

# Assessment: Course Four Column

SPRING/SUMMER 2015



## El Camino: Course SLOs (MATH) - Pre-Engineering

### ECC: ENGR 1: Intro to Engineering

Course SLO	Assessment Method Description	Assessment Data & Analysis	Actions
<p><b>SLO #2 Apply Academic Success Strategies</b> - Assess the cognitive skills and apply academic success strategies related to the study of engineering.</p> <p><b>Course SLO Status:</b> Active</p> <p><b>Course SLO Assessment Cycle:</b> 2014-15 (Spring 2015), 2016-17 (Spring 2017)</p> <p><b>Input Date:</b> 11/21/2013</p>	<p><b>Essay/Written Assignment -</b></p> <p>Students are directed to write a one page assessment of their cognitive skills, which they will utilize in their chosen Engineering discipline, which may include: remembering, understanding, applying, analyzing, evaluating, and creating. Also, they will write about applying their academic success strategies related to the study of Engineering, which include: structuring their life to minimize distractions, setting goals, working collaboratively with other students, making effective use of their professors, making a commitment to their study, and communicating to family and friends about their academic priorities. If a student wrote what was irrelevant to the question, the student earned a score of 0. If the student did not write about any intellectual skills, but wrote about at least one of the academic success skills, the student earned a score of 1. If the student wrote about two</p>	<p><b>Semester and Year Assessment Conducted:</b> 2014-15 (Spring 2015)</p> <p><b>Standard Met? :</b> Standard Met</p> <p>No students (0%) earned a score of 0, while just 1 student (3%) earned a score of 1. There were 5 students (17%) who earned a score of 2 and 23 students (79%) who earned a score of 3, out of a total of 29 students. Thus, 96% (those scoring 2 or 3) were successful at assessing cognitive skills and applying success strategies related to the study of Engineering. (05/20/2015)</p> <p><b>Faculty Assessment Leader:</b> Jody Hamabata</p> <p><b>Faculty Contributing to Assessment:</b> Milan Georgevich</p>	<p><b>null.courseAction:</b> The instructor will direct students to discuss cognitive skills and apply academic success strategies related to the study of Engineering, in pairs during class time. (05/20/2016)</p> <p><b>Action Category:</b> Teaching Strategies</p>

<i>Course SLO</i>	<i>Assessment Method Description</i>	<i>Assessment Data &amp; Analysis</i>	<i>Actions</i>
-------------------	--------------------------------------	---------------------------------------	----------------

levels of intellectual skills and one academic success strategy, the student earned a score of 2. If a student wrote about more than two levels of intellectual skills and more than one academic success strategy, the student earned the maximum score of 3.

**Standard and Target for Success:** It is expected that 80% of the students are successful, that is score 2 or 3 for the assignment.

## ECC: ENGR 9:Engr Mechanics - Statics

<i>Course SLO</i>	<i>Assessment Method Description</i>	<i>Assessment Data &amp; Analysis</i>	<i>Actions</i>
<p><b>SLO #2 Use Diagrams to Solve Problems</b> - Draw diagrams and determine distributed forces, shear forces, and moments in beams.</p> <p><b>Course SLO Status:</b> Active</p> <p><b>Course SLO Assessment Cycle:</b> 2014-15 (Spring 2015), 2016-17 (Spring 2017)</p> <p><b>Input Date:</b> 11/21/2013</p>	<p><b>Exam/Test/Quiz</b> - Students are directed to draw the shear and bending moment diagrams for a beam shown in a figure provided. Then they are to determine the shear and moment at the middle of the beam. Students who drew incorrect shear and moment diagrams, or wrote nothing, earned a score of 0, corresponding to "no understanding", while students who drew the shear diagram correctly, but not the moment diagram, earned a score of 1, which corresponded to "some understanding". Scores of 0 or 1 corresponded to students being unsuccessful. Students in the "most understanding" category completed the problem correctly, but did not label axes and constructed incorrect scales, earned a score of 2. Those students in the "complete understanding" category completed the problem with no errors and earned the maximum score of 3. Scores of 2 and 3 correspond to students being successful at this SLO.</p> <p><b>Standard and Target for Success:</b> The target for success was 90%, since Engineering 9 is an advanced course for a Community College, requiring both a Physics and Calculus II prerequisite.</p>	<p><b>Semester and Year Assessment Conducted:</b> 2014-15 (Spring 2015)</p> <p><b>Standard Met?</b> : Standard Not Met</p> <p>Two students (6%) scored 0, exhibiting "no understanding", while 5 students (14%) scored 1, which corresponds to "some understanding". There were 16 students (46%) who scored 2, corresponding to "most understanding", while 12 students (34%) scored 3, which corresponds to "complete understanding". Thus, 80% of the students were successful at this SLO. Though this success rate is fairly high, it did not meet the 90% target. Reasons for this are that students were unable to draw appropriate diagrams, did not label properly, and did not use correct scales. (05/21/2015)</p> <p><b>Faculty Assessment Leader:</b> Jill Evensizer</p> <p><b>Faculty Contributing to Assessment:</b> Milan Georgevich</p>	<p><b>null.courseAction:</b> The next time that Engineering 9 will be taught, the instructor intends on emphasizing short cuts, which will help students in not getting bogged down with doing far more work than is necessary. In addition, the instructor will stress the importance of drawing neat, properly labeled diagrams, with correct scales. (05/21/2016)</p> <p><b>Action Category:</b> Teaching Strategies</p>