General Education Annual Course Assessment Form

Course Number/Title: COMM/ENVS/GEOL/HUM/METR 168/168W: Global Climate Change I&II

GE Areas: R, S, and V

Results reported for AY: 2013/2014  # of sections One each semester  # of instructors: Three

Course Coordinator: Alexander Gershenson  E-mail: alexander.gershenson@sjsu.edu

Department Chair: Deanna Fassett  College: Social Sciences

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, 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?

   Area R: SLO 1: Demonstrate an understanding of the methods and limits of scientific investigation

   Area S: SLO 1: Describe how identities (i.e. religious, gender, ethnic, racial, class, sexual orientation, disability, and/or age) are shaped by cultural and societal influences within contexts of equality and inequality

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

   In this interdisciplinary course, we have worked to develop an assessment plan to account for the rotation of instructors with different specializations across fields, and the integrated nature of the course curriculum. Because this course has thirteen (13) learning objectives, we have developed ways to streamline assessment, looking at assignments that meet multiple learning objectives. In doing so, we have established common assignments that ensure continuity of assessment across multiple sections and multiple instructors. This year, we focused on exams as the primary method for assessment of Area R SLO1, and on a two lecture long United Nations simulation module for Area S SLO 1.

   AREA R - SLO 1:

   Midterm & Final Exams: Students take five (5) exams in this course. Exams are a combination of multiple choice and short answer. Area R1 is addressed by multiple choice and short answer question from two sections of the exams in the Fall semester (3 exams, six sections total), and one section of the exams in the Spring semester (2 exams, 2 sections total)

   Assessment Activities & Outcome:

   Due to the integrated nature of the course, the Fall curriculum is the most science-intensive: students must understand the complexities of climate science climate science before applying these concepts. We use midterm and final exams to evaluate students’ scientific knowledge articulated under R1. The
exams of both semesters are cumulative, and so provide a rich data set that demonstrates whether students are able to synthesize scientific concepts.

Instructors evaluated two relevant multiple choice sections of the first fall midterm, a short answer section from the second midterm and two multiple choice sections of the final of the Fall semester (five sections of 321 exams—107 students). We also evaluated the relevant multiple choice sections of the midterm and final exams of the Spring semester (two sections of 200 exams—100 students). *Seven students did not earn a C or better in the Fall semester, and so did not continue in the Spring semester.* We used the baseline of 73% as the minimum standard, since a grade of C is required to receive GE credit in the course. We used 80%-89% to signify a B range, and a score of greater than 90% as an A range.

**Fall Midterm 1 Section 1 and 2**
75/107 students met the minimum standard of 73%. 45 students scored in the B range (80%-89%) and 14 students scored in the A range (above 90%).

**Fall Midterm 2 Short Answer**
82/107 students met the minimum standard, 21 students scored in the B range (80%-89%) and 9 students scored in the A range (above 90%).

**Fall Final Section 1 and 2**
78/107 students met the minimum standard of 73%. 44 students scored in the B range and 5 students scored in the A range.

**Spring Midterm Section**
54/100 students met the minimum standard of 73%, 37 students scored a B, 16 scored in A range.

**Spring Final Section**
78/100 students met the minimum standard, 59 students scored in B range, and 20 scored in A range.

These results demonstrate consistent high level of performance over the course of the Fall semester, and an improvement by the end of the Spring semester. The results from the Spring Midterm are largely an artifact of a new testing format attempted in that exam, and are not representative of the success of our students. This suggests that students understand the methods and limits of processes of scientific discovery.

**AREA S - SLO1**

In-class activities: Students read a variety of articles and watch several examples of how nations respond to climate change and influence international action. Concepts discussed include the relative imbalance of power at international negotiations between developing and developed nations, the disparity in available resources, and the influence of institutional capacity on climate change negotiations. In addition, during the 2 lecture long UN Climate Summit Simulation, (an in-class exercise where in the first session students are grouped to represent different countries, and different socioeconomic groups within those countries, and in the second we simulate the UNFCCC process to illustrate the challenges of arriving at a consensus regarding climate change solutions when the backgrounds are so varied, and the resources are so unequally distributed).

Assessment Activities & Outcome: Instructors evaluated student participation in these areas in a variety of ways. Students grouped as separate countries/socioeconomic groups turn in a summary of their positions, as well as participate during the in-class discussion. Instructors also evaluated the participation of the selected UNFCCC decision panel, by observing their deliberations and subsequent interactions with the representatives of the respective countries. Approximately 79 out of 100 students completing the activity received credit. These results demonstrate the ability of these students to discuss differences in the ability of different countries to effectively respond to climate change, as well as
influence international negotiations. This assignment, although very important to the structure of the course, is difficult to assess. There is a plan to incorporate a short individual written assignment to be completed by students after the activity to be able to assess their understanding of the role of inequality in climate change mitigation negotiations.

(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.)

The primary modification to the course this year is a shift in timing of the Community Action Project. In the past, this large group project was addressed primarily in the Spring semester. We have received feedback from students that starting the Community Action Project in the end of the Fall semester would enable students to tackle more complex projects, and have enough time to complete them, or to take them further than was originally planned. We are also introducing more frequent short writing assignments in order to be able to have a more granular view of student progress.

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, the course coordinator and instructors are doing an good job keeping the goals, SLOs, content, support, and assessment consistent across sections. Regular communication between the coordinator and instructors and between the instructors maintains continuity within and across sections.

(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.

168A/B typically enrolls 100 or so students each year. The three instructors who team-teach the course divide the papers among themselves, resulting in a manageable enough number each so that students receive thorough instructor evaluation and feedback on their written work. Additionally, students are required to do a “substantial revision” (as stated on the syllabus) on each of the papers in the course, and they also receive peer-editing suggestions from their classmates on these assignments. Finally, instructors have developed a fairly robust bank of writing comments over the past few years that they cut and paste into student papers.