

BREWING SCIENCE C.A.S.

This certificate in brewing science allow students to attain and demonstrate a general knowledge of the science and practice of malting and brewing, a greater appreciation of the science and manufacturing processes of beer production, and technical competence in laboratory testing procedures related to brewing. Students who complete this certificate may seek employment in the malting, brewing or distilling industry.

General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (<https://catalog.umn.edu/academics/graduation-requirements/>).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (<https://catalog.umn.edu/academics/policies-procedures/>) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Certificate of Applied Science - Brewing Science

Course Requirements

Code	Title	Hours
Chemistry		
Complete one of the following Chemistry sequences:		10
CHMY 121N	Introduction to General Chemistry	
CHMY 123	Introduction to Organic and Biochemistry	
CHMY 124	Introduction to Organic and Biochemistry Lab	
OR		
CHMY 141N & CHMY 142N	College Chemistry I and College Chemistry I Lab	
CHMY 143N & CHMY 144N	College Chemistry II and College Chemistry II Lab	
Complete all of the following courses:		
BCH 380 or BCH 480	Biochemistry or Advanced Biochemistry I	4
BIOB 160	Principles of Living Systems	3
BIOB 260	Cellular and Molecular Biology	4
BIOM 360	General Microbiology	3
BIOM 361	General Microbiology Lab	2
CHMY 311	Analytical Chemistry-Quantitative Analysis	4
CHMY 314	Brewing Science	3
Total Hours		33