

Academic Year 2025-2026

MS in Computational and Quantitative Methods - MS-MCQM Learning Outcomes

Statistical Knowledge MET

At least 80% of students will demonstrate excellent knowledge of statistical concepts by successfully completing selected problems in Math 5381 or Math 5300.

MEASURES	RESULTS	ACTIONS
Stat Knowledge - Advanced Stat Methods Direct - Portfolio Adv Statistical Methods: MATH 5381 Target Two samples of written work will be gathered from Math 5381 students. 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).	MET Stat Knowledge - Advanced Stat Methods Exceeded Met Approached 0%100% Exceeded:15% Met:69% Approached:15% Met Total:85% Not Met Total:15% Analysis Only 2 students did not meet the goal for this measured activity, while 11 students met or exceeded this standard. We therefore met our goal of at least 80% of students demonstrated excellent knowledge of statistical concepts.	Gather Additional Data IN PROGRESS Continue to measure as this is a new program Recommended Due Date: 05/31/2027
Stat Knowledge - Regression Direct - Portfolio Regression Analysis: MATH 5300 Target Two samples of written work will be gathered from Math 5300 students. 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).	NOT MET Analysis This course was not offered in AY 2025-2026	No actions have been added.

General Outcome Actions

ACTIONS
Gather Additional Data Not Started Continue to measure as it's a new program. Recommended Due Date: 05/31/2027

Conclusion

Only one of these were able to be measured this year as the other course was not offered in our rotation. Therefore, students met the standard in the available course.

Analytical Knowledge **NOT MET**

At least 80% of students will demonstrate excellent knowledge of statistical concepts by successfully completing selected problems in Math 5383 or Math 5382.

MEASURES	RESULTS	ACTIONS
Analytic Knowledge - Predictive Analysis Direct - Portfolio Predictive Analytics: MATH 5383 Target Two samples of written work will be gathered from Math 5383 students. 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).	NOT MET Analytic Knowledge - Predictive Analysis Met Approached 0%100% Met:75% Approached:25% Met Total:75% Not Met Total:25% Analysis 75% of the students met the standard in this measure, which is just short of our goal of 80% meeting or exceeding this standard.	Gather Additional Data IN PROGRESS Continue to measure this as this is a new program Recommended Due Date: 05/31/2027
Analytic Knowledge - Time Series Analysis Direct - Portfolio Time Series Analysis: MATH 5382 Target Two samples of written work will be gathered from Math 5382 students. 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).	NOT MET Analysis This was not offered in AY 2025-2026	No actions have been added.

General Outcome Actions

ACTIONS

Gather Additional Data

Not Started

Continue to measure as this is a new program

Recommended Due Date: 05/31/2027

Conclusion

Only one of these courses met during AY 2025-2026, and 75% of the students in the one course that was offered met or exceeded the standard, which is below our goal of 80%

Knowledge of Advanced Machine Learning MET

At least 80% of students will demonstrate excellent knowledge of statistical concepts by successfully completing selected problems in Math 5384.

MEASURES	RESULTS	ACTIONS								
AML - mid semester sample Direct - Assignment <i>Advanced Machine Learning: MATH 5384</i> Target A sample of written work will be gathered from Math 5384 students around mid term. This 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).	MET AML - mid semester sample Met Approached  0% 100% <table><tr><td>Met:</td><td>80%</td></tr><tr><td>Approached:</td><td>20%</td></tr><tr><td>Met Total:</td><td>80%</td></tr><tr><td>Not Met Total:</td><td>20%</td></tr></table>	Met:	80%	Approached:	20%	Met Total:	80%	Not Met Total:	20%	Gather Additional Data IN PROGRESS This was the first time this course was offered - we will continue to gather data for the next course offering. Recommended Due Date: 05/31/2028
Met:	80%									
Approached:	20%									
Met Total:	80%									
Not Met Total:	20%									
AML - end of course Direct - Assignment <i>Advanced Machine Learning: MATH 5384</i> Target A sample of written work will be gathered from Math 5384 students near the end of the course. This 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).	MET AML - end of course Met Approached  0% 100% <table><tr><td>Met:</td><td>80%</td></tr><tr><td>Approached:</td><td>20%</td></tr><tr><td>Met Total:</td><td>80%</td></tr><tr><td>Not Met Total:</td><td>20%</td></tr></table> Analysis 80% of the students met this standard	Met:	80%	Approached:	20%	Met Total:	80%	Not Met Total:	20%	Gather Additional Data IN PROGRESS As this was the first course offering, we will continue to measure this when it is offered again in 3 semesters. Recommended Due Date: 05/31/2028
Met:	80%									
Approached:	20%									
Met Total:	80%									
Not Met Total:	20%									

General Outcome Actions

ACTIONS

Gather Additional Data

Not Started

Remeasure when the course is offered again (every three semesters, so during the 2027-2028 AY

Recommended Due Date: 05/31/2028

Conclusion

This was the first offering of this course, but we met out standard.

MS in Computational and Quantitative Methods - MS-MCQM Success Outcomes

Prepare students for jobs or further graduate study in a related field MET

70% of our students will continue in graduate school or have a job within 6 months of completing their MS in CQM.

MEASURES	RESULTS	ACTIONS
Further work in the field Direct - Counts Target 70% of the students will pursue continued work or education in a related field.	MET Summary 1 student is working in a related area, 9 are applying to or enrolled in related graduate programs, and 1 declined to share. This is 10/11 who are continuing to work or study in a related field. Analysis This is 10/11 who are continuing to work or study in a related field, which surpasses our goal of 70% of students continuing in a related field.	Gather Additional Data IN PROGRESS We will continue to monitor as this is a new program. Recommended Due Date: 05/31/2027

Internship MET

At least 30% of students will be placed in an internship in a related field prior to graduation.

MEASURES	RESULTS	ACTIONS
Internship Indirect - Completion Rates Target At least 30% of the students will be placed in an internship in a related field prior to graduation.	MET Summary In Fall 2025, 4 out of 5 students completed internship. In Spring 2026, 4 out of 7 students completed internships. These included EOG Resources JOptimam Consultancy, LLC Lamar University Athletics Storied Data Inc.	Gather Additional Data IN PROGRESS Continue to gather data since this is a new program. Recommended Due Date: 05/31/2027

	This is a total percent of 67% of the students who completed the program in Fall 2025 or Spring 2026. Analysis We surpassed the goal of 30% of the students having internships, with 67% of students completing such.	
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Program satisfaction and efficacy

Students will complete an exit survey, responding to questions about their satisfaction with the program and allowing them to express concerns or suggest improvements to the program. This survey will be completed immediately prior to graduation.

MEASURES
<i>No measures have been added.</i>