General Education Annual Course Assessment Form

Course Number/Title: Math 12 Number Systems  GE Area: B4 Mathematics

Results reported for AY 2014-2015  # of sections: 4  # of instructors: 3

Course Coordinator: Barbara Pence  E-mail: Barbara.pence@sjsu.edu

Department Chair: Bem Cayco  College: Science

Instructions: Each year, the department will prepare a brief (two page maximum) report that documents the assessment of the course during the year. This report will be electronically submitted to curriculum@sjsu.edu, by the department chair, to the Office of Undergraduate Studies, with an electronic copy to the home college by October 1 of the following academic year.

Part 1

To be completed by the course coordinator:

(1) What SLO(s) were assessed for the course during the AY?

SLO 3: Mathematical concepts courses should prepare the students to arrive at conclusions based on numerical and graphical data.

(2) What were the results of the assessment of this course? What were the lessons learned from the assessment?

Students were assessed on SLO 3 by performance in class activities as on exams and other assignments such as homework and projects. Students used estimation, mental mathematics and mathematical concepts to make sense of quantitative problems in verbal, numerical, graphical and written formats. The following problem represents the type of assignments used to estimate mastery of SLO 3.

The specific problem is attached.

Results:

The overall mean score for each instructor is as follows:

Instructor 1: For a total of 50 students, the overall mean was 89%.
Instructor 2: For a total of 24 students the overall mean was 74%.
Instructor 3: For a total of 33 students the overall mean was 74%.

Combined the cumulative result for 107 students was 81%.

(3) What modifications to the course, or its assessment activities or schedule, are planned for the upcoming year? (If no modifications are planned, the course coordinator should indicate this.)

These results are consistent with anticipated results for the first course in the sequence of mathematics for elementary teachers. The goal over the three semesters is to deepen content...
knowledge, as well as to develop mathematical maturity, and these efforts are continuous throughout the three semesters.

**Part 2**

To be completed by the department chair (with input from course coordinator as appropriate):

(3) Are all sections of the course still aligned with the area Goals, Student Learning Objectives (SLOs), Content, Support, and Assessment? If they are not, what actions are planned?

Yes, all sections of Math 12 are still aligned with the B4 area goals.

(4) If this course is in a GE Area with a stated enrollment limit (Areas A1, A2, A3, C2, D1, R, S, V, & Z), please indicate how oral presentations will be evaluated with larger sections (Area A1), or how practice and revisions in writing will be addressed with larger sections, particularly how students are receiving thorough feedback on the writing which accounts for the minimum word count in this GE category (Areas A2, A3, C2, D1, R, S, V, & Z) and, for the writing intensive courses (A2, A3, and Z), documentation that the students are meeting the GE SLOs for writing.

This does not apply to Math 12 in Area B4.
Tiles are arranged to form pictures like the ones below:

A. Fill in the following table:

<table>
<thead>
<tr>
<th>Picture Number</th>
<th>Number of Tiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>10</td>
<td>?</td>
</tr>
<tr>
<td>?</td>
<td>101</td>
</tr>
<tr>
<td>75</td>
<td>?</td>
</tr>
<tr>
<td>n</td>
<td>?</td>
</tr>
</tbody>
</table>
Two 6th graders came up with the following two formulas:

B. Kevin’s direct formula is: $T = (n \times 2) + (n \times 2) + 1$, where “n” means picture number and “T” means total number of squares. Is his formula correct? Why or why not?

C. Melanie’s direct formula is: $T = (n \times 2) +1 +(n \times 2) +1 -1$, where “n” and “T” mean the same thing as in Kevin’s formula. Is her formula correct? Why or why not?