

## Course-Level Assessment Report Course: MATH 1302 College Algebra Academic Year: Fall 2021- Spring 2022





1. Name of course:	MATH 1302 College Algebra	
2. Name of individual(s) compiling report:	Shelley Hanson	
3. Date of submission:	<u>September 14, 2022</u>	
4. Academic year:	_Fall 2021- Spring 2022	
Course-Level Learning Outcomes		

## 1. What are the Course-Level Outcomes (CLOs)?

CLO #1: The Student will demonstrate the ability to perform and solve basic function operations and algebraic problems using appropriate vocabulary.

CLO #2: The student will demonstrate critical thinking to formulate decisions and problem solving based on reasoning and analysis.

CLO #3: The student will demonstrate the appropriate use of technology to supplement and enhance conceptual understanding, visualization and inquiry.

CLO #4: The student will demonstrate the ability to synthesize information from a variety of sources to solve problems and interpret results.

#### 2. Which CLOs were addressed for the academic year?

All 4 CLOs were addressed for the academic year Fall 2021- Spring 2022.

# 3. Which CLOs are being addressed in your assessment plan in the upcoming academic year?

All 4 CLOs will be addressed in the assessment plan in the academic year Fall 2022- Spring 2023.

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## 4. How does this report connect or map to program-level or institutional-level outcomes?

College Algebra maps to The General Education Program Learning Outcome #2.

**2) Reason Quantitatively:** Apply mathematical methods using symbolic, graphical, numerical, and written representations to solve problems using modeling and/or general problem solving processes, and use appropriate technology to construct or analyze quantitative data to draw conclusions about the reasonableness of the results.

Supporting Courses:

MATH 1302 – College Algebra

College Algebra maps to the Institutional Level Outcome # 5.

#### 5. Use quantitative methods to solve problems. (Quantitative Reasoning)

This may include the ability to:

- Analyze and interpret quantitative information.
- Apply quantitative concepts and skills to solve real world problems.

For each Course Level Outcome assessed this academic year, please complete the chart below, providing the assessment data for both fall and spring, and then a total for the academic year.

Assessment Methods- How did	Students across all sections completed a common
you assess student learning (define	comprehensive final exam. Questions were linked to
direct assessment methods used)	specific course learning outcomes. Item analysis was
in relation to the course level	performed to determine proficiency.
outcome being reported?	



Were indirect assessment methods also used to assess students? If 'yes', please describe the method used.		No	
How do you define success for an individual student on the CLO assessment assignment or measure?	Student scores 70% on the questions linked to the CLO		
How do you define success for the course level outcome? What is the benchmark for the Course Level Outcome?	70% of students in the course achieve success on the CLO assessment assignment or measure		
How many students completed the assessment, and how many were successful?	Fall 2021 CLO 1 426 students assessed 385 successful (90% success rate) CLO 2 426 students assessed 375 successful (88% success rate) CLO 3 426 students assessed 385 successful (90% success rate) CLO 4 426 students assessed 353 successful (83% success rate)	Spring 2022 CLO 1 323 students assessed 286 successful (89% success rate) CLO 2 323 students assessed 279 successful (86% success rate) CLO 3 323 students assessed 279 successful (86% success rate) CLO 4 323 students assessed 261 successful (81% success rate)	



Academic Year Total (add the	CLO 1	
numbers from Fall and Spring)	749 students assessed	
	671 successful	
	(90% success rate)	
	CLO 2	
	749 students assessed	
	654 successful	
	(87% success rate)	
	CLO 3	
	749 students assessed	
	664 successful	
	(89% success rate)	
	CLO 4	
	749 students assessed	
	614 successful	
	(82% success rate)	
Was the honohmark/agal for this	Vac	
academic vear met?	105	
Were standardized rubrics, tests,	Yes	
or checklists used?	25 Question Multiple	
	Choice Test with each	
	question tied to a	
	CLO.	

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## 5. What is your analysis of the findings?

For CLO #1: The Student will demonstrate the ability to perform and solve basic function operations and algebraic problems using appropriate vocabulary. The students passed the 70% threshold with a 90% success rate. This is expected since this CLO is mainly the Remember and Understand levels of Bloom's Taxonomy.

For CLO #2: The student will demonstrate critical thinking to formulate decisions and problem solving based on reasoning and analysis. The students passed the 70% threshold with an 87% success rate. Even though this CLO is higher on Bloom Taxonomy (Apply) the students still were very successful.

For CLO #3: The student will demonstrate the appropriate use of technology to supplement and enhance conceptual understanding, visualization and inquiry. The students passed the 70% threshold with an 89% success rate. More and more the students are improving with this CLO. The main technology use that we use in this course is the TI-84 calculator. Students that are newly graduated from high school have been using this calculator for several years.

For CLO #4: The student will demonstrate the ability to synthesize information from a variety of sources to solve problems and interpret results. The students passed the 70% threshold with an 82% success rate. There are only 2 questions tied to this CLO on our exam. Question 7 with a 68% pass rate and Question 25 with a 93% pass rate. Question #7 is concerning and will be evaluated. It is expected that this would be our lowest pass rate CLO since it is associated with the Synthesize level of Bloom's Taxonomy.

When looking at the picture as a whole for MATH 1302 College Algebra the success on the Final Exam (Assessment) is well above the success threshold of 70% that we have set for this course. Also, our retention level this past academic school year was high. (90% for fall and j92% for Spring) However, it is concerning that our Pass Rate (A, B, or C) is much lower than these numbers. The pass rates for this last academic year were 60% in fall and 72% in spring. This is telling us that many students are not completing the semester/ taking the final exam as well as not dropping the course. They are opting to make an F in the course instead of a W. This result is having a negative effect on several student grade point averages and instructor success rates.

6. What is the action plan for the upcoming academic year? Explain.



Our plan for the upcoming year is to meet to discuss how to encourage our students to stay on task through the end of the semester. We will come up with ideas to encourage better course completion.

We also plan to discuss creating new assignments that will introduce more application problems for our learning outcomes. This will help our students to better learn how to apply their algebraic knowledge to real life situations.

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