



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

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

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.
- Legal aspects (government regulations EU, USA, Chile)

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

- Whisky making (Mashing & fermentation)
- Whisky and gin 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 20th: 08:00 – 09:00 AM

Schedule (January-February 2025)

| Time | Monday 20 | Tuesday 21 | Wednesday 22 | Thursday 23 | Friday 24 |
|--------------------------|---|--|--|---|--|
| 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 27 | Tuesday 28 | Wednesday 29 | Thursday 30 | Friday 31 | Saturday 01 |
|--------------------------|---|---|--|--|---|--|
| 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 Sánchez | 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 Sánchez | Distillery & sustainability Prof. Tomás Schaerer | | 20:00 Closing ceremony |

Total: 93 hours
Update 08/30/2024