



# SMILE MICROBREWERS LEARNING NETWORK

**Component Specification:** European Qualification Framework Level 4

## Component Details

<b>Title</b>	SMILE Certificate in Brewing Entrepreneurship
<b>Award Type</b>	Special Purpose
<b>EQF Level</b>	4
<b>Credit Value</b>	2.5 – 4.5 ECTS
<b>Purpose</b>	The purpose of this award is to equip the learner with the knowledge, skill and competence to establish a career in the brewing industry. The SMILE Certificate is a working qualification that will cater for all areas of setting up an Independent Brewing business and surviving.

**Learning Outcomes:** Learners will be able to:

1. Understand and apply brewing practices and to competently produce a creditable brew.
2. Know and be able to apply common business knowledge required to develop a brewing business.
3. Be up to date with the regulatory requirements for commercial brewing.



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# 1 Know How & Skill

## Level 4 EQF

Knowledge	Skills	Responsibility & Autonomy
Factual and theoretical knowledge in broad contexts within a field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities

### Range

To create a working qualification broadly structured along three main areas to include;-

- Brewing section – to give an overview of Brewing practices and skills which would enable a novice to produce a creditable brew.
- Business section – to give some background into common business practice and areas that should be looked at when starting a business
- Due Diligence – Due diligence areas such as Food Safety, Health & Safety and even licensing where required.

Selectively carry out the full range of Independent Brewers activities, observing the relevant technical, entrepreneurial; legislative and regulative; hygiene, health and safety procedures.

### Competence

Context: Operate in a professional manner with colleagues, management and customers.

Role: Implement best practice in relation to brewing, brewery management, marketing, financial management and due diligence

Learning to Learn: Take responsibility for their own learning in a structured context, planning a career in the brewing industry.

Insight: Reflect on personal practice to inform self-understanding and personal development.

The learning outcomes associated with this award are outlined in the associated Component Specifications.

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 Framework of Qualifications. This may have been achieved through a formal qualification or through relevant life and work experience.

Transfer: Achievement of this award will enable the learner to transfer to other appropriate programmes leading to awards at the same level of the Framework of Qualifications.

Progression: Achievement of this award will enable the learner to progress to other appropriate programmes leading to awards at the next or higher levels of the Framework of Qualifications.

Progression Awards: Learners who successfully complete this award may progress to a range of different awards.

Grading: The grade achieved will be determined by the modules successfully completed. Grades awardable are Pass, Merit and Distinction

## **2. Qualification Requirements**

This award is developed through the Common Award System. Any providers who wish to offer this award must have their programme validated by the appropriate qualification authority before it can be delivered to learners. The provider should check the certificate specification for this award (see above) and its associated minor awards for validation requirements.

The total credit value required for this certificate is 4 ECTS. This will be achieved by completing the modules from the individual components;

Learners need to be 16 years old or over to take this qualification. Learners do not require any prior qualifications or units or food skills experience to take this qualification. However, prior achievement of relevant knowledge/skills may be an advantage for some learners. The qualification assesses and recognises competent achievement within the workplace.

The SMILE Certificate in Brewing Entrepreneurship PASS AWARD requires the student to successfully complete all the mandatory modules with 60% or higher test score.

The SMILE Certificate in Brewing Entrepreneurship MERIT AWARD requires the student to successfully complete all the mandatory modules with 75% or higher test score.

The SMILE Certificate in Brewing Entrepreneurship DISTINCTION AWARD requires the student successfully complete all the mandatory modules with 80% or higher test score.

UNIT	DELIVERY	COMPETENCE AREA	TITLE	LEVEL	CREDIT	GLH
1.1	Online / Classroom	Brewing	Principles of the brewing industry and beer production	2	2	11
1.2	Online / Classroom	Brewing	Principles of using raw materials in brewing	2	2	8
1.3	Online / Classroom	Brewing	Principles of Brewhouse processes in brewing	2	2	7
1.4	Online / Classroom	Brewing	Principles of fermentation in brewing	2	3	8
1.5	Online / Classroom	Brewing	Principles of conditioning and filtration in brewing	2	2	7
1.6	Online / Classroom	Brewing	Principles of packaging beer	2	3	8
2.1	Online / Classroom	Business	Principles of marketing beer	2	1	4
2.2	Online / Classroom	Business	Principles of operational planning	3	3	20
2.3	Online / Classroom	Business	Principles of budgeting and Finance	3	2	17
2.4	Online / Classroom	Business	Principles of strategic planning	3	2	14
2.5	Online / Classroom	Business	Principles of sustainable practice	2	2	14
3.1	Online / Classroom	Due Diligence	Understand how to maintain workplace food safety standards	2	2	20
3.2	Online / Classroom	Due Diligence	Understand how to maintain workplace health and safety	2	2	18
3.3	Online / Classroom	Due Diligence	Understand how to lift and handle materials safely in food operations	2	2	15
4.1	Work Based	Operations	Control basic brewing operations	2	3	8
4.2	Work Based	Operations	Record and report basic brewery operations	2	1	5
4.3	Work Based	Operations	Control brewery hygiene cleaning	2	3	23
4.4	Work Based	Operations	Maintain workplace health and safety standards	2	2	4
			<b>TOTALS</b>		<b>39</b>	<b>211</b>

