

Module Title:	Post-distillation Downstream Processing
Language of Instruction:	English
Credits:	5
NFQ Level:	8
Module Delivered In	1 programme(s)
Teaching & Learning Strategies:	Theory classes will be closely aligned to the practical classes. Emphasis will be given to case studies linking concepts to realistic situations.
Module Aim:	The aim of this module is to give students a functional competency in the theoretical knowledge and the practical considerations in downstream distilling processes
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Describe and discuss the maturation process in distilling
LO2	Establish the importance of product preparation for packaging and critique the elements necessary for quality control in packaging
LO3	Describe the Chemical Changes during Flavouring and Blending
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

Post Distillation Flavour Development

The role of wood treatment. The process of maturation. Manufacture/source of casks. Heat treatment of casks, reuse/rejuvenation of casks. Cost implications of maturation. Calculation of losses. Changes in the spirit during maturation. Scottish Whisky laws. Reduction, filtration, colour adjustment and polish filtration. Quality standards for neutral spirit, chemical analysis, sensory characteristics. Gin Production Flavouring with botanicals. Other local products made from neutral spirit. Selection of botanicals for addition to gin. Gin flavourings – advantages/disadvantages. Gin distillation, production methods and gin quality. Vodka Production Production. Activated carbon treatment. Mouthfeel/flavour additions. Sensory evaluation. Analysis to detect irregular sources of alcohol in vodka. Flavour control Sensory evaluation, flavour wheels, flavour panels.

Maturation and Blending

Preparation of product for packaging: reduction, product water quality, polishing. Water treatment.

Assessment Breakdown

	%
Continuous Assessment	70.00%
Practical	30.00%

Special Regulation

Students must achieve a minimum grade (35%) in both practical and CA components. IT Carlow reserves the right to alter the nature and timings of assessments

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Other	n/a	1,2,3	70.00	n/a

No Project

Practical

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	Final Examination	1,2,3	30.00	n/a

No End of Module Formal Examination

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>
Lab/Lecture	12 Weeks per Stage	3.00
Independent Learning	15 Weeks per Stage	5.93
Total Hours		125.00

Workload: Part Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Practicals	20 Weeks per Stage	3.00
Independent Learning	20 Weeks per Stage	7.00
Total Hours		200.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_SABRE_B	Bachelor of Science (Honours) in Brewing and Distilling	8	Mandatory