Course SLO Assessment Report - 4-Column

El Camino College

El Camino: Course SLOs (NSC) - Physics

Course SLOs 1 and ctu.unitid = 774	Assessment Methods & Standard and Target for Success / Tasks	Results	Action & Follow-Up
ECC: PSCI 25 - Exploring Physical Sciences - SLO#1 Applying Relevant Principles - Students can identify the physical principles which are relevant in a given physical situation (floating object, falling object...) and explain how these principles are manifested in, and influence the behavior of a described physical situation. **Course SLO Assessment Cycle:** 2014-15 (Fall 2014) **Input Date:** 11/08/2013 **Course SLO Status:** Active	**Assessment Method Description:** Students are given a quiz consisting of two questions. Question 1 is in three parts and question 2 in two parts. Each student will be graded on each part of each question. Each part of each question will be graded on a scale of between 0 and 1. (SLO#1_PSCI25_Sp_14_QUIZ.pdf) **Assessment Method:** Exam/Test/Quiz **Standard and Target for Success:** Students will earn a score of 50% or better. **Related Documents:** SLO#1_PSCI25_Sp_14_QUIZ.pdf	12/20/2014 - See attached. (Assessment Data and Analysis_SLO#1_PSCI 25 .docx) ASSESSMENT OF DATA AND ANALYSIS PHYSICAL SCIENCE 25 The SLO quiz which was given to the class consisted of two questions. Question 1 was in three parts and question 2 was in two parts. The questions were conceptual in nature and required the use of relevant physical principles in order to arrive at the correct answer. The following criteria were used to grade each part of each question: Question 1: This question required the students to apply Newton's 1st and 2nd laws to a series of three different scenarios involving different sets of horizontal forces and how they affect the motion of a cart. Each question was graded using the following factors: • Was the correct numerical value found for the net force? • Was the net force vector drawn with the correct length and direction in the new force diagram? • Based on the direction of the net force and the direction of motion of the cart, was the correct state of motion (speeding up, slowing down, etc) found? • Was the new arrow describing the motion of the cart a short time later accurate? For example, a cart that is speeding up should have a longer motion arrow; slowing down, a shorter arrow. Question 2: This question required student understanding of not only Newton's 2nd law, but of how the force of gravity affects objects moving vertically at different points in time. Each question was graded using the following factors: • Does the force of gravity appear in the force diagram? • Is the length of the force of gravity vector the same in both parts? (Same length means same strength) • Is the force of the hand acting on the ball only present where it should be? (when the ball is being caught) • Is the length of the force of the hand acting on the ball larger than that for the force of gravity? Is it pointing in the correct direction needed to stop the ball? • Is the direction of the arrow depicting the motion of the ball correct in each case?	12/20/2014 - Students' understanding of Newton's First Law of Motion is satisfactory. Students' understanding of Newton's Second Law of Motion is also satisfactory. It would be useful to have a more complete SLO assessment in order to test students' understanding of other basic concepts such as the conservation of mass. **Action Category:** Teaching Strategies

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		A total of 28 students took the SLO quiz. Each part of each question was worth a total of 1 point. Each student was given a grade of between 0 and 1 for each part of each question. Over half the class gave satisfactory answers to the each part of each question. All students gave at least partially correct answers for all questions. **Standard Met? :** Yes **Semester and Year Assessment Conducted:** 2014-15 (Fall 2014) **Faculty Assessment Leader:** Kyle Stohmaier **Faculty Contributing to Assessment:** Kyle Stohmaier. Susana Prieto **Related Documents:** Assessment Data and Analysis_SLO#1_PSCI 25 .docx	