

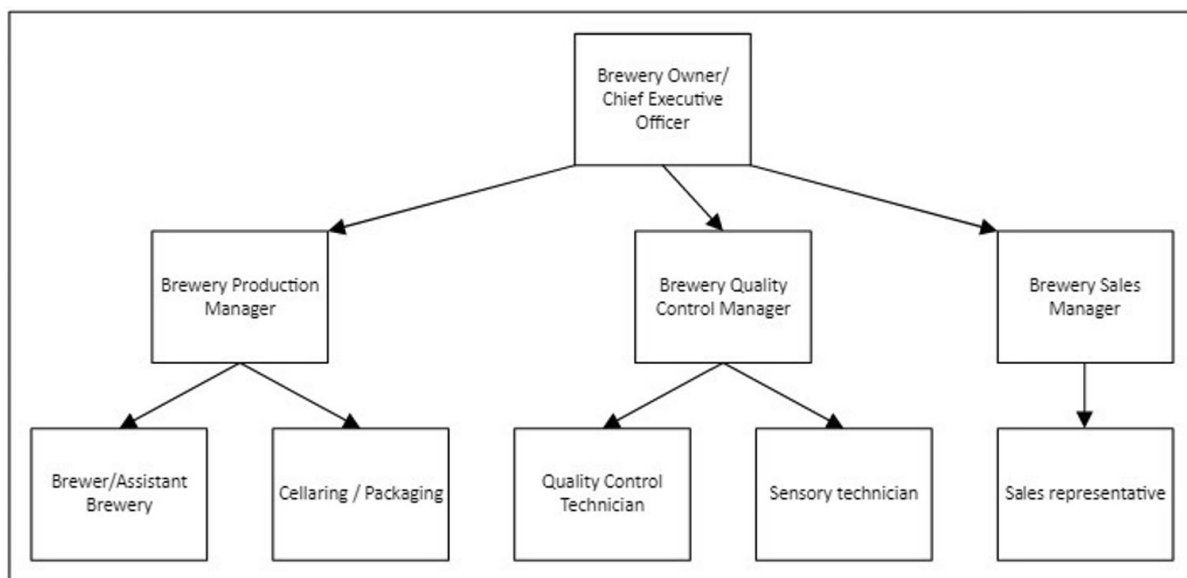
2. Curriculum Review

2.1. Pathways for Graduates

Pathways to Employment

The aim of the Brewing and Brewery Operations program is to provide the students with a foundation in brewing science, technology, operations, management, and sales. The foundational knowledge acquired through the program, as well as the critical thinking skills that are developed allow our students to integrate a variety of positions within the brewing industry. The level of education required will differ substantially between the different roles and breweries. Many of the small craft breweries do not require but encourage a formal education in brewing or a background in science. However, strong technical skills, a good work ethic, effective time management skills, troubleshooting skills, and good interpersonal skills are ubiquitous to most job descriptions. Please see Table 1 below for possible Career Pathways. For a full list of possible career opportunities please see Appendix B.

Table 1 Possible career paths for Brewing and Brewery Operations graduates



In British Columbia, craft breweries/brewpubs have increased their production and sales considerably over the last ten years to the point where these enterprises now account for about 30% (BC Craft Brewers Guild, 2022) of the beer market in British Columbia compared to 9% in 2009. (Updated from the KPU, Non-Degree Program Proposal, Brewing and Brewery Operations, 2013, Appendix C, p 10)

Employment in the craft brewery industry has increased with the increase in the number of establishments. According to the BC craft brewer's guild, the number of breweries in British Columbia has increased from 54 breweries in 2010 to 204 breweries in 2020. (BC Craft Brewers Guild, 2022). The number of breweries in Canada has increased from 564 breweries in 2015 to 1210 breweries in 2020 according to the data from Beer Canada (Beer Canada, 2022).

These craft breweries provide employment as head brewer and assistant brewers, brewery operations, quality control technicians, marketing, public relations, and retail sales. Employment opportunities also exist with the larger national and international breweries. The Brewing and Brewery Operations Program trains graduates to work in both the craft brewery establishments as well as larger establishments. (Updated from Appendix C, p 10)

Pathways to Further Study

Degree completion opportunities within the University exist in the following areas:

- Bachelor of Business Administration in Marketing Management or Human Resources Management or Entrepreneurial Leadership; graduates of the Brewing and Brewery Operations Program would be required to complete designated bridging courses prior to entering the programs: Basic Economics, Statistics, Accounting; this option currently exists within the University for students completing the Horticulture Technology Diploma. (Appendix C, p 16)
- There are opportunities in the Faculty of Trades and Technology leading to a diploma or certificate. Courses relevant to the Brewery Operations Program include: millwright, mechatronics, plumbing and piping, logistics and distribution, and welding.

Here is a summary of how the above-mentioned trades link to the brewing industry. Students with a background in brewing and millwright or welding would be well placed to work for a brewery manufacturer. Students with a mechatronics diploma and a brewing diploma would be able to apply, understand and troubleshoot the automation of processes in the brewing industry. Students with an understanding of brewing, plumbing and piping would be uniquely qualified to do the installation of breweries and other food facilities as they would understand the hygienic requirements for a food processing environment. Students with a specialization in logistics and distribution would be uniquely qualified to manage brewery supply chains.

Pathways to an Enriched Civic and Personal Life

In terms of enrichment during the Brewing program students are encouraged to foster critical thinking skills that will help them to adapt to change and make informed decisions. Students are encouraged to critically examine processes and to look for ways to make improvements. It is hoped that the students develop a love of learning that will forever enrich their lives. Students are guided to seek peer reviewed sources to deepen their knowledge and understanding of the brewing process. Students are also given a chance to apply and express their creativity while developing a student signature beer.

Possible Career Pathways for the program graduates is presented in Appendix B.

2.2. Program Learning Outcomes

The program learning outcomes listed below have been revised to be more concise relative to the original program learning outcomes in the program proposal. The revisions to the PLOs have been influenced by the faculty expertise, discussions with regulatory bodies and feedback from the industry. For example, guest lectures from WorkSafeBC have consistently stressed the need to a hazard analysis of the workplace. Hence, PLO #1 was revised to include evaluate safe work practices based on hazard analysis. (Appendix C)

Upon completing the Brewing and Brewery Operations Program, graduates will be able to:

1. Demonstrate and evaluate safe work practices based on hazard analysis.