### 3. Specific Validation Requirements

The provider must have access to a fully equipped brewery and training room facilities in place to offer this award:

#### MODULES - 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	1. Breadth 2. Kind	1. Broad range of knowledge 2. Some theoretical concepts and abstract thinking, with significant depth in some areas 3. Some underpinning theory
Know How & Skill	1. Range 2. Selectivity	1. Demonstrate a broad range of specialised skills and tools 2. Evaluate and use information to plan and develop investigative strategies and to determine solutions to varied unfamiliar problems
Competence	1. Context 2. Role 3. Learning to Learn 4. Insight	1. 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 2. Exercise some initiative and independence in carrying out defined activities; join and function within multiple, complex and heterogeneous groups 3. Learn to take responsibility for own learning within a managed environment 4. Assume full responsibility for consistency of self-understanding and behaviour

*\*Extract from 'Determinations for the Outline National Framework of Qualifications': NQAI*

#### Assessment

Assessment should be planned in accordance with the programme assessment strategy developed as part of the programme submission for validation of Programmes. Assessment should be undertaken consistently and reflect current assessment guidelines

Successful achievement of the award is based on learners attaining the required standards of knowledge, skill or competence consistent with the minimum intended programme learning outcomes.

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.

## **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 QQI's assessment requirements.

Programme validation will require providers to map each learning outcome to its associated assessment technique. All learning outcomes must be assessed and achieved in accordance with the minimum intended module learning outcomes set out in the validated programme.

## **Examination Theory**

A theory-based examination assesses the ability to recall, apply and understand specific theory and knowledge. Other assessment methods may be used to assess Occupational Knowledge (OK) and Underpinning Knowledge (UK) requirements including e-assessment, multiple-choice examination and assignment. Reasonable adjustments apply that allow learner support for oral or other assessment adjustment arrangements to meet learner needs. All assessment activity is subject to internal quality assurance.

## **Occupational Skills**

Occupational skills units are designed to assess the learner's applied skills required to demonstrate competent performance in the workplace in a defined role. Assessment of these Units/modules is by learner portfolio of achievement. Evidence of performance can be supplemented by other assessment evidence e.g. witness testimony, work-related questioning, workplace documentation, photographic evidence and professional discussion.

The main assessment method however will be a project of Work.

The candidate will produce a portfolio which should include all the steps towards creating their own brew. This will need to include concept, ingredients, methods of brewing and packaging and marketing details such as Target market, costings, and of course, how it looks. With a conclusion as to if the brew would be viable. This can be evidenced by either a sample or an expert witness

The final portfolio will be judged by the assessor to ensure Validity, Credibility, Authenticity and Sufficiency. The resultant brew is less important than the conclusions.

## **Recognition of Prior Learning (RPL)**

To support the development and implementation of RPL with regard to access, granting credit/exemptions and achievement of awards/parts of awards, providers should refer to QQI's.

## **4 Units & Modules Breakdown**

The following pages provide more detailed information on the individual Units, 1 - 4

# UNIT 1 – Principles of Beer Production

This unit is designed to assess the underpinning knowledge and understanding of learners for understanding the principles of the brewing industry and beer production, brew house processes, use of raw materials, fermentation, conditioning, filtration and packaging. The unit is designed primarily for those who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

## 1.1 Principles of the brewing industry and beer production

1. Understand the history of beer production
2. Understand the stages of producing beer and ingredients used
3. Understand types of beer and how they are brewed
4. Understand employment and job roles in the brewing industry

## 1.2 Principles of using raw materials in brewing

1. Understand how barley is grown, harvested and stored
2. Understand how barley is converted into malt
3. Understand how different types of adjuncts are used
4. Understand how hops are grown and prepared
5. Understand how water is obtained and treated for brewing

## 1.3 Principles of brew house processes in brewing

1. Understand how malt is milled
2. Understand how barley grist is mashed to produce wort
3. Understand how wort is boiled, clarified and cooled
4. Understand evaporation in brewing

