General Education Annual Course Assessment Form

Course Number/Title: Biol 115, 135B, 160, 178, Micr 127

GE Area: R________________

Results reported for AY: 2014-2015________ # 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?

GELO 1: Students will be able to demonstrate an understanding of the methods and limits of scientific investigation.
Fall 2014:
• Biol 115: General Genetics (BA Biology and all BS Biology)

Writing
Fall 2014:
• Biol 160 (BS Ecology and Evolution, BS Marine Biology, BA Biology)
Spring 2015:
• Biol 135B (BS Molecular Biology)
• Biol 178 (BS Systems Physiology)
• Micr 127 (BS Microbiology)

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

GELO 1: Students were given raw data on a genetic mutant and asked to generate a hypothesis about a gene’s function, test that hypothesis, and present a conference style presentation stressing the methods of science and the limits of scientific investigation. Of the 25 groups (4-5 students) assessed, 13 groups (52%) mastered the concepts, 11 groups (44%) achieved an average level on the assignment, and one group (4%) did not pass.

Writing:
In all classes in which writing was assessed, students wrote a 3000-word paper relevant to the topic of the course.

In Biology 160: General Ecology course, students were asked to write a species management plan for an endangered species. Prior to writing this paper, students conducted a virtual lab using simulation software to examine the effects of land use and management on this species. Their management plan was based on that activity. Of the 39 students assessed, 51% mastered the content writing objective at a high level (89% or higher), 46% achieved an average level (70 - 88%) for the content writing, and 3% (less than 69%) failed the writing objective.

In Biology 178: Integrative Physiology course, students were asked to write a review article on an integrative physiology topic (one that involves 2 or more organ systems). They were allowed to choose a disease state, extreme environment, discuss adaptations certain organism(s) have to live in a certain environment, or a similar topic. Of the 11 students assessed, 45% (5 students) mastered the content writing objective at a high level (89% or higher), 36% (4 students) achieved an average level (70 - 88%) for the content writing, and 19% (2 students) failed the writing objective (less than 69%).

In Microbiology 127: Microbial Physiology course, students completed three writing assignments. In one, they wrote a short paper on a topic of microbial physiology that appeared in the popular press. In a second short paper, they wrote of the importance of bacteria in the environment and in disease. Then, they wrote a long review paper on a topic in microbial physiology. Of the 38 students assessed for this review paper, 13% (5 students) mastered the content writing objective at a high level (89% or higher), 74% (28 students) achieved an average level (70 - 88%) for the content writing, and 13% (5 students) failed the writing objective (less than 69%).

Data for Biology 135B: Eukaryotic Cell and Molecular Biology II were not supplied.

(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?

To the best of my knowledge all sections are aligned with respect to area goals, SLOs, content, support and assessment. While there is a wide range of very different courses and faculty involved in this assessment process, the department has a program assessment director assigned to work with faculty to ensure that we are in compliance. The GE assessment director also works closely with the program assessment director to ensure consistency.
(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.

This AY represents the first time we are assessing major’s courses for area R. The complexity of covering the requirements across two classes (Biol 115 and a specific area concentration upper division course), among varying disciplines is a challenge. Fortunately we have a GE and Program Coordinator who are working well together to ensure the SLOs are consistent. Documentation of SLOs and word counts for the courses can be found on course syllabi. The one area I will have coordinators develop is how students are receiving feedback on their writing assignments to help improve writing skills as they work on writing through the semester.