

General Education Annual Course Assessment Form

Course Number/Title: **METR10/Weather & Climate**

GE Area: B1

Results Reported for: **AY 17-18**

of sections: 7

of instructors: 4-6

Course Coordinator: Alison Bridger (as department chair)

email: 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. The 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?

SLO#2: Students should be able to demonstrate ways in which science influences and is influenced by complex societies, including political and moral issues.

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

The department developed a set of questions we ask to assess the assessment. For SLO-2, students are presented with a scenario, and asked to respond in writing to two prompts (“Why is it reasonable for scientists to influence society” and “Why is it reasonable for a Governor’s office to influence climate science?”)

Student responses were read and holistically “graded” according to whether they had fully met the SLO, partially met the SLO, or not met the SLO. A student who has not met the SLO typically writes jibberish unrelated to the issue. A student who has partially met the SLO typically writes some text that reasonably explains the pros and cons of the situation, but there may also be some jibberish. A student who has fully met the SLO typically writes text that reasonably explains the pros and cons of the situation, with nothing factually incorrect.

Results are tabulated below.

Table showing number of student responses to Q1

Section ↓	# responses	Fully met	Partially met	Did not meet
10,A	27	21	5	0
10,B	25	18	6	1
10,C	23	13	4	2
10,D	16	7	7	2
10,E	26	16	7	0

12,A	54	43	10	1
12,B	51	Not graded		
Total	171	118	39	6
	Fraction of total group	68%	23%	9%

Table showing number of student responses to Q2

Section ↓	# responses	Fully met	Partially met	Did not meet
10,A	27	9	14	3
10,B	25	16	6	2
10,C	23	8	7	4
10,D	16	2	6	8
10,E	26	11	8	3
12,A	54	19	29	6
12,B	51			
Total	171	65	70	26
	Fraction of total group	38%	41%	15% ¹

What does the data tell us?

A. That the clear majority of students (68%) meet SLO2 when it comes to arguing in favor of scientists to try to influence society. This is true across all section of the classes, and is encouraging.

B. That students had more difficulty explaining – as asked – to justify a Governor’s office efforts to influence science. We (graders) found it difficult to assign “Fully met” status to those who explained how/why it is OK for politicians to override scientists. This “grading bias” is reflected in the data. It did appear to us (graders) that in some section, students might have been coached to answer along the lines of: “Even if you don’t agree, make an argument”. Some sections had many more students responding that they did *not* think this interference was OK.

C. Very few students were unable to mount some kind of response, which indicates that they were engaged in this assessment process.

D. We believe the question is poorly framed, since so many students tried to explain why it does make sense for the governor of (enter state e.g., FL) to impose a rule that the term “climate change” can NOT be used in state matters. A few years ago, this was big news and everybody was aware that it had happened. Today however, it appears that most students were not aware this had ever happened. Thus we will re-write the question in future years (see below).

E. Question we asked: “Why is it reasonable for scientists to influence society?”. Favorite answer: “Isn’t it self-explanatory?”

¹ Sum does not add to 100% since some responses were illegible and thus not graded

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

- a. No modifications to the *course* are planned based on this assessment.
- b. It appears that: (1) many students had no idea that governors actually had banned the use of the term “climate change” in state documents (e.g., Florida), so this biased their answers; and (b) students tried very hard to justify the unjustifiable – that a governor’s office should perform this kind of coverup. Accordingly, we will develop a new way to determine whether SLO2 is being met via these courses. This effort will get underway early in the F18 semester so that it can be implemented ASAP.

(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?

- a. We believe that all sections of the course meet (to roughly the same extent) the area Goals, Student Learning Objectives (SLOs), Content, Support, and Assessment.