## 1.4 Principles of fermentation in brewing

1. Understand fermentation
2. Understand yeast cropping, storage, selection and pitching
3. Understand a fermentation profile

## 1.5 Principles of conditioning and filtration in brewing

1. Understand maturation and filtration
2. Understand how to store and mature beer
3. Understand how to prepare bright beer
4. Understand centrifugation in brewing

## 1.6 Principles of Packaging beer

1. Understand the uses of different types of containers
2. Understand how to package beer into containers
3. Understand the operation of warehousing and the supply chain

## **UNIT 2 – Principles of Brewing Business**

This unit is designed to assess the underpinning knowledge and understanding of learners in the fundamentals of brewing business, including the of marketing beer, strategic and operational planning, budgeting and the principles of sustainable practice. The unit is designed primarily for team leaders, supervisors, technicians and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards. It must be assessed on the job .The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

### **2.1 Principles of marketing beer**

1. Understand trends in beer sales
2. Understand the importance of marketing beer
3. Understand how packaging contributes to marketing and sales of beer

### **2.2 Principles of operational planning**

1. Understand business operational plan and requirements for the development of a plan
2. Know how to consult and feedback on the development of a business operational plan
3. Understand how to assess operational costs
4. Know the impact of the development of a business operational plan

### **2.3 Principles of budgeting and Finance**

1. Know how to develop a budget
2. Know how to monitor progress and achievement of a budget

### **2.4 Principles of strategic planning**

1. Know the current food business strategy and requirements for the development of a plan
2. Know how to consult and feedback on the development of a food business strategic plan
3. Know the impact of the development of a food business strategic plan

### **2.5 Principles of sustainable practice**

1. Know what the requirements are for sustainable practice in a food environment
2. Know how to contribute to sustainable practice within the organisation

## **UNIT 3 – Understanding Brewing Industry Compliance**

This unit is designed to assess the knowledge and understanding of learners when maintaining workplace food safety in the brewery, workplace health and safety and lifting and handling materials. The unit is designed primarily for those who carry out Brewhouse workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

### **3.1 Understand how to maintain workplace food safety standards in brewing**

1. Know the importance of safe food handling practices
2. Know how to deal with pests and infestations
3. Know the importance of minimising the risks of contamination and food poisoning

### **3.2 Understand how to maintain workplace health and safety in brewing**

1. Know the main safety risks and hazards in the working environment
2. Know the health and safety precautions and procedures in the workplace
3. Know the health and safety features of equipment and materials
4. Understand how to carry out an assessment of risks

### **3.3 Understand how to lift and handle materials safely**

1. Know the health and safety standards for lifting, moving and handling materials
2. Know how to move and handle materials
3. Know the limits of one's authority and communication methods
4. Know the principles for safe working in explosion rated brewery areas

## **UNIT 4 – Competence in Brewhouse Operations**

This unit is designed to assess the skills of learners in the workplace, carrying out, recording and reporting basic operations in brewing, controlling hygiene cleaning and operating safely in the Brewhouse environment. The unit is designed primarily for those who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards. This unit must be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

### **4.1 Control basic brewing operations**

1. Control transfer of liquid into a tank
2. Control mash, boil and fermentation
3. Control bottling and kegging
4. Control packaging, warehousing and order picking
5. Carry out task hand-over procedures

### **4.2 Record and report basic brewery operations**

1. Record basic operations
2. Understand and comply with company quality procedures
3. Principles of instrumentation and control systems in brewing

### **4.3 Control brewery hygiene cleaning**

1. Prepare for cleaning according to company procedures and specifications
2. Carry out cleaning according to company procedures and specifications
3. Complete cleaning according to company procedures and specifications

### **4.4 Maintain workplace health and safety**

1. Work within organisational safety limits
2. Follow organisational emergency procedures
3. Use personal protective equipment

## **UNIT 5 – Fundamentals of Cider Production (Optional Unit)**

This unit is designed to assess the underpinning knowledge and understanding of learners for understanding the principles of cider making, including fruit harvesting, storage and crushing, juice storage and cider fermentation, maturation and blending. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

### **5.1 Principles of fruit harvesting, storage and crushing in cider making**

1. Understand the growing conditions and characteristics of the fruits used for cider making
2. Understand fruit selection and preparation for cider making
3. Understand the fruit crushing stage in cider making
4. Understand the plant and equipment used for fruit storage and crushing

### **5.2 Principles of juice storage and cider fermentation**

1. Understand the juice transfer and storage processes
2. Understand cider fermentation
3. Understand yeast propagation in cider making

### **5.3 Principles of cider maturation and blending**

1. Understand the process of cider maturation
2. Understand the process of cider blending