



UCDAVIS

Continuing and Professional Education

**TURNING A PASSION FOR
BREWING INTO A CAREER:
SUCCESS STORIES
FROM OUR GRADUATES**

SERIOUS PROGRAMS FOR SERIOUS BREWERS

UC Davis has been the leading provider of university-level qualification in brewing science and brewery engineering since 1958. Led by renowned instructors Michael Lewis, Ph.D., and Charles Bamforth, Ph.D., D.Sc., the professional brewing programs at UC Davis Continuing and Professional Education are the only North American programs accredited by the Institute of Brewing and Distilling in London.

With the continued growth of the brewing industry nationwide and world-wide, owners and managers of major breweries, microbreweries and brew pubs can no longer afford to consider hiring untrained brewing staff. Employers continue to seek professionals who have been trained in the science and engineering of running a brewery operation, as well as those who know and understand the demands of the brewing industry.

Not only do our graduates gain unparalleled expertise in brewing science, technology and engineering, they also go on to become leaders in the brewing industry. See what some of our graduates had to say about their journey and how our program helped them get there.



2015 *Master Brewers Program* students at Sudwerk Brewing Co.

Photo by: Karin Higgins/UC Davis

AARON BARTH

Class of 2012

What made you want to go into the brewing industry?

I started off as an engineer, but I realized that I didn't like engineering. I had been homebrewing for awhile, and I decided to apply to the UC Davis Continuing and Professional Education *Master Brewers Program*. For me, it was a no-brainer. Working in the brewing industry was a job I knew I would enjoy, and it turned out I was right.

Why did you choose UC Davis Continuing and Professional Education's *Master Brewers Program*?

I liked the fact that it was through an accredited public university. I also liked that there was research going on—not just teaching but also research to back it up.

The more I learned about Charlie Bamforth and Michael Lewis, the more I decided that UC Davis Continuing and Professional Education's *Master Brewers Program* was the place I needed to go.

Was there something an instructor said that really stuck with you?

Professor Lewis made a comment that stuck with me: "Making beer is easy, but selling beer is hard."

The more I work in this industry, the more I find that to be true. It really puts the business aspect into perspective.

What was the most valuable thing you got out of the program?

The education as a whole was the most valuable thing I got out of the program. In this industry, there are a lot of people who understand what they're doing but not why they're doing it. They just take certain aspects as fact and see no reason to change it. Because of this program, I'm able to work in a brewery, and if something goes wrong, I understand the science behind it and can use that knowledge to correct it.

How did the program prepare you for the brewing industry?

It definitely helped me get jobs. People who know the program know the kind of education the program provides.

Knowledge from the program has also helped me with troubleshooting whenever I encounter issues.

What kind of opportunities or networking resources did the program give you?

Everybody in the program joined a Facebook group, and we keep in touch whenever anyone has a question or is looking for advice or an opinion about something.

How would you describe the program to aspiring brewers?

The education from UC Davis Continuing and Professional Education is more extensive than other programs and is very science based. I would recommend it over any of the other programs.



Aaron Barth, head brewer, Big Storm Brewery, Odessa, Fla.

CRAFT BREWER DEFINED

An American craft brewer is small, independent and traditional.

- The hallmark of craft beer and craft brewers is innovation. Craft brewers interpret historic styles with unique twists and develop new styles that have no precedent.
- Craft beer is generally made with traditional ingredients; sometimes non-traditional ingredients are added for distinctiveness.
- Craft brewers tend to be very involved in their communities.
- Craft brewers have distinctive, individualistic approaches to connecting with their customers.
- The majority of Americans live within 10 miles of a craft brewer.

~Source: Brewers Association

RONNIE FINK

Class of 2010

What made you want to go into the brewing industry?

I originally wanted to go to dental school. I spoke with Phillip “Beamer” Eisele who saw the program, and we had both already been homebrewers. We thought the program would be awesome and that it would be a serious way to open our own brewery. We had the goal of eventually opening the brewery together, and we wanted the skills to do it the right way and succeed. There are plenty of homebrewers that open breweries, and we thought it was a good idea to get an education.

Tell me about the instructors/faculty in the program.

The best thing about the faculty was the knowledge and experience they have. You’re not going to find another Bamforth or Lewis anywhere else! You could ask as many questions as you wanted, and they were always there after hours. Anybody can teach you out of a book, but they had the hands-on experience to go with it.

