

Assessment: Course Four Column

Spring/Summer 2017



El Camino: Course SLOs (MATH) - Developmental Math

ECC: MATH 12:Basic Arithmetic Skills

Course SLOs	Assessment Method Description	Results	Actions															
<p>SLO #3 Visual and Graphical Methods</p> <p>- A student completing Pre-Collegiate mathematics will use visual and graphical methods to represent and analyze information and to solve problems using non negative real numbers, including demonstrating correct ordering of values and testing reasonableness of solutions.</p> <p>Course SLO Status: Active</p> <p>Course SLO Assessment Cycle: 2016-17 (Spring 2017)</p> <p>Input Date: 11/20/2013</p> <p>Inactive Date:</p> <p>Comments::</p>	<p>Exam/Test/Quiz - Students are given a situation about money and budgeting along with a graph to represent the amount of money spent on particular categories, like food, rent, and transportation. Students use the graphs to determine the total income needed as well as the proportion used for each category.</p> <p>Actual question is attached.</p> <p>Standard and Target for Success:</p> <p>The question has 3 parts, where students answer questions with varying degree of difficulty. The rubric is a 3 point scale from 0 - 3. Students must answer all 3 parts correctly to score a 3, 2 parts for a 2, 1 part for a 1 or 0 for blank or no correct answers.</p> <p>Scores of 2 or better are considered passing.</p> <p>The goal is for at least 65% of students to score 2 or 3 on the assessment.</p> <p>Additional Information:</p>	<p>Semester and Year Assessment Conducted: 2016-17 (Spring 2017)</p> <p>Standard Met? : Standard Met</p> <p>There were 15 sections of Math 12 in Spring, 2017. All of the classes participated which represented 290 students participated in the SLO. Scores were as follows:</p> <table><tr><th>Score</th><th>Number</th><th>Percent</th></tr><tr><td>0</td><td>26</td><td>9.00%</td></tr><tr><td>1</td><td>56</td><td>19.30%</td></tr><tr><td>2</td><td>61</td><td>21.00%</td></tr><tr><td>3</td><td>147</td><td>50.70%</td></tr></table> <p>We met our objective as 71.7% of students scored 2 or 3 on the SLO. Overall the instructors were pleased with the results. They believed that real life situations and practicing them in class helped the students succeed. They also noted that the difficulty in this problem was the wording, and especially when they were asked to compare the the proportion of income spent for each category. (09/09/2017)</p> <p>% of Success for this SLO:</p> <p>Faculty Assessment Leader: Anna Hockman</p> <p>Faculty Contributing to Assessment: A. Avila, A. Bojkov, M. Cortez, A. El-Abyad, D. Ford, A. Gizaw, L. Hinckley, T. Hoang, T. Malouf, A. Minasian, A. Pham, A. Ovanessian, M. Ryan, M. Tucker, C. Yang</p> <p>Related Documents:</p>	Score	Number	Percent	0	26	9.00%	1	56	19.30%	2	61	21.00%	3	147	50.70%	<p>Action: Encourage Math 12 instructors to develop and share real life application problems or worksheets, especially those involving graphs, and reading graphs from online or print sources. Set up a repository for teaching materials that can be shared with future Math 12 instructors, who can also add additional materials. (09/09/2018)</p> <p>Action Category: Teaching Strategies</p> <p>Follow-Up: A Dropbox folder has been created and filled with sample notes, worksheets, and activities for Math 12. This folder has been shared with all the Math 12 instructors who taught the course in Spring, 2017, are currently teaching the course in Fall, 2017 and members of the Developmental Math committee. All instructors are encouraged to add additional materials and use the shared materials. Folder has</p>
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0	26	9.00%																
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	Related Documents: MATH 12 Basic Arithmetic Skills SLO3 Spr17.pdf Math 12 SLO Spr 17 Practice WS.pdf	SLO Report Spr 17.pdf	also been shared with the Dean and Associate Dean so that future Math 12 instructors can also have access to the folder. (11/21/2017)

