

Module Title:	Quality Management for Brewers and Distillers
Language of Instruction:	English
Credits:	5
NFQ Level:	8
Module Delivered In	1 programme(s)
Teaching & Learning Strategies:	This module will be taught in two theory classes per week. Lectures will provide a structured framework for the learning outcomes and to explain concepts.
Module Aim:	The aim of this module is to give students an overview of quality management systems applied to the brewing and distilling industry.
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Describe the process model of quality, different quality management systems, standardisation, accreditation and continuous quality improvement methodologies.
LO2	Produce a quality portfolio demonstrating problem solving skills, competency in team working, setting objectives, meeting milestones, reporting on progress, producing deliverables and evaluating project progress.
LO3	Understand the principles of lean manufacturing and how quality systems can be integrated into the production and operating principles of a company, and how this can be used to drive continuous improvement.
Pre-requisite learning	
Module Recommendations <i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
Incompatible Modules <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements <i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
No requirements listed	

Module Content & Assessment

Indicative Content

Quality Management: Continuous Quality Improvement

Quality Management: Continuous Quality Improvement Definitions of quality, quality control, quality assurance and quality management. Principles of a quality system, TQM and quality philosophies. Process model of quality and Quality by Design. Quality costs, consumer protection and product safety. Problem solving techniques for process improvement. Lean Six Sigma Methodology.

Quality Management: Certification, Standardisation and Accreditation

Definitions of standards and standardisation. Rationale, development and structure of standards. Standards and Regulations. Accreditation and certification. National and international bodies and schemes including NSAI, INAB, ISO, BRC and EIQA, method validation and PT schemes. Development of SOPs. Standards supporting innovation.

Quality Management: Quality Management Systems

ISO 9000 family. ISO 9001 and the seven quality management principles. Alignment of ISO 9001 with other standards, e.g. ISO 14001; Environmental Mgt Systems, ISO 22000; Food Safety Mgt Systems and ISO17025; General Requirements for the Competence of Calibration and Testing Laboratories. Hazard Analysis and Critical Control Points (HACCP) systematic approach.

Quality Management: Management

Levels of management, roles and responsibilities. Quality meetings, team building, team working, motivation, leadership and managing change. Project planning, setting objectives and meeting milestones. Producing deliverables and project evaluation.

Quality Management: Auditing

Internal and external auditing. Role of an auditor and the auditing team. Designing, planning and implementing an audit. Audit tools and checklists. Audit close out and management review.

Health and Safety for Breweries and Distilleries

Management systems, hazard identification, audits, risk assessment, emergency plans; control of hazardous energy (electrical, mechanical, hot water, steam, chemicals, gases); vehicles (trucks, forklifts); chemicals- hazardous substance list, labels, Safety Data Sheets, storage, PPE; refrigeration; stairs and platforms, fire; explosive atmospheres, CO₂, HazOp; ATEX (ATEX 137 -99/92/EC ATEX Workplace Directive, ATEX 95- ATEX Equipment Directive), zoning.

Assessment Breakdown	%
Continuous Assessment	10.00%
Project	50.00%
End of Module Formal Examination	40.00%

Special Regulation

Students are required to achieve a minimum grade (35%) in the CA/project and Final exam

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Multiple Choice Questions	MCQ	1	10.00	n/a

Project

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	Production of a Quality Management Portfolio	2	50.00	n/a

No Practical

End of Module Formal Examination

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	Final Exam	1,3	40.00	End-of-Semester

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	12 Weeks per Stage	4.00
Independent Learning	15 Weeks per Stage	5.13
Total Hours		125.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_SABRE_B	Bachelor of Science (Honours) in Brewing and Distilling	7	Mandatory