**Executive Summary**

(After completing the questions on the next few pages, please replace this area with a written executive summary of the questions that follow, including your data analysis, findings, action plan, and improvements you have already made. This will be the top sheet of your report. This summary should be at least a paragraph, and can definitely be longer if desired.)

The courses in the Biological Sciences, including Botany are successful in enabling students to meet their general education learning outcomes. In Botany, lectures and laboratory assignments promote the engagement of the students and the active learning of botanical facts and concepts. Students are required to do science and to think critically about numerous botanical questions. The goal is to have them think deeper and to want to discover how life works. Data collected this during the spring 2015 semester shows this group to be highly proficient.

**Faculty Included in the Preparation and Sharing of this Report:**

Elizabeth McInnes

**Please provide a brief and cogent narrative in response to each of the following questions.**

1. Provide a quantitative analysis for each GELO your CLOs inform. Provide the total number of students who passed/total number of students assessed in each GELO column *and* the corresponding GELO passing rate as an aggregated percentage.

**GENERAL EDUCATION LEARNING OUTCOMES Students Passed/Assessed TOTAL RATE**

Natural Science

Demonstrate Proficiency in Natural Science by:

*1. Explaining how the scientific method is used to solve problems.* 35/37 95%

*2. Describing how scientific discoveries and theories affect human activities.* 33/35 *94%*

1. Reflect on, consider and analyze the data you have. ***What does your CLO data tell you about how your students are achieving GELOs?*** *Be detailed, descriptive and analytical* in this qualitative assessment of each GELO in relation to your CLO data. **Are your results satisfactory?**

Data collected on the Botany CLOs during Spring 2015 demonstrates that our botany students have a firm understanding of how the scientific method is used by scientists to solve problems. Students are encouraged to use the scientific method during lab investigations and to recognize how scientists have used the scientific method to discern differences between monocotyledonous and dicotyledonous plants. Our students then model their discoveries and observations. Students were able to demonstrate their ability use the scientific method to solve problems given during a lab practical exam.

Data collected shows that students are meeting their course and general education learning outcomes. Botany students were highly proficient.

1. Your department and the college should be making improvements based on student learning outcomes assessment, and we need to continue to document and share the improvements and progress you have already made. Did you make any changes in your CLO statements or analysis during the last 4-year cycle? Did you receive funding for resources requests that were aimed to improve assessment results? Did you make any improvements in the areas of teaching and instruction processes, your courses, or your program? *Please explain your accomplishments and provide details about your efforts.*

Changes to the CLO statements for Botany 101 were not made during the last 4 year cycle. In the past 4 years, our biology department has made purchases for the replacement of materials used during botany lab activities (new plant presses, herbarium materials, prepared microscope slides, light banks). New discoveries and advances in the biological sciences, including botany occur constantly. As a result, changes and improvements in laboratory activities are always taking place. In the past few years, Blackboard has been used as a course enhancement. All lecture presentations and notes are posted for student review following class meetings. Changes are continually being made to this course in response to the needs of our students. Our goal is student success and preparation for transfer.

1. **Action Plan.** Based on the assessments and analysis you have provided, please consider what changes or improvements you would like to make, which might include updating your CLO statements, modifying course outlines, rethinking instruction efforts, using different assessment instruments, asking for additional resources to improve assessment results, etc. ***Based on the analysis, provide an action plan for improvement that draws on your assessment results and efforts.***

Data collected shows that students are meeting their course and general education learning outcomes. In the sciences, it is essential to keep up to date with current research and advancements. For this class, I plan on continuing to keep this course up to date with recent advancements as well as the course content descriptions of the California C-ID; and to change aspects as needed to support our Biological Science majors.