



Foundation in Distilling

Examination Syllabus

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6.0	FD Examination Syllabus	Natalie Ferreira	Deborah Kennedy	24/ 01/ 2025

Introduction

In advance of their examination, candidates will be expected to have full knowledge of the syllabus as examination questions can be asked from any of the topics as detailed below and in the learning materials. The examination may also include some calculation questions.

Unit 1: An Overview of Spirits

Topics	Candidates should understand:
Definition of a spirit drink	<ul style="list-style-type: none">• Definitions of spirit drinks• The characteristics of spirit drinks• The major differences in the production methods for spirit drinks.
Overview of spirit production	<ul style="list-style-type: none">• Raw material processing steps for the production of spirit drinks.

Unit 2: Raw Materials

Topics	Candidates should understand:
Cereals	<ul style="list-style-type: none">• Why cereals are used to make spirits• Properties of common cereals• How cereals are grown and harvested• Processing cereals
Malting process	<ul style="list-style-type: none">• Basics of Barley selection• Key stages of the malting process• The cereal grain during malting• The process of steeping• The process of germination• The process of kilning• Evaluating malt quality
Grapes	<ul style="list-style-type: none">• What grapes are• How grapes are grown and harvested

Sugar cane and molasses	<ul style="list-style-type: none"> • What sugar cane is • How sugar cane is grown and harvested • How sugar cane is processed into cane sugar • What Molasses is
Botanicals	<ul style="list-style-type: none"> • What botanicals are • The main types of botanicals • How botanicals are grown and processed • How botanicals are stored
Agave	<ul style="list-style-type: none"> • What Agave is • How Agave is grown and harvested
Yeast	<ul style="list-style-type: none"> • What yeast is • The role of yeast in spirit production • Forms of yeast which are available • How yeast is handled in the distillery
Water	<ul style="list-style-type: none"> • Why water is important in distilling • How water is supplied to distilleries • How water is treated and used in the distillery

Unit 3: Raw materials processing

Topics	Candidates should understand:
Cereal wort production	<ul style="list-style-type: none"> • The intake and storage of cereals in the distillery • The preparation of cereals <ul style="list-style-type: none"> • How cereals are milled • The types of mills used • The equipment used for mashing • The mashing process • The wort separation process • Wort cooling • Types of sugar created • Important characteristics of cereal wort • The desired outcomes of cereal wort production

Molasses processing	<ul style="list-style-type: none"> • The intake and storage of Molasses in the distillery • The preparation of Molasses <ul style="list-style-type: none"> • The purpose of pre-treating Molasses • The process of pre- treating Molasses • Preparation of Molasses for fermentation • The definition and purpose of Dunder • The important characteristics of molasses for fermentation • The desired outcomes of Molasses processing
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Must production	<ul style="list-style-type: none"> • The intake and processing of grapes after harvest • The production of Must • The equipment used to produce Must • How must is used • The important characteristics of Must for fermentation • The desired outcomes of Must production
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Mosto production	<ul style="list-style-type: none"> • The intake and storage of Agave • Agave processing in the distillery • Cooking Methods • The equipment used to produce Mosto • The important characteristics of Mosto for fermentation • The desired outcomes of Mosto production
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Unit 4: Fermentation

Topics	Candidates should understand:
Fermentation theory	<ul style="list-style-type: none"> • The purpose of fermentation • The changes that occur during fermentation • How fermentation is controlled • What spontaneous fermentation is
Fermentation technology	<ul style="list-style-type: none"> • The type of vessels used in the process of fermentation • The advantages and disadvantages of the different fermentation vessels

Fermentation of the main spirit types	<ul style="list-style-type: none"> • Cereal wort fermentation • Molasses fermentation • Must fermentation • Mosto fermentation
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Unit 5: Distillation

