Mathematics Discipline Meeting
Wednesday, Nov. 18, 2015
Minutes

Present: Clayton Akatsuka, Weiling Landers, Jean Okumura, Jody Storm
Excused: Navtej (Johnny) Singh

The meeting was called to order at 2:32 pm in the Mana’opono Conference Room 107.

1. The minutes of the Nov. 4, 2015 meeting were accepted as circulated.

2. Math Graduation Requirement Revision
   o Jean submitted the signed request to Curriculum Chair, Lance Uyeda on Nov. 10.
   o It is now on the discussion board.

3. Student Success Council Task Force Subcommittee on Placement Test
   o EdReady now seems to be in consideration.
   o MyMathTest is also being considered.
   o There was a question as to whether the campuses will start using the new placement tool beginning with Fall 2017 placement.

4  Developmental Math Position
   o The screening committee is going into the interview stage.

5. Math Center & Russell Uyehara – Status
   o Clayton has not yet sent Charles an email to find out what is the status of this. He will do so.
   o Since it is so late and the funds have not been used yet, Clayton will ask if the funds can be pushed to spring 2016.

6. UHCC Math Initiative
   o Kate Acks from UH Maui College indicated that many of her Math 111 students have indicated that the Math 82 was very helpful for the Praxis test that they have to take.
   o We will ask Kevin to investigate the Praxis test that Elementary Education major have to take to determine how much algebra is tested so that it can be determined if Math 82 would be a better prerequisite rather than Math 75X for Math 111.
   o Update meeting now seems to be scheduled for Dec. 15 starting at 2 pm.
   o For Fall 2016, the COMPASS test will still be used for placement. We need to be sure that the correct COMPASS cut off is used.

7. University of Texas El Paso
   o Math 1320 – Math for Social Sciences I
     ➢ Meets Graduation Requirement
     ➢ No Equivalency
     ➢ Does not fulfill FS requirement.
     ➢ Next Course – Math 100, 101, 111, 113, 135
7. University of Texas El Paso
   - Math 2301 – Math for Social Sciences II
     - Meets Graduation Requirement
     - Equivalent to Math 203
     - Fulfills FS Requirement
     - Next Course – Math 100, 101, 111, 115, 140

8. University of Maryland University College – Math 012 – Intermediate Algebra
   - Meets Graduation Requirement
   - Equivalent to Math 25
   - Does not satisfy FS Requirement
   - Next course – Math 100, 101, 103, 111, 115

9. Math 24 course Level Assessment – Weiling Landers
   - See the report attached to the minutes.
   - Weiling clarified that SLO 6 was not assesses because there was no question dealing with SLO 6 on the final exam.
   - After sharing the assessment results, it was recommended that we revise the SLOs to take out “and” as it makes it more difficult to assess. we should also reduce the number of SLOs for all our courses. Three SLOs should suffice.
   - For Math 24, we should not have an SLO on functions and the rules of exponents.
     - Functions and rules of exponents are only introduced in Math 24.
     - Functions are more thoroughly assessed in Math 103 and rules of exponents are more thoroughly assessed in Math 25.
     - The primary purpose of the rules of exponents in Math 24 was to help students to learn scientific notation that a number of science classes use. There are some science classes that have Math 24 as a prerequisite or recommended preparation.
   - In the report: Math 24 students have difficulty solving application problems. They need more time and assistance to build up skills at this level. The success rate was poor (35%) when they were rushed through that new concept. Some concepts must be repeated.
   - Issue – Are we supposed to include all students who take the final exam or only those who pass the course with a C or better?
     - According to Jan Lubin, we are supposed to include all students who take the final exam and do the selected questions.
     - However, we have been only including the students who pass the class with a C or better.
   - Another Issue – Should we use unit exams or only the final exam?
     - The final exam is supposed to show what they are leaving us with so it might be better to use embedded items from the final exam.
     - Since the final exam is cumulative, it can be overwhelming for some students so we might get a better indication of whether an SLO is met by using embedded items from a unit exam. However, there is difficulty having all instructors use one form for all the unit tests that we need to use in the assessment.

