Program-Level Assessment Plan

Program: Brewing Science and Operations	Degree Level (e.g., UG or GR certificate, UG major, master's program, doctoral program): Certificate
Department:	College/School: School for Professional Studies
Date (Month/Year): Aug 2021	Primary Assessment Contact: John Buerck

Note: Each cell in the table below will expand as needed to accommodate your responses.

#	Student Learning Outcomes What do the program faculty expect all students to know or be able to do as a result of completing this program? Note: These should be measurable and manageable in number (typically 4-6 are sufficient).	Curriculum Mapping In which courses will faculty intentionally work to foster some level of student development toward achievement of the outcome? Please clarify the level at which student development is expected in each course (e.g., introduced, developed, reinforced, achieved, etc.).	Assessment Methods	
			Artifacts of Student Learning (What) 1. What artifacts of student learning will be used to determine if students have achieved this outcome? 2. In which courses will these artifacts be collected?	Evaluation Process (How) 1. What process will be used to evaluate the artifacts, and by whom? 2. What tools(s) (e.g., a rubric) will be used in the process? Note: Please include any rubrics as part of the submitted plan documents.
1	Apply the scientific processes (chemical, biological and physical) of brewing and fermentation.	BREW1000 - I BREW1500 -D BREW1750 – D BREW2000 - D BREW2500 - A BREW2950 - A	BREW1000 – Final Project BREW1500 – Final Project BREW1750 – Final Project BREW2000 – Final Project BREW2500 – Final Project BREW2950 – Final Project	The artifacts will be evaluated via a rubric created and applied in Canvas. The rubric will be linked to the program-level student learning outcomes and the rubric scores will be aggregated to determine the extent to which the outcomes were achieved. Program Directors will be reviewing the data found through Canvas Outcomes.
2	Describe the engineering operations components of a brewery.	BREW1000 – I BREW1500 - D BREW1750 -D BREW2500 - A	BREW1000 – Final Project BREW1500 – Final Project BREW1750 – Final Project BREW2500 – Final Project	The artifacts will be evaluated via a rubric created and applied in Canvas. The rubric will be linked to the program-level student learning outcomes and the rubric scores will be aggregated to determine the extent to which the outcomes were

				achieved. Program Directors will be reviewing the data found through Canvas Outcomes.
3	Explain beer style and evaluation.	BREW1000 – I BREW1500 - D BREW2500 - A	BREW1000– Final Project BREW1500– Final Project BREW2500– Final Project	The artifacts will be evaluated via a rubric created and applied in Canvas. The rubric will be linked to the program-level student learning outcomes and the rubric scores will be aggregated to determine the extent to which the outcomes were achieved. Program Directors will be reviewing the data found through Canvas Outcomes.
4	Explain the process used to manage a brewery.	BREW1000 – I BREW2950 - A	BREW1000– Final Project BREW2950– Final Project	The artifacts will be evaluated via a rubric created and applied in Canvas. The rubric will be linked to the program-level student learning outcomes and the rubric scores will be aggregated to determine the extent to which the outcomes were achieved. Program Directors will be reviewing the data found through Canvas Outcomes.
5	Describe how fermented beverages impact society (history, community, society, economic.)	BREW1000 - I BREW1750 - D BREW2000 - A BREW2950 - A	BREW1000 – Final Project BREW1750– Final Project BREW2000– Final Project BREW2950 – Final Project	The artifacts will be evaluated via a rubric created and applied in Canvas. The rubric will be linked to the program-level student learning outcomes and the rubric scores will be aggregated to determine the extent to which the outcomes were achieved. Program Directors will be reviewing the data found through Canvas Outcomes.

Use of Assessment Data

1. How and when will analyzed data be used by program faculty to make changes in pedagogy, curriculum design, and/or assessment practices?

   Reviewed each fall with faculty for updates/suggestions/concerns.

2. How and when will the program faculty evaluate the impact of assessment-informed changes made in previous years?
    a. Every other year via faculty meeting or survey

Additional Questions

1. On what schedule/cycle will program faculty assess each of the program's student learning outcomes? (Please note: It is not recommended to try to assess every outcome every year.)

	SLO1	SLO2	SLO3	SLO4	SLO5
AY 2021-2022	BREW1000, BREW1500, BREW1750, BREW2000, BREW2500 BREW2950	BREW1000, BREW1500, BREW1750, BREW2500			
AY 2022-2023			BREW1000, BREW1500, BREW2500	BREW1000, BREW2950	
AY 2023-2024	BREW1000, BREW1500, BREW1750, BREW2000, BREW2500 BREW2950	BREW1000, BREW1500, BREW1750, BREW2500			BREW1000, BREW1750, BREW2000, BREW2950
AY 2024-2025			BREW1000, BREW1500, BREW2500	BREW1000, BREW2950	

2. Describe how, and the extent to which, program faculty contributed to the development of this plan.

    Faculty feedback from qualtrics surveys are used in the development of this plan.

IMPORTANT: Please remember to submit any rubrics or other assessment tools along with this plan.