V. Program outcomes – M.S. in Geology

**Geology MS Program Mission**
We want to develop in our graduate students an appreciation of how geological processes affect the earth and society so that they will be environmentally and geologically responsible, scientifically literate citizens. We strive to produce professionals with an interdisciplinary content background in geology and the physical sciences that are competent in the field, who can work collaboratively, conduct original research, and effectively communicate their results.

**Student Learning Goals**
The goals of the Geology MS degree are to support student learning and improvement in: A) foundational knowledge and skills; B) quantitative skills; and C) critical thinking. It is our expectation that our graduates will apply these as professionals who can integrate chemical, physical, biological, and other specialized knowledge in order to understand geological processes.

**Student Learning Objectives (SLOs)**
To meet the Geology Graduate Program goals, when students graduate from the MS program, they will be able to:
1) Explain and evaluate the theories and concepts of geological science and related disciplines;
2) Design and conduct scientifically-rigorous and relevant scientific research in their chosen geological discipline;
3) Analyze and interpret scientific data; and
4) Communicate scientific concepts and results effectively through both written and oral means, and to a range of audiences.

**Geology MS Program**

**Measures of Student Learning Objectives:**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Criteria</th>
<th>Goal</th>
<th>SLOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment of written thesis proposal by thesis committee</td>
<td>Rubric</td>
<td>A</td>
<td>1,2,4</td>
</tr>
<tr>
<td>Assessment of final written thesis by thesis committee</td>
<td>Rubric</td>
<td>A, B, C</td>
<td>1,2,3,4</td>
</tr>
<tr>
<td>Geology Grad Program Committee interviews with 2nd and later year students</td>
<td>Embedded question</td>
<td>A, B, C</td>
<td>1,2,3,4</td>
</tr>
<tr>
<td>Focused assessment in courses with high graduate student enrollment</td>
<td>Embedded assignments and questions evaluated with rubrics or anchor responses</td>
<td>B,C</td>
<td>2,3</td>
</tr>
</tbody>
</table>

1 Direct measures are italicized

**Use of Information:** Objectives will be assessed and the outcomes will be reported to the Geology Department faculty for discussion and identification of where improvements can be made. An Action Plan will be developed based on that discussion for use in the following academic year.