ECC: MATH 23:Pre-Algebra

Course SLOs	Assessment Method Description	Results	Actions
<p>SLO #3 Visual and Graphical Methods</p> <p>- Students will be able to use visual or graphical methods to solve linear equations and problems involving geometry and measurement.</p> <p>Course SLO Status: Active</p> <p>Course SLO Assessment Cycle: 2016-17 (Spring 2017)</p> <p>Input Date: 01/21/2014</p> <p>Inactive Date:</p> <p>Comments::</p>	<p>Exam/Test/Quiz - Use the equation $y = -x + 3$</p> <p>A) To fill in the table below. B) Graph the points and draw the line obtained from part A onto a Cartesian graph C) Is (4, 7) a solution to the given equation? You must show how you determined your answer.</p> <p>Standard and Target for Success: Grading Rubric (0 – 3 points): 0 to those students who left the problem blank or gave no relevant information, and 1 point each for parts A, B, and C.</p> <p>The target for success: Two out of three points is considered a passing grade. The goal for this SLO is for 70% of students to obtain two out of three points based on the above rubric.</p> <p>Additional Information:</p> <p>Related Documents: MATH 23 SLO 2017.docx</p>	<p>Semester and Year Assessment Conducted: 2016-17 (Spring 2017)</p> <p>Standard Met? : Standard Met</p> <p>Passed the SLO AND passed the course: 67% (200students) Passed the SLO but failed the course: 13% (41students)</p> <p>Failed the SLO but passed the course: 13% (41students) Failed the SLO and failed the course: 12% (40students)</p> <p>A total of 352 students were assessed, but only 322 are evaluated in this report. One instructor did not complete the evaluation protocols properly so those students are excluded in this evaluation.</p> <p>In summary, 80% of students passed the SLO. The goal is for 70% of students to pass the SLO, so this goal was achieved. Three times the number of students passed this SLO as failed it. These results were very encouraging. This suggests graphing of linear functions is a strong outcome for students enrolled in prealgebra. Of the students who passed the course (241), 83% of them are progressing to the subsequent math course in the developmental math sequence with an understanding of evaluating and graphing simple linear functions. Simple linear functions is a prerequisite for elementary algebra. This is strong evidence that students are prepared to continue their study of linear functions in elementary algebra. (09/22/2017)</p> <p>% of Success for this SLO:</p> <p>Faculty Assessment Leader: Art Martinez</p> <p>Faculty Contributing to Assessment: R. Zambrano, A. Bojkov, R. Caldwell, D. Fanneli, M. Formanes, L. Hinkley, H. Carrie, R. Matsuno, S. Azzam, O. Villareal, M. Granich</p>	<p>Action: The results of this data will be shared with the instructors of Math 23 for Fall 2017. This topic appears to be a strength in the course and may allow instructors to seek out more challenging sections for time allocation. (09/22/2018)</p> <p>Action Category: Teaching Strategies</p>

