



## Pathway to Recognition Program

### About the Program

Recognition by the Master Brewers Higher Education Review Committee indicates that a program has been carefully reviewed and measured against a set of published guidelines and learning outcomes established by the Higher Education Advisory Committee and that the applicant program meets or exceeds all the guidelines and learning outcomes required for the degree they are offering. Through its review, the board determines that:

- 1) The scope of the applicant program matches the descriptions it provides.
- 2) The scope of the applicant program meets or exceeds the guidelines established by the Higher Education Advisory Committee.
- 3) Students who successfully complete the program can reasonably seek employment opportunities as per the indications the program provides.

Recognition of an education program will be made public through Master Brewers' press releases and by posting notices on the Master Brewers website, along with program links and contact information. The Master Brewers website also provides students, educators, and brewers with resources by which they can compare academic programs, as well as contact information, links, and other valuable tools, such as a bibliography of publications related to the fermentation sciences, sample job descriptions, and a summary of the survey results on higher education requirements for the brewing industry.

Program recognition is valid for three years, with filing of an annual short-form affidavit, confirming any material changes to the program that may affect program recognition by the Master Brewers Review Committee.

The committee has developed Master Brewers approved guidelines and learning outcomes for the successful development of academic programs for brewing and fermentation science—both for 4-year college-level programs and 2-year associate's degree programs, as well as for certificate programs in brewing (either postgraduate or postsecondary school).

While the learning outcomes are similar for each, the following distinctions may provide insight into how the brewing industry would differentiate between graduates in each category:

**Four Year Program:** A four year college-level degree generally is required (along with other requirements) by the brewing industry for management-level jobs and is distinguished from a two year associate's degree in applied science by 1) a high degree of theoretical knowledge about the relationships between each of the following—fermentation, brewing raw materials, brewhouse engineering, packaging, and safety; 2) a strong ability to function as part of a brewery production team; and 3) a basic understanding of the business of brewing (e.g., inventory management). The minimum number of credits pertaining to "capstone" courses should be no less than nine (three courses). Graduates should be able to assist in the commissioning and/or day-to-day operation of a small, packaging brewery.

**Two Year Program:** A two-year associate's degree in applied science generally is required (along with other requirements) by the brewing industry for entry-level brewhouse, packaging, and maintenance jobs and is distinguished from a four-year program by an emphasis on practical application of skills

pertaining to the day-to-day operation of a brewery or a set of functions within a brewery (e.g., packaging, engineering). The minimum number of credits pertaining to “capstone” courses should be no less than nine (three courses). Graduates should be able to use an entry-level position as a way to build on their education and practical experience (e.g., internship or lab experience) to advance, if desired, into higher level positions.

**Certificate Program:** A certificate in brewing is generally required (along with other requirements) by the brewing industry for entry-level cellar, packaging, and maintenance jobs and is distinguished from a two-year program by its focus on a general overview of the brewing industry, providing an understanding of day-to-day brewery operations and basic principles used on the job (e.g., cleaning, sanitation, brewing science). The minimum amount of time recommended for a certificate program is 10–18 weeks, with time spent as an intern in a brewery either during or after the program. Completion of a certificate program in brewing should provide graduates with the ability to start in an entry-level brewery position.

<b>2018 Higher Education Advisory Committee</b>	<b>2018 Higher Education Review Committee</b>
Aaron MacLeod, Chair Hartwick College	Aaron MacLeod, Chair Hartwick College
Peter Bouckaert Purpose Brewing and Cellars	Rick Ackerman Harpoon Brewery
Tobin Eppard MillerCoors	Aaron Brodniak Diamond Knot Craft Brewing
Gil Sanchez Sierra Nevada	Tom Eplett MillerCoors
Tom Shellhammer Oregon State University	David Kapral Brewing Consulting Services
R. Alex Speers Canadian Institute of Fermentation Technology Dalhousie University, Canada	Oliver Meinhold Loeffler Chemical Corp.
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