10. The meeting was adjourned at 4:22 pm. (Minutes by J. Okumura)
<table>
<thead>
<tr>
<th><strong>Individual Course Assessment Analysis (Instructor's Form)</strong></th>
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<tbody>
<tr>
<td><strong>Instructor's Assessment Form ID:</strong></td>
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<tr>
<td><strong>Status:</strong></td>
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<tr>
<td><strong>Date Completed:</strong></td>
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<td><strong>Department:</strong></td>
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<tr>
<td><strong>Discipline:</strong></td>
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<tr>
<td><strong>Course:</strong></td>
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<td><strong>Course Sections (CRNs):</strong></td>
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<td><strong>Section Property:</strong></td>
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<tr>
<td><strong>Number of Sections:</strong></td>
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<tr>
<td><strong>Course SLO:</strong></td>
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<tr>
<td><strong>Task that demonstrates this Learning Outcome:</strong></td>
</tr>
<tr>
<td><strong>Program/Degree:</strong></td>
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<tr>
<td><strong>Semester of Assessment:</strong></td>
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<tr>
<td><strong>Program SLO:</strong></td>
</tr>
<tr>
<td><strong>Connection (Program SLO):</strong></td>
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| **Course/Program SLO Matrix:** | 1. Alignment M 24 Course SLO1 vs GE SLO.docx (Math 24 SLO1 vs Program SLO)  
2. Alignment M 24 Course SLO3 vs GE SLO.docx (Math 24 SLO3 vs Program SLO)  
3. Alignment M 24 Course SLO5 vs GE SLO.docx (Math 24 SLO5 vs Program SLO)  
4. Alignment M 24 Course SLO7 vs GE SLO.docx (Math 24 SLO7 vs Program SLO)  
5. Alignment M 24 Course SLO4 vs GE SLO.docx (Math 24 SLO4 vs Program SLO)  
6. Alignment M 24 Course SLO2 vs GE SLO.docx (Math 24 SLO2 vs Program SLO) |
| **Describe the task and how it links to the Program and Course SLO:** | Embedded assessment questions in the cumulative final exam Form E.  
SLO1,#1, 2, 21, 22 of Final Exam, students identify the mathematical terminologies, symbols and write answers in appropriate symbolic forms.  
SLO2,#4,5,6,7,8, of Final Exam, students demonstrate proficiency in performing operations with rational numbers, and variable expression.  
SLO3,#10,11,13,14,23,26,27,28,24,25, students demonstrate proficiency in solving equations, inequalities and systems of equations.  
SLO4,#29,30,31,32,33, students analyze data and information, develop strategies to solve applied problems. The final answer is articulated in the context of each given problem.  
SLO5,#17,18,19,20, students use the given data/information to find slope of a line and apply it to find the equation of a line.  
SLO7, #6,12,15,16, students demonstrate proficiency in the use of the rules of exponents and its application. |
| **Connection (GenEd/AA SLO):** | Same as above. |
### Course/GenEd/AA SLO Matrix:

| SLO | 1. Alignment M 24 Course SLOs vs GE AA SLO.docx (Math 24 Course SLOs Alignment GenEd AA SLO) |

### Describe the task and how it links to the GenEd/AA and Course SLO.

- same as above.

### Tool that measures achievement of this Learning Outcome.

1. Test/Quiz
2. Rubric

### Describe how the tool links to the Common Learning Outcome Rubric.

Program Outcome Rubrics will be used.

### The following academic support labs and services were required or recommended in this course:

1. Trio
2. Supplemental Instruction
3. Math Lab

### % of Students Met Expectations:

<table>
<thead>
<tr>
<th>SLO</th>
<th>Expectations Met</th>
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<tbody>
<tr>
<td>SLO1: 21/28 = 75%</td>
<td>of the students achieve the SLO1.</td>
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<tr>
<td>SLO2: 18/28 = 64.3%</td>
<td>of the students achieve the SLO2.</td>
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<tr>
<td>SLO3: 23/28 = 82.1%</td>
<td>of the students achieve the SLO3.</td>
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<tr>
<td>SLO4: 21/28 = 75%</td>
<td>of the students correctly analyze 3 of 5 problems.</td>
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<tr>
<td>19/28 = 67.9%</td>
<td>of the students correctly solve 3 of 5 problems.</td>
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<tr>
<td>SLO5: 18/28 = 64.3%</td>
<td>of the students use data/information to find slope.</td>
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<tr>
<td>17/28 = 60.7%</td>
<td>of the students obtain the equation of a line.</td>
</tr>
<tr>
<td>SLO7: 20/28 = 71.4%</td>
<td>of the students demonstrate proficiency in operations of scientific notation numbers, which are applications of rules of exponents.</td>
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<tr>
<td>10/28 = 35%</td>
<td>of the students demonstrate proficiency in the use of rules of exponents.</td>
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### Analysis of the Assessment For the Course SLO(s):

- 19 of Students Meet or Exceed / 28 of Total Student Assessed = 67%

### Analysis of the Assessment For the Program SLO(s):

Same as above.

### What changes, if any, do you plan to make in response to the results of this assessment and your analysis to improve student learning?

1. State criteria for grading more explicitly
2. Revise activities leading up to and/or supporting assignment/activities
3. Increase student collaboration and/or peer review
4. Provide more frequent or more comprehensive feedback on student progress
5. Increase in-class discussions and activities
6. Increase guidance for students as they work on assignments
7. Ask a colleague to critique assignments/activities

### What steps can the department take to address the needs and issues revealed in your analysis?

1. Analyze course curriculum, so that the department can build a progression of skills as students advance through courses
2. Visit classrooms to provide feedback (mentoring)
3. Encourage faculty to share activities that foster competency
4. Have a collections of sample assessments, rubrics, and results
5. Other: Math 24 students have difficulties to solve application problems. They need more time and assistance to build up skills at this level. The success rate was poor 35% when they were rushed through with a new concept. Some concepts must be repeated.