ECC: MATH 37:Basic Accelerated Mathematics

Course SLOs	Assessment Method Description	Results	Actions
<p>SLO #3 Visual and Graphical Methods - A student will be able to use visual and graphical methods to represent and analyze information and to solve problems, with an emphasis on linear graphs.</p> <p>Course SLO Status: Active Course SLO Assessment Cycle: 2016-17 (Spring 2017) Input Date: 02/26/2015 Inactive Date: Comments::</p>	<p>Exam/Test/Quiz - The assessment instrument consisted of a written question providing student with information about a car lease. Students were provided with an advertisement piece that contained the key terms of the lease; including the monthly payment, the initial payment to start the lease, the length of the lease and the manufacturer's suggested retail value of the car. Additionally, students were also provided with a linear graph representing the total cost of leasing the car as a function of the number of months on the lease. Student were then asked various questions to assess their level of comprehension over the financial transaction.</p> <p>Standard and Target for Success: Our target for success was to have at least 70% of students achieve a score of 2 or 3 with the rubric below.</p> <p>Rubric: Score of 3: The student answered 5 or 6 parts correctly Score of 2: The student answered 3 or 4 parts completely correct, Or The student make a small arithmetic error that resulted in wrong answers but the student demonstrated a strong understanding of linear equations Score of 1: Students answered 1 or 2 parts completely correct, but all other parts of the question were</p>	<p>Semester and Year Assessment Conducted: 2016-17 (Spring 2017) Standard Met? : Standard Not Met In the Spring 2017 semester a total of 114 students across 9 separate course sections took this assessment and the resulting scores are as follows; 38 earned a score of 3, 39 earned a score of 2, 31 earned a 1, and 6 students earned a score of 0</p> <p>The results were just shy of reaching our established target. Of the 114 students to took the assessment a combined total of 77 students earned a score of 2 or 3, resulting in a 67.5% satisfactory score frequency rate; 3 students short of reaching our goal.</p> <p>Instructor comments:</p> <p>1) If your students did well, what did you do that you think ensured their success?</p> <ul style="list-style-type: none"> • Since we had just finished covering this from their packet, a lot of the students still remembered the material. Most of them did really well on reading data from the graph. I think this is because we worked on that skill throughout the semester. • Hard work, paying attention and sticking around for the entire class • In both cases I believe that emphasis on Round packet activities, especially round 3 and round 6, played a big role in the students understanding of the slope and reading graphs in general. <p>2) If your students didn't do well, what do you think should be done to ensure the best chances for success on this type of problem?</p>	<p>Action: The results of the assessment will be shared with the Math 37 instructors from both the Spring 2017 semester, as well as, the current Fall 2017 semester. The results of this assessment will be used by the Math 37 faculty to guide a review of the course content in an effort to establish if any changes to either the course content, or the way such content is presented are merited. (09/15/2018)</p> <p>Action Category: SLO/PLO Assessment Process</p>

<i>Course SLOs</i>	<i>Assessment Method Description</i>	<i>Results</i>	<i>Actions</i>
	<p>either left blank or contained conceptual inconsistencies that illustrate that the student doesn't have a full grasp of the mathematical principals at work within the topic of linear equations.</p> <p>Score of 0: The student did not answer any part of the question correctly</p> <p>Additional Information:</p> <p>Related Documents:</p> <p>math 37 slo spring 2017.docx</p>	<ul style="list-style-type: none"> Rules set down for removing students who don't do the first part. A lot of them were still preparing for earlier exams. Ask a question from earlier in the course or include it in something given during Exam 6 – use different questions if necessary. Also, attendance was terrible in the last 2 weeks of the class so that led to only a small sample (and my class was small to begin with) <p>It was a struggle this year to keep the students focused on doing the round packets after they realized that passing the tests was the most important aspect that affected their final grade. Van and I covered these round packets but we both had attendance issues in our lecture classes.</p> <p>(09/15/2017)</p> <p>% of Success for this SLO:</p> <p>Faculty Assessment Leader: Eduardo Barajas and Alice Martinez</p> <p>Faculty Contributing to Assessment:</p> <p>Related Documents:</p> <p>math 37spring 2017data.xlsx</p>	

