FACULTY AND COURSE FACILITATOR

Faculty and Faculty Contact Information:
[name and contact information for each instructor]

As faculty and industry experts, the instructors work with the other experts to review your materials, answer content questions, participate in course discussion, and deliver the online sessions. The course schedule at the end of this syllabus will list who is the lead instructor each week.

Course Facilitator and Course Facilitator Contact Information:
[name and contact information for each facilitator]

The course facilitators are your points of contact regarding general class issues, such as, discussion board grades, technical/Blackboard problems, and other general course questions.

To contact your instructors and course facilitators, use the email link in the Blackboard navigation bar to email them directly. We do our best to get back to you within 24 hrs. Please note that weekends and travel may extend this timeframe.

COURSE OVERVIEW

Course Description

In Business Operations in Craft Beer, you’ll learn about how the many components of craft brewery operations and supply chain must fit together to build a profitable, efficient, and sustainable business. Students will address key topics such as sourcing and procurement, quality systems, new brewery start-up and capacity planning, forecasting, production planning, inventory, logistics, and environmental sustainability.

UVM has partnered with Ekos Brewmaster, the industry leading software solution for managing the business side of your brewery. Throughout the course we will integrate the Ekos software into our learning modules, so that you will benefit from using the software in real world case studies. Whether you are looking to be hired by a brewery or start your own brewery, knowledge of how to use Ekos, combined with the practical
understanding of brewery operations, will help you to run a more efficient and effective business so that you can be more successful.

**Course Objectives**

By the end of the course, participants will be able to:

- Demonstrate a broad understanding of craft brewery operations, and how all the steps in the supply chain function together to bring beer to the consumer efficiently and with reliability.
- Outline the overall craft beer production process and the unit operations that must be coordinated to convert raw materials into finished beer, and the pros and cons of different packaging options.
- Describe sourcing and procurement strategies for raw materials, packaging supplies and brewery equipment, and determine best practices for receiving materials into the brewery, including practical ways to verify the quantity and quality of the items being received.
- Describe how orders are fulfilled and beer is shipped from the brewery to the customer, the importance of good information flow from customers back to the brewery, and how to track and schedule returns from the market such as, kegs, pallets and returnable bottles.
- Articulate the importance of making good beer and what systems need to be in place to make this happen reliably, as well as the role of utilities and maintenance and health and safety considerations within a craft brewery.
- Monitor and manage the risks that can occur within a craft brewery operation by examining a number of scenarios relating to materials supplies, production significant disasters, and product quality.
- Articulate the processes and technologies that can make a craft brewery more environmentally sustainable and efficient, and how information technology (IT) systems and standard operating procedures can enable an efficient and stable brewery operation.
- Describe the craft brewery planning processes, along with the time horizons and associated activities at each horizon, and identify key considerations for planning the location, layout and distributor network for a new craft brewery.
- Outline the criteria used to properly size a craft brewery and how to effectively plan for capacity growth in the future, acknowledging the relationship between long term planning and budgeting.
- Determine how to effectively schedule production and outbound finished beer shipments, along with how to manage inventory of raw materials and finished goods.
Course Duration

8 Weeks

Course Flow

Module 1 begins on Wednesday and goes until the following Thursday night (an extended module). Modules 2-8 begin on Friday and goes to the following Thursday night. Each new module will open on Friday at 12:00 am ET.

About the Live/Synchronous Sessions

The weekly optional live sessions are held online for one hour. The day and time of the live sessions varies from semester to semester.

The live sessions are an opportunity to engage with the week's topics, ask questions, and exchange ideas in real time with your instructors and course facilitator, your peers, and any guest speakers.

Each live session is recorded, and the recording is posted/linked on the Recorded Sessions page within 1-2 days of the live session.

A link to the live session meeting space in Microsoft Teams will be provided both here in the syllabus and in the course.

Course Work

We estimate the student will dedicate at least 8-10 hours a week to course work. This will be a combination of readings, discussion boards, collaborative assignments, etc.

PROGRAM REQUIREMENTS AND GRADING

Program Requirements

This is a non-credit, certificate-based program. At the conclusion of the program students do not receive a letter grade but instead receive a digital badge with the ability to download a certificate of completion. To receive this digital badge for the Business of Craft Beer Program, students must successfully complete three Business of Craft Beer certificate courses. Students also have the option of creating a Capstone Project following the completion of three courses.
Course Completion

Students who successfully complete the course will receive a digital badge for the course.

Course Grading

All students who earn a 70% or greater will receive a passing grade towards completion of their certificate. Successful completion of this course is determined by the following factors:

- **Discussions**: 30%
- **Assignments**: 50%
- **Quizzes**: 20%

Blackboard will automatically drop your lowest discussion and assignment grades. You can take each quiz as often as you like, and Blackboard will automatically select the highest grade.

