**Course-Level Student Learning Outcomes (SLO) Assessment Plan**

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Division/Department: Math & Physics

Course to be assessed for SLOs in Spring 2011: MTH 086

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1. What student learning outcomes (SLOs) will you assess in Spring 2011? Please identify at least 2 (total) chosen from the following: course goals (CG), general education goals (GEG) for which the course has been ‘affirmed’ by GECC, 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 arithmetic, algebra and geometry.

1. For each SLO given above, what assessment method**s** (rubrics, assignments, tests, classroom assessment techniques, portfolios, surveys, etc.) will you implement in Spring 2011 to gather evidence of student learning related to the outcome? Please make sure to vary the types of assessment methods you choose to include the following: direct (D) & indirect (I); process (P), input (In) & context (C); summative (S) & formative (F); qualitative (QL) & quantitative (QN); Objective (Obj) & subjective (Subj)

Assessment method**s** to be used to assess SLO #1 & #2: Blueprint the midterm and final exam multiple choice exams questions to the MPOs for course goal #1.

Midterm: Assess MPO 1.1, 1.2, 1.5 and 3.1

Final: Assess MPO 1.1 through 1.9

Administer a survey to faculty to gather information about online homework systems (if used), if homework is graded, and what percentage the homework grade contributes to the final grade. This will be an online survey. Student success rates and MPO achievement in sections that include a homework grade versus those sections that do not include a homework grade in the final grade calculation will be compared.

The impact that class size has on MPO achievement will be examined. This will be done on the final exam only. Data collection will include sections that had the recommended number of students (24 or less) and sections with more than the recommended number of students so that the outcomes may be compared.

Note: Results from the exams and the survey will be summarized with a Scan Tron machine.

1. For each SLO given above, identify *when* each assessment method will be used in the course in Spring 2011; 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 15).

SLO #1 Assessment Proposed Timeline 🡪 Midterm Exam – week of 2/27/2011; Student Survey – week of 3/6/2011; Final Exam – week of 4/13/2011

1. How many sections of the course or how many students will be involved in using these assessment instruments and collecting SLO assessment data in Spring 2011? 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)

There are 49 sections of MTH 086 offered during the regular spring term of 2011. A total of 1,225 students are registered for these sections. Keeping in mind the suggested sample size to ensure a 5% margin of error, 300 students are needed in the sample. Since attrition is expected, 14 sections will be selected with a total of 368 students registered. These sections represent sections taught by full-time faculty and adjunct faculty, during the day and during the evening, and on the Main Campus and the West Essex Campus.

1. Using representative random sampling, which sections or which students will be involved in using these assessment instruments and collecting SLO assessment data in Spring 2011?

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| --- | --- | --- | --- | --- | --- |
| Section | # of Students | Instructor | Full-time (F) Adjunct (A) | Day (D) Evening (E) | Main (M)  West Essex (W) |
| 002 | 31 | Matthew Turner  mzmatt@hotmail.com | A | D | M |
| 005 | 30 | James Freeman  jfree23\_15@hotmail.com | A | D | M |
| 008 | 24 | Ines Figueiras  ifigueir@essex.edu | F | D | M |
| 017 | 24 | Ming McCall  mccall@essex.edu | F | D | M |
| 018 | 26 | Abraham Shaban  abeshaban@aol.com | A | D | M |
| 019 | 30 | John Bottger  bottgeru@aol.com | A | D | M |
| 025 | 22 | Anthony Bevilacqua  a.m.bevilacqua@earthlink.  net | A | D | M |
| 039 | 17 | Barbara Satterwhite  satterwhite@essex.edu | F | D | M |
| 0AC | 29 | Magdy Hanna  magdyhnn@hotmail.com | A | E | M |
| 0JC | 24 | N. Constantine-Guy  nconstan@essex.edu | A | E | M |
| B01 | 24 | Douglas Platt  douglasmplatt@optonline.  net | A | D | M |
| CW3 | 30 | Taran Alexander | A | D | W |
| CW4 | 35 | Nataliya Chentsova  nchentsova@yahoo.com | A | D | W |
| CWC | 22 | Anthony Pompeii  antajp@aol.com | A | E | W |
| **Total:** | **368** |  |  |  |  |

**Summary of Sections Surveyed:**

* Day students: 293 (80%)

Evening students: 75 (20%)

* Taught by full-time faculty: 65 (18%)

Taught by adjuncts: 303 (82%)

* Sections offered at the main campus: 281 (76%)

Sections offered at the West Essex campus: 87 (27%)