ECC: MATH 40:Elementary Algebra

Course SLOs	Assessment Method Description	Results	Actions
<p>SLO #3 Visual and Graphical Methods</p> <p>- Students will be able to use graphical methods to represent linear and quadratic relations as well as systems of linear relations and to find solutions to linear and quadratic equations, as well as solve systems of linear equations.</p> <p>Course SLO Status: Active</p> <p>Course SLO Assessment Cycle: 2016-17 (Spring 2017)</p> <p>Input Date: 11/20/2013</p> <p>Inactive Date:</p> <p>Comments::</p>	<p>Exam/Test/Quiz - Solve the system of equations by graphing. If there is no solution or an infinite number of solutions, state this.</p> <p>$y = -1/4 x + 1$ $x + y = 4$</p> <p>Grading rubric:</p> <p>Score of 3: Student graphed both equations successfully, and correctly stated the point of intersection.</p> <p>Score of 2: Student graphed both equations successfully, but was unable to correctly state the point of intersection OR student graphed one graph incorrectly, but did state the point of intersection correctly.</p> <p>Score of 1: Student graphed one equation incorrectly and did not state the point of intersection correctly OR student graphed both graphs incorrectly.</p> <p>Score of 0: Student left the question blank OR gave no relevant information.</p> <p>Standard and Target for Success: It is expected that 70% of the students score a 2 or a 3 on this assessment.</p> <p>Additional Information:</p>	<p>Semester and Year Assessment Conducted: 2016-17 (Spring 2017)</p> <p>Standard Met? : Standard Met</p> <p>Nineteen out of twenty sections participated in the SLO assessment which represents 534 students</p> <p>47 students or 9% scored a 0 91 students or 17% scored a 1 130 students or 24% scored a 2 266 students or 50% scored a 3</p> <p>74% of the students assessed scored a 2 or a 3 therefore the target for success was met. Half of the students assessed were able to solve the system of equations using the graphing method. Another 24% were able to graph one or both equations correctly but stated the point of intersection incorrectly. Many instructors mentioned that the students who were unsuccessful on this SLO missed class often and did not complete homework assignments.</p> <p>Some suggestions to improve the SLO results from instructors included providing a related activity to complete in groups during class, explain the process of solving the problem to other group members, have students work problems on the board, and to relate the problem to a real life situation. (09/09/2017)</p> <p>% of Success for this SLO:</p> <p>Faculty Assessment Leader: Susanne Bucher</p> <p>Faculty Contributing to Assessment: Morales, E, Eldanaf, D, Ovanessian, A, Meyer, T, Hamza, H, Forbes, J, Bucher, S, Nguyen, H, Saakian, L, Martinez, S, Hoang, A, Gill, J, Tesfom, M</p>	<p>Action: Provide related activities to complete in groups during class and have group members explain the process of solving the problem to other group members. Encourage students to complete homework problems and attend class. (09/09/2018)</p> <p>Action Category: Teaching Strategies</p> <p>Follow-Up: All Math 40 instructors received the SLO report via email and were asked to try some of the suggested actions. Work sheets that were created were also attached to the email sent out to Math 40 instructors. (09/05/2018)</p>

ECC: MATH 60:Elementary Geometry

Course SLOs	Assessment Method Description	Results	Actions
<p>SLO #3 Visual and Graphical Methods</p> <p>- Students will be able to construct geometric shapes using the compass and straightedge.</p> <p>Course SLO Status: Active</p> <p>Course SLO Assessment Cycle: 2016-17 (Spring 2017)</p> <p>Input Date: 11/20/2013</p> <p>Inactive Date:</p> <p>Comments::</p>	<p>Exam/Test/Quiz - Students will be given an obtuse triangle and will be asked to construct an altitude for the given triangle. The altitude will be constructed from one of the acute angles of the triangle.</p> <p>Standard and Target for Success: It is expected that 75% of all students will receive an Excellent or Satisfactory on the SLO.</p> <p>Additional Information:</p>	<p>Semester and Year Assessment Conducted: 2016-17 (Spring 2017)</p> <p>Standard Met? : Standard Not Met</p> <p>Data from 4 out of 5 sections of Geometry was submitted to the Assessment Leader (Sections 0310, 0314, 0316, 0320). The rubric for this SLO is attached. Results were as follows: 126 students attempted the SLO. 68/126 (53.9%) scored a 3, 19/126 (15.1%) scored a 2, and 39/126 (30%) scored a 1. No students scored 0.</p> <p>69% of the students met the standard.</p> <p>The previous time this was assessed, only 65 students completed the SLO and this time, there were 126 students completing the SLO. This is almost double the number of students completing the SLO and the overall average went up (previously, 66% passed and in Spring 2017, 69% passed). This may be due to information being provided to instructors before Week 3 of the semester to allow them time to plan accordingly for assessment. Whereas this is an improvement from the last time this SLO was assessed, the standard has still not yet been met. (09/14/2017)</p> <p>% of Success for this SLO:</p> <p>Faculty Assessment Leader: Susie Tummers Stocum</p> <p>Faculty Contributing to Assessment: S. Tummers Stocum, A. Ovanessian, C. Watson</p> <p>Related Documents:</p> <p>Ma60-SLO#3-Rubric-Sp17.docx</p>	<p>Action: Faculty Assessment Leader will encourage teachers of Geometry to consider various assessments for constructions using compass and straightedge. An activity or two that focus on constructions will be circulated as a means to encourage teachers of Geometry to give students ample practice with this concept. (09/14/2018)</p> <p>Action Category: Teaching Strategies</p> <p>Follow-Up: The construction activities were not emailed out during the Spring semester. However, due to the Faculty Assessment Leader teaching 3 of the 4 Geometry courses this semester, 75% of Geometry students completed these activities. At the beginning of the Fall 2018 semester, Faculty Assessment Leader will email out two construction activities as a means to encourage teachers to allow students to practice constructions using compass and straightedge. (05/31/2018)</p>

