

Brewery Operations Major, B.S.

Program Slogan: "Crafting Leaders in the Beer Industry!"

The Bachelor of Science in Brewery Operations is designed for students and professionals looking to break into or further their career within the competitive beer and brewing industry. Created for those wishing to have baccalaureate level training and for those looking to gain vital credentials and certifications, this degree will prepare them for the challenges they will face once they are employed in the beer world. Brewery professionals are involved in the operations, management, creation and analysis of beer in a brewery setting. The Bachelor of Science degree program in Brewery Operations provides a broad foundation in: 1) practical understanding and implementation of the brewing process and the ingredients of beer, 2) chemical and biological analysis and improvement of beer, 3) brewery management and operations, 4) serving and hospitality in the beer world, 5) packaging techniques, 6) draft quality and system design, 7) professional applications of theoretical knowledge. The program is one of the only bachelor degrees related specifically to beer and the brewing industry in the world.

It is particularly unique because it is an expansive course of study based out of the School of Hospitality and is not exclusively a food science degree.

Students who complete the B.S. in Brewery Operations will:

- Develop a range of leadership skills and abilities to succeed in the beer industry, including resourceful and ethical decision making, team interaction skills, and critical & reflective thinking skills within the larger hospitality industry.
- Implement beer production and distribution principles within the increasingly diverse beer industry environment.
- Formulate and apply strategies and techniques to enhance abilities within the scientific and technical realm of the brewing industry.

Program Requirements

- A total of 120 semester hours are required for graduation.
- A grade of C or better is required for each course in this program to count toward the bachelor's degree. Students should note that programs differ in the minimum grade required.
- A minor is not required for this program

General Studies: 36-39 credit hours

- Written Communication (6 credits) - choose any approved
- Oral Communication (3 credits) - choose any approved
- Quantitative Literacy (3 credits)
 - MTH 1109, MTH 1110, MTH 1111, MTH 1112 or MTH 1210 is recommended
- Arts and Humanities (6 credits)
 - PHI 3360 - Business Ethics 3 credits is recommended
 - Select any approved Arts and Humanities (3 credits)

- Historical (3 credits)
- Natural and Physical Sciences (8 credits)
 - BIO 1080 - General Biology I 3 credits is recommended
 - BIO 1090 - General Biology Laboratory I 1 credits is recommended
 - BIO 1081 - General Biology II 3 credits is recommended
 - BIO 1091 - General Biology Laboratory II 1 credits is recommended
- Social and Behavioral Sciences (6 credits)
 - ECO 2010 - Principles of Macroeconomics Credits: 3 is recommended
 - ECO 2020 - Principles of Microeconomics Credits: 3 is recommended
- Global Diversity (3 credits)
 - GEG 1910 - Global Water Concerns Credits: 3 is recommended
- Ethnic Studies and Social Justice Requirement (0 or 3 credits)

Total for General Studies: 36-39 credits

Science Courses: 23 credit hours

- BIO 1080 - General Biology I Credits: 3
- BIO 1081 - General Biology II Credits: 3
 - Prerequisite(s): BIO 1080 and BIO 1090; or permission of instructor
- BIO 1090 - General Biology Laboratory I Credits: 1
- BIO 1091 - General Biology Laboratory II Credits: 1
- BIO 2400 - General Microbiology Credits: 5
 - Prerequisite(s): BIO 1080 and BIO 1090, BIO 1081 and BIO 1091, one semester of college chemistry, or Permission of instructor
- CHE 1100 - Principles of Chemistry Credits: 4
 - Prerequisite: MTH 1109 or MTH 1110 or MTH 1111 or MTH 1112 or a College Level Math (CLM) score of greater than or equal to 65 on the Accuplacer Exam or an Advanced Algebra and Functions (AAF) score of greater than or equal to 280 on the Accuplacer Exam
- CHE 1150 - Principles of Chemistry Laboratory Credits: 1
- CHE 2100 - Introduction to Organic and Biological Chemistry Credits: 4
 - Prerequisite(s): CHE 1100 or CHE 1810
- CHE 2150 - Introduction to Organic and Biological Chemistry Laboratory Credits: 1

Major Core Courses: 45 credit hours

- ACC 3120 - Financial Leadership for Hospitality Credits: 3
- BVG 2350 - Brewery Mechanics Credits: 3
 - Prerequisite(s): Quantitative Literacy
- BVG 3010 - Beers of the World Credits: 3
- BVG 3350 - Brewery Operations Credits: 3
- BVG 3750 - Alcohol Beverage Law Credits: 3
- BVG 3810 - Sensory Quality Analysis of Beer Credits: 3
- BVG 4010 - Beer Styles and Service Credits: 3

- Prerequisite(s): BVG 3010
- BVG 4220 - Brewing Fermentation Credits: 3
 - Prerequisite(s): BIO 2400, BVG 4350
- BVG 4350 - Brewing Science Credits: 3
 - Prerequisite(s): BIO 2400, CHE 2100
- BVG 4810 - Brewing Quality Analysis Credits: 3
 - Prerequisite(s): BVG 4350
 - Prerequisite(s) or Corequisite(s): BVG 4220
- BVG 4850 - Applied Brewing Operations Credits: 3
 - Prerequisite(s): Minimum 90 credit hours completed; BVG 3810; or permission of department
- ECO 2010 - Principles of Macroeconomics Credits: 3
 - Prerequisite(s): Written Communication and Quantitative Literacy
- ECO 2020 - Principles of Microeconomics Credits: 3
 - Prerequisite(s): Written Communication and Quantitative Literacy
- HLDR 4000 - Cost Control for Hospitality and Tourism Credits: 3
 - Prerequisite(s): ACC 3120
- PHI 3360 - Business Ethics Credits: 3
 - Prerequisite(s): At least junior standing; ENG 1020

Major Electives (9 credit hours)

Select 3 courses

- BVG 3220 - Beer and Food Credits: 3
- BVG 3500 - Bar and Beverage Operations Credits: 3
- BVG 3683 - Beer and Spirits Credits: 3
- BVG 3950 - Beverage Promotion Credits: 3
- HLDR 0370 - Study Abroad in Hospitality Credits: 0
- HLDR 3200 - Talent Leadership Credits: 3
- HLDR 3300 - Hospitality Marketing and Sales Credits: 3
- HLDR 3400 - Facilities Operations Credits: 3
- HLDR 3600 - Organizational Leadership for Hospitality Credits: 3
 - Prerequisite(s): HLDR 3200
- HLDR 3980 - Internship in Hospitality Credits: 3
- HLDR 4400 - Strategic Management for Hospitality Credits: 3
 - Prerequisite(s): HLDR 3300

*Students must complete at least 40 upper division credit hours to graduate. Students should note that completing the required General Studies and Major coursework alone may not accomplish this goal and that they will likely need to take additional upper division courses as part of their General Electives.