**General Education Annual Course Assessment Form**

Course Number/Title: METR10/Weather & Climate    GE Area:    B1

Results Reported for: AY 14-15 # of sections: 5 # of instructors: 5

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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 philosophy, instituted at a faculty retreat in January 2012, is to hold an “assessment week”, during which all GE classes would be assessed. In AY 2014-2015, this week was April 6-10.

   The faculty prepared two questions to assess SLO#2 in the core GE class MET-10. First the students were given the following *preface* to the questions:

   “Measurements show that levels of CO2 are increasing in both the atmosphere and the ocean. Over 95% of Climate Scientists believe that this is due to human activities, and also that substantial climate changes will result. Consequently, Climate Scientists want to warn society about the problem, and also want to discuss what to do about it. Recently, however, the governor of Florida banned the use of the term “climate change” in various official documents and meetings.

   This is an example of science trying to influence society and also of science being influenced (via the governor’s office). There are obviously political and moral issues in this case.”
Given that preface the students were then asked to answer the two questions:

1. Explain (if you can!) why it is reasonable for science (i.e., Climate Scientists) to try to influence society in this case (minimum 3-4 sentences)
2. Explain (if you can!) why it is reasonable for the Governor’s office to try to influence science (i.e., Climate Scientists) in this case (minimum 3-4 sentences)

Data was gathered from five sections of MET 10, including four “live” sections and one on-line section. The five sections chosen were taught by five different instructors.

The answers were graded in summer of 2015 and are tabulated below. The meaning of the scores is: “2” indicates that the student answered both questions at least adequately; “1” indicates that the student answered one of the two questions at least adequately; “0” indicates that the student could answer neither adequately.

<table>
<thead>
<tr>
<th>Section</th>
<th>Responses</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>31</td>
<td>14 (45%)</td>
<td>17 (55%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>B</td>
<td>18</td>
<td>7 (39%)</td>
<td>11 (61%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>C</td>
<td>39</td>
<td>18 (46%)</td>
<td>21 (54%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>D</td>
<td>33</td>
<td>16 (48%)</td>
<td>15 (45%)</td>
<td>2 (6%)</td>
</tr>
<tr>
<td>E (online)</td>
<td>40</td>
<td>24 (60%)</td>
<td>15 (37.5%)</td>
<td>1 (2.5%)</td>
</tr>
</tbody>
</table>

| Sum     | 161       | 79  | 79  | 3  |
| Percent |           | 49% | 49% | 2% |

In these sections, almost half (49%) of the students fully met the expectations of SLO #2. Close to another half (49%) partially met the expectations, and only a small number were not able to meet the expectations at all. Further analysis of the students who received a grade of 1 indicates that most of the students answered question number #1 “correctly” (as judged by the faculty) (77 out of the 79, i.e. 97%). Thus 156 out of 161 (97%) students met expectations about the role that science should play in influencing society.

There is remarkable consistency among three of the four “live” sections with the exception of section “B”, which had the smallest percentage of students who fully met the expectations. The “on-line” section had the greatest percentage of students fully meeting expectations.

There were several different reasons given by students that were judged to be an inadequate response to question #2. The two primary reasons were: it is a government’s responsibility to avoid panic and therefore withhold information; and combating climate change would be too costly. Other reasons included religion, bribes, and avoiding rebellion. Some answered the wrong question (i.e. government using science to influence society). The number of students in section B who cited economic reasons is most likely the reason that a greater percentage of “wrong” answers occurred in that section. It is apparent that the
instructor offered economics as a reason that some people (including Florida’s governor) deny climate change, and asked the students to think critically about whether that was a valid reason. Some were able to, and include that in their acceptable answers, while others were not.

The answers in the online class were much better organized, partially explaining the more positive results.

(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. None planned

(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. The course meets the area Goals, Student Learning Objectives (SLOs), Content, Support, and Assessment.