Was there an “Ah-ha!” moment that really reinforced your decision to come to UC Davis Continuing and Professional Education?

I had read about the program, but once I read more about Michael Lewis and Charles Bamforth, that really cemented my decision. After talking to other people who knew about schools, I found out that UC Davis Continuing and Professional Education was really top-notch. For me, the first thing I wanted after the program was to get a job. For employers with job openings to fill, seeing that you have a brewing background and education is a major plus. In fact, we just hired someone who is on the waiting list for the program.

What was the most valuable thing you got out of the program?

The knowledge and brewing science. You can teach anyone to brew, but if you understand the science behind it, it helps everything come together more quickly.

Also, having Sudwerk there to show and explain stuff to us. Reading a book is such a different experience from being there in person. You don’t understand it to the fullest without working in a brewery beforehand.

How would you describe the program to aspiring brewers?

No matter what kind of experience you already have, there’s stuff to be taken from the program. Working in a brewery, an internship or a zero-experience homebrewer? This program is good for anyone of any skill level. It gives you a step above anyone else when looking for jobs. Seeing the program is very impressive to interviewers.

I learned just how much Charlie Bamforth and Michael Lewis had been around and seen in the industry. Their banter was a lot of fun. In class, science can be rather boring, but they really know how to engage the classroom. Lewis and Bamforth are the highlight of the program!

I can still reach out to Professor Lewis or Melissa [program manager] at any time, and they will help me out. They’re great!



Ronnie Fink, director of brewing operations, Modern Brewery, Saint Louis, Mo.

CRYSTAL FRALEY

Class of 2014

What made you want to go into the brewing industry?

I have a background in chemistry, and I also enjoy cooking. I felt like making beer was the perfect melding of those two things: cooking and science.

What made you choose UC Davis Continuing and Professional Education's *Master Brewers Program*?

I was looking to re-enter the work field (I had been an at-home mom for awhile), and I wanted to find the best way to get into the brewing industry. UC Davis Continuing and Professional Education had the best outline of the program, and the instructors who were teaching it were a big draw.

Tell me about the instructors/faculty in the program.

The instructors were the biggest bonus in the whole program. You're learning about brewing and the science behind it from some of the most well-known people in the industry.

What was the most valuable thing you got out of the program?

The people that I met were the most valuable—not just the instructors but my classmates as well. I have so many connections with different breweries now through my classmates and through my instructors. The people I met through the program are like a whole community in the brewing industry. Going to UC Davis Continuing and Professional Education really brings you into the brewing community, introduces you around and helps you settle in.

What has the post-program support been like?

It's been fantastic! There are emails of all the job openings at different breweries around the country. It's been amazing. It's even how I got my job with White Labs. As the instructors hear of job openings, they pass our names along. Another big benefit was the résumé booklet that UC Davis Continuing and Professional Education sends out to all the breweries. I got several contacts from breweries after that went out.

How would you describe the program to aspiring brewers?

If you want to learn about brewing, this is one of the most in-depth ways to do it. It takes you from the field to the bottle to the store...every single aspect of brewing. I think that is one of the best things. They don't leave anything out. You don't miss a thing!



Check out her story.



Crystal Fraley, consultant, White Labs, Davis, Calif.

Economic Impact

The craft brewing industry contributed \$33.9 billion to the U.S. economy in 2012, more than 360,000 jobs. With a strong presence across the country, craft breweries are a vibrant and flourishing economic force at the local, state and national level.

Top Five States (2012):

California, \$4.7 billion

Texas, \$2.3 billion

New York, \$2.2 billion

Pennsylvania, \$2.0 billion

Colorado, \$1.6 billion

~Source: Brewers Association

BENJAMIN MILLS

Class of 2011

What made you choose UC Davis Continuing and Professional Education's *Master Brewers Program*?

I happened to come across it in a homebrewing magazine, and I did some research to find out more about it. There weren't many other options, and I was attracted to the notoriety of the program. Specifically, I was interested in learning from Charles Bamforth and Michael Lewis, how in-depth UC Davis Continuing and Professional Education's program is compared to other programs and the fact that it's accredited with the Institute of Brewing and Distilling.

Tell me about the instructors/faculty in the program.

It's a great program for really putting everything together and for the general math and science that goes into brewing. I really liked learning the reasons behind doing things and about all the attention to details involved with maintaining quality. I also liked the importance the program places on quality, as well as the biological science that I use on a regular basis.