ECC: MATH 67:General Education Algebra

<i>Course SLOs</i>	<i>Assessment Method Description</i>	<i>Results</i>	<i>Actions</i>
<p>SLO #3 Visual and Graphical Methods</p> <p>- Students will use visual and graphical methods to represent, analyze and solve contextualized problems involving authentic, real-world data.</p> <p>Course SLO Status: Active</p> <p>Course SLO Assessment Cycle: 2016-17 (Spring 2017)</p> <p>Input Date: 11/20/2013</p> <p>Inactive Date:</p> <p>Comments::</p>	<p>Exam/Test/Quiz - The assessment is an SLO Quiz with several problems corresponding to different SLO's. Problem 2 on the quiz was used for SLO#3. See attached.</p> <p>Standard and Target for Success: It is expected that 70% of students will score 2 or better. The scale is 3-correct (excellent), 2-mostly correct (satisfactory), 1-some correct (less than satisfactory), 0-nothing correct.</p> <p>Additional Information:</p> <p>Related Documents:</p> <p>Math 67 SLO Quiz</p>	<p>Semester and Year Assessment Conducted: 2016-17 (Spring 2017)</p> <p>Standard Met? : Standard Met</p> <p>We have the results from five sections. Of the 123 students, 91 students (74%) passed the SLO and passed the course, 5 students (4%) passed the SLO, but not the course, 14 students (11%) did not pass the SLO, but passed the course and 13 students (11%) passed neither the SLO nor the course. A total of 96 students passed the SLO for a success rate of 78%. This SLO assessment involved reading a fairly complicated graph (Stature-to-Age percentiles for girls, age 2-20) and answering a variety of questions. (See attached quiz under related documents) (06/09/2017)</p> <p>% of Success for this SLO:</p> <p>Faculty Assessment Leader: Susan Taylor</p> <p>Faculty Contributing to Assessment: Sue Bickford, Lars Kjeseth, Beth Schwartz, Susan Taylor</p> <p>Related Documents:</p> <p>SLO Quiz11S17.pdf</p>	<p>Action: We need support for the teachers who are teaching the course for the first or second time. This is a non-traditional course and faculty development is vital to the continued success of the students. We would like to make it mandatory to attend weekly meetings with experienced teachers and have these teachers be compensated for their time. (09/13/2018)</p> <p>Action Category:</p> <p>Program/College Support</p>

