

Sustainable Brewing | Western Michigan University



WESTERN MICHIGAN UNIVERSITY

College of
Arts and Sciences

The Sustainable Brewing program is an interdisciplinary, 4-year curriculum that educates students on the rich landscape of modern brewing and helps them comprehend and address the environmental challenges faced by the industry in the 21st century.

- Nation's first sustainable brewing bachelor's degree includes first-hand experience going through the process of brewing from grain to glass.
- Rigorous interdisciplinary focus includes chemistry, biosciences, physics and environmental science.
- Combines Kalamazoo Valley Community College's food science and culinary arts expertise with Western Michigan University's research resources and national reputation in water research and sustainability.
- Curriculum developed with input from Michigan's craft beer industry experts.
- Training and education designed to meet the brewing industry's gold standard for work force skills.

wmich.edu/brewing – (269) 387-2866

Sustainable Brewing Pathways

Students seeking only a brewing certificate can complete that as a stand-alone program at KVCC, or they can complete the certificate as part of an associate's degree designed specifically to transfer into the Bachelor of Science program at WMU.

Students can also begin their studies at WMU, complete the KVCC certificate along the way to their bachelor's program, and take full advantage of advanced coursework in science and sustainability designed to complement experiential brewing courses.

Regardless of the pathway, the program is designed to allow students to move seamlessly between institutions, between the classroom and the laboratory and between the test facilities and internships with the leading breweries and suppliers in the state.

Advisors will work closely with each student to ensure their individual path is clear and reasonable.

BREWING CERTIFICATE (From KVCC or Comparable)

Required Introductory STEM Courses

CHEM 1100/1110	General Chemistry I + Lab	4 hrs
CHEM 1120/1130	General Chemistry II + Lab	4 hrs
PHYS 1130/1140	General Physics I + Lab	5 hrs
PHYS 1150/1160	General Physics II + Lab	5 hrs
MATH 1180	Precalculus	4 hrs
BIOS 1600	Biological Form and Function	3 hrs
BIOS 1610	Molecular and Cell Biology	4 hrs
BIOS 1620	Ecology and Evolution	4 hrs

Required Advanced STEM Courses

CHEM 2250/2260	Quantitative Analysis + Lab	4 hrs
CHEM 3700/3710	Intro Organic Chem + Lab	4 hrs
CHEM 3550/3560	Intro Biochemistry + Lab	4 hrs
BIOS 2500	Genetics	3 hrs
BIOS 3120	Microbiology	5 hrs
BIOS 5230	Fermentation	3 hrs

Required Sustainability Courses

ENVS 2150	Environ Systems and Cycles	3 hrs
ENVS 3000	Intro to Sustainability	3 hrs

Required Experimental Capstone Experience

A-S 3499	Sustainable Brewing Capstone	
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Electives (Choose 6 hrs)

ANTH 3560	Food and Culture	3 hrs
MKTG 2900	Intro to Food and CPG Indus	3 hrs
MKTG 3330	Sustainable Marketing	3 hrs
MKTG 3770	Sales Promotion	3 hrs
ACTY 3990	Sustainable Accounting	3 hrs
MGMT 3120	Sustainable Operations	3 hrs
BUS 1750	Business Enterprise	3 hrs
FCS 2600	Nutrition	3 hrs
REL 4000	Holy Waters	3 hrs
GEOG 3200	Culinary Tourism	3 hrs
MFE 4400	Production Engineering	3 hrs
ECON 3190	Environmental Economics	3 hrs

Advisory Board



Tyler Glaze
(Short's Brewing)



Walker Modic
(Bell's Brewery)



Ben Fleckenstein
(Paw Paw Brewing)



Matt & Rene Greff
(Arbor Brewing)



Greg Haner
(Gonzo's Biggdogg)



Jeff & Bonnie Steihman
(Hop Head Farms)



Joe Rudnick
(Tapistry Brewing)



Aaron Morse
(Dark Horse Brewing)



Tim Suprise & Dave Sippel
(Arcadia Brewing)



Kris Spaulding
(Brewery Vivant)



Jason Salas
(New Holland Brewing)



Beau Loncharte
(Founders Brewing)



Erik May
(Pilot Malt House)



Dan Rodgers
(Griffin Claw Brewing)



Ryan Hamilton
(Michigan Barley Association)

Potential Career Industries

Craft brewing

Winemaking/fermenting

Food and agriculture

Culinary arts

Quality control

Clean water/environmental protection

Pharmaceuticals

Sales and Marketing

Chemistry



Connect With Us!

Sustainable Brewing Program

wmich.edu/brewing

(269) 387-2866

College of Arts and Sciences

wmich.edu/arts-sciences

(269) 387-4350

Undergraduate Advising

wmich.edu/arts-sciences/advising

(269) 387-4366

Undergraduate Recruitment and Outreach

cas-recruiting@wmich.edu

(269) 387-4371

