B2. Laboratory Science Higher Order Learning Goals (HOLGS)

Students will...
1. Demonstrate literacy in the content and principles of a scientific discipline.
2. Conduct laboratory or field procedures that explore content, principles and application of scientific disciplines in a socially responsible manner.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Performance Standards</th>
<th>Exceeds Expectations (4)</th>
<th>Meets Expectations (3)</th>
<th>Needs Improvement (2)</th>
<th>Below Expectations (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explains scientific concepts and principles.</td>
<td>Accurately explains scientific concepts while demonstrating understanding and insight (e.g. depth of analysis, cleverness, originality, thoroughness).</td>
<td>Accurately explains scientific concepts.</td>
<td>Explains scientific concepts with limited accuracy.</td>
<td>Did not explain scientific concepts, or makes excessive errors.</td>
<td></td>
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<tr>
<td>Conducts an investigative analysis using scientific methodology.</td>
<td>Accurately conduct an investigative analysis while demonstrating understanding and insight (e.g. depth of analysis, cleverness, originality, thoroughness).</td>
<td>Accurately conducts an investigative analysis.</td>
<td>Conducts an investigative analysis with limited accuracy.</td>
<td>Did not conduct an investigative analysis, or makes excessive errors.</td>
<td></td>
</tr>
</tbody>
</table>
Applies content to self or the world, considering multiple perspectives (e.g., comparative, historical, methodological) and why they matter.

Applies content to self or the world, considering multiple perspectives and why they matter with exceptional insight (e.g., depth of analysis, astuteness, originality).

Applies content to self or the world, considering multiple perspectives and why they matter with acceptable insight.

Applies content to self and the world, considering multiple perspectives and why they matter with limited insight.

Did not apply content to self and the world, considering multiple perspectives and why they matter.

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**Developed by CAWG Committee - October, 2016. Approved by CAC - December 2016. Edited - March, 2017.**

**B2. Laboratory Science Core Learning Outcomes (CLOs)**

Students will:
1. Demonstrate understanding of and literacy in the content and principles of a scientific discipline. **(Criteria 1)**
2. Perform laboratory or field procedures and that explore the content and principles of these disciplines. **(Criteria 2)**
3. Carry out scientific procedures in a socially responsible manner. **(Criteria 3)**
4. Accurately observe, record, analyze, and report data collected in the scientific laboratory or the field. **(Criteria 2)**