ECC: MATH 73:Intermediate Algebra for General Education

Course SLOs	Assessment Method Description	Results	Actions
<p>SLO #3 Visual and Graphical Methods</p> <p>- Students will use visual and graphical methods to represent, analyze and solve contextualized problems.</p> <p>Course SLO Status: Active</p> <p>Course SLO Assessment Cycle: 2016-17 (Spring 2017)</p> <p>Input Date: 11/20/2013</p> <p>Inactive Date:</p> <p>Comments::</p>	<p>Exam/Test/Quiz - An article in the LA Times from March 2016 reported that Lake Shasta, California's largest reservoir, in Northern California had exceeded its average height. The following graph displays the Normal Historical Volume and the Actual Current Volume in the reservoir from March 2015 to March 2016.</p> <p>(See attached)</p> <p>Use the information in the graph to find each of the following:</p> <p>(i) In August 2015, the reservoir was approximately how many acre-feet below average?</p> <p>(ii) Approximately how much water was in the reservoir when the current level reached the normal historical average?</p> <p>(iii) Determine the average rate of change per month (slope) in the Current Storage from August 2015 to March 2016.</p> <p>Grading Rubric:</p> <p>0 – No understanding: No relevant information or problem left blank.</p> <p>1 – Some understanding: One part answered correctly.</p> <p>2 – Most understanding: Two parts answered correctly</p> <p>3 – Complete understanding: Three parts answered correctly.</p>	<p>Semester and Year Assessment Conducted: 2016-17 (Spring 2017)</p> <p>Standard Met? : Standard Not Met</p> <p>461 Students participated in this SLO assessment.</p> <p>Results:</p> <p>Score 0 – No understanding (23 students) : 12%</p> <p>Score 1 – Some understanding (50 students): 23%</p> <p>Score 2 – Most understanding (68 students): 34%</p> <p>Score 3 – Complete understanding (119 students): 31%</p> <p>65.5% of students scored 2 or 3 on the assessment and therefore, we did not meet the standard of success for the SLO. Results by section: out of 15 sections responding to this SLO, 8 reported that their class did not meet expectations, while 7 sections report that their class did meet expectations. Hence, 46.7% of section instructors report success.</p> <p>Student difficulties:</p> <ol style="list-style-type: none"> 1. Even when the topic was emphasized in class, some students struggle with interpretation of the data and instructions 2. Reading a graph of real data 3. Using appropriate units <p>Instructor suggestions for improvement include:</p> <ol style="list-style-type: none"> 1. Encourage more practice outside of class (complete homework) 2. More in class discussion, particularly in a timely fashion when the assessment is soon to be presented 3. Similar examples (graphics) presented in class for discussion 4. Having full participation from all students as the less engaged were less likely to perform well 	<p>Action: Overall: Instructors note that additional student practice of all forms is the best way to improve performance in the future. Classwork and discussion is suggested so that interpretations may be considered and presented amongst students individually or in groups. Participation by students in these activities is important.</p> <p>Action: Include more examples in class and in homework. Discuss vocabulary (e.g. rate of change means slope) and design activities which require participation in discussion. It might also help for instructors to rephrase the questions to suit the individual class sections and instructor's vocabulary. (09/15/2018)</p> <p>Action Category: Teaching Strategies</p>

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Standard and Target for Success:

Expected/desired standard of success: at least 75% with most or complete understanding.

Additional Information:

Related Documents:

[M73 Spring 2017 SLO.docx](#)

[M73 SLO Assessment results and Analysis Spring 17.docx](#)

Suggested actions:

1. Include more examples in class and in homework. Discuss vocabulary (e.g. rate of change means slope) and design activities which require participation in discussion.
2. It might also help for instructors to rephrase the questions to suit the individual class sections and instructor's vocabulary.

(09/15/2017)

% of Success for this SLO:

Faculty Assessment Leader: Dominic Fanelli

Faculty Contributing to Assessment: C Andrade, M Bateman, Z Dammena, M Formanes, M Granich, J Kasabian, S Martinez, J Ng, K Numrich, J Ortiz, L Saakian, G Tadele, L Wang

ECC: MATH 80:Intermediate Algebra for Science, Technology, Engineering, and Mathematics

