1. **AGSC Content Area of Alignment:** Area III: Science and Math

2. **SLO(s) being assessed:** Student will.
   SLO 10: Students will understand and appreciate methods and issues of science and technology.

3. **Assessment Method(s):**
   [Explain how assessment for the measures associated with this SLO - not grading for the course as a whole - was conducted. You may cut/paste rubrics for inclusion here, identify faculty reviewing committees, or identify specific kinds of test questions important to your method. Is this the method you initially planned to use? Provide a separate paragraph for each method].

   Summary of assessment plan and implementation: A set of 10 questions (Supplement 1) were attached to an examination in each lecture section. The questions were carefully selected by the three professors involved to assess all five measures outlined for SLO10. The questions included a mix of multiple-choice, fill-in-the-blank, and short-answer formats, with some questions keyed to illustrations. Each of the 10 questions was weighted equally and scored as one point each. In all cases, these questions were imbedded in either the midterm or the final examination. Professors involved: Dr. Ronald D. Lewis, Dr. Ashraf Uddin, Dr. Jeffrey Chaumba.

   This is the method originally proposed.

4. **Findings: What assessment data did each assessment method produce?**
   A total of 144 students were assessed successfully (Table 1). Note that, unlike last year, each question is aligned with a specific learning-outcome measure (below) and that each question is scored individually, and each measure is scored individually. Although student performance varied greatly by instructor, it is possible to recognize patterns of overall student achievement. Students have a difficult time remembering individuals of historic importance (e.g., Steno for question A5), also the name of one of the principles he introduced (superposition for question A4); however they are able to APPLY the same principle in problem solving (A3). Averaging across all instructors, the values are as follows: measure 1 (60.7%), measure 2 (64.4%), measure 3 (75.7%), measure 4 (83.9%), and measure 5 (70.7%).

   Articulate the philosophical and historical foundations of modern science. 2. Understand the scientific method and demonstrate an ability to apply it across a variety of situations. 3. Demonstrate an ability to conduct, and interpret the results of experiments aimed at better understanding natural phenomena. 4. Understand major issues and problems facing modern science and technology, including issues related to ethics, cultural values, public policies, and the impact of human activity upon the planet. 5. Demonstrate knowledge in one area of science, including understanding its basic principles, laws, and theories.

5. **How did you (or will you) use the findings for improvement?**
   [What questions / issues / concerns did your data raise for the faculty teaching the course? What discussion did the faculty have about the findings? What future actions to improve student attainment of this outcome will the department / program take as a result of this analysis?]

   As this is the first year of monitoring student outcomes in this manner, we will continue following this method in the future to assess trends. However, we do conclude that variation between instructors is a matter of concern. This may be explained by differences in scoring some questions (e.g., A8 and B2) or by differing emphasis in classroom instruction. Taking the numbers at face value, it appears that more attention should be given to the history, philosophy, and basic principles, including the scientific method.

6. **Additional Comments:**
### Core Curriculum Assessment Report
#### 2013_14

<table>
<thead>
<tr>
<th>Department</th>
<th>Geology and Geography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representative</td>
<td>Ronald D. Lewis</td>
</tr>
</tbody>
</table>

**Course Name / number**: GEOL1100,1110

[What else would you like the Committee to know about your assessment of this course or plans for the future?]

None

7. **Committee Comments**

Mean of rubric score = 3.08 (out of 4) No example of questions. Some of evaluations conducted with midterm and some at final exam.