Annual Assessment: B.S. in Mathematics – Mathematics Option.
M451
AY 2013-2014

Assessment Coordinator: Mark Pernarowski

This report summarizes an assessment of M450-451 with regard to the Applied Mathematics Option and the rubrics

(Outcome 1) Rigorous mathematical reasoning
(Outcome 2) Setting up Mathematical models

Preamble: M451 is part of a senior sequence M450-451. In accordance with the departmental plan the rubrics noted above were assessed. In Spring 2014, M451 had a total of 22 students of which 14 were pursuing a Mathematics degree (two additional had BS-Math as their secondary degrees). Of those, 7 were Math graduate students, 4 were pursuing a BS-Math degree, 4 were seeking a BS-Applied Math degree and one was seeking a BS-Mathematics Teaching degree. Only the 4 students pursuing a BS-Mathematics degree were assessed.

Data Collection: Exam and assignment performance were used to assess the 4 students for the learning outcomes. Only Outcome 1 could be assessed since there was no graded course content related to Outcome 2.

Scores:

<table>
<thead>
<tr>
<th></th>
<th>Exceptional</th>
<th>Acceptable</th>
<th>Marginal</th>
<th>Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome 1</strong></td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Outcome 2</strong></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Recommendation:

Though the course does involve the analysis of certain mathematical models the students are not required to “set them up”. We continue to recommend future assessment in the category Outcome 3 in place of Outcome 2. It might also be more efficient to assess all B.S. options rather than just the Mathematics Option. Lastly, the results do not suggest any major change to the curricula or delivery method.