How did you feel the program prepared you for the brewing industry?

Having that knowledge, as well as taking the IBD test at the end, definitely prepared me for having a really well-rounded understanding of what we we're trying to accomplish.

I interviewed at a few breweries before deciding to open Fossil Cove Brewery. The notoriety and esteem after completing the program really gives you a leg up on other applicants when you're applying for jobs.

How would you describe the program to aspiring brewers?

In my opinion, it's really the best program. Bamforth, Lewis and the support staff are very knowledgeable and well respected. Training underneath them, in and of itself, is a huge benefit.



Benjamin Mills, owner and head brewer, Fossil Cove Brewery, Fayetteville, Ark.

The IBD Examination

The Institute of Brewing and Distilling (IBD) Diploma in Brewing Examination (DBE) is undoubtedly the most relevant and important formal professional qualification for brewers currently available in brewing science, brewery engineering and packaging technology. The *Master Brewers Program* is exceptionally good preparation for this examination. Five times since 2008, a UC Davis Continuing and Professional Education *Master Brewers Program* student has won the prestigious JS Ford Award for the best overall performance on the Diploma in Brewing Exam.

AARON SCHLEIFER

Class of 2014

What made you choose UC Davis Continuing and Professional Education's *Master Brewers Program*?

I heard about the *Master Brewers Program* through reading about the career paths of some of the big brewers in the Bay Area.

After hearing about the program from actual brewers, I did some research, and I found that UC Davis Continuing and Professional Education was arguably the top program in the country.

Tell me about the instructors/faculty in the program.

All the instructors were experts in their own field—not just from an academic perspective but also from their career experience. You get a sense of it in the classroom and when you speak with other people in the industry. They are all superstars in the industry!

It was amazing to get so much quality time with people who are so well known.

Was there something an instructor said that really stuck with you?

There were so many things that really stuck with me. It's really about consistency and quality and understanding where in the process you can control that. That's what every one of the instructors echoed in their own way.

In the beer industry, consistency is key. People expect your brand to taste the same every time. There's a lot of breweries that pay tons of attention to that and there are a lot that don't.

What was the most valuable thing you got out of the program?

The breadth and depth of the information. We started from the barley in the field, all the way through to it being in a package/truck, to being in the consumer's hands and the sensory tasting they would go through. There was just so much more than I expected and thought was needed.

What has the post-program support been like?

The post-program support has been very strong. We're constantly given updates of open positions, as well as events in the industry. There's offers from all over the globe. Some of them are given specifically to the UC Davis Continuing and Professional Education program to share with their students and alumni. I've also talked to some of the professors since then, and I've gotten responses to any question I've had after the program. They've also offered to be available for references.

In addition, there are conversations that go on between the members of our class about how to do certain tasks in the brewery. We have some threads going on discussing challenges people are having now that they're in the industry.



Aaron Schleifer

KEVIN WRIGHT

Class of 2009

What made you want to go into the brewing industry?

I started as a homebrewer, and I really fell in love with the process. I have a background in science, and because science has always interested me, I looked to see if it was possible to turn that passion into a career.

What made you choose UC Davis Continuing and Professional Education's *Master Brewers Program*?

I chose UC Davis Continuing and Professional Education because of its connection to an academic university and the reputation of the faculty as internationally renowned brewing scientists.

Tell me about the instructors/faculty in the program.

The instructors were great. They really have a mastery of their field of science and research, as well as a mastery of teaching.

Bamforth said something about management that really stuck with me—there are two major things of importance at a brewery: the quality of the beer and the people that make it. As a manager, it's your job to take care of the people and then they will take care of the quality.

What was the most valuable thing you got out of the program?

The most valuable thing was gaining a really solid understanding of the principles of brewing science and insight into how interrelated everything is in brewing. They did a really great job of connecting the dots and showing how a change in one part of the process can affect multiple things down the line. The program will prepare anyone really well who wants to take on any kind of leadership and management position in the industry.

What kind of opportunities or networking resources did the program give you?

That was one of the really valuable things about the program. They set me up with an internship and gave me experience, and I got to see the craft side of things, rather than just the industry side.

Networking has also been valuable—I'm still in contact with a lot of people from my specific class. I've also been able to use the program as a resource to get in touch with other brewing professionals that I wouldn't otherwise have had contact with.

