## General Education Annual Course Assessment Form

<table>
<thead>
<tr>
<th>Course Number/Title</th>
<th>Biology 21</th>
<th>GE Area</th>
<th>B2/B3</th>
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Results reported for AY ___2017-2018___   # of sections ____2____   # of instructors ___1___

Course Coordinator: ____Mary Harness___   E-mail: _____mary.harness@sjsu.edu___________

Department Chair: ____Jeffrey Honda____   College: ____Science_____________________

**Instructions:** Each year, the department will prepare a brief (two page maximum) report that documents the assessment of the course during the year. This report will be **electronically submitted to** `<curriculum@sjsu.edu>`, by the department chair, to the Office of Undergraduate Studies, with an electronic copy to the home college by October 1 of the following academic year.

**Part 1**

To be completed by the course coordinator:

(1) What SLO(s) were assessed for the course during the AY?

SLO 3: Students should be able to use the methods of science, in which quantitative, analytical reasoning techniques are used.

(2) What were the results of the assessment of this course? What were the lessons learned from the assessment?

Most of the labs in Bio 21 are inquiry-based and designed to model scientific inquiry. For example, in Lab 6 (Respiration and Gas Exchange), students learn about hypothesis testing as they investigate the relationship between temperature and diffusion rate. Students learn what a hypothesis is, what variables are, and how to formulate a hypothesis by identifying the difference between dependent variables and independent variables. Students then develop a pair of hypotheses (null and alternative) before beginning an experiment, which they evaluate using the results of their experiment. Later in this lab activity, students learn how clinicians use spirometers to measure lung capacities, and why spirometers are an excellent means of detecting abnormalities in lung capacities for those with pulmonary disorders such as *asthma* and *emphysema*. Working in pairs, students use a spirometer to measure two of the four lung capacity components: tidal volume and vital capacity. Students then plot their data and interpret their results. Students also compare their data with published datasets to understand how vital capacity is influenced by gender, age, and height. **Of the 563 students assessed, 38% mastered SLO 3 at a high level (90% or better), 47% met SLO 3 at an average level (70% to 89%), and 15% failed to meet SLO 3 or did so at a marginal level (69% or lower).**

(3) What modifications to the course, or its assessment activities or schedule, are planned for the upcoming year? (If no modifications are planned, the course coordinator should indicate this.)
No modifications are planned.

Part 2

To be completed by the department chair (with input from course coordinator as appropriate):

(4) Are all sections of the course still aligned with the area Goals, Student Learning Objectives (SLOs), Content, Support, and Assessment? If they are not, what actions are planned?

Yes

(5) If this course is in a GE Area with a stated enrollment limit (Areas A1, A2, A3, C2, D1, R, S, V, & Z), please indicate how oral presentations will be evaluated with larger sections (Area A1), or how practice and revisions in writing will be addressed with larger sections, particularly how students are receiving thorough feedback on the writing which accounts for the minimum word count in this GE category (Areas A2, A3, C2, D1, R, S, V, & Z) and, for the writing intensive courses (A2, A3, and Z), documentation that the students are meeting the GE SLOs for writing.

N/A