

BREWING SCIENCE AND OPERATIONS (BREW)

BREW 1000 - Brewing Essentials

Credit(s): 3 Credits

Brewing Essentials introduces students to the beer brewing process. Through a hands-on approach, students will learn how to brew a five-gallon batch of beer. This course includes brewing theory, brewing terminology, equipment overview, sanitation, raw material selection, malting, wort production, fermentation and bottling.

Restrictions:

Enrollment limited to students in the Schl for Professional Studies college.

BREW 1500 - Brewing & Beer Styles

Credit(s): 3 Credits

Brewing & Beer Styles provides comprehensive coverage on how to brew beer in a small- to medium-size brewery. Students will learn how to apply science-based brewing principles to brew beer in a scalable brewery. This course includes an overview of the all grain brewing, engineering of brewing systems, sanitation and cleaning systems, malt, hops, yeast, fermentation, recipes development, experimenting and troubleshooting.

Prerequisite(s): BREW 1000

Restrictions:

Enrollment limited to students in the Schl for Professional Studies college.

BREW 1750 - Conditioning, Packaging & Distribution

Credit(s): 3 Credits

Conditioning, Packaging & Distribution introduces students to the process of getting your beer stabilized and ready for market. This course will teach Brewing Managers about the process around conditioning, handling, processing, packaging, and the service of beer to the customer. This course includes beer conditioning and stabilization, laboratory analysis of beer, labeling and packaging, distribution of beer in bottles, cans, growlers, kegs, tap and point of sale.

Prerequisite(s): BREW 1000

Restrictions:

Enrollment limited to students in the Schl for Professional Studies college.

BREW 2000 - Biochemistry of Brewing

Credit(s): 3 Credits

Biochemistry of Brewing introduces students to the chemical and biological foundational knowledge needed to successfully brew beer. Students will learn the science behind how starch is broken down into fermentable sugars for brewing. This course includes ingredient analysis, biology of yeast metabolism, biochemistry of fermentation, controlling microbiological threats, principles of sanitation, chemical storage and processing procedures, enzymes interactions, and pH analysis.

Prerequisite(s): BREW 1000

Restrictions:

Enrollment limited to students in the Schl for Professional Studies college.

BREW 2500 - Sensory and Beer Services

Credit(s): 3 Credits

Sensory and Beer Services develops the skills needed to brew great tasting beers! The course correspondingly introduces the chemical and microbiological elements of beer that are associated with aromatic expression and sensory evaluation. This course includes the selection, evaluation and handling of beer ingredients (water, grains, hops, yeast), beer style recipes, aromas, flavors, serving beer and tasting beer.

Prerequisite(s): BREW 1000

Restrictions:

Enrollment limited to students in the Schl for Professional Studies college.

BREW 2600 - Quality Assurance and Quality Control in the Brewery

Credit(s): 3 Credits

Quality Assurance and Quality Control in the Brewery establishes the body of knowledge that is essential in building an effective brewery quality program. This course will also incorporate how to build and use basic laboratory equipment for analyzing sourced materials and beer throughout the brewing and packaging process. Topics include: How to build and maintain a brewery lab, quality control prior to brewing (sourcing materials, storing materials, milling, testing water), yeast viability and vitality testing, development of brewer's log, policy establishment, procedures and specifications for the quality assurance process, and establishing protocols and corrective action plans within the brewery.

Attributes: Prof. Studies Students Only

BREW 2750 - Brewery Operations and Accounting

Credit(s): 3 Credits

Brewery Operations & Accounting introduces students to the different business related components required to start and run a brewery from the quality control and financial perspective. This course includes the legal procedures and policies of a brewery, the development of a limited liability corporation, establishing a network of resources, Federal and State paperwork, daily and tracking/variances, production (scheduling, product mix), branding, distribution, sales and marketing.

Prerequisite(s): BREW 1000

Restrictions:

Enrollment limited to students in the Schl for Professional Studies college.