PIABC LEVEL 2 AWARD IN PACKAGING TECHNOLOGY

Qualification Number: 603/3265/7

Qualification Specification

Updated: 22 February 2024

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PURPOSE

PIABC Level 2 Award in Packaging Technology is a regulated qualification. Its main purpose is to provide learners with a basic introduction to the packaging functions, materials used for the construction of packaging and the methods for forming packaging and filling the packaging with products.

GENERAL OUTCOMES

The general objectives of the PIABC Level 2 Award in Packaging Technology are to:

1. Provide those employed in the packaging and related industries with the skills, knowledge and understanding to underpin and enhance job experience
2. Provide learners with a portable qualification to enable job movement throughout the industry
3. Provide learners with a means of progression to higher level qualifications, e.g. PIABC Level 3 Certificate in Packaging
4. Provide employers throughout the packaging and related industries with a firm basis for judging suitability of learners
5. Raise the status of those employed in the packaging and related industries

TARGET GROUP

This Level 2 qualification is appropriate for those learners wanting to enhance their employment and progression opportunities in the packaging and related industries.

For example, learners may be those who are:

- handling and using packaging
- liaising with specifiers, users and handlers of packaging
- liaising with packaging suppliers
- new recruits to the manufacturing and packaging industries, who require an introduction to the broad subject of packaging
- those looking for a broad qualification in packaging as a basis for career development
- not currently employed in the industry, who may be following courses in associate subject areas will find that this programme broadens the scope of their studies

ENTRY REQUIREMENTS

There are no entry qualifications or age limits required for this qualification. However, centres must ensure that learners have the potential and opportunity to gain the qualification successfully.

STAFFING

It is expected that staff involved with the delivery of the course will be appropriately qualified and/or experienced in packaging. The PIABC Limited approval process requires prospective centres to provide details of the staff involved in delivery and assessment including their qualifications and relevant training/employment experience, plus staff development arrangements. Whilst these details are passed on to the external moderator appointed by PIABC Limited, it is the centre's responsibility to ensure tutors' qualifications are both bona fide and appropriate to the level of the qualification.

QUALITY ASSURANCE

PIABC Limited requires that each centre has a quality assurance and enhancement procedure in respect of the programme, and a means of monitoring its implementation.

There should be a team that is responsible for preparing an annual self-assessment of the programme and for monitoring the improvement measures resulting from this.

This self-assessment process should use evidence from different sources including:

- Learner self-evaluation
- The views of external individuals and organisations, for example those companies sending learners
- Staff working on the award

In addition, it is also expected that there will be an internal moderation procedure to ensure standardisation of unit delivery. This will include the following elements:

- Classroom observation
- Peer review of award materials
- Moderation of any internally assessed elements

There should be a named and appropriately qualified individual (Centre Co-ordinator) who has the necessary authority, with whom the awarding body can liaise directly on all matters of management, administration and quality assurance.

EXTERNAL MODERATION

PIABC Limited will appoint external centre monitors to visit centres in order to ensure the maintenance of standards of quality. The role of the centre monitor includes:

- Liaison between the centre and PIABC Limited to ensure standardisation in terms of the quality of award delivery
- Providing advice and support for the centre in understanding and implementing the requirements of the units and the PIABC Limited

An External Quality Assurance (EQA) a desktop activity monitoring exercise is required for centres that have registered candidates and will formally report on the outcome of this visit to the centre and PIABC Limited. All items contained in the report will be discussed with the centre and any action that the centre needs to take will be agreed at that stage. Any visits in addition to the annual visit may incur an additional fee.

The scope and frequency of assessment monitoring activities will be in part determined by the centre assessment standard strategy for this qualification. PIABC's monitoring strategy will ensure that all centre marked assessments remain fit for purpose and that criteria against which candidates' performance is differentiated are being accurately and consistently applied for this qualification regardless on assessor, candidate, or centre.

The focus of EQA for this qualification is the detailed examination of candidate evidence. The sample selection will be determined by PIABC in line with its centre assessment standard strategy and external quality assurance sampling policy. During this exercise, the EQA will be able to agree to certification claims and sign off documentation relating to certification claims.

