**General Education Annual Course Assessment Form**

Course Number/Title Biol 135B, 160, 178, Micr 127  
GE Area _R______________________

Results reported for AY 2015-16  
# of sections _____________  
# of instructors _____________

Course Coordinator: _(see below)______________  
E-mail: _ __________

Department Chair: Jeff 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?

Biological Science majors satisfy the requirements for GE Area R through a combination of courses. All majors complete Biol 115: General Genetics, after which students complete the capstone course in their own discipline. During the 2015-16 AY, students were assessed for GELO 2 in their capstone courses.

**GELO 2**: Students will be able to distinguish science from pseudo-science.

- Biol 135B: Eukaryotic Cell and Molecular Biology (BS Molecular Biology). Instructor: Dr. Rachael French
- Biol 160: Ecology (BS Ecology and Evolution, BS Marine Biology, BA Biology) Instructor: Dr. Shannon Bros
- Biol 178: Integrative Physiology (BS Systems Physiology) Instructors: Drs. Shelley Cargill and Katie Wilkinson
- Micr 127: Microbial Physiology (BS Microbiology) Instructor: Dr. Sabine Rech

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

For all courses, students were considered to have mastered the GELO when they achieved a grade of 89% or higher. An average performance was a score between 70-88%. Students who received a score below 70% failed the GELO.

**Biol 135B: Eukaryotic Cell and Molecular Biology (BS Molecular Biology)**: In this course, students were asked to evaluate a pseudoscience cancer treatment on their final exam. Of the 23 students
evaluated during Spring 2016, 3 (13%) mastered the concept, 16 (70%) earned an average score, and 4 students (17%) failed the evaluation.

**Biol 160: Ecology (BS Ecology and Evolution, BS Marine Biology, BA Biology):** In this course, students were evaluated on their selection of references they cited for a writing assignment. The grading criteria was:

- 0 pts: Student is unable to differentiate between science and non-science sources
- 2.0 pts: Citations are mostly accurate and mostly from science sources
- 4.0 pts: Citations are either completely accurate and mostly from science sources or mostly accurate and completely from science sources
- 6.0 pts: Citations are accurate and all are from science sources

Of the 40 students in this course during Fall 2015, 36 (90%) mastered the GELO, 1 student (2.5%) had an average performance, while 3 students (7.5%) failed the GELO.

**Biol 178: Integrative Physiology (BS Systems Physiology):** In this course, students evaluated health claims published by the T.V. personality, Dr. Mehmet Oz. Of the 7 students who took the course in Fall 2015 and the 23 students who took the course in Spring 2016, 26 students (87%) mastered this GELO while 4 students (13%) had an average performance.

**Micr 127: Microbial Physiology (BS Microbiology):** In this course, students were asked to analyze an article from a newspaper or journal that made pseudoscientific claims on a topic relating to microbial physiology. Of the 33 students in the course, 3 students (9%) mastered the GELO, 26 students (79%) had an average performance, while 4 students (12%) failed the GELO.

(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 planned at this time.

**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.

All of these Area R courses have enrollments of less than 40. Low enrolled courses allow the instructor to provide thorough, individual feedback on writing assignments.