



## **Component Specification**

### **Maintenance of Farm Structures**

**Level 5**

**5N1746**

## 1. Introduction

The Further Education and Training Awards Council is the single national awarding body in further education and training in Ireland. It is responsible for determining the standards for named awards at levels 1 to 6 on the National Framework of Qualifications. All named awards are devised in line with the National Qualifications Authority of Ireland's determinations and guidelines.

## 2. The National Framework of Qualifications

The National Framework of Qualifications comprises 10 levels ranging from initial learning (level 1) to the most advanced levels of learning (level 10).

At each level there are one or more award types. An award type is a grouping of awards that share similar features. The National Qualifications Authority of Ireland has determined Award Type Descriptors for each award type. See [www.nqai.ie](http://www.nqai.ie). The Award Type Descriptor identifies the key strands and sub-strands of knowledge, skill and competence for that award type.

## 3. Guide to Level

Learning outcomes at this level include a broad range of skills that require some theoretical understanding. The outcomes may relate to engaging in a specific activity, with the capacity to use the instruments and techniques relating to an occupation. They are associated with work being undertaken independently, subject to general direction.

Strand	Sub-strand	Nature of learning
Knowledge	Breadth	Broad range of knowledge
	Kind	Some theoretical concepts and abstract thinking, with significant depth in some areas. Some underpinning theory
Know How & Skill	Range	Demonstrate a broad range of specialised skills and tools
	Selectivity	Evaluate and use information to plan and develop investigative strategies and to determine solutions to varied unfamiliar problems
Competence	Context	Act in a range of varied and specific contexts, taking responsibility for the nature and quality of outputs; identify and apply skill and knowledge to a wide variety of contexts
	Role	Exercise some initiative and independence in carrying out defined activities; join and function within multiple, complex and heterogeneous groups
	Learning to Learn	Learn to take responsibility for own learning within a managed environment
	Insight	Assume full responsibility for consistency of self- understanding and behaviour

*Extract from 'Determinations for the Outline National Framework of Qualifications': NQAI ([www.nqai.ie](http://www.nqai.ie))*

#### **4. Award Specifications**

FETAC determines the standards for all awards in partnership with relevant stakeholders. This award was developed in line with the Council policy on Standards Development published in September 2005.

Standards are published in the form of Award Specifications. A Specification is devised in respect of each named award. Each Specification provides a comprehensive description of the features, characteristics and standards of the award.

A **Certificate Specification** is published for each named **major award**.

A **Component Specification** is published for each named **minor award**. Please note that each component (i.e. minor award) is associated with one or more Certificates (i.e. major, special purpose or supplemental award). See [www.fetac.ie](http://www.fetac.ie).

A **Specific Purpose Specification** is published for each **special purpose award**.

A **Supplemental Specification** is published for each **supplemental award**.

Standards are expressed in terms of **learning outcomes** i.e. concise statements of what the learner is expected to know or be able to do in order to achieve that award.

Learning outcomes for all awards (i.e. major, special purpose, supplemental awards) are contained within the associated Component Specifications.

## 5. Component Details

<b>Title</b>	Maintenance of Farm Structures
<b>Teideal as Gaeilge</b>	To be confirmed by FETAC (TBC)
<b>Award Type</b>	Minor
<b>Code</b>	5N1746
<b>Level</b>	5
<b>Credit Value</b>	10
<b>Purpose</b>	The purpose of this award is to equip the learner with the knowledge, skill and competence to maintain and repair farm structures under management in a general farm setting in accordance with recommended standards, relevant legislation and good practice.
<b>Learning Outcomes</b>	Learners will be able to:  <ol style="list-style-type: none"><li>1 Outline grants, siting requirements, design specifications, planning regulations and construction safety regulations relating to farm structures</li><li>2 Outline grants, siting requirements, design specifications, planning regulations and construction safety regulations relating to farm structures</li><li>3 Outline grants, siting requirements, design specifications, planning regulations and construction safety regulations relating to farm structures</li><li>4 Appraise a range of constituent materials used in farm structures for their uses and factors affecting quality including concrete, blocks, damp proof course, timber, iron, reinforced steel, roof cladding, insulation, ventilation, water supply, drainage and fixed devices</li><li>5 Appraise a range of constituent materials used in farm structures for their uses and factors affecting quality including concrete, blocks, damp proof course, timber, iron, reinforced steel, roof cladding, insulation, ventilation, water supply, drainage and fixed devices</li><li>6 Appraise a range of constituent materials used in farm structures for their uses and factors affecting quality including concrete, blocks, damp proof course, timber, iron, reinforced steel, roof cladding, insulation, ventilation, water supply, drainage and fixed devices</li><li>7 Describe minimum standard specifications for farm structures</li></ol>

