

# CRAFT BREWING CERTIFICATE

eCornell CALS124 Water Profiles	0
eCornell CALS125 Beer Production and Refinement	0

## Program Description

The craft brewing industry provides more than 150,000 jobs in the U.S. alone and has been rapidly expanding for several years. Whether you're in the industry today and want to learn more or are looking to enter this growing field, this certificate program will give you the skills you need to create and refine your own beer recipe. Throughout the courses, you will have the opportunity to walk through a hands-on exploration of the four main ingredients used in beer production and their impact on the final product. This in-depth look at each ingredient includes the chemistry and calculations needed to determine the best combination and ratios of ingredients for brewing. After completing this program, you will be well equipped with the expertise and tools to develop, brew, and optimize craft beer.

## Key Takeaways

- Investigate the characteristics of different malts to determine which is best for your recipe and beer style
- Explore the properties of hops and determine their impact on beer aroma and flavor
- Analyze the yeasts and microorganisms used in beer fermentation to achieve the desired flavor profile
- Evaluate water and its chemical makeup to create the appropriate water profile for your recipe
- Explore the nuances of ingredient interplay during the brewing process to refine the production of your recipe

## What You'll Earn

- Beer Production Certificate from Cornell College of Agriculture and Life Sciences
- 50 Professional Development Hours (5 CEUs)

## Who Should Enroll

- Homebrewers and hobbyists
- Brewery startups
- Equipment vendors
- Malt suppliers
- Homebrew retailers
- Brewery apprentices and career starters
- Brewery employees looking to expand their knowledge

## Total Investment

- 2.5 months to complete all the courses

## How To Enroll

For more information and to enroll, please visit Craft Brewing Certificate (<https://ecornell.cornell.edu/certificates/food-and-plant-science/craft-brewing/>).

## Courses

Code	Title	Hours
eCornell CALS121	Malt Evaluation	0
eCornell CALS122	Hops Flavor Chemistry	0
eCornell CALS123	Yeast and Fermentation	0