Course SLOs	Assessment Method Description	Results	Actions
<p>SLO #3 Visual and Graphical Methods</p> <p>- Students will be able to use visual and graphical methods to represent, analyze and solve problem involving linear, quadratic, polynomial, rational, absolute value, radical, exponential, logarithmic functions, conic sections, linear and nonlinear systems of equations. Students will also be able to solve such functions and equations using graphical methods.</p> <p>Course SLO Status: Active</p> <p>Course SLO Assessment Cycle: 2016-17 (Spring 2017)</p> <p>Input Date: 11/20/2013</p> <p>Inactive Date:</p> <p>Comments::</p>	<p>Exam/Test/Quiz - Students were asked to use graph transformations to graph a function.</p> <p>Consider the function $f(x) = - x-2 +3$</p> <p>(a) Graph the parent function $y = x$</p> <p>(b) Use graph transformations to graph $f(x)$ from its parent function.</p> <p>(c) Use your graph to determine the domain and range of $f(x)$</p> <p>Standard and Target for Success:</p> <p>The students were assessed according to the following rubric:</p> <p>0 –No understanding (Left problem blank or wrote irrelevant math)</p> <p>1 –Some understanding (If a student is able to graph the parent function and have some progress in the graph transformations, ie perhaps successfully identifying the graph transformations, or correctly starting the transformations they should receive 1 point)</p> <p>2 –Most understanding (If a student is able to graph the parent function and successfully use the graph transformations to construct the new graph but they are unable to determine the domain or range they should receive 2 points)</p>	<p>Semester and Year Assessment Conducted: 2016-17 (Spring 2017)</p> <p>Standard Met? : Standard Met</p> <p>515 students were assessed scoring as follows:</p> <p>54 students scored a 0, 97 students scored 1 ,159 students scored a 2, 205 students scored a 3</p> <p>This meant that $364/515 \sim 71\%$ of students passed the assessment with a score of 2 or 3.</p> <p>Thus our standard was met.</p> <p>Below are a collection of quotes/comments concerning this SLO:</p> <p>M.M. Did your students meet your expectations on this SLO? Why or why not?</p> <p>11 of 16 students received a 2 or 3 on the assessment. I think this meets a reasonable expectation for Math 80.</p> <p>Most of the students that didn't earn a 2 or 3 did so because they rushed and, rather than plotting points, drew a graph that they thought was $f(x) = x$ but was instead $f(x) = x^2$. Even with a wrong graph of the parent function, most still were able to translate the graph correctly. Most were also able to give the domain and range of the function that they drew.</p> <p>What teaching methods / strategies did you find particularly effective with regards to this assessment?</p> <p>I think breaking down the translations and reflection into several steps works well. I show how the students to perform each change to the graph individually and then we go over how to incorporate them all into one graph. This seems to work well to get them to translate graphs correctly. Also familiarizing them with the parent functions is important. As mentioned above, several students rushed and drew a parabola for the parent graph without plotting points or knowing the proper graph to start from.</p>	<p>Action: Considering how important this topic is and how our students have so far done well we would like to raise the success rate to 73% for the next sequence. (09/24/2018)</p> <p>Action Category: SLO/PLO Assessment Process</p>

Course SLOs	Assessment Method Description	Results	Actions
	<p>3- Complete understanding (If a student is able to graph the parent function, successfully use the graph transformations to construct the new graph and are able to determine the domain and range they should receive 3 points)</p> <p>Our goal was that 65% of the students should score a 2 or a 3.</p> <p>Additional Information:</p>	<p>How might you consider improving the student learning of this assessed topic in the future?</p> <p>I think more practice with recognition of what the parent functions look like would help. I tell the students that if they don't remember what these graphs look like on an exam, they can plot points and sketch through. However, for $f(x) = x$ and $f(x) = x^2$, $x = -1, 0$, and 1 all have the same outputs. So rather than plot additional points, they guess. The graphing of the actual translations seems to be understood by most students. For the domain and range, more visuals would be helpful.</p> <p>E.B. I used Desmos.com to illustrate how the function can be transformed</p> <p>A.S. Overall the result is good since 76% of the students scored a 2 or 3.</p> <p>What worked: I went over the graph of special functions and transformation on function and finding the domain and the range from the graph about 3 hours in class, which correspond to sections 2.5, 2.6 , a study guide was given to practice for the test, worksheet class activity was given for each section, and I did two problems similar to the SLO question during the review session the day before the test. Even though 76% is a satisfactory result but , next time I will warn the students on reading and working the problems both on study guide and worksheet activity carefully and assigned extra problems on the study guide for them to practice at home.</p> <p>C.B. I try and explain why adding a number directly to x in the equation moves the graph in the opposite direction from what they expect. I give them the equation $5=x$, which has the obvious solution of $x=5$) and ask them to add 3 to the x, replacing x with $x+3$. This results in $5= x + 3$. I then ask what the solution to this new equation is and whether it goes up or down.</p> <p>E.N. I will spend more time on the topic. I will mainly focus</p>	

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on the changes on the coordinates when graphing using the transformation.

B.L. I did more examples in class and we talked through many others.

(09/24/2017)

% of Success for this SLO:

Faculty Assessment Leader: Ben Mitchell

Faculty Contributing to Assessment: C. Schult Roman, M. Bateman, R. Sibner, A Seyedin, J. Cohen, P. Yun, L. Ho, E. Barajas, M. Mata, E. Morales, E. Ndoumnna, C. Broderick, G. Fry, R. Lewis, A. Sheynsteyn