General Education Area Outcome (College Mathematics)

Department: Mathematics

Course Reporting Data: Bernie LoBracco, MTH 112 Coordinator

Student Learning Outcome: Demonstrate basic proficiency in arithmetic, algebra, geometry, data analysis, and quantitative reasoning at the MTH 112 level.

Sources of Assessment Data on Outcome: Brieefly describe how these assessment data were collected. What specific assessment methods—exams, assignments, or instruments were used to acquire the data reported on this outcome?

Performance on a common final examination in MTH 112. Data can be pooled results from all sections of MTH 112. Separate scores given on the five areas mentioned in the SLO (see above).

Semester(s) in which reported assessment data were collected in this course: Fall 2013 ✗ Spring 2014 ✗ Both. □

N = 132

[Formulas and calculations related to assessment data]

ENTER the total number of students from whom the assessment data were collected. →
**CHECK ONE:**  Data are totals from a multi-section course?  ✗  Data are only from one course/section?  ☐

**ENTER** the benchmark or criterion of achievement for this assessment in the row below:  *[70% or higher is suggested; other values are optional.]*

A total of 70% of students will achieve a score qualifying them for the exceeded and/or met categories.

**ENTER**, in the spaces provided below, the number of students (and percent of total) whose scores were in each of the achievement levels indicated:

<table>
<thead>
<tr>
<th>Areas: Arithmetic</th>
<th>Algebra</th>
<th>Geometry</th>
<th>Data Analysis</th>
<th>Quantitative Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement Level*</td>
<td>Number of students who reached this level</td>
<td>Percent of total students assessed who reached this level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exceeded Criterion (A/B) or 80-100%*</td>
<td>66 33 85 72 27</td>
<td>50% 25% 64.4% 54.5% 20.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Met Criterion (C) or 70-79.99%</td>
<td>6 39 14 27 16</td>
<td>4.5% 29.5% 10.6% 20.5% 12.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approached Criterion (D) or 60-69.99%</td>
<td>34 24 14 15 38</td>
<td>25.8% 18.2% 10.6% 11.4% 28.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did Not Meet Criterion (E) or &lt;59.99%</td>
<td>26 36 19 18 51</td>
<td>19.7% 27.3% 14.4% 13.6% 38.6%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The achievement levels should be kept equivalent to the listed letter grades; however, % values defining grade levels may be different as appropriate for the grading policy of the course in which the SLO is being assessed. Instructors should feel free to specify their own % cutoffs for the four levels of achievement.*

**Did your assessment show that the benchmark or criterion of success was reached?**  Yes ☐  No ☐  In 2 of 5 areas.

**Instructor Comments on Assessment Data:** Did this assessment provide a better understanding of student performance on this learning outcome?  Explain.

Yes: This is the first time final exam grades have been analyzed with respect to the five areas of Arithmetic, Algebra, Geometry, Data Analysis, and Quantitative Reasoning. In Geometry and Data Analysis the 70% benchmark was met. The poorest performance was found in Quantitative Reasoning and this will be addressed in the next section.
Closing the Loop Recommendations: Regardless of whether the established benchmark was achieved or not, what actions could improve the student performance on this learning outcome?

Due to the poor performance in the area of Quantitative Reasoning (which is covered early in the semester), the plan is to have instructors provide more continuity by reviewing the material and showing how it can be applied to topics covered later in the semester.

Instructions on archiving data for this assessment:
Where possible, the assessment artifacts from which the data reported above were taken should be kept on file in the department office. If the data are taken from routine exam papers, essays, projects and other artifacts that are returned to students, the instructor’s records of the evaluations and the data workup to calculate the percentages reported as assessment data will suffice. If there are special assignments that students are asked to complete for assessment but not returned to students, these should be filed.

The department chair and faculty doing the assessment will consult on the assessment results and the closing the loop recommendations. The department chair will send the completed report form to the Office of the Vice Provost. Data will be entered in Tk20 database.

Department Chair Signature: [Signature] Date: 2/23/14