

# CRAFT BREW DISTILLING (CBD)

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## **CBD 100 Lab and Production Floor Safety 2 Credits**

Introduces the guidelines and expectations for safety related to the brewing and distilling production floor and QA/QC labs.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling program.

## **CBD 101 Legal Issues in Craft Beverage Industry 5 Credits**

Covers legal topics related to operating a craft beverage facility, including state, federal, and local regulations; facility legal compliance; labeling and reporting.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling program.

## **CBD 110 Raw Materials and Processing I - Grain 5 Credits**

Introduces the historical and current usage of grains in beverage production including sourcing, industry standards, and biological components of these ingredients.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling program.

## **CBD 111 Raw Materials and Processing II - Fruit & Honey 5 Credits**

Explores the historical and current uses of fruit and honey in beverage production including sourcing, industry standards, and biological components of these ingredients.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling program.

## **CBD 112 Raw Materials and Processing III - Hops & Spices 5 Credits**

Familiarizes students with the agricultural supply chain and processing for hops-based craft beverages. Includes business decisions regarding equipment, handling, refrigeration, and storage.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling program.

## **CBD 115 Equipment Processing and Maintenance 5 Credits**

Introduces equipment processing, maintenance, and regulatory requirements used in production for the craft brewing and distilling industry.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling program.

## **CBD 200 Packaging, Processing, and Distribution 3 Credits**

Covers the packaging, processing, and distribution options available to the craft beverage industry. Includes important considerations for safety, inventory management, production scheduling, and distribution.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling program.

## **CBD 201 Business Operations and Marketing 5 Credits**

Covers business practices specific to the alcoholic beverage industry, including contracts, taproom operations, business and marketing decisions for success in the industry.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling program.

## **CBD 205 Applied Chemistry for the Beverage Industry 5 Credits**

Introduces chemistry methods utilized within beverage industries to ensure consistency of products. Prepares students for subsequent classes that will utilize chemistry skills for quality control/quality assurance.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling program.

## **CBD 206 Beverage Chemistry/Biochemistry (Qc/Qa) 5 Credits**

Applies the fundamental aspects of chemistry as it relates to fermentation and distillation.

**Prerequisite:** Prereq for CBD 206

## **CBD 207 Fermentation Microbiology 5 Credits**

Covers the biological processes of fermentation with particular focus on skills used in the beverage industry. Students will gain familiarity with microscopes and media as tools to propagate yeast and identify contaminations.

**Prerequisite:** Prerequisites: C or better in CBD 205.

## **CBD 210 Design and Process Engineering 4 Credits**

Introduces the engineering and processes required to design and operate a craft brewery, cidery, or distillery.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling program.

## **CBD 230 Barrel Maturation and Blending 5 Credits**

Builds on concepts of brewing and distilling science related to barrel aging and blending for craft beverages. Students will understand the science related to barrel aging and blending to customize conditions to design specific flavor profiles.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling BAS Program

## **CBD 240 Flavor and Recipe Development for Brewing 5 Credits**

Enables creation of a unique brewed product using creative problem solving and independent product and flavor design. First course in capstone sequence.

**Prerequisite:** Prerequisite: C or better in CBD 110, CBD 111, CBD 112 & CBD 115.

## **CBD 241 Craft Brewing 5 Credits**

Enables creation of a unique brewed product using creative problem solving, and independent product and flavor design. Second course in capstone sequence.

**Prerequisite:** Prerequisite: C or better in CBD 240

## **CBD 250 Flavor and Recipe Development for Distilling 5 Credits**

Enables creation of a unique distilled product using creative problem solving, and independent product and flavor design. First course in capstone sequence.

**Prerequisite:** Prerequisite: C or better in CBD 110, CBD 111, CBD 112 & CBD 115.

## **CBD 251 Craft Distilling 5 Credits**

Fees: \$100.00 Craft Brewing Course Fee

**Prerequisite:** Prerequisite: C or better in CBD 250.

**CBD 260 Flavor and Recipe Development for Cider 5 Credits**

Enables creation of a unique craft cider product using creative problem solving, and independent product and flavor design. First course in capstone sequence.

**Prerequisite:** Prerequisite: C or better in CBD 110, CBD 111, CBD 112 & CBD 115.

**CBD 261 Craft Cider 5 Credits**

Enables creation of a unique craft cider product using creative problem solving, and independent product and flavor design. Second course in capstone sequence.

**Prerequisite:** Prerequisite: C or better in CBD 260.

**CBD 300 Lab and Production Floor Safety 2 Credits**

Reviews and advances the guidelines and expectations for safety related to the brewing and distilling production floor and QA/QC labs.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling BAS Program

**CBD 305 Survey of Raw Materials for Craft Beverage Industry 5 Credits**

Explores the variety of raw materials used in the production of craft beverages. Will include an overview of grains, hops, spices, fruit, and honey.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling BAS Program

**CBD 312 Advanced Microbiology for Beverage Industry 5 Credits**

Explores the advanced microbiological processes used in the craft beverage industry.

**Prerequisite:** Prerequisite: Admission to the Craft Beverage Management and Quality Assurance BAS Program and completion of CBD 207 with a C or better or equivalent coursework from another institution, or relevant industry experience, or instructor permission

**CBD 313 QA/QC Instrumental Analysis 5 Credits**

Explores the processes and instrumentation used in conducting Quality Assurance/Quality Control for the craft beverage industry.

**Prerequisite:** Prereq of CHEM 115 or CBD 205

**CBD 315 Advanced Equipment and Engineering 5 Credits**

Explores brewing and distilling technology, equipment, and processes through a project management lens.

**Prerequisite:** CBD 105 with a 'C' or better or CBD 115 with a 'C' or better.

**CBD 325 Microbial Mitigation in Production 5 Credits**

Explores beverage spoilage, the causes of spoilage, and how to establish environmentally responsible use of chemical and physical methods of spoilage control.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling BAS Program

**CBD 390 Cooperative Work Experience/Internship 1-5 Credits**

Cooperative Work Experience (Co-op) is an academic internship program that integrates a student's classroom study with planned supervised learning in positions related to the student's program of study or area of interest. Students are awarded credit and a grade not for the work itself, but for the demonstration of learning which occurs in and throughout the work experience.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling program.

**CBD 410 Craft Beverage Business Management 5 Credits**

Explores the business and production operations needed for successful management of a craft beverage business. Explores the business and production operations needed for successful management of a craft beverage business.

**Prerequisite:** CBD 105 with a 'C' or better or CBD 115 with a 'C' or better.

**CBD 421 Craft Beverage Capstone and Industry Regulations 5 Credits**

Provides a framework for students to carry out their senior capstone project in collaboration with peers and industry mentors.

**Prerequisite:** CBD 420 with a 'C' or better.

**CBD 422 Capstone Project 5 Credits**

Provides a framework for students to carry out and present their senior capstone project in collaboration with peers and industry mentors.

**Prerequisite:** CBD 421 with a 'C' or better.

**CBD 430 Sensory Evaluation 5 Credits**

Immerses students in sensory evaluation and methods to develop technical craft beverage and food pairing skills. Familiarizes students with the varieties of alcoholic beverages and the laws related to responsible alcohol service.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling BAS Program

**CBD 490 Cooperative Work Experience/Internship 1-5 Credits**

Cooperative Work Experience (Co-op) is an academic internship program that integrates a student's classroom study with planned supervised learning in positions related to the student's program of study or area of interest. Students are awarded credit and a grade not for the work itself, but for the demonstration of learning which occurs in and throughout the work experience.

**Prerequisite:** Prerequisite: Admission to the Craft Brewing and Distilling program.