



Brewing Science Certificate Program

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Cost: \$4500 (includes all books and supplies)

Location: York Campus

Dates: August 2019-February 2020

Students must be 21 years old

Courses include:

Safety and Sanitation

Covers the principles of safe food-handling in the commercial foodservice environment. This course addresses the different types of microorganisms and toxins that may cause foodborne illnesses; the role that time and temperature controls play in the flow of food throughout the operation; the importance of proper food handling and adhering to food safety systems and procedures; and the various food allergens affecting people today. This course also covers sanitary facilities and pest management, as well as the importance of employee training. Current issues in food sanitation, along with the local, state, and federal regulations that apply, are also discussed. This course meets the Pennsylvania Department of Agriculture requirement for certified food handlers. The SERVSAFE examination of the National Restaurant Association is administered.

Culinary Math for Brewing

Develops crucial math skills needed for success in food service and hotels. This course covers basic math essentials, and industry specific applications that include decimals, fractions, percentages, measurements, yields, and costing.

Microbiology

This course not only educates students about the theory of fermentation management, but how to apply the lessons to real life in a brewery. We take a holistic approach and cover the biology and

chemistry of every aspect of brewing to ensure the students understand not only how to construct and brew recipes, but how the decisions are influenced by the biology of the ingredients and the process going in each contributing selection. By taking this approach our students will be able to troubleshoot any aspect of brewing issues and will allow them to create world class beer.

Off Flavor Webinar

Students will learn to identify the off flavors in beer, what causes them, and how to prevent them.

Quality Control and Assurance in Brewing

In this course students will receive an overview of Quality Control (QC) and Quality Assurance (QA) techniques in both a classroom and through hands on learning. Students will study QC theory and tour local brewing facilities to see the continuum of QC and QA techniques used throughout the local brewing industry.

Foundations of Beer Making

The course will give students an overview of both the beer making process as well as the entire brewing industry. Students will begin to create the beer recipe that will ultimately become the #HACCbrew. Industry experts will instruct the course and brewing sanitation will be expanded on. The importance of brewing ingredients will also be a focus. These ingredients such as water, yeast, malt, malt, hops and more will be discussed in the classes located in both a HACC classrooms as well as in our partner breweries.

Principles of Brewing Engineering

This classroom based course will focus students in on key principles in beer makings such as equipment layout, waste water, and the overall brewing process. Other discussions will center around packaging and distribution, refrigeration and the key role water plays in the brewing process.

Current Trends in the Beer Industry

Material will cover current issues such as Supply Chain Management, Regulatory Compliance, and Safety. Additional topics covered will be marketing, front of the house operations and other trending topics in the Craft Beer Industry.

Cicerone Certification Level 1 Prep and Test

Internship

Students will complete a 80 hour internship. Schedules and locations will vary.

Please contact Holly Simmons at hbsimmon@hacc.edu or 717-780-1179 for more information.