Topics	Candidates should understand:
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Theory of distillation	<ul style="list-style-type: none"> • The history of distillation • What distillation is • The difference between batch and continuous distillation • The role of a copper in distillation
Batch distillation	<ul style="list-style-type: none"> • The stages of batch distillation • The equipment used during batch distillation • How batch distillation is controlled
Continuous distillation	<ul style="list-style-type: none"> • The process of continuous distillation • The equipment used for continuous distillation • How continuous distillation is controlled
Whisk(e)y distillation	<ul style="list-style-type: none"> • How spirit for whisk(e)y is distilled • The equipment used to make whisk(e)y
Brandy distillation	<ul style="list-style-type: none"> • How spirit for brandy is distilled • The equipment used to make brandy
Rum distillation	<ul style="list-style-type: none"> • How spirit for rum is distilled • The equipment used to make rum
Agave spirits distillation	<ul style="list-style-type: none"> • How spirit for tequila is distilled • The equipment used to make tequila • How mezcal is distilled • The equipment used to make mezcal
Neutral spirits and vodka production	<ul style="list-style-type: none"> • How neutral spirit is produced • The equipment used to make neutral spirit • Vodka distillation • Vodka processing

Gin distillation	<ul style="list-style-type: none"> • The type of neutral spirit required for gin distillation • Gin distillation • How gins are flavoured
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Unit 6: Maturation and blending

Topics	Candidates should understand:
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Whisk(e)y maturation	<ul style="list-style-type: none"> • The definition of whisk(e)y maturation and blending • The steps involved in whisk(e)y maturation • The definition of whisk(e)y inventory and how it is managed • The types of casks used in whisk(e)y maturation • The types of warehouses used to house whisk(e)y casks • The legal requirements of whisk(e)y maturation • The Impact of maturation on whisk(e)y • The desired outcome of whisk(e)y maturation • The process of blending whisk(e)y • How whisk(e)y colour is adjusted
Brandy maturation	<ul style="list-style-type: none"> • Different styles of brandy • The types of oak used for brandy maturation • How brandy maturation is managed • The processes of brandy maturation • The legal requirements of brandy maturation • How brandy changes during maturation • The desired outcome of brandy maturation • How brandy colour is adjusted
Rum maturation	<ul style="list-style-type: none"> • Different types of rum • Types of cask used for rum maturation • The method of storing rum casks • How rum maturation is managed • How rum changes during maturation • The desired outcomes of rum maturation • The processes used in rum blending • How rum colour is adjusted

Agave spirit maturation	<ul style="list-style-type: none"> • The maturation of Agave spirit • Types of casks used to mature agave spirits • The method of storing agave casks • Maturation process <ul style="list-style-type: none"> • The time taken to mature agave spirit • The changes which occur during agave spirit maturation • The desired outcome of agave spirit maturation • Tequila colour and flavour adjustments before packaging • How tequila is blended
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Maturation in wood	<ul style="list-style-type: none"> • The benefits of using a wooden cask during maturation • The basic elements of a wooden cask • The main wooden cask types • The factors that influence the changes which occur during maturation • How to achieve maturation changes without casks • The impact and mitigation of the repeated use of wooden casks
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Unit 7: Quality and consumer experience

Topics	Candidates should understand:
Spirits and the consumer	<ul style="list-style-type: none"> • Consumer expectations with regard to spirit drinks • The difference between flavours derived from the raw materials and from the process versus the flavours derived from maturation • The origin of the flavours in spirits • The importance of responsible drinking
Quality	<ul style="list-style-type: none"> • The definition of quality • How quality is managed in distilleries • How the safety of spirits is managed • How the flavour of spirits is evaluated • Quality management and HACCP principles

Unit 8: Packaging

Topics	Candidates should understand:
Spirit drink packaging	<ul style="list-style-type: none">• Why spirit drinks are packaged• The main types of spirit drink packaging• The advantages and disadvantages of the main types of spirit drink packaging• Spirit drink packaging• Measuring fill volumes