



UNITED WE BREW™

## 2022 Brewing and Malting Science Course

Sept. 9, 2022 – Oct. 28, 2022

**Course Director: Rob McCaig**

*All times are shown in Central Daylight Time (CDT)*

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### Virtual

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Orientation Session (Friday, Sept. 9, 1:00 - 2:00 pm CDT)

Week 1 (September 11 - 16)

**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, SanTan Brewing Company*

**Live Zoom Discussion:** Friday, Sept 16 (1:00 -4:00 CT), Happy Hour (Optional, 4:00- 5:00)

Week 2 (September 17 - 23)

**Independent Learning:**

- Hop Production – *Mike Sutton, Hopsteiner*
- Brewing Overview – *Steve Presley, Anheuser-Busch (Retired)*
- Brewery Water and Adjustment -- *Joe Walts, Karben4 Brewing*

**Live Zoom Discussion:** Friday, Sept 23 (1:00 -4:00 pm CDT), Happy Hour (Optional, 4:00- 5:00)

Week 3 (September 24 - 30)

**Independent Learning:**

- 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*
- Plant Automation Principles and Automation for Craft -- *Martin Lutz, ProLeiT Corp*

**Live Zoom Discussion:** Friday, Sept 30 (1:00 -4:00 CDT), Happy Hour (Optional, 4:00- 5:00)

## Week 4 (Oct. 1 - 7)

### Independent Learning:

- Sour Beer Production -- *Marcio Buffolo, Shades Brewing*
- Trends in Brewing: Seltzers/ NA/ Cannabis/ Kombucha/ Hazy Beers -- *Rob McCaig, Asahi Europe*
- Specialty Beers Design -- *Andy Farrell, Bell's Brewery Inc.*

**Live Zoom Discussion:** Friday, Oct. 7 (1:00 -4:00 pm CDT), Happy Hour (Optional, 4:00- 5:00)

## Week 5 (Oct. 8 - 14)

### Independent Learning:

- Brewery Effluent Management -- *Jeff VanVoorhis, Symbiont, A Mead & Hunt Company*
- Cellar Operations and Beer Filtration -- *Tom Eplett, JT Eplett Brewing Technology Consulting LLC*
- Physical and Flavor Stability of Beer *Tom Eplett, JT Eplett Brewing Technology Consulting LLC*
- QC/QA – *Emily Wang, Fermly*

**Live Zoom Discussion:** Friday, Oct. 14 (1:00 -4:00 pm CDT), Happy Hour (Optional, 4:00- 5:00)

## Week 6 (Oct. 15-21)

### Independent Learning:

- Brewing Microbiology -- *Bill Maca, HWM Yeast Solutions LLC*
- Nature of Brewing Yeast -- *Bill Maca, HWM Yeast Solutions LLC*
- Wort Aeration, Yeast Pitching, and Fermentation -- *Jeff Biegert, New Belgium Brewing Company*

**Live Zoom Discussion:** Friday, October 21 (1:00 -4:00 pm CDT)

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## In-Person at The University of Wisconsin, Madison

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### Sunday, Oct. 23

- Opening Banquet (6:00 pm)

### Monday, Oct. 24

- Malting and Malt Analysis – *Joe Hertrich, Anheuser-Busch Inc (Retired)*
- Brewing – *Steve Presley, Anheuser-Busch (Retired)*

### Tuesday, Oct. 25 – Visit Briess Malthouse

- Specialty Malt – *Dan Bies, Briess Malting Co.*
- Malt Flavour and Aroma – *Rob McCaig, Asahi Europe*
- Student Projects

### Wednesday, Oct. 26

- Brewing Demo – *Jon Roll, U of W Madison*

- Sensory – *Roy Desrochers, University of Vermont*

### Thursday, Oct. 27 – Brewery Visit and Tour

- Student Projects

### Friday, Oct. 28

- Hops, Hop Products & Dry Hopping – *Mike Sutton, Hopsteiner*
- Brewing Adjuncts – *Scott Helstad, Cargill Inc.*
- Student Project Presentations
- Closing Banquet (6:00 pm)