This EQA is conducted remotely as PIABC does not want to add additional financial burden to its centres which can be caused by EQA physical monitoring visits.

PROGRAMME ORGANISATION

PIABC Level 2 Award in Packaging Technology is designed to provide learners with a basic introduction to the packaging functions, materials used for the construction of packaging and the methods for forming and filling the packaging with products.

To achieve the qualification, learners need to successfully gain the 3 credits.

It is expected that courses leading to the qualification will take a minimum of 21 guided learning hours, which is the average hours a learner may require guidance and support from teaching, learning and assessment professional to achieve the qualification. Learners may be expected to carry out additional reading and other work to complete each unit and prepare for the assignments. It is anticipated that the qualification will require a minimum of 30 hours of total qualification time for satisfactory completion for an average learner.

The organisation of the award is at the discretion of the centre and will take into account the aims, aspirations and experience of the learners.

Centres are encouraged to choose the most suitable curriculum model for their learners. Whilst the sequential delivery of units is a possibility and may provide the most straightforward way of determining completion of individual units, it may be that some degree of integration of units will occur, or that other methods of delivery are more appropriate to meet the needs of learners. It should be noted however that each unit will be individually assessed.

Centres must ensure that adequate arrangements are in place for supporting learners. This could be either through separate tutorial sessions or through the use of time within structured study sessions. Centres using on-line or other forms of open learning must ensure that appropriate tutorial support is provided for learners.

In relevant circumstances, centres are recommended to provide information and guidance to their learners on the availability and type of employment the programme may lead to and on the progression routes available for further education and training in packaging.

GUIDANCE ON LEARNING AND TEACHING STRATEGY, METHODS AND ASSESSMENT

Packaging is a practical subject, based on theoretical principles. As far as possible, it is important that the course is taught by relating the underlying theory to practical examples and applications. Two factors which will help in this regard are:

1. The use of lecturers with direct experience in the packaging industry is likely to offer the most appropriate level of practical knowledge. This must, of course, be balanced against a sound understanding of the theoretical principles, as anecdotal experience alone is unlikely to meet the requirements of the course.

2. Factory visits should be undertaken where possible to make the link between theoretical principles and practical applications. Familiarity with different packaging settings will be assumed in elements of the qualification's assessment. DVD illustrations of processes should also be used as part of the teaching regime. A further and invaluable source of information is the Internet and there are many web sites which demonstrate important aspects of packaging manufacture and use. Lecturers should be encouraged to use this material, always making sure due acknowledgment is given to the source.

Whilst all units are designed to be *standalone* some items appear as common themes across more than one unit. This should be recognised by tutors and links made in those cases where learners are working across more than a single unit.

Those learners employed in the packaging and related industries, will come to the course with varying levels of existing knowledge and/or practical experience of some parts of the syllabus.

Lecturers should utilise this, through group work and other structured interactive activities, thus encouraging the sharing of knowledge which has the potential to lead to a better level of understanding.

The relation of theory and practice is a theme that will be reflected in the assessments for each unit and for the programme as a whole. Therefore in structured learning and individual work, learners should be aware of the requirement to develop a practical dimension to their understanding.

QUALIFICATION LEVEL

PIABC Level 2 Award in Packaging Technology has been developed as a Level 2 qualification.

When work for this qualification it is important to realise that evidence will be sought which demonstrates these features.

Level 2 Descriptor

Summary
The descriptors set out the generic knowledge and skills associated with the typical holder of a qualification at Level 2. The level descriptors are framed as outcomes and each category starts with a stem statement ("the holder can...") which then links into the outcomes associated with each level of the framework.

Knowledge descriptor (the holder...)

- Has knowledge and understanding of facts, procedures and ideas in an area of study or field of work to complete well-defined tasks and address straightforward problems.
- Can interpret relevant information and ideas.
- Is aware of a range of information that is relevant to the area of study or work.

Skills descriptor (the holder...)

- Select and use relevant cognitive and practical skills to complete well-defined, generally routine tasks and address straightforward problems.
- Identify, gather and use relevant information to inform actions.
- Identify how effective actions have been.