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- including foundations, walls, floors, yards, roadways, roofs, insulation, reinforced underground tanks and concrete beams
- 8 Describe minimum standard specifications for farm structures including foundations, walls, floors, yards, roadways, roofs, insulation, reinforced underground tanks and concrete beams
  - 9 Describe minimum standard specifications for farm structures including foundations, walls, floors, yards, roadways, roofs, insulation, reinforced underground tanks and concrete beams
  - 10 Describe fencing systems and materials for use in a range of situations around the farm
  - 11 Describe fencing systems and materials for use in a range of situations around the farm
  - 12 Describe fencing systems and materials for use in a range of situations around the farm
  - 13 Carry out maintenance and construction tasks associated with concrete and blocks in accordance with safety and construction specifications and regulations including squaring out a building, transferring levels, pegging out a foundation trench, building concrete blocks, assembling screeds to a specified fall, mixing concrete and carrying out a slump test
  - 14 Carry out maintenance and construction tasks associated with concrete and blocks in accordance with safety and construction specifications and regulations including squaring out a building, transferring levels, pegging out a foundation trench, building concrete blocks, assembling screeds to a specified fall, mixing concrete and carrying out a slump test
  - 15 Carry out maintenance and construction tasks associated with concrete and blocks in accordance with safety and construction specifications and regulations including squaring out a building, transferring levels, pegging out a foundation trench, building concrete blocks, assembling screeds to a specified fall, mixing concrete and carrying out a slump test
  - 16 Carry out maintenance tasks associated with plumbing, in accordance with safety and construction specifications and regulations including connecting water supply piping, fitting a ballcock, replacing a section of a broken drainage pipe
  - 17 Carry out maintenance tasks associated with plumbing, in accordance with safety and construction specifications and regulations including connecting water supply piping, fitting a ballcock, replacing a section of a broken drainage pipe
  - 18 Carry out maintenance tasks associated with plumbing, in accordance with safety and construction specifications and regulations including connecting water supply piping, fitting a ballcock, replacing a section of a broken drainage pipe
  - 19 Erect a stock-proof permanent fence in accordance with
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- recommended good practice
- 20 Erect a stock-proof permanent fence in accordance with recommended good practice
  - 21 Erect a stock-proof permanent fence in accordance with recommended good practice
  - 22 Interpret plans and specifications for agricultural structures
  - 23 Interpret plans and specifications for agricultural structures
  - 24 Interpret plans and specifications for agricultural structures
  - 25 Calculate quantities of concrete blocks, hardcore, readymix concrete and timber required for a range of construction projects
  - 26 Calculate quantities of concrete blocks, hardcore, readymix concrete and timber required for a range of construction projects
  - 27 Calculate quantities of concrete blocks, hardcore, readymix concrete and timber required for a range of construction projects
  - 28 Carry out maintenance and repair tasks effectively and in accordance with safety requirements.
  - 29 Carry out maintenance and repair tasks effectively and in accordance with safety requirements.
  - 30 Carry out maintenance and repair tasks effectively and in accordance with safety requirements.

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## Assessment

### General Information

Details of FETAC's assessment requirements are set out in [Assessment Guidelines for Providers](#).

All FETAC assessment is criterion referenced. Successful achievement of the award is based on learners attaining the required standards of knowledge, skill or competence.

The techniques set out below are considered the optimum approach to assessment for this component. In exceptional circumstances providers may identify alternative assessment techniques through the provider's application for programme validation which are **reliable** and **valid** but which are more appropriate to their context.

Assessment of a number of components may be integrated across programmes for delivery, provided that the learning outcomes of each minor award are assessed.

Group or team work may form part of the assessment, provided each learner's achievement is separately assessed.

