

Academic Year 2025-2026

BA in Mathematics - BA-MTHA Learning Outcomes

Written communication - content knowledge **MET**

MEASURES	RESULTS	ACTIONS
Content Knowledge - groups Two samples will be gathered from Math 3350 students of written work. These may be taken from any in-class assessment and must directly involve content knowledge new to this course. Samples will be scored on the content knowledge rubric and students are expected to score a 6 or higher (out of 9). Direct - Portfolio Modern Algebra - Groups: MATH 3350 Target At least 70% of graduating students will have an average score of 6 or higher on the content knowledge rubric for two sampled problems in Math 3350. correctness of proof rubric.docx	MET Content Knowledge - groups Exceeded Met Approached 0%100% Exceeded: 27% Met: 55% Approached: 18% Met Total: 82% Not Met Total: 18% Analysis Samples showed inconsistent performance between two selected problem types, which indicates many students are continuing to struggle with proofs overall, though they have mastered some of the content.	Revise Curriculum IN PROGRESS The department will form a working group to determine what the main ideas are for this course, to make sure that we are consistently assessing this measure on similar problem-types across semesters (similar content and difficulty) so that we can measure progress in this area. Recommended Due Date: 12/31/2026
Content knowledge - analysis Direct - Portfolio Analysis I: MATH 4325 Target Two samples will be gathered from Math 4325 students of written work. These may be taken from any in-class assessment and must directly involve content knowledge new to this course. Samples will be scored on the content knowledge rubric and 70% of students are expected to score a 7 or higher (out of 9). correctness of proof rubric.docx	MET Content knowledge - analysis Exceeded Met Approached 0%100% Exceeded: 44% Met: 33% Approached: 22% Met Total: 78% Not Met Total: 22% Analysis We met this target, but not with a large enough margin to consider any adjustments without more data collection. Since this course is offered only once per year, we'll continue to gather data.	Revise Curriculum IN PROGRESS The department will form a working group to determine what the main ideas are for this course, to make sure that we are consistently assessing this measure on similar problem-types across semesters (similar content and difficulty) so that we can measure progress in this area. Recommended Due Date: 08/01/2026

General Outcome Actions

ACTIONS

Revise Curriculum

Not Started

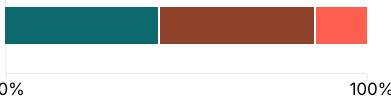
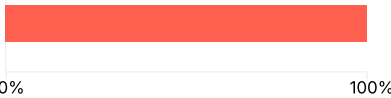
The department will form a working group to determine what the main ideas are for this course, to make sure that we are consistently assessing this measure on similar problem-types across semesters (similar content and difficulty) so that we can measure progress in this area.

Recommended Due Date: 12/31/2026

Conclusion

For both Math 3350 and Math 4325, the department will form working groups to determine what the main ideas are for this course, to make sure that we are consistently assessing this measure on similar problem-types across semesters (similar content and difficulty) so that we can measure progress in this area.

Written communication - growth **NOT MET**

MEASURES	RESULTS	ACTIONS										
Proof Growth to Groups Direct - Portfolio <i>Intro to Advanced Mathematics: MATH 3322</i> Target 70% of students will show growth in proof writing between the beginning of Math 3322 and the end of Math 3350. They will show a measure of 2 or above on the growth rubric. indication of growth rubric.docx	NOT MET Proof Growth to Groups Exceeded Approached Not Met  <table><tr><td>Exceeded:</td><td>43%</td></tr><tr><td>Approached:</td><td>43%</td></tr><tr><td>Not Met:</td><td>14%</td></tr><tr><td>Met Total:</td><td>43%</td></tr><tr><td>Not Met Total:</td><td>57%</td></tr></table> Analysis One student did not complete 3350 (though they started the course) so their artifact was missing. Additionally, several students were stable in their proof-writing and/or did not show significant improvement. This is a new outcome for us, so it we are still exploring how to best standardize this measurement (which type of problem do we select from 3322 and which from 3350 to indicate whether or not a student is improving?).	Exceeded:	43%	Approached:	43%	Not Met:	14%	Met Total:	43%	Not Met Total:	57%	Revise Curriculum IN PROGRESS The department will form a working group to determine what the main ideas are for these courses, to make sure that we are consistently assessing this measure on similar problem-types across semesters (similar content and difficulty) so that we can measure progress in this area. Recommended Due Date: 12/31/2026
Exceeded:	43%											
Approached:	43%											
Not Met:	14%											
Met Total:	43%											
Not Met Total:	57%											
Proof Growth to Analysis Direct - Portfolio <i>Intro to Advanced Mathematics: MATH 3322</i> Target 70% of students will show growth in proof writing between the beginning of Math 3322	NOT MET Proof Growth to Analysis Not Met  Values are not shown when too close to each other. Click or use arrow keys to see details.	Gather Additional Data Not Started This is a new outcome, so we don't yet have a cohort who has completed both 3322 and 4325 - we expect to have this data next year. Recommended Due Date: 06/01/2027										

and the end of Math 4325. They will show a measure of 3 or above on the growth rubric.	Not Met: 100%	
	Met Total:	
	Not Met Total: 100%	

General Outcome Actions

ACTIONS
Gather Additional Data Not Started Gather info as the cohort works its way through the program. Recommended Due Date: 06/01/2027

Conclusion

We need to standardize which content we are analyzing between 3322 and 3350/4325. We are also waiting for the first cohort to work its way through this sequence and then we will consistently have growth data to analyze.

