General Education Annual Course Assessment Form
Course Number/Title: METR112/Global Warming
GE Area: B1

Results Reported for: AY 14-15 # of sections: 5 # of instructors: 4

Course Coordinator: Alison Bridger (as dept 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 distinguish science from pseudo-science.

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

(3) 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 one question to assess SLO#2 in the core GE class MET-112. First the students were given the following preface to the questions:

“Science can be defined as the development of knowledge using systematic observations and experiments that can be reproduced, and laws and theories that can be tested and verified.

Pseudo-science can be defined as a belief (or set of beliefs) that does not meet these criteria. For example, observations do not support the belief, or key experiments cannot be reproduced. No general laws have been discovered, or there is no way to verify the laws and theories. In some cases, the belief may have already been disproved via the scientific method.”

Given that preface the students were then asked to respond to the statement:
A man who lives in Louisiana realized that it was colder than normal this spring, with record lows reported in a few towns north of New Orleans. He made the claim that global warming is not real because to him it was colder than normal where he lived. However, he has not read any scientific journals or studies on the matter.

Data was gathered for five sections of MET 112, four “live” sections and one online section. The five sections included four instructors. The students were asked to respond with a simple response: is it science or is it pseudo-science. The results are tabulated below:

<table>
<thead>
<tr>
<th>Section</th>
<th>Responses</th>
<th>Pseudoscience</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>22</td>
<td>22</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>31</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td>C</td>
<td>41</td>
<td>38</td>
<td>3</td>
</tr>
<tr>
<td>D</td>
<td>31</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>E(online)</td>
<td>34</td>
<td>32</td>
<td>2</td>
</tr>
<tr>
<td>Sum</td>
<td>159</td>
<td>153</td>
<td>6</td>
</tr>
<tr>
<td>Percent</td>
<td></td>
<td>96%</td>
<td>4%</td>
</tr>
</tbody>
</table>

It is clear that an overwhelming majority of the students, at least for the example provided, were able to distinguish science from pseudo-science. Therefore, mastery of SLO #2 has been successfully attained in these classes.

(4) 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. The faculty will discuss the results of the assessment and decide whether several (three or four) questions with different examples should be included.

(5) 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.