

Course-Level Student Learning Outcome (SLO) Assessment Plan

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Division/Department: Math & Physics Division

Course to be assessed for SLOs in Fall 2010: MTH 127

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1. What student learning outcomes (SLOs) will you assess in Fall 2010? Please identify at least 2 course goals (CG), relevant general education goals (GEG), and/or applicable program goals (PG) from your ECC Course Outline SLO Assessment Summary Sheet.
 - SLO #1: CG 1: Demonstrate knowledge of the fundamental concepts and theories from pre-calculus, calculus, and introductory ordinary-differential equations.
 - SLO #2: CG 2: Utilize various pre-calculus, calculus, and introductory differential equation problem-solving and critical-thinking techniques to set up and solve applied problems in finance, economics, geometry, sciences, and other fields.
 2. For each SLO given above, what assessment methods (rubrics, assignments, tests, classroom assessment techniques, portfolios, surveys, etc.) will you implement in Fall 2010 to gather evidence of student learning related to the outcome? Identify each type of assessment method included below in your lists – direct (D) or indirect (I)? student learning outcome (SLO), process (P), input (In), or context (C)? summative (S) or formative (F)? qualitative (QL) or quantitative (QN)? Objective (Obj) or subjective (Subj)?

Assessment methods to be used to assess SLO #1 and #2:

- (1) All questions on the tests and the cumulative final exam given in MTH 127 are blue-printed to measurable course performance objectives (MPOs). The results will be analyzed to determine the extent of student mastery of each MPO. This assessment method is D, SLO, S, QN, and Obj.
- (2) Prior to each test, students will complete surveys, which ask them about their preparation for the test, issues they have with mathematics, and their perception of their mastery of skills to be tested. This assessment method is I, P, S, QN, and Subj.

3. For each SLO given above, identify *when* each assessment method will be used in the course in Fall 2010; e.g., draw up a timeline for the course which indicates when every SLO assessment method named above will be used throughout the semester (Week 1 – Week 16).

Timeline for all assessment methods:

(a) **Tests** are to be given on the following dates in Fall 2010: 09/24/10, 10/08/10, 10/26/10, 11/09/10, 11/23/10, and 12/10/10. The **Final Exam** is to be given on 12/16/10.

(b) The **surveys** are always given one day prior to each scheduled test.

4. How many sections of the course or how many students will be involved in using these assessment instruments and collecting SLO assessment data in Fall 2010? Please identify your sample size by number of classes (sections of the course) or number of students. (REMEMBER: A 5% error margin in your analysis is ensured if you sample 278 out of 1000 students, 217 out of 500 students, 184 out of 350 students, 132 out of 200 students, 80 out of 100 students, or 44 out of 50 students. – taken from p. 48 of *Assessing Student Learning: a common sense guide*, 2nd edition by Linda Suskie)

1 section of MTH 127 in Fall 2010, with an initial enrollment of 38 students, will be involved in data collection.

5. Using ~~representative-random~~ sampling, which sections or which students will be involved in using these assessment instruments and collecting SLO assessment data in Fall 2010?

Susan Gaulden

Section 001