General Education Annual Course Assessment Form

Course Number/Title: METR 10/Weather & Climate   GE Area: B1

Results reported for: AY 12-13   # of sections: 4   # of instructors: 4

Course Coordinator: Alison Bridger (as dept chair)   E-mail: Alison.Bridger@sjsu.edu

Department Chair: Alison Bridger   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, by the department chair, to the Office of Undergraduate Studies, with an electronic copy to the home college by September 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 recognize methods of science, in which quantitative, analytical reasoning techniques are used”. Raw data is stored in the chair’s office/assessment data shelf (COADS).

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

In a department assessment retreat in January 2012, faculty discussed assessment at all levels, including in GE. Faculty decided to have an “assessment week” in which assessment activities would be conducted in all GE classes in one week. During AY 12-13, this was the week of 22-26, 2013. In the meeting, faculty developed a set of questions to assess the SLOs. We designed a question to address SLO#3 in our core GE class MET 10.

In MET 10, students were given a weather map for the US, and were asked to find various things including the highest/lowest observed temperatures, and the locations of these observations. Provided that students had attended lectures (and/or read the text) on the topic of how we report weather observations on weather maps, the task should have been straightforward.

Data was gathered in four “live” sections of MET 10 (inexplicably, we assessed LO#2 in the online section; this will be reported elsewhere). Answer sheets were graded, and the results are tabulated below. In the column labeled “0”, for example, the numbers below represent the numbers of students who got a score of 0 out of 7, and so forth.
In these four sections (124 students), 29% met expectations (pink shading) in that they scored 5 or higher on the assessment exercise, 40% (grey) did not meet expectations (scores of 2 or less), and 31% (taupe) partially met the learning outcome (scores of 3 or 4). Adding, 60% of the students had at least some (correct) sense of the answer, whereas 40% did not meet the learning outcome. In looking over the answers, it was very clear to the three of us who graded these that huge numbers of these students are ignorant of basic US geography. We all thought this was taught in grade school, but apparently not. Whereas the actual low temperature was observed in Montana, students guessed Colorado, Wyoming, Idaho, N Dakota, and Canada as the identity of the state; they did better with Florida. While this is not a geography course, we faculty all have a good working knowledge of US and world geography, whereas our GE students do not. We discuss the impact of this below.

There is an interesting section-to-section variation in success. In section “B”, only 3 of 35 students met the LO, while 23 did not meet the outcome. On the other hand in section “A”, only 7 of 27 students failed to meet the LO, whereas 11 fully met the outcome. This variance could reflect more preparation for the assessment activity on the part of some instructors, but could also speak to a failure of individual instructors to teach this material. The yellow shading shows the peak result for each section. Generally they are less than satisfactory.

It is clear to us that the aforementioned “geography issue” overshadowed our attempt to determine whether students could “recognize methods of science, in which quantitative, analytical reasoning techniques are used”. This is going to need to be discussed at a faculty meeting early in the Fall semester, so that corrective action can be incorporated into Fall sections of MET 10.

(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 faculty will discuss these results in an assessment meeting early in Fall, and will seek ways to improve our overall performance relative to this SLO and across all sections and instructors. For example, we may “mandate” the introduction of a “geography of the USA” section. Equally, we may refine the assessment exercise so that it is not clouded by other factors.
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?

The chair is satisfied that this course is being delivered with full and appropriate attention to all area “B” goals, SLOs, content, support, and assessment.