How would you describe the program to aspiring brewers?

UC Davis Continuing and Professional Education has the best program in terms of background knowledge and the caliber of professors teaching it, and it is the most extensive and intensive in the engineering side of things. (I haven't heard of other programs that go into that depth.)

I owe where I am to that program. It really helped get me on a career path, not just a job, a lifelong brewing career.



Kevin Wright, founder and brewmaster, Third Space Brewing, Milwaukee, Wis.



FROM THE CLASSROOM TO THE BREWING INDUSTRY... HERE'S WHAT SOME OF OUR ALUMNI ARE UP TO

Eric Augustin

Abita Brewing Co.

Eric Bachli

Trillium Brewing Co.

Aaron Barth

Big Storm Brewery

Stephen Borutta

MillerCoors

Luke Burcham

Saint Arnold Brewing Co.

Justin Burnsed

Mockery Brewing Co.

Andrew Carle

Lagunitas Brewing Co.

Nathan Crane

Friends and Allies Brewing Co.

Brent Crowell

Foothills Brewing

Rob Croxall

El Segundo Brewing Co.

Timothy Daglow

Big Wood Brewery

Mark Denari

New World Ales

Laura Gomes de Aguiar

Anheuser-Busch, InBev - Brazil

Preston Doris

21st Amendment Brewery

Thijs Derksen

Heineken

Ronnie Fink

Modern Brewery

Kevin Foster

Anheuser-Busch, InBev

Crystal Fraley

White Labs

Aaron Gibbs

Elliott Bay Brewery Co.

Jeffrey Graves

Anheuser-Busch, InBev

Kelly Harper

Deschutes Brewery

Joe Hamborg

Toppling Goliath Brewing Co.

Jacob Harper

Deschutes Brewery

Patrick Hayes

Firestone Walker Brewing Co.

Chris Helderman

Land Grant Brewing Co.

Jeff Hueneman

Mother Earth Brew Co.

Rod Hughes

Steamworks Brewing Co.

Brandon Jacobs

Stone Brewing Co.

Bruce Johnson

Springfield Brewing Co.

Chris Keeton

Rubicon Brewing Co.

Matthew Kendall

Banks DIH Ltd.

Brian Kiss von Soly

Stone & Wood Brewing Co.

Abbot Koehler

Widmer Brothers Brewing

Amanda Koeller

Big Dog's Brewing Co.

Micah Krichinsky

Dogfish Head Craft Brewery

Jos Kuilboer

Heineken

Katie Liebl

Crux Fermentation Project

Mike Lieser

Frost Beer Works

Patrick Meehan

Swiftwater Brewing Co.

Jasper Miller

Higherground Brewing Co.

Benjamin Mills

Fossil Cove Brewery

Drew Morden

Tioga-Sequoia Brewing Co.

Amanda Petro

Dogfish Head Craft Brewery

Adam Osborn

RaR Brewing

Alex Rabe

The Dudes' Brewing Co.

Dhaneshwar Ramnauth

Banks DIH Ltd.

Robert Rand

Sierra Nevada Brewing Co.

Tyson Read

Iron Horse Brewery

Mackenzie Remington

Creemore Springs Brewery

Dean Roberts

Knee Deep Brewing Co.

Dana Robles

Boneyard Beer

Todd J. Rock

Leaky Roof Meadery

Ben Smith

Surly Brewing Co.

Elizabeth Stairs

Dogfish Head Craft Brewery

Bruce Stamski

Still River Brewery

Nathan Stephens

Ballast Point Brewing and Spirits

Tom Stull

Sudwerk Brewing Co.

Wes Sweigart

Out of Bounds Brewing Co.

Peter Trapani

Sierra Nevada Brewing Co.

Cortlandt Toczylowski

Barebottle Brew Co.

Kenjiro Tomita

Crooked Thumb Brewery

Gerardo Gómez Vargas

Cervecería Libertad Gto MX.

Juan Alejandro Vasquez

Boyaca Brewery

Daniel Vollmer

Oregon State University Food & Fermentation Science Program

Dan Watson

Cleophus Quealy Beer Co.

Dan Weber

Dogfish Head Craft Brewery

Clark Wiant

Golden Road Brewing

Alan Windhausen

Pikes Peak Brewing Co.

Kevin Wright

Third Space Brewing

Drew Yeager

Fat Bottom Brewing



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