500 qualifications across 28 industries through 8500 centres worldwide and award around two million certificates every year. City & Guilds is recognised and respected by employers across the world as a sign of quality and exceptional training.

City & Guilds Group

The City & Guilds Group operates from three major hubs: London (servicing Europe, the Caribbean and Americas), Johannesburg (servicing Africa), and Singapore (servicing Asia, Australia and New Zealand). The Group also includes the Institute of Leadership & Management (management and leadership qualifications), City & Guilds Land Based Services (land-based qualifications), the Centre for Skills Development (CSD works to improve the policy and practice of vocational education and training worldwide) and Learning Assistant (an online e-portfolio).

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