It is recommended program assessment results be used to celebrate achievements of student learning as well as to identify potential areas for future curriculum improvement.

Please email this completed form as an attachment to thatcherk@slu.edu

CAS PROGRAMS: Please email this completed form by July 1 to Donna LaVoie lavoiedj@slu.edu

1. Degree Program(s) included in this report: MS (thesis-based Masters)
2. Department: Biology
3. School/Center/College: College of Arts and Sciences
4. Name(s): Jack Kennell (Interim-Chair), Susan Spencer (Graduate Program Director)
5. Email: kennellj@slu.edu, sspencer@slu.edu
6. Phone: 977-3910, 977-4091

Instructions: Please answer the following five questions to the best of your ability for each degree program offered within your department.

1. Summarize your assessment activities during the past year for each degree program and how this work relates to the established assessment plan (e.g. what program outcomes were assessed, faculty discussions, new survey design, data collection, revised assessment plans or learning outcomes, etc.). Please include how Madrid courses/program were involved.

Students in the MS program form an advisory committee in the first semester, and meet with this committee each semester to evaluate their progress. The committee includes the faculty advisor and at least two additional faculty members. For each committee meeting, the student writes a report detailing his/her progress in coursework and research. The committee adds feedback to the progress report after the meeting, including ratings for “satisfactory” or “unsatisfactory” for coursework, research progress, and research effort. The report is submitted to the graduate program director and a copy is given to the student.

After finishing a written thesis, MS students present their work in a public forum and defend it to their committees in a private forum.

The activities described above collectively assess the three learning outcomes established for students in the M.S. program, which are:

1) **Students will have broad knowledge of biological principles and detailed knowledge of the biological field of their research.** A student will 1) be able to read, interpret, and critique primary research articles, 2) understand the methods and tools used in his/her concentration and 3) be able to understand how his/her experiments advance scientific
understanding in his/her field.

2) Students will demonstrate the ability to apply principles of their concentration and techniques in a laboratory and/or field setting – including experimental, theoretical, and computational methods. This includes students being able to: 1) design experiments to investigate a scientific hypothesis with help from the thesis advisor, 2) carry out experiments safely, using proper equipment and techniques, and 3) conduct data analysis.

3) Students will demonstrate the ability to communicate the principles their field and their research findings to scientific audiences.

The Madrid campus does not have any graduate programs in biology.

2. Describe specific assessment findings related to the learning outcomes assessed for each degree program, including any pertinent context surrounding the findings. Please include the learning outcomes themselves. (e.g. Our goal was that 75% of students performed at the “proficient” level of competency in problem solving, using a new scoring rubric. 81% of students performed at the “proficient” level in problem solving, exceeding our expectations.) Do not include student-level data. Data included in this report should be in aggregate. Please include how Madrid courses/program were involved.

Fourteen of the fifteen MS students in our program met regularly with their advisory committee this year. Of those fourteen, all maintained the required 3.0 GPA in their coursework and made satisfactory progress in their research, as evaluated by their committees. Three students successfully presented their research to a public audience and their committees and graduated in Spring, 2015. Four MS students petitioned into our department’s PhD program.

Program learning outcome #3 (ability to communicate research findings) was also measured by success in BIOL5800, Research Colloquium and BIOL 5860, Scientific Communication Practicum. All MS students passed these courses.

An indirect measure of Program Learning Outcomes includes awards received by MS students in external competitions. A Biology MS student captured the second place award at the Poster competition at the annual SLU Graduate Symposium (joining five Biology doctoral students who placed in the top three for the poster and paper competitions).

*Please attach any tables, graphics, or charts to the end of this report.

3. Describe how assessment feedback has been provided to students, faculty, and staff. (e.g. report for faculty, executive summary for the dean, web page for students, alumni newsletter, discussion with students in class or club event, etc.)

Students write their own progress reports, which are read and signed by their committees, and receive a copy of their committee’s evaluation of their progress. Assessments of graduate students are also shared with department faculty at our annual retreat (in August).
4. In what ways have you used assessment findings to celebrate student achievements and/or to improve the curriculum this past year? (e.g. prizes to students, hosting student parties, changes to curriculum, student projects, learning goals, assessment strategies, etc.)

Annual awards are given to graduate students who excel in research or teaching. In addition, the department’s graduate website contains a section to highlight student achievements (awards, presentations, etc...). Graduate curriculum is re-evaluated every three years (not this year).

5. Describe any changes to your assessment plans, or any challenges or educational experiences with the assessment process this past year that you would like to share.

No changes are planned at this time.

Please submit any revised/updated assessment plans to the University Assessment Coordinator along with this report.