Oral Communication - Math 3322 MET

MEASURES	RESULTS	ACTIONS
Oral communication - content knowledge Each student will be required to present at least one solution in Math 3322. The top score shall count as their score on the presentation rubric for the course. Direct - Presentation <i>Intro to Advanced Mathematics: MATH 3322</i> Target 80% of students completing Math 3322 will score a 7 or higher on the oral presentation rubric.	MET Oral communication - content knowledge Exceeded Met Not Met  0% 100% Exceeded: 43% Met: 43% Not Met: 14% Met Total: 86% Not Met Total: 14% Analysis We are missing data from Fall 2025. During spring 2026, 6/7 students either met or exceeded expectations in terms of their oral expression of content knowledge in Intro to Advanced Math. These students were able to communicate effectively, though sometimes with content misunderstandings, about mathematics.	Gather Additional Data IN PROGRESS We will continue to gather data for this measure as this is a new, and we don't yet have sufficient data to draw significant conclusions. We will reevaluate after next year's data collection. Recommended Due Date: 06/01/2027
Oral Communication - growth	MET Oral Communication - growth	Gather Additional Data IN PROGRESS

<i>Intro to Advanced Mathematics: MATH 3322</i> Target At least 80% of students will show growth according to the oral communication growth rubric. This will be indicated by a score of 2 or higher on the growth rubric.	ExceededMetApproached 0%100% Exceeded: 50% Met: 33% Approached: 17% Met Total: 83% Not Met Total: 17% Analysis We are missing data from Fall 2025. During Spring 2026, 83% of the students either excelled throughout or showed significant improvement in the presentation and oral communication skills as the semester progressed.	Reiterate to faculty the importance of oral presentations and providing student scores (we are missing the data for fall 2025). Once we gather artifacts for a couple of consecutive years, we can evaluate the standard more accurately. Recommended Due Date: 06/01/2027
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Conclusion

Continue to measure since this is an updated assessment standard and is taught by many different faculty.

Oral Communication - problem solving **MET**

MEASURES	RESULTS	ACTIONS
Oral communication - problem solving Direct - Presentation <i>Problem Solving: MATH 4307</i> Target All students taking Math 4307 will be required to present their solution to a new problem and 80% will score a 7 or higher on the oral presentation rubric. oral communication - problem solving.docx	MET Oral communication - problem solving ExceededMet 0%100% Values are not shown when too close to each other. Click or use arrow keys to see details. Exceeded: 83% Met: 17% Met Total: 100% Not Met Total: Analysis Students were able to communicate effectively about problems addressing content from across the undergraduate mathematics curriculum, including discussing/sharing multiple approaches to the same problem. Students communicate the mathematics effectively.	Gather Additional Data IN PROGRESS Gather additional data from another 1-2 years before deciding on any changes to the curriculum/approach, especially since several faculty rotate through this course. Recommended Due Date: 06/01/2028

General Outcome Actions

ACTIONS
Revise Curriculum Not Started Extend this requirement/expectation to more students and turn this into a true capstone course. Recommended Due Date: 06/01/2028

Conclusion

Students are meeting this measure. We are seeking to extend this requirement to more students as a capstone class.

Program Efficacy

Use an exit interview to assess student satisfaction with program.

MEASURES	RESULTS	ACTIONS
Program Satisfaction Indirect - Survey Target 80% of students complete the exit survey. At graduation, 80% of respondents indicate that they are satisfied with the program.	<i>No results have been added.</i>	<i>No actions have been added.</i>
Employment/Grad School Enrollment Indirect - Survey Target 80% of graduates respond to a survey at one-year check in. At one-year check-in, 80% of respondents indicate that they are in graduate school or employed in a math-related career.	<i>No results have been added.</i>	<i>No actions have been added.</i>

Success on Teacher Certification Content Exam

Students seeking teaching certification will successfully complete their content exam.

MEASURES	RESULTS	ACTIONS
LU Certification Exam Direct - Exam (Certification or Licensure)	<i>No results have been added.</i>	<i>No actions have been added.</i>

Target 80% of students will successfully complete their LU certification exam.		
State Certification Exam Direct - Exam (Certification or Licensure) Target 80% of students will successfully complete their state mathematics certification exam.	<i>No results have been added.</i>	<i>No actions have been added.</i>