



INTERNATIONAL DIPLOMA IN CRAFT DISTILLING



Industrial Fermentation Lab

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INTERNATIONAL DIPLOMA IN CRAFT DISTILLING

The International diploma in craft distilling program (I.D.C.D.) is a series of courses which are designed to give the student the necessary knowledge in regards to the science and technology behind distillation, with a focus on craft distilled spirits for human consumption. Course topics will include the history, techniques and technology behind various types of distilled spirits from all around the world (such as Whiskey, Brandy, Rum, Vodka, Cognac, Pisco, Gin, etc.). This program will also cover topics such as applied chemistry, physics, microbiology, and the engineering know-how needed to operate several different types of ethanol stills. The I.D.C.D. program will also touch on some of the various legal aspects that come with alcohol production, and in addition, it will include a practice in whiskey or Pisco distilling and tours of functioning distilleries.

Contents

Fundamental and principles of distillation 1 (Prof. Seth Cohen)

- Introduction
- History of distillation: From Jabir ibn Hayyan (Geber) to modernity
- Raw materials overview
- Fermentation overview
- Distilling overview

Fundamental and principles of distillation 2 (Prof. Seth Cohen)

- Science behind distillation
 - Mass and energy balances
 - Vapor-liquid equilibrium
- Types of distillation: batch and continuous
- Equipment: alembics, distillation columns (tray columns, packed columns)
- Batch distillation techniques and cooling system.
- General distillery equipment

Scottish, Irish & American Whisk(e)y (Prof. Seth Cohen)

- History of Whisk(e)y: From Ireland, Scotland and America
- Raw material and preparation of fermentable extract (types of the yeast and bacteria, nutrient, etc.)
- Fermentation, distillation and maturation (storage, aging and packaging)
- Chemical make-up of whiskey
- Process technology: equipment and facilities
- Legal aspects (government regulations EU, USA, Chile)

Fruit spirit making (Prof. Juan Pablo Rosset)

- Introduction to fruit spirits
- Raw material and fermentation processing
- Discontinuous batch distillation
- Pisco industry and technology processing
- History of Chilean and Peruvian Pisco
- Chilean Pisco regulation
- Brandy Industry
- Cognac and Armagnac
- Singani

Gin making (Prof. Franco Regalini)

- History of Gin
- What botanicals make great Gin?
- Distillation practices for Gin
- Blending botanicals
- Legal aspects (government regulation EU, US and Chile)

Barrels & spirits (Prof. Soledad Sánchez)

- History
- Barrels management
- Aging and influence of the wood on the spirit flavour

Other distilled spirits of world (Prof. Tomás Schaerer)

- Vodka
- Tequila
- Mezcal
- Rum

Distillery and sustainability (Prof. Tomás Schaerer)

- Building a distillery. Legal, sanitary and regulatory aspects in Chile.
- How to build a distillery. Step by step.
- Sustainability
- Entering the Market with craft spirits.

Whisky making & distilling practices (Prof. Dr. Fernando Salazar, Seth Cohen & Tomás Schaerer)

- Whisky making (Mashing & fermentation)
- Whisky distilling
- Monitoring of distilling & separation of fractions (heads, hearts & tails)

Visiting a cooperage (Prof. Dr. Fernando Salazar)

- Departure from University at 08:00 am, Av. Brasil 2950
- 11-16horas - TN Coopers (Tonelería Nacional) – Curacaví

Registration & Welcome 15th: 08:00 – 09:00

Schedule (January 2024)

Time	Monday 15th	Tuesday 16th	Wednesday 17th	Thursday 18th	Friday 19th
Morning 09:00-14:00	Fundamental & principles of distillation Prof. Seth Cohen	American & Scotch whisky making Prof. Seth Cohen	Fruit spirit making I (Chilean & Peruvian pisco) Prof. Juan Pablo Rosset	Fruit spirit making II (Brandy, Cognac, Armagnac & Singani) Prof. Juan Pablo Rosset	Whisky making practices: Mashing & fermentation Prof. Fernando Salazar Prof. Seth Cohen Prof. Tomás Schaerer
Afternoon 15:00-19:00	Fundamental & principles of distillation Prof. Seth Cohen	Whisky tasting Prof. Seth Cohen	Fruit spirits tasting I Prof. Juan Pablo Rosset	Fruit spirits tasting II Prof. Juan Pablo Rosset	

Time	Monday 22th	Tuesday 23th	Wednesday 24th	Thursday 25th	Friday 26th	Saturday 27th
Morning 09:00-14:00	Gin making Prof. Franco Regalini	Other distilled spirits of the world (Vodka, Tequila, Mezcal, Rum, etc.) Prof. Tomás Schaerer	Barrels & spirits Prof. Soledad Sanchez	Whisky & gin making practices: Distilling Prof. Fernando Salazar, Prof. Tomás Schaerer & Franco Regalini	Cooperage visiting Prof. Fernando Salazar & Prof. Soledad Sánchez	10:00 Course evaluation Prof. Fernando Salazar
Afternoon 15:00-19:00	Gin tasting Prof. Franco Regalini	Tasting world's spirits Prof. Tomás Schaerer	How to taste wood in spirits Prof. Soledad Sanchez	Distillery & sustainability Prof. Tomás Schaerer		20:00 Closing ceremony

Total hours: 93

Update 16/10/2023