### GEC Learning Outcomes (GLOs) Assessment Critical Thinking—Aggregate Results

**Assessment Type:** GEC  
**Year/Term:** AY18

**Course:** BIOL 101

**Learning Outcome:** Critical Thinking

**Assessment Method/Tool:** Common Rubric-EPCC

**Measurement Scale:** 3-1

**Sample Size:** 92

<table>
<thead>
<tr>
<th></th>
<th>Proficient (# of students)</th>
<th>Adequate (# of students)</th>
<th>Developing (# of students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifies and explains issues</td>
<td>17 (74%)</td>
<td>4 (17%)</td>
<td>2 (9%)</td>
</tr>
<tr>
<td>Recognizes contexts and assumptions</td>
<td>5 (22%)</td>
<td>9 (39%)</td>
<td>9 (39%)</td>
</tr>
<tr>
<td>Acknowledges multiple perspectives</td>
<td>4 (17.4%)</td>
<td>12 (52.2%)</td>
<td>7 (30.4%)</td>
</tr>
<tr>
<td>Evaluates evidence to reach conclusions</td>
<td>9 (39%)</td>
<td>13 (57%)</td>
<td>1 (4%)</td>
</tr>
</tbody>
</table>

**Median % (based on 92 student sample size):**

- Proficient: 39%
- Adequate: 46%
- Developing: 20%

**Benchmark:** 85%  
Institutional benchmark goal for median percentage of students to meet “Proficient” or “Adequate” levels in the GEC

**Percent Achieving Benchmark:** 85%  
Actual median percentage of students meeting “Adequate” or “Proficient” levels
**Closing the Loop:**

In BIOL 101, I give 7 homework assignments, on each assignment I asked critical thinking questions, we start small and build up to more in depth critical thinking questions. After each assignment is graded, I take time to talk about ways the students could improve their answers from developing to adequate to proficient. I used their last homework assignment for the final assessment.

The benchmark for GEC courses is 85% scoring a 2 or 3. This sample has an 85% mean.

- **How do you account for that?** One of the issues with the low mean is that only 23 of 36 students did the assignment; I think if the entire class completed the assignment the mean would have been higher.

- **How might the program address this issue?** I do not know how to get students to do their homework; they already lose points for not doing the work. Make it a greater penalty for not turning work is an option.

The mean for "Identifies and explains issues" and for "Evaluates evidence to reach conclusions" are very strong at 91% and 96% respectively.

- **How do you account for those strengths? What is working well?** We worked on this aspect all term. During each class period, I gave them a question that addresses this idea. This is the first term I tried this and it seemed to have really worked well.

There is a noticeable drop for the mean for "Recognizes contexts and assumptions" and for "Acknowledges multiple perspectives" at 61% and 69.6% respectively.

- **How do you account these gaps? What recommendations do you have for improvement?** On this assignment, I changed these questions slightly from last year’s assignment. The students that I gave a 1 to, all copied answers from last year’s question which of course was different but they did not realize it so there answer did not address the question. Other students a “googled” answer and I did not give them credit for their work and they also received a low score. If I threw those students out of the assessment, I would have reached my bench mark.

**Action Plan:**

I will be sharing these results with my Biology colleagues, and ask for suggestions on ways to improve my benchmark scores.