Program-Level Assessment: Annual Report

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In what year was the data upon which this report is based collected? 2021-22

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

Is this program accredited by an external program/disciplinary/specialized accrediting organization? no

1. Student Learning Outcomes

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

We re-assessed Learning Outcome #1, since as the result of 2021 assessment of this Outcome, changes have been made to one of our courses to improve this Outcome.

Learning Outcome #1:

Possess an appropriate level of knowledge on current biomedical science as related to biochemistry and molecular biology and the ability to evaluate and critique publications; possess the ability to identify and select meaningful problems to be addressed in bioscience research, to frame testable/falsifiable hypotheses concerning an important research question; be able to create and implement experimental protocols with suitable controls to test a scientific hypothesis, and to interpret the results of experiments in light of the hypothesis driving them.

2. Assessment Methods: Artifacts of Student Learning

Which artifacts of student learning were used to determine if students achieved the outcome(s)? Please describe the artifacts in detail and identify the course(s) in which they were collected. Clarify if any such courses were offered a) online, b) at the Madrid campus, or c) at any other off-campus location.

The grades and overall performance of the students in the written Preliminary Examination and Oral Comprehensive Examination which are administered as a part of Preparation and Evaluation of Scientific Research Proposals (BCHM-6250). This course was not offered online, at the Madrid campus, or at any other off-campus location.

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 document** (please do not just refer to the assessment plan).

In BCHM-6250, the students develop hypothesis-driven research proposals on their area of research using an NIH Pre-doctoral proposal format under the supervision a committee of faculty. The committee is formed by the Thesis Advisor (non-voting member) and five voting members: BMB PhD Program Director, 2 Course Directors, and two Faculty members selected by the student with sufficient familiarity with the topic, who act as proposal reviewers. This year we modified the course to allow a stronger participation of student thesis advisor in achieving the teaching objectives of the course. In the past, we limited participation of student advisors in this course to challenge students to

Changes to the Curriculum or Pedagogies	x Course content	x Course sequence
	x Teaching techniques	x New courses
	x Improvements in technology	x Deletion of courses
	x Prerequisites	x Changes in frequency or scheduling of course offerings

Changes to the Assessment Plan	x Student learning outcomes	x Evaluation tools (e.g., rubrics)
	x Artifacts of student learning	x Data collection methods
	x Evaluation process	x Frequency of data collection

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

We made the changes into the teaching techniques in BCHM-6250 course permanent.

If no changes are being made, please explain why.

n/a

7. **Closing the Loop: Review of <u>Previous</u> Assessment Findings and Changes**
   A. What is at least one change your program13.1 (i9-% (4TjETEMmr4c 0.07 ()TjETEMmr4c 0.07 ()TjET(W)-2.3)TjET 0 11.04u