Program-Level Assessment: Annual Report

Program Name (no acronyms): Brewing Science & Operations

Degree or Certificate Level: Undergrad, Certificate

Date (Month/Year): May 2021

Primary Assessment Contact: John Buerck

In what year was the data upon which this report is based collected? Academic year 2020-2021

In what year was the program’s assessment plan most recently reviewed/updated? 2021

1. Student Learning Outcomes
   Which of the program’s student learning outcomes were assessed in this annual assessment cycle? (Please list the actual learning outcome statements and not just numbers, e.g., Outcomes 1 and 2.)

   LO 3 - Explain beer style and evaluation.

2. Assessment Methods: Artifacts of Student Learning
   Which artifacts of student learning were used to determine if students achieved the outcome(s)? Please identify the course(s) in which these artifacts were collected. Clarify if any such courses were offered a) online, b) at the Madrid campus, or c) at any other off-campus location.

   LO3
   BREW 1000 – Brewing Essentials – Final Project
   BREW 1500 – Brewing and Beer Styles – Final Project
   BREW 2500 - Flavor, Quality Control & Sensory Evaluation – Final Project

   **All courses were taught 100% online

3. Assessment Methods: Evaluation Process
   What process was used to evaluate the artifacts of student learning, and by whom? Please identify the tools(s) (e.g., a rubric) used in the process and include them in/with this report.

   Instructors have outcomes set up and added to their artifact rubric via Canvas outcomes. At the end of their courses, a Canvas Outcomes report was run to collect data about student performance and artifacts used to assess learning outcomes. Data was used to analyze and make changes as needed to assessment of learning outcomes.

4. Data/Results
   What were the results of the assessment of the learning outcome(s)? Please be specific. Does achievement differ by teaching modality (e.g., online vs. face-to-face) or on-ground location (e.g., STL campus, Madrid campus, other off-campus site)?

   The Canvas outcomes reported that many of the artifacts had properly assessed student learning outcomes for their specific courses, but some minor adjustments might be needed; which will be explained further in section 5 of this report.
Most instructors used final projects as their assessment tool and felt it was appropriate for the type of students in these classes.

More specifically, we found the following for each LO:

**LO 3 – 129 total artifacts assessed**

- **Meets Standard** - Student shows ability to demonstration knowledge of *either* beer style or sensory evaluation, but not both. – 88 students met this level
- **Approaches Standard** - Student shows ability to demonstration knowledge of *either* beer style or sensory evaluation, but not both. – 34 students met this level
- **Does Not Meet Standard** - Student does *not* demonstrate knowledge of beer style and sensory evaluation. – 7 students met this level

**All courses were taught online, so there is no difference in teaching modality to note**

5. **Findings: Interpretations & Conclusions**

What have you learned from these results? What does the data tell you?

As discussed in section 4, the data has largely supported that the learning outcomes have been supported by the artifacts chosen. However, there is always room for improvement. One suggestion made by instructors about possible ways to strengthen learning outcomes is to require a more standard and detailed journaling of the final project.

6. **Closing the Loop: Dissemination and Use of Current Assessment Findings**

A. When and how did your program faculty share and discuss these results and findings from this cycle of assessment?

Faculty are provided with opportunities to share quantitative and qualitative feedback at the end of the term (eight week terms) they taught the course.

B. How specifically have you decided to use these findings to improve teaching and learning in your program? For example, perhaps you’ve initiated one or more of the following:

**Changes to the Curriculum or Pedagogies**
- Course content
- Teaching techniques
- Improvements in technology
- Prerequisites

**Changes to the Assessment Plan**
- Student learning outcomes
- Artifacts of student learning
- Evaluation process

- Course sequence
- New courses
- Deletion of courses
- Changes in frequency or scheduling of course offerings
- Evaluation tools (e.g., rubrics)
- Data collection methods
- Frequency of data collection

Please describe the actions you are taking as a result of these findings.

We will be reviewing the course offerings and update frequency as necessary. Add instructor feedback section to canvas outcomes where data is collected. Review program-level learning outcomes in courses to assess changes that might be necessary.
If no changes are being made, please explain why.

NA

7. Closing the Loop: Review of Previous Assessment Findings and Changes
   A. What is at least one change your program has implemented in recent years as a result of assessment data?
   The Brewing program has just completed its second year of courses. With this said, only minor tweaks to the courses have been modified. Most of these tweaks were centered around final project requirements and deliverables.

   B. How has this change/have these changes been assessed?
   N/A

   C. What were the findings of the assessment?
   N/A

   D. How do you plan to (continue to) use this information moving forward?
   N/A

   IMPORTANT: Please submit any assessment tools (e.g., rubrics) with this report.