Source: Qualification and Component Levels - Requirements and Guidance for All Awarding Organisations and All Qualifications. Version: Ofqual/15/5774. Ofqual 2015.

QUALIFICATION STRUCTURE

In designing the award, the unit design of each unit has an informative title, a level, a credit value, learning outcomes and assessment criteria has been applied. The assessment process is based on those learning outcomes and assessment criteria. The learning and teaching strategy must be designed so that learners have the opportunity to meet the learning outcomes in an effective manner by demonstrating that they can achieve the assessment criteria.

The award is divided into three mandatory units as shown below:

Ofqual Unit Reference	Unit Ref.	Unit Title	Level	Guided Learning Hours	Total Unit Hours	Credits
J/617/0681	APT1	Packaging Roles & Functions	2	7	10	1
L/617/0682	APT2	Packaging Materials	2	7	10	1
R/617/0683	APT3	Packaging Operations	2	7	10	1
Qualification Level			2			
Total Guided Learning Hours (GLH) Time				21		
Total Qualification Time (TQT)					30	
Total Qualification Credits						3

UNIT CONTENT

UNIT APT1: PACKAGING ROLES & FUNCTIONS

Unit No: J/617/0681
Unit Level: 2
Guided Learning Hours: 10
Unit Credits: 1

Overview

This unit introduces the learners to the subject of packaging and reviews the types and applications of packs in the marketplace. It covers the packaging functions of containment, protection, preservation, convenience, information, sales, environmental and finance.

The unit will explore the how packaging can contribute towards the marketing and selling of products through the use of colour, shape, convenience and the alignment of brand values and packaging and how packaging can protect and preserve the product through the supply chain will be analysed.

The content of this unit can be tailored to the particular needs/industry of the learners (e.g. the relative emphases between preservation and protection can be adjusted).

In order to gain this unit, the learner must meet the following learning outcomes:

Learning outcomes *The learner will:*		Assessment criteria *The learner can:*	
1.	Understand the selling function of packaging	1.1 1.2	Identify how the packaging can promote the sales of products Describe how packaging provides information
2.	Understand how packaging can maintain the value of products	2.1 2.2	Describe how packaging can prevent damage to products Describe how packaging can assist in the preservation of products
3.	Understand the role and function of packaging	3.1	Apply the functions of packaging to range of packs

Indicative Content

1. Understand the selling functions of packaging

    - Product level and brand values
    - Impact of colour shape size
    - Provision of information on packaging

2. Understand the protection and preservation functions of packaging.

    - How products spoil
    - Preservation methods and packaging implications
    - Hazards of distribution
    - Protective packaging methods

3. Understand the role and function of packaging

    - Contain, protect, preserve, inform, sell, provide convenience, at acceptable economic and environmental cost
    - Evaluation of given packs

Content supporting the learning outcomes can be tailored to maximise the relevance the needs of particular learners (e.g. using processes and contexts within which they routinely work).

UNIT APT2: PACKAGING MATERIALS

Unit No: L/617/0682
Unit Level: 2

Guided Learning Hours: 10
Unit Credits: 1

Overview

This unit provides an introduction to the materials use for the construction of packaging. There is a wide range of commonly used in materials for packaging applications. This unit will investigate the properties of materials and how these materials are converted into packaging items to ensure that the learners can understand the constraints and opportunities available from the formed packaging materials.

The methods available for assessing relevant performance properties and specifying materials will be considered.

The focus of the unit is to ensure that the learners can identify why material is appropriate for a given application. The range of materials used can be tailored to the particular needs/industry of the learners. All materials do not need to be studied by each learner (e.g. a learner working with flexible materials may not need to know about the characteristics of glass packaging).

In order to gain this unit, the learner must meet the following learning outcomes:

Learning outcomes *The learner will:*		Assessment criteria *The learner can:*	
1.	Understand the performance characteristics required from packaging	1.1 1.2	Select appropriate performance characteristics for a given packaging application Describe how characteristics are measured
2.	Justify the format and materials which will provide the required performance characteristics	2.1 2.2	State the properties of materials Identify how processing can alter material properties

Indicative Content

1. Understand the performance characteristics required from packaging

    - Application requirements
    - Performance properties (e.g. barrier properties, stiffness, tear, temperature resistance, dead-fold, coefficient of friction, puncture, compression strength, seal strength, etc.)
    - Performance measurement testing and units of measurement

2. Justify the format and materials which will provide the required performance characteristics

    - Properties of materials
    - Modification of material properties by process or additives (e.g. orientation of plastics)
    - Combining materials

Content supporting the learning outcomes can be tailored to maximise the relevance the needs of particular learners (e.g. using materials with which they routinely work).

