

BREW - Brewing Science

Courses

BREW 100 Introduction to Craft Beer

3 Credits. 3 Lecture Hours. 0 Lab Hour.

An introduction to craft beers and brewing for those not pursuing the Brewing Science associate's degree. Topics include: beer and brewing history, production, characteristics, taxonomy, and evaluation.

Prerequisites: None

BREW 105 Beverage Tour and Tasting Management

3 Credits. 2 Lecture Hours. 2 Lab Hours.

A course on developing, marketing, and managing the craft beverage tour experience. Topics include: providing customer service, implementing special events, and operating a tasting room.

Prerequisites: None

BREW 110 Brewing Sanitation and Safety

2 Credits. 2 Lecture Hours. 0 Lab Hour.

A course on sanitation and safety procedures applicable to brewing products, facilities, and equipment. Topics include: selecting, handling, and storing the chemicals required for sanitation control within the brewing process.

Prerequisites: Admitted to the BREW degree program

BREW 115 Sustainability for Brewing and Beverage

3 Credits. 3 Lecture Hours. 0 Lab Hour.

A course on issues and individual contributions to environmental sustainability in the brewing and beverage industries. Topics include: renewable/non-renewable energy resources, economics of sustainability, and reduction of environmental impacts in breweries, distilleries, and other craft beverage manufacturing processes.

Prerequisites: None

BREW 120 Brewing Technology and Calculations

2 Credits. 1 Lecture Hour. 3 Lab Hours.

A course on the equipment and mathematical calculations used in craft brewing production. Topics include: using brewing equipment and other technology related to scheduling/record keeping, developing recipes, and calculating use of alcohol and other ingredients.

Prerequisites: MAT 093 or MAT 105A or appropriate Math placement, and minimum age 21

BREW 130 Brewing Production

4 Credits. 2 Lecture Hours. 4 Lab Hours.

A course on basic methodologies used in the production of beers. Topics include: recipe development, basic sanitation techniques, fermentation management, and storage.

Prerequisites: BREW 110 and BREW 120, and minimum age 21

BREW 140 Brewing Ingredients

3 Credits. 2 Lecture Hours. 2 Lab Hours.

A course on how ingredients used in the beer-making process affect the style and quality of beer. Topics include: selecting and growing barley, varieties of malting, growing hops, and the effect of hops in development of beer flavor and aroma.

Prerequisites: Minimum age 21

BREW 150 Applied Brewing Microbiology

4 Credits. 3 Lecture Hours. 2 Lab Hours.

A course on microbiology concepts and laboratory practices applicable to the brewing industry. Topics include: yeast biology, fermentation, microorganisms in brewing, and sanitation.

Prerequisites: BREW 110 and CHE 110, and minimum age 21

BREW 160 Sensory Evaluation of Beer

3 Credits. 3 Lecture Hours. 0 Lab Hour.

A course on the visual, olfactory, and gustatory parameters used in the evaluation of beer. Topics include: aromas, finish, flavor/taste interaction, and factors affecting product quality; descriptive analysis/model systems; judging systems; and set-up and operation of beverage competitions.

Prerequisites: CHE 110 and minimum age 21

BREW 191 Part-time Cooperative Education 1: Brewing Science

1 Credit. 1 Lecture Hour. 20 Lab Hours.

Students seeking an associate's degree participate in their first part-time field learning experience related to their degree. Students are expected to register for academic courses during the same semester. Students must follow cooperative education policies and procedures to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: BUS 190 (minimum grade C), and minimum age 21

BREW 192 Part-Time Cooperative Education 2: Brewing Science

1 Credit. 1 Lecture Hour. 20 Lab Hours.

Students seeking an associate's degree participate in their second part-time field learning experience related to their degree. Students are expected to register for academic courses during the same semester. Students must follow cooperative education policies and procedures to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: BREW 191, and minimum age 21

Instructor Consent Required

BREW 193 Part-Time Cooperative Education 3: Brewing Science

1 Credit. 1 Lecture Hour. 20 Lab Hours.

Students seeking an associate's degree participate in their third part-time field learning experience related to their degree. Students are expected to register for academic courses during the same semester. Students must follow cooperative education policies and procedures to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: BREW 192, and minimum age 21

