



Course: Professional Certificate in Manufacturing Traditional West Indian Wines & Liqueurs

Guided Learning Hours: 12

Abstract:

This practical course helps aspiring winemakers and distillers explore the art and science of home winemaking. Students will turn underutilised local fruit into premium, shelf-stable wine and liqueur. No prior science or brewing experience is necessary.

Target Audience:

- Beginners interested in making traditional West Indian wines and liqueurs.
- Aspiring entrepreneurs seeking small-business opportunities.
- Hobbyists interested in homemade wines and liqueurs.
- Individuals interested in preserving Caribbean traditions and recipes.
- Farmers interested in producing value-added products from local fruits.
- Small-scale producers looking to expand their beverage-making skills.
- Individuals interested in experimenting with local fruits, herbs, and spices.
- Culinary enthusiasts interested in learning traditional beverage-making techniques

Learning Outcomes

Upon completion of this programme, participants should: -

- Explain the basic principles of wine and liqueur production.
- Identify ingredients, equipment, and sanitation methods used in production.
- Demonstrate basic wine fermentation, processing, and ageing techniques.
- Apply clarification, stabilisation, and bottling methods.
- Explain the science of liqueur extraction, blending, and alcohol content.
- Produce basic wines and liqueurs using appropriate techniques.

Course Content

SESSION 1: Introduction and Ingredients

- **Wine Basics:**

Understand what wine is, how fermentation works, and the history of vinification.

- **Raw Materials:**

Choose between fresh fruit, juice bladders, or store-bought preservative-free juices.

- **Yeast and Additives:**

Select cultured wine yeasts (such as Lalvin EC1118 or QA23) and learn how to use Campden tablets (sulfur dioxide) for sanitation.

SESSION 2: Equipment and Sanitation

- **Essential Gear:**

Set up primary fermentation buckets, secondary glass carboys, airlocks, and siphoning tubes.

- **Cleaning & Sanitizing:**

Learn proper sterilization methods using food-grade sanitisers like Star San to prevent bacterial spoilage.

- **Measurement Tools:**

Use a hydrometer to measure Brix or specific gravity to track sugar levels and potential alcohol content.

SESSION 3: Processing and Primary Fermentation

- **Harvesting and Sorting:**

Pick and inspect grapes at optimal ripeness, managing sugar-to-acid ratios.

- **Crushing and Pressing:**

Separate juice from skins—leaving skins for red wine colour and tannin extraction or removing them immediately for whites.

- **Primary Fermentation:**

Pitch the yeast, monitor temperature controls, and manage the cap of solids on red wines.

SESSION 4: Secondary Fermentation and Aging

- **Racking and Siphoning:**

Transfer the young wine away from dead yeast sediment (lees) into a clean carboy.

- **Malolactic Fermentation:**

Optional secondary bacterial fermentation to soften sharp acids, common in certain white and red styles.

- **Élevage (Ageing):**

Age wine in glass, stainless steel, or oak barrels to develop complexity.

SESSION 5: Clarification and Bottling

- **Clarification & Fining:**

Use natural gravity settling, fining agents, or filtration to clear cloudiness.

- **Stabilisation:**

Add stabilisers like potassium sorbate to stop unexpected re-fermentation.

- **Bottling and Sealing:**

Fill bottles, insert corks or screw caps, and store properly for the final finish.

SESSION 6: The Science of Liqueur Manufacturing

- The Chemistry of Extraction (Maceration vs. Distillation)
- The Role of Proof (Alcohol by Volume)
- Solubility and "Louching" (The Physics of Blending)
- Sugar Chemistry and Viscosity
- Emulsification (The Science of Cream Liqueurs)