

**Degree: MS Mathematics**  
2023-2024 Assessment Plan

	<b>Student Learning Outcome #1</b>	Mathematical knowledge: Each graduate student completing the MS Program will demonstrate a high level of mathematical proficiency in three or more areas of mathematics.
<b>PLAN</b>	<b>Assessment Method(s)</b>	Students will demonstrate breadth of knowledge in 3 of the 4 core areas (analysis, algebra, topology, complex analysis) by earning a C or better in a course in that area.
	<b>Proficiency</b>	A student will be deemed proficient in each of the three areas if they earn a C or better in the course.
<b>DO</b>	<b>Benchmark</b>	100% of graduating students will be proficient in mathematical knowledge, with 80% earning a B or higher in all three core courses.
	<b>Results of Assessment</b>	100% of students met this benchmark
<b>S T U D Y</b>	<b>Analysis of Results</b>	This student learning outcome is not a good programmatic assessment and will be replaced for 2024-2025.

<b>ACT</b>	<b>Improvement Plan for 2024-2025</b>	<p>We understand that course grades are not an adequate measure of mathematical proficiency. At a faculty meeting on 9/19/2024, faculty discussed adjusting this assessment method to more adequately measure student content knowledge in ways that do not rely on grades. We will be looking for new ways to gather artifacts from these courses.</p>
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	<b>Student Learning Outcome #2</b>	Oral communication competency - each graduate student will demonstrate competency in oral communication skills in mathematics.
<b>PLAN</b>	<b>Assessment Method(s)</b>	Student's oral skills will be assessed during the defense of their thesis or an oral examination over coursework. A panel of three faculty members will evaluate their oral communication skills using a rubric.
	<b>Proficiency</b>	A student will be deemed proficient if they have an average score 6.5 or higher (out of 9) on the oral presentation rubric, with no score below 5 from any panelist.
<b>DO</b>	<b>Benchmark</b>	90% of students will be deemed proficient with no score below 5 from any panelist.
	<b>Results of Assessment</b>	100% of students met this benchmark
<b>S T U D Y</b>	<b>Analysis of Results</b>	This student learning outcome is not a good programmatic assessment and will be replaced for 2024-2025.

<b>ACT</b>	<b>Improvement Plan for 2024-2025</b>	<p>Starting in 2024-2025, students will be assessed on their oral presentation competency scores in at least four required classes for their program. These skills will be assessed by their instructor and their results will be added to their file. By graduation, all students will have to have proven their competency in oral communication (a score of 6.5 or higher out of 9) in at least three courses.</p>
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	<b>Student Learning Outcome #3</b>	Oral communication content knowledge - each graduate student will orally demonstrate content knowledge in mathematics.
<b>PLAN</b>	<b>Assessment Method(s)</b>	Student's content knowledge will be assessed during the defense of their thesis or an oral examination over coursework. A panel of three faculty members will evaluate their oral communication skills using a rubric.
	<b>Proficiency</b>	A student will be deemed proficient if they have an average score 6.5 or higher (out of 9) on the oral presentation rubric, with no score below 5 from any panelist.
<b>DO</b>	<b>Benchmark</b>	90% of students will be deemed proficient with no score below 5 from any panelist.
	<b>Results of Assessment</b>	100% of students met this benchmark.
<b>S T U D Y</b>	<b>Analysis of Results</b>	This student learning outcome is not a good programmatic assessment and will be replaced for 2024-2025.

<b>ACT</b>	<b>Improvement Plan for 2024-2025</b>	<p>Starting in 2024-2025, students will be assessed on their oral presentation knowledge with scores in at least four required classes for their program. These skills will be assessed by their instructor and their results will be added to their file. By graduation, all students will have to have proven their content knowledge in oral communication (a score of 6.5 or higher out of 9) in at least three courses.</p>
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	<b>Student Learning Outcome #4</b>	Scholarly work – written competency – student’s written communication skills will be assessed by the progression of their thesis or other written submissions.
<b>PLAN</b>	<b>Assessment Method(s)</b>	A panel of three faculty members will assess the student’s written thesis according to a rubric.
	<b>Proficiency</b>	A student will be deemed proficient if they have an average score 6.5 or higher (out of 9) on the oral presentation rubric, with no score below 5 from any panelist.
<b>DO</b>	<b>Benchmark</b>	100% of graduating students will be deemed proficient.
	<b>Results of Assessment</b>	100% of students met this benchmark.
<b>S T U D Y</b>	<b>Analysis of Results</b>	Students who progress to the defense of their thesis are well-guided by their advisors to complete a well-written thesis.

<b>ACT</b>	<b>Improvement Plan for 2024-2025</b>	<p>This student learning outcome is a goal of our program since we want out students to present well-written theses, but we are exploring other ways of measuring a similar goal.</p>
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	<b>Student Learning Outcome #5</b>	Scholarly work – written communication of content knowledge – student’s written communication of mathematical knowledge will be assessed by the progression of their thesis or other written submissions.
<b>PLAN</b>	<b>Assessment Method(s)</b>	A panel of three faculty members will assess the student’s written thesis according to a rubric.
	<b>Proficiency</b>	A student will be deemed proficient if they have an average score 6.5 or higher (out of 9) on the oral presentation rubric, with no score below 5 from any panelist.
<b>DO</b>	<b>Benchmark</b>	100% of graduating students will be deemed proficient.
	<b>Results of Assessment</b>	100% of our students met this benchmark.
<b>S T U D Y</b>	<b>Analysis of Results</b>	Students who progress to the defense of their thesis are well-guided by their advisors to complete a mathematically correct thesis.

<b>ACT</b>	<b>Improvement Plan for 2024-2025</b>	<p>This student learning outcome is a goal of our program since we want out students to present mathematically correct theses, but we are exploring other ways of measuring a similar goal.</p>
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	<b>Student Learning Outcome #6</b>	Students are satisfied with the mathematical knowledge they received from the program.
<b>PLAN</b>	<b>Assessment Method(s)</b>	Exit survey.
	<b>Proficiency</b>	Students indicate that they are somewhat satisfied, satisfied, or extremely satisfied with the program based on an exit survey.
<b>DO</b>	<b>Benchmark</b>	70% of students indicate that they are somewhat satisfied, satisfied, or extremely satisfied with the program.
	<b>Results of Assessment</b>	No data collected – this survey will be piloted in Fall 2024.
<b>S T U D Y</b>	<b>Analysis of Results</b>	No data collected

<b>ACT</b>	<b>Improvement Plan for 2024-2025</b>	Design and implement exit survey and collect data for 2024-2025.
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