Instructor Consent Required

BREW 194 Part-time Cooperative Education 4: Brewing Science

1 Credit. 1 Lecture Hour. 20 Lab Hours.

Students seeking an associate's degree participate in their fourth part-time field learning experience related to their degree. Students are expected to register for academic courses during the same semester. Students must follow cooperative education policies and procedures to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: BREW 193, and minimum age 21

Instructor Consent Required

BREW 195 Part-Time Cooperative Education 5: Brewing Science

1 Credit. 1 Lecture Hour. 20 Lab Hours.

Students seeking an associate's degree participate in their fifth part-time field learning experience related to their degree. Students are expected to register for academic courses during the same semester. Students must follow cooperative education policies and procedures to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: BREW 194, and minimum age 21

Instructor Consent Required

**BREW 196 Part-Time Cooperative Education 6: Brewing Science
1 Credit. 1 Lecture Hour. 20 Lab Hours.**

Students seeking an associate's degree participate in their sixth part-time field learning experience related to their degree. Students are expected to register for academic courses during the same semester. Students must follow cooperative education policies and procedures to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: BREW 195, and minimum age 21
Instructor Consent Required

**BREW 197 Part-Time Career Education Project: Brewing Science
1 Credit. 1 Lecture Hour. 20 Lab Hours.**

Students seeking an associate's degree complete individual study or a special project related to their major field and pertaining to their career goals. Working with an assigned faculty mentor, students define the project goals, carry out project tasks, and evaluate the results. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: BUS 190 and coordinator consent
Instructor Consent Required

**BREW 210 Beverage Marketing and Sales
3 Credits. 3 Lecture Hours. 0 Lab Hour.**

A course on marketing and selling beer and other brewed, fermented, or distilled products. Topics include: industry/consumer trends; and economic, legal, and social considerations that affect beverage marketing and sales, including branding, pricing, promotion, and distribution.

Prerequisites: ENG 101, and minimum age 21

**BREW 220 Brewing Packaging, Materials, and Quality Control
3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on practices associated with packaging beer, including canning, bottling, box presentations, and kegging. Topics include: expanding product shelf life; selecting containers; controlling temperature and light; and evaluating options for labeling, capping, and sealing.

Prerequisites: BREW 120, and minimum age 21

**BREW 230 Advanced Brewing Production
4 Credits. 2 Lecture Hours. 4 Lab Hours.**

A course on processes and equipment used in an on-site brewery and fermentation facility. Topics include: analyzing and monitoring fermentation, producing specialty beers, quality control, sustainable brewing practices, and operating and managing brewing facilities.

Prerequisites: BREW 130, and minimum age 21

**BREW 240 Legal Issues in Brewing and Beverages
3 Credits. 3 Lecture Hours. 0 Lab Hour.**

A course on the legal and regulatory environment applicable to the brewing, distillation, and fermentation industries. Topics include: social and ethical responsibilities; and state/federal regulations including licensing, taxation, labeling, record keeping, permits, inspections, and interstate/international commerce.

Prerequisites: ENG 101, and minimum age 21

**BREW 291 Full-Time Cooperative Education 1: Brewing Science
2 Credits. 1 Lecture Hour. 40 Lab Hours.**

Students seeking an associate's degree participate in their first full-time field learning experience related to their degree. Students must follow cooperative education policies and procedures to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: BUS 190 (minimum grade C), and minimum age 21

**BREW 292 Full-Time Cooperative Education 2: Brewing Science
2 Credits. 1 Lecture Hour. 40 Lab Hours.**

Students seeking an associate's degree participate in their second full-time field learning experience related to their degree. Students must follow cooperative education policies and procedures to earn credit.

Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: BREW 291, and minimum age 21
Instructor Consent Required

**BREW 293 Full-Time Cooperative Education 3: Brewing Science
2 Credits. 1 Lecture Hour. 40 Lab Hours.**

Students seeking an associate's degree participate in their third full-time field learning experience related to their degree. Students must follow cooperative education policies and procedures to earn credit.

Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: BREW 292, and minimum age 21
Instructor Consent Required

**BREW 297 Full-Time Career Education Project: Brewing Science
2 Credits. 1 Lecture Hour. 40 Lab Hours.**

Students seeking an associate's degree complete individual study or a special project related to their major field and pertaining to their career goals. Working with an assigned faculty mentor, students define the project goals, carry out project tasks, and evaluate the results. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: BUS 190 and coordinator consent
Instructor Consent Required