UNIT APT3: PACKAGING OPERATIONS

Unit No: R/617/0683
Unit Level: 2

Guided Learning Hours: 10
Unit Credits: 1

Overview

Packaging must be associated with a product. The unit considers the operations which take place at the packer fillers, the users of the packaging.

This unit introduces the methods for forming packaging and filling the packaging with products. The methods for producing packs on the production line, filling appropriate amounts of products into packs, sealing packs and preparing them for distribution to the customer will be considered. The methods for quality checking filled packs and their ability to move effectively thought he supply chain will be investigated.

The focus of the unit is to ensure that the learners understand the packaging operations. The range of packaging methods, pack types and products considered can be tailored to the particular needs/industry of the learners. All methods do not need to be studied by each learner (e.g. a learner working with meat products will not need to consider filling liquids).

In order to gain this unit, the learner must meet the following learning outcomes:

Learning outcomes *The learner will:*		Assessment criteria *The learner can:*	
1.	Understand how products are metered for filling	1.1	Select appropriate filling technology for given products
2.	Understand how packs are filled, sealed and prepared for distribution	2.1 2.2	Discuss packaging line operation Describe how effective seals are achieved
3.	Understand how the quality of filled packs can be assessed	3.1	Describe a selection of tests/check to ensure that filled packs are fit for purpose

Indicative Content

1. Understand how products are metered for filling

    - Legislation requirements
    - Product and pack characteristics
    - Metering systems for particular products

2. Understand how packs are filled metered and prepared for distribution

    - Preparing packs for filling (e.g. quality checks, feeding packs to line, form fill seal equipment)
    - Filling and sealing operations, how to achieve a good seal (e.g. heat seal, equipment and material requirements)
    - Coding, secondary packaging, and distribution operations

3. Understand how the quality of filled packs can be assessed

    - Pack assessment (e.g. seal quality, strength, fogging, damage resistance)
    - Performance measurement and testing

Content supporting the learning outcomes can be tailored to maximise the relevance the needs of particular learners (e.g. using products with which they routinely work).

ASSESSMENT

PIABC Level 2 Award in Packaging Technology is assessed by completing assignments which are set, internally assessed and internally quality assured by the centre. The assignment is designed for a holistic approach to the assessment and allow learners to use examples of packaging from their workplace or other packaging which the learner is familiar with to confirm that the learners have a full contextualised understanding of all the learning outcomes.

A sample selection of the assignments will be externally quality assured by PIABC. For each cohort a sample selection will be external quality assured by PIABC. The sample selection will be determined by PIABC in line with its centre assessment standard strategy and external quality assurance sampling policy. This will be undertaken before qualification certification. PIABC's centre assessment standard strategy will ensure that all centre devised and marked assessments remain fit for purpose and that criteria against which candidates' performance is differentiated are being accurately and consistently applied for this qualification.

This is a graded qualification with pass, merit and distinction being available.

The following percentages will determine the overall qualification grade:

- Pass 50 – 59%
- Merit 60 – 69%
- Distinction 70%+

The overall grading structure for the qualification is not subject to change.

QUALIFICATION CERTIFICATION

The full award is available at *Pass, Merit* or *Distinction* to learners who successfully complete all the units.

REGULATORY INFORMATION

Countries offered in:	England
Subject/sector area:	4.2 Manufacturing Technologies
Qualification operational start date:	17 May 2018
Qualification review date:	31 December 2024
Applicable age ranges (years):	16-18, 18+

GLOSSARY

Term	Definition
Learning outcome	This describes what a learner needs to know, understand or do as a result of the process of learning
Assessment criteria	These are the requirements learners are expected to meet to demonstrate that a learning outcome has been achieved.

FURTHER INFORMATION

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