



Program: Bioinformatics & Computational Biology

Department: CS/Math&Stats/Biology/Chemistry

Degree or Certificate Level: M.S.

College/School: Arts & Sciences

Date (Month/Year): 09/2021

Primary Assessment Contact: Maureen Donlin

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? 2020

Which of the program's student learning outcomes were assessed in this annual assessment cycle?

We focused on assessing the following SLOs this year

- 1) Work as part of multidisciplinary teams in corporate or academic environments
- 2) Effectively communicate research approaches and findings.

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.

We continued to collect reflections from the student internship experiences. We also tracked published research manuscripts, poster and oral presentations made by the students at research meetings. We evaluated and provided feedback on oral presentations during the required colloquium. We added a program survey that was sent to all current students as well as graduates of the program. We received a 76% response rate on this survey.

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.

SLO 1 is evaluated based on their research mentors survey as well as reports from the internship advisors. We have attached the reflection and internship advisor surveys. We maintain contact with our alumni and periodically survey them for their reflections on how the degree training has helped them develop the skills necessary to work as part of a multi-disciplinary team and what course work might have helped them transition to their current position more easily.

SLO 2 is evaluated as part of the colloquium in which the students make an oral presentation during their second year. Several students have made presentations at the SLU GSA symposium or have attended professional meetings in which they have made presentations.

SLO1 and 2 were evaluated as part of a survey of all current and past students to evaluate their thoughts on multiple aspects of the program.

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)?

Our assessment of SLO 1 was based primarily on answers to the internship reflections. Most students this year state that the courses prepared them well. On recurring theme is a request for more unix experience. Also, many students are frustrated by the inability to get into the machine learning course due to it being offered only once per year and being very popular with all CS students.

SLO2 is assessed using the grading of student presentations during colloquium. All students participating in that course passed with no issues.

SLO2 was assessed in our survey with two open-ended questions about the colloquium. Most were highly supportive of the course. Many would like more diverse speakers, particularly more frostColys1 0 Tuo(w).-8s (y).is1 0 .a1.5kaheentatit vr

Unless CS can hire more faculty, we are unable to offer courses more frequently as faculty with the appropriate expertise are at their workload limits.

Biology assigned two BCB faculty to teach genetics, an undergraduate only course. This resulted in two graduate level biology courses that are BCB electives being dropped from the course offerings. Until more faculty are hired in biology, it is not clear that we can add any additional biology elective courses.