Discussions are graded by the course facilitators. Assignments are graded by the lead instructor for that week. Quizzes are graded by Blackboard in consultation with the instructors.

Late Submissions

Timely participation in the discussions and completion of assignments and quizzes help to maximize your understanding of the material as you work through the content within the allotted time, and creates a collaborative learning experience.

We also understand that life happens. All graded assignments, discussions, and quizzes have a one-week grace period from the stated due date. After that time points are deducted from the grade as noted in the following table.

**Late Submission Rubric**

<table>
<thead>
<tr>
<th>Submission is...</th>
<th>For a 10-point system</th>
<th>For a 100-point system</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 1 week late</td>
<td>.25 points deducted from grade</td>
<td>2.5 points deducted from grade</td>
</tr>
<tr>
<td>&gt; 2 weeks late</td>
<td>.5 points deducted from grade</td>
<td>5 points deducted from grade</td>
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</tbody>
</table>
If you have extenuating circumstances, or expect to be away for more than a week, please contact the course facilitator to help work out a plan.

**Feedback on Submissions**

The instructors and course facilitators will provide grading and feedback within 7-10 days from the due date.

**Assignments**

Assignments are graded by the instructor(s) based on the rubric below.

**Assignment Grading Rubric**

<table>
<thead>
<tr>
<th>Levels/ Criteria</th>
<th>Excellent</th>
<th>Proficient</th>
<th>Adequate</th>
<th>No Submission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content of Assignment Submission</td>
<td>8 - 10 points</td>
<td>5 - 7 points</td>
<td>2 - 4 points</td>
<td>0 points</td>
</tr>
<tr>
<td></td>
<td>Assignment submitted;</td>
<td>Assignment submitted;</td>
<td>Assignment submitted;</td>
<td>No assignment submitted</td>
</tr>
<tr>
<td></td>
<td>addresses all assignment</td>
<td>addresses all assignment</td>
<td>partially addresses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>criteria;</td>
<td>criteria;</td>
<td>assignment criteria;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>includes in-depth insight and</td>
<td>Includes some insight and/or</td>
<td>lacks application of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or application of course</td>
<td>application of course</td>
<td>course materials</td>
<td></td>
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<tr>
<td></td>
<td>materials</td>
<td>materials</td>
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**Discussion Boards**

The discussion boards are an important part of your learning experience. Most students find participating in the discussions helps them understand the course content, deepens their learning, and strengthens their ability to think critically.
- When responding to your colleagues’ posts, you can draw from your experience, include questions for your colleagues in the class, or bring in additional resources to grow the conversation around the assigned topics. We are looking for more than positive reinforcement and high fives.
- The lead instructor(s), course facilitator, and guest speakers leave feedback and critiques on your posts. In this way, everyone can learn from their feedback.
- Your discussion board grade is determined by the course facilitator based on the following rubric.

**Discussion Board Grading Rubric**

<table>
<thead>
<tr>
<th>Levels/Criteria</th>
<th>Excellent</th>
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<th>Adequate</th>
<th>No Submission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content of Post(s)</td>
<td>8 - 10 points</td>
<td>5 - 7 points</td>
<td>2 - 4 points</td>
<td>0 points</td>
</tr>
<tr>
<td></td>
<td>Responds to the prompt in depth with insight and/or application of course materials; feedback includes questions, offers critique, and fosters collaboration</td>
<td>Responds to the prompt with insight and/or application of course materials; feedback is constructive, but may not grow the conversation</td>
<td>Responds to the prompt with little expansion, insight, or application; feedback is not substantive</td>
<td>No post</td>
</tr>
</tbody>
</table>

