SAINT LOUIS UNIVERSITY.

Program-Level Assessment: Annual Report

Program Name (no acronyms): Graduate Program in Molecular Microbiology and Immunology	Department: MMI
Degree or Certificate Level: PhD	College/School: School of Medicine
Date (Month/Year): August 18, 2021	Assessment Contact: Ryan Teague

In what year was the data upon which this report is based collected? 2020-21

In what year was the program's assessment plan most recently reviewed/updated? 2019

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.)

1. Demonstrate sufficient knowledge of the biomedical sciences to support independent biomedical research related to immunology, virology and molecular biology. This outcome is learned throughout the students' time in the MMI graduate program. In the previous year of the program, students taking the required advanced courses in immunology MB.6650 and virology MB.6350 all passed. For eligible students, Preliminary and Candidacy exam outcomes were also assessed, and all participating students passed.

2. Demonstrate the ability to effectively communicate biomedical research with respect to content, organization, logical flow, presentation, and appropriate use of language incorporating the use of visual aids. All MMI graduate students participated in and passed the required MMI journal club MB.690 and presentation of their own research in MMI colloquium MB.6920 in the last year.

2. Assessment Methods: Artifacts of Student Learning

Which artifacts of student learning were used to determine if students achieved the outcome(s)? Please describe and 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.

Grades in classes are determined based on the cumulative performance on multiple written exams. The outcomes of each exam is shared with students after final grading and any questions or discussions about the exam are welcomed and transparent. The department journal club and colloquium grades determined by participation but feedback is provided both verbally and in a written form during a meeting with the Graduate Oversight Committee directly following the student presentation. Preliminary and Candidacy exams are assessed by a majority vote of a 5 member faculty committee overseen by the Director of the Graduate Oversight Committee.

a). Only the journal club and colloquium were offered online in 2020.
b). No involvement with the Madrid campus
c). No involvement with the off-campus locations

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).

This is an apprenticeship style program, so the majority of the feedback to the students is immediate and occurs in one-on-one discussions between the students and their research mentors and/or other faculty. Additional feedback is provided by performance reports from the MMI course directors to the MMI Graduate Oversight Committee and by reviewing the students' grades. All of this information is collated by the Graduate Oversight Committee in annual reports synchronized with the students' annual research updates to the entire faculty.

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)?

All participating students in the past academic year passed all required courses and exams.

5. Findings: Interpretations & Conclusions

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

We have worked continually to refine our program to provide a robust and challenging learning experience for our graduate students without being overwhelming or causing significant burnout. This is a constant balancing act but one that has benefited from establishing good dialog between our students and faculty. Although students are always significantly stressed about their courses and especially their Preliminary and Candidacy exams, the fact that all have passed suggests the program is preparing them well and is effectively communicating expectations.

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?

Discussions at meetings of the MMI Graduate Oversight Committee and at monthly faculty meetings.

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	• Course sequence • New courses • Deletion of courses • Changes in frequency or scheduling of course offerings
Changes to the Assessment Plan	• Student learning outcomes • Artifacts of student learning • Evaluation process	• 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.

No changes in the past year.

If no changes are being made, please explain why.

No evidence of need to change.

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?

N/A

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?

As stated several times, the program is evaluated and discussed among the Graduate Oversight Committee and the MMI faculty members.

IMPORTANT: Please submit any assessment tools (e.g., rubrics) with this report as separate attachments or copied and pasted into this Word document. Please do not just refer to the assessment plan; the report should serve as a stand-alone document.