All providers are required to submit an assessment plan as part of their application for programme validation. Assessment Plans will include information relating to scheduling and integration of assessment. [See](#)

## FETAC's Provider Guidelines for Programme Validation.

### Assessment Techniques

In order to demonstrate that they have reached the standards of knowledge, skill and competence identified in all the learning outcomes, learners are required to complete the assessment(s) below.

The assessor is responsible for devising assessment instruments (e.g. project and assignment briefs, examination papers), assessment criteria and mark sheets, consistent with the techniques identified below and FETAC's assessment requirements.

Programme validation will require providers to map each learning outcome to its associated assessment technique. [See FETAC's Provider Guidelines for Programme Validation.](#)

All learning outcomes **must** be assessed.

Skills Demonstration	30%
Examination - Theory	40%
Examination - Practical	30%

### Description

#### Skills Demonstration

*A skills demonstration is used to assess a wide range of practical based learning outcomes including practical skills and knowledge. A skills demonstration will require the learner to complete a task or series of tasks that demonstrate a range of skills.*

The assessor will devise a skills demonstration based on learning outcomes 5-10. The learner must complete the 10 tasks set out in the list below.

Weighting Factor:

Where a critical fault occurs the entire skills demonstration must be terminated.

0 mark for termination of skill demonstration due to a critical fault or failure to complete the task.

1 mark for completing the task with 3 or more minor faults

2 marks for completing the task with less than 3 minor faults

3 marks for exceeding the criteria for the task with no minor faults

Examples of critical faults: compromises safety, animal welfare, the environment

Examples of minor faults: Incorrect sequence, too slow, requires guidance

List of tasks:

- 1 Squaring out a building
- 2 Pegging out floor of foundation trench
- 3 Building concrete block quoin
- 4 Assembling screeds for concrete to a specified fall
- 5 Mixing concrete or mortar
- 6 Carrying out a slump test
- 7 Connecting hydrodare and copper piping

- 8 Assembling and fitting ball cock on a drinking trough
- 9 Replacing section of broken drainage pipe
- 10 Erecting a fence to a specification while working as part of a team

Overall Marks: 30

**Examination - Theory**

*An examination provides a means of assessing a learner's ability to recall and apply knowledge, skills and understanding within a set period of time and under clearly specified conditions.*

*A theory-based examination assesses the ability to recall, apply and understand specific theory and knowledge.*

The assessor will devise a theory-based examination to assess learning outcomes 1 - 4.

Overall Marks: 40

**Examination - Practical**

*An examination provides a means of assessing a learner's ability to recall and apply knowledge, skills and understanding within a set period of time and under clearly specified conditions.*

*A practical examination assesses specified practical skills demonstrated in a set period of time under restricted conditions.*

The assessor will devise a practical examination based on farm building plans and specifications to assess learning outcomes 8 and 9.

- Interpreting plans (5 marks)
- Interpreting specifications (5 marks)
- Calculating quantities of blocks required for specified projects correct to within +/- 5% (5 marks)
- Calculating quantities of readmix required for specified projects correct to within +/- 5% (5 marks)
- Calculating quantities of hardcore required for specified projects correct to within +/- 5% (5 marks)
- Calculating quantities of timber required for specified projects correct to within +/- 5% (5 marks)

**Recognition of Prior Learning (RPL)**

Learners may be assessed on the basis of their prior knowledge and experience. Providers must be specifically quality assured to assess learners by this means. To do so they must complete B10, see Provider's Quality Assurance Guidelines and be included on the Register of RPL approved providers. See RPL Guidelines at [www.fetac.ie](http://www.fetac.ie) for further information and registration details.

**Grading**

Pass	50% - 64%
Merit	65% - 79%
Distinction	80% - 100%

**Specific Validation Requirements**

There are no specific validation requirements for this award

**Supporting Documentation**

None

**Access**

To access programmes leading to this award the learner should have



reached the standards of knowledge, skill and competence associated with the preceding level of the National Framework of Qualifications. This may have been achieved through a formal qualification or through relevant life and work experience.

**Transfer**

Successful completion of this component award enables the learner to transfer to programmes leading to other certificates where this component is a mandatory or an elective requirement.