**COURSE SCHEDULE**

<table>
<thead>
<tr>
<th>MODULE</th>
<th>DATES</th>
<th>TOPICS</th>
<th>INSTRUCTOR(S) &amp; GUEST(S)</th>
</tr>
</thead>
</table>
| Module 1: Brewery Operations and Supply Chain Fundamentals | Week 1: date range          | ● Supply chain “big picture” (supply chain dynamics and management, interactions between echelons)  
● Functional supply chain flow  
● Overview of parallel brewery activities and enablers (ex. purchasing, quality, maintenance, environmental sustainability, food safety) | Instructor:  
• [name of instructor]  
Guest (if any):  
• [name of guest speaker] |
<table>
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<tr>
<th>MODULE</th>
<th>DATES</th>
<th>TOPICS</th>
<th>INSTRUCTOR(S) &amp; GUEST(S)</th>
</tr>
</thead>
</table>
| Module 2: Making Craft Beer | Week 2: [date range] M2 Live Session [day, date, and time] | ● The process flow and unit operations involved in making beer  
● Packaging options and related operational considerations and priorities  
● Craft beer production vs. “big beer” production  
● Identifying, monitoring, and mitigating production risks  
● Predicting the downstream impacts of production disruptions | Instructor:  
• [name of instructor]  
Guest (if any):  
• [name of guest speaker] |
| Module 3: Building a Craft Brewery and Long-Term Planning | Week 3: [date range] M3 Live Session [day, date, and time] | ● Brewery capacity overview  
● Factors that determine the size of brewery operations  
● Key equipment configurations and layout, and their impact on capacity  
● Calculating capacity (brewing, fermentation and aging, filtration, packaging)  
● Long-term planning strategies and budgeting considerations | Instructor:  
• [name of instructor]  
Guest (if any):  
• [name of guest speaker] |
| Module 4: Sourcing and Procurement of Materials | Week 4: [date range] M4 Live Session [day, date, and time] | ● The difference between sourcing and procurement  
● Bill of materials (BOM): what it is and how to make one  
● The vendor selection process and methods to track and review vendor performance  
● The procurement process | Instructor:  
• [name of instructor]  
Guest (if any):  
• [name of guest speaker] |
| Module 5: Inventory and Forecasting | Week 5: [date range] M5 Live Session | ● Brewery inventory (types and purposes)  
● The “Bull Whip Effect” and how to correct or avoid its effects | Instructor:  
• [name of instructor]  
Guest (if any): |
<table>
<thead>
<tr>
<th>MODULE</th>
<th>DATES</th>
<th>TOPICS</th>
<th>INSTRUCTOR(S) &amp; GUEST(S)</th>
</tr>
</thead>
</table>
| [day, date, and time]              |                              | • Inventory management process (cycle times, lead times)  
• How inventory levels affect profits  
• Processes for receiving and shipping inventory                                                                                       | • [name of guest speaker] |
| Module 6: Mid- and Short-Term Planning and Scheduling | Week 6: [date range] M6 Live Session [day, date, and time] | • Planning and scheduling strategies  
• Creating a packaging and labor schedule                                                                                              | Instructor:  
• [name of instructor]  
Guest (if any):  
• [name of guest speaker] |
| Module 7: Maintenance, Utilities, and Environmental Sustainability | Week 7: [date range] M7 Live Session [day, date, and time] | • Ways to make a craft brewery environmentally sustainable and more efficient  
• How information technology systems enable an efficient brewery operation and supply chain  
• Standard operating procedures (SOPs) and operational record management systems                                                                 | Instructor:  
• [name of instructor]  
Guest (if any):  
• [name of guest speaker] |
| Module 8: Quality | Week 8: [date range] M8 Live Session [day, date, and time] | • Key elements of a Quality Management System (QMS) and its impact on the brewery  
• Policies and roles that support quality  
• Good laboratory practices  
• Critical quality points, data collection, analysis, and follow-up  
• Setting up and evolving a quality program  
• Troubleshooting issues and                                                                                                                      | Instructor:  
• [name of instructor]  
Guest (if any):  
• [name of guest speaker] |
### UVM POLICIES

**Student Learning Accommodations**

In keeping with University policy, any student with a documented disability interested in utilizing accommodations should contact ACCESS, the office of Disability Services on campus. ACCESS works with students and faculty in an interactive process to explore reasonable and appropriate accommodations via an accommodation letter to faculty with approved accommodations as early as possible each semester. All students are strongly encouraged to meet with their faculty to discuss the accommodations they plan to use in each course.

Contact ACCESS: A170 Living/Learning Center; 802-656-7753; access@uvm.edu; www.uvm.edu/access

Please see UVM’s policy on [disability certification, accommodation and student support (.pdf)](#).

**Religious Holidays**

Students have the right to practice the religion of their choice. If you need to miss class to observe a religious holiday, please submit the dates of your absence to me in writing by the end of the second full week of classes. You will be permitted to make up work within a mutually agreed-upon time.

**Academic Integrity**

The [Code of Academic Integrity (.pdf)](#) addresses plagiarism, fabrication, collusion, and cheating.

**Grade Appeals**

If you would like to contest a grade, please follow the procedures outlined in the [Grade Appeals policy (.pdf)](#).

**Grading**

For information on grading and GPA calculation, please see the [Grading Policies page](#) for Graduate students.
Code of Student Rights and Responsibilities

The Code of Student Conduct (.pdf) outlines the student's responsibility for promoting the community's welfare.