SAINT LOUIS UNIVERSITY.

Program-Level Assessment: Annual Report

Program: Biology BA and BS	Department: Biology
Degree or Certificate Level: Undergraduate	College/School: College of Arts & Sciences
Date (Month/Year): September 2021	Primary Assessment Contact: Elena Bray Speth
In what year was the data upon which this report is based collected? 2020-2021	
In what year was the program's assessment plan most recently reviewed/updated? 2018	

1. **Student Learning Outcomes**
   Which of the program's student learning outcomes were assessed in this annual assessment cycle?

   The programmatic Student Learning Outcomes adopted by the department's faculty in 2017 for the BA and BS in Biology are:

   Bachelor of Arts - Students earning a B.A. in Biology will be able to:
   1) Effectively apply core biological concepts to solve problems
   2) Critically evaluate scientific information from multiple sources, including that from the primary literature
   3) Apply biological principles to global societal issues
   4) Draw valid conclusions from quantitative data
   5) Formulate hypotheses that address research questions
   6) Correctly perform common laboratory and/or field techniques

   Bachelor of Science - In addition to 1 - 6 above, B.S. degree students will be able to:
   7) Effectively apply the scientific method to test hypotheses

   In this assessment cycle, we have not focused on assessment of any specific learning outcome from the list. We are in the process of refreshing the membership of the program assessment committee. Current conversations are geared toward reframing our assessment plans and focusing our efforts in the future.

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.

   n/a

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.

   n/a

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)?

   n/a

5. Findings: Interpretations & Conclusions

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

n/a

6. Closing the Loop: Dissemination and Use of <u>Current</u> Assessment Findings

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

As we mentioned in our last assessment report, our department has been slowly emerging from a period of significant changes and disruptions, which began with the fire and destruction of Macelwane Hall in 2017. We were barely beginning to recover from that crisis when the Covid pandemic started, which significantly hindered our re-establishment of normal departmental and committee activities. In fact, we moved 10 faculty research labs back into Macelwane Hall during the pandemic.

In August 2021 we had our very first in-person retreat with the whole faculty. At the retreat, we shared the 2020 assessment report and the feedback we received on it. The faculty had a conversation about recruiting additional members to the Assessment Committee, and about taking some time to reflect on our current undergraduate learning outcomes and assessment plans.

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.

One of our findings was that our current assessment plan was difficult to implement and did not generate the data that we wished to obtain. We therefore have become aware of the need to revise our plan in ways that are more efficient at generating useful data at the program level.

As a way of spearheading this work and adding some external support and accountability, <u>we applied for and were accepted as participants in the **PULSE Recognition Program**</u>. The PULSE (Partnership for Undergraduate Life Science Education) Recognition Program is an initiative designed to motivate departments to implement change in accordance with the most recent national recommendations for undergraduate biology education (Vision and Change). The program aims to promote educational reform through an iterative cycle of self-reflection and feedback that can engage the entire department in envisioning ways to improve our practices and increase student success.

We anticipate working with the department through the 2021-2022 academic year on gathering departmental background information and completing the PULSE Rubrics, in preparation for a site visit by PULSE Fellows. We are excited that, by being part of this program, we will benefit from advice and encouragement from colleagues dedicated to transforming biology education; in addition, we will be provided with important information about our practices and progress in comparison to other biology programs in the country.

More to the point of this report, we believe that our participation in this program will generate conversation and ideas about curriculum and practices, which will ultimately include the practice of systematic, programmatic assessment.

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If no changes are being made, please explain why.

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N/A


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7. Closing the Loop: Review of <u>Previous</u> Assessment Findings and Changes

    A. What is at least one change your program has implemented in recent years as a result of assessment data?

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N/A

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

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N/A

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    C. What were the findings of the assessment?

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N/A

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

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N/A

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IMPORTANT: Please submit any assessment tools and/or revised/updated assessment plans along with this report.