

CRAFT BREW DISTILLING (CBD)

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.