

## Mathematical Ways of Knowing Unit Assessment Document

**Goal/Outcome:** *Students will meet the General Education Learning Outcomes for Mathematic Ways of Knowing*

### Objective A

Students will read, interpret, and communicate mathematical concepts (GELO 1)

- Assessment Method- Assessment Committee will review the results for 100% of the quizzes.
- Benchmark- 75% of students will meet or exceed end-of-course expectations
- Data Sources- Instructor supplied quizzes that will be assessed by an assessment committee. According to the schedule below, samples will be collected from general education classes in the fall semester and assessed in the spring semester. All samples will be assessed.
- Relevant Dates- Spring 2016- Math 123, Math 253; Spring 2017- Math 147, Math 147B, 170; Spring 2018- Math 157/257, Math 130, Math PT 130, Math PT 137

### Objective B

Students will be able to represent and interpret information/data (GELO 2)

- Assessment Method- Assessment Committee will review the results for 100% of the quizzes.
- Benchmark- 75% of students will meet or exceed end-of-course expectations
- Data Sources- Instructor supplied quizzes that will be assessed by an assessment committee. According to the schedule below, samples will be collected from general education classes in the fall semester and assessed in the spring semester. All samples will be assessed.
- Relevant Dates- Spring 2016- Math 123, Math 253; Spring 2017- Math 147, Math 147B, 170 ; Spring 2018- Math 157/257, Math 130, Math 130 and 130PT

### Objective C

Students will be able to select, execute and explain appropriate strategies/procedures when solving mathematical problems. (GELO 3)

- Assessment Method- Assessment Committee will review the results for 100% of the quizzes.
- Benchmark- 75% of students will meet or exceed end-of-course expectations
- Data Sources- Instructor supplied quizzes that will be assessed by an assessment committee. According to the schedule below, samples will be collected from general

education classes in the fall semester and assessed in the spring semester. All samples will be assessed.

- Relevant Dates- Spring 2016- Math 123, Math 253; Spring 2017- Math 147, Math 147B, 170 ; Spring 2018- Math 157/257, Math 130, Math 130 and 130PT

## Objective D

Students will be able to apply quantitative reasoning to draw appropriate conclusions and support them. (GELO 4)

- Assessment Method- Assessment Committee will review the results for 100% of the quizzes.
- Benchmark- 75% of students will meet or exceed end-of-course expectations
- Data Sources- Instructor supplied quizzes that will be assessed by an assessment committee. According to the schedule below, samples will be collected from general education classes in the fall semester and assessed in the spring semester. All samples will be assessed.
- Relevant Dates- Spring 2016- Math 123, Math 253; Spring 2017- Math 147, math 147B, 170; Spring 2018- Math 157/257, Math 130, Math 130 and 130PT

## Explanatory Notes:

**Introduction:** The Math General Education Assessment Team would like to assess all GELO's every year as the GELO's are linked and are most easily assessed as a unit. The following is a brief summary of summary of the team's thought process when making decisions about the assessment plan.

**Assessment Method:** The team is developing an assessment quiz for each course that represents the ability of students to not only do the mathematical manipulations but also to apply the GELO's to the problem presented in the quiz. The quiz topic will be one that is relevant to the course in question and will be unique to each course. All sections of a given course will be using the same quiz. The quiz for Math 123 and Math 130 will be developed prior to Fall 15, so that it can be easily implemented on time.

**Data Sources:** Each Fall, the quizzes for the courses to be assessed will be provided to the assessment team. All quizzes will be assessed. Statistics done by the math faculty have demonstrated that analyzing any proportion of the quizzes, rather than all of them, could result in either over-estimation or under-estimation of the student's actual abilities. The assessment will take place during the Spring semesters.

**Relevant Dates:** Since we are assessing every GELO in every course, it was decided to look at specific courses on a rotating basis.