**Assessment Data Mathematical, Information and Computer Sciences**
**Foundational Education: Mathematics (OUS)**
**2025-26**

**Learning Outcome:** 1e. Quantitative Reasoning: Students will be able to solve problems that are quantitative in nature.

Components of this outcome as defined by the department:

- Students will be able to formulate a mathematical model from a verbal description of a problem.
- Students will be able to solve non-routine problems using logic and quantitative techniques.
- Students will be able to construct solutions to problems using computational techniques.

**Outcome Measure:** Problems placed on the final exam (this is measured on an alternating year cycle).
MAT1013 College Algebra (measured odd numbered fall)
MAT1093 Basic Statistics (measured odd numbered spring)

Note that all classes use the same learning outcomes even if the problems used to measure those outcomes are different. Because it is a life skill, all classes spend some time on financial mathematics (loans, interest and credit cards) in a manner appropriate for the skill level of the students in the class.

**Criteria for Success:** Average score of 2.5 or higher for each problem. Note since the class sizes are small this data comes from assessing all students. It is anticipated that as the courses grow, the data will come from a random sample of the students in each section of each course.

Scale Used:

0 Unsatisfactory - Completely Incorrect
1 Low Satisfactory - Missed more than one key concept or step
2 Satisfactory - Missed one key concept or step
3 High Satisfactory - Made a minor error
4 Outstanding - Completely correct

MICS: PLO DATA- Foundational ED Mathematics OUS, 2025-2026
**Longitudinal Data:**

| | | Students will be able to formulate a mathematical model from a verbal description of a problem. | Students will be able it solve non-routine problems using logic and quantitative techniques. | Students will be able to construct solutions to problems using computational techniques. |
|---|---|---|---|---|
| MAT1013 | Fall 2023 | 2.33 | 3.23 | 2.77 |
| MAT1013 | Fall 2024 | N/A | 2.54 | 3.00 |
| MAT1013 | Fall 2025 | 3.45 | 2.93 | 3.39 |
| | | | | |
| MAT1093 | Spring 2023 | 3.00 | 1.00 | 2.00 |
| MAT1093 | Spring 2024 | 2.88 | 2.06 | 2.13 |
| MAT1093 | Spring 2025 | 2.86 | 3.30 | 3.00 |

**Conclusions Drawn from Data:** The first three times that the assessment was administered (Spring 2023, Fall 2023, Spring 2024), the sample sizes for these classes were very small which leads to a large standard deviation in the results. The MAT1093 class in the spring of 2023 had only two students complete the final exam, so it is hard to interpret that data. The MAT1013 classes have been larger. The MAT1013 class in Fall 2024 had 13 students take the final, the MAT1093 class in the spring of 2025 had 15 students and the MAT1013 class in Fall 2025 had 15 students take the final, so the data is a bit more reliable. The recent data indicates that the students are meeting our benchmarks.

**Changes to be Made Based on Data:** Continue to watch the data and look for trends.

MICS: PLO DATA- Foundational ED Mathematics OUS, 2025-2026

**Rubric Used**

General Education Mathematics Rubric

| | Unsatisfactory (0) | Low Satisfactory (1) | Satisfactory (2) | High Satisfactory (3) | Outstanding (4) |
|---|---|---|---|---|---|
| Students will be able to formulate a mathematical model from a verbal description of a problem. | Completely incorrect | Missed more than one key step or concept | Missed one key step or concept | Made a minor error | Completely correct |
| Students will be able to solve non-routine problems using logic and quantitative techniques. | Completely incorrect | Missed more than one key step or concept | Missed one key step or concept | Made a minor error | Completely correct |
| Students will be able to construct solutions to problems using computational techniques. | Completely incorrect | Missed more than one key step or concept | Missed one key step or concept | Made a minor error | Completely correct |