



UNITED WE BREW

## 2025 Brewing and Malting Sciences Course

August 21 – October. 25, 2025

Course Director: Rob McCaig

---

### Virtual

---

Orientation: Thursday, August. 21, 1:00 - 2:00 pm US Central Time

#### Week 1: August 21 – 28

**Independent Learning:**

- Life Sciences for Brewers – *John Roll, University of Wisconsin, Department of Bacteriology*
- Malting Barley: Origins, Production, and Quality -- *Ashley McFarland, American Malting Barley Association*
- Workplace Health and Safety -- *Gary Nicholas, Nicholas Brewing Projects*

**Live Zoom Discussion:** Thursday, August 28 (1:00 -4:00 CT)

Happy Hour (Optional, 4:00- 5:00)

#### Week 2: August 28 – September 4

**Independent Learning:**

- Plant Automation Principles and Automation for Craft -- *Martin Lutz, ProLeiT Corp*
- Brewing Microbiology -- *Bill Maca, HWM Yeast Solutions LLC*
- Brewery Water and Adjustment -- *Joe Walts, Karben4 Brewing*

**Live Zoom Discussion:** Thursday, September 4 (1:00 -4:00 pm US Central Time)

Happy Hour (Optional, 4:00- 5:00)

#### Week 3: September 5 – 11

**Independent Learning:**

- CO2 Recovery and Use – *Travis Audet, Slant Six Counsultin*
- Principles of Brewery Cleaning, Sanitizing and CIP -- *Dirk Loeffler, Loeffler Hygiene & Safety Solutions*
- Design and Operations Considerations for CIP – *Dirk Loeffler, Loeffler Hygiene & Safety Solutions*

**Live Zoom Discussion:** Thursday, September 11 (12:30 -4:00 US Central Time)

Happy Hour (Optional, 4:00- 5:00)

#### Week 4: September 12 – 18

**Independent Learning:**

- Brewery Effluent Management -- *Jeff VanVoorhis, Symbiont, A Mead & Hunt Company*
- QC/QA – *Emily Wang, Fermly*
- Specialty Beers Design -- *Andy Farrell, Bell's Brewery Inc.*

**Live Zoom Discussion:** Thursday, September 18 (12:30 -4:00 pm US Central Time)  
Happy Hour (Optional, 4:00- 5:00)

#### Week 5: September 19 -- 25

**Independent Learning:**

- Sour Beer Production -- *Marcio Buffolo, Shades Brewing*
- Cellar Operations and Beer Filtration -- *Tom Eplett, JT Eplett Brewing Technology Consulting LLC*
- Barrel Production of Beer – *Troy Casey, Casey Brewing*

**Live Zoom Discussion:** Thursday, September 25 (12:30 -4:00 pm US Central Time)  
Happy Hour (Optional, 4:00- 5:00)

#### Week 6: September 26 – October 9

**Independent Learning:**

- Physical and Flavor Stability of Beer *Tom Eplett, JT Eplett Brewing Technology Consulting LLC*
- Nature of Brewing Yeast -- *Bill Maca, HWM Yeast Solutions LLC*
- Hop Production – *Ryan Gregory, Hopsteiner*

**Live Zoom Discussion:** Thursday, October 9 (12:30 -4:00 pm US Central Time)  
Happy Hour (Optional, 4:00- 5:00)

---

### In-person at DoubleTree by Hilton Minneapolis Airport, Bloomington, MN

---

#### Sunday, October 19

- Hotel Check-in
- Opening Banquet (6:00 pm)

#### Monday, October 20

- Rahr Campus – Shakopee MN
  - Malting and Malt Analysis
  - Malthouse Tour
  - Technical Center Tour

#### Tuesday, October 21

- Brewing – Grain and Milling – *Rob McCaig*
- Brewing – Mashing and Lautering – *Travis Audet*
- Brewing - -Kettle and Cooling – *Jeff Biegert*
- Brewing Calculations – *Jeff Biegert*

#### Wednesday, October 22

- Wort Aeration, Yeast Pitching, and Fermentation – *Jeff Biegert*
- Specialty Malt – *Dan Bies, Briess Malting*
- Sensory – *Janelle Harmon*
- Group Project—*Work time*

#### Thursday, October 23

- Brewing Adjuncts – *Scott Helstad, Cargill (Retired)*
- Trends in Brewing: Seltzers/ NA/ Cannabis/ Kombucha/ Hazy Beers – *Frances Tietje-Wang, Fermly*
- Group Project – *Work time*
- Tour: Surly Brewing

#### Friday, October 24

- Hops, Hop Products & Dry Hopping – *Mike Sutton, Hopsteiner*
- Student Project Presentations
- Closing Banquet (6:00 pm)