

Mathematics and Statistics
Learning Goals, Learner Outcomes, and Measurement Tools
Math

The following goals generally define the program. The outcomes identified as a part of each goal demonstrate what students who complete our program will be able to do.

Learning Goals	Learner Outcomes	Measurement Tools
1. The program will strengthen students' abilities in mathematical communication skills, including reading mathematics and writing and speaking about mathematics.	A. Students will read mathematics in appropriate-level books and journals.	M491 Students will read a journal article and write a report on it.
	B. Students will communicate mathematics clearly in writing.	M401 and M411 homework assignments will be monitored for good writing.
	C. Students will communicate mathematics clearly orally.	M491 Students oral presentation of project is evaluated by entire math faculty.
2. The program will strengthen the students' problem solving skills.	A. Students will demonstrate a variety of problem solving techniques including, but not limited to, -Algebraic manipulation -Deductive logic -Graphical and data analysis	Problem solving opportunities arise in all classes. Measurements are specifically taken with the Junior and Senior assessment tests (administered in M301 and M491) respectively.
3. The program will strengthen the students' abilities to develop mathematical models in applied situations, and to manipulate and analyze mathematical models of real world situations.	A. Students will develop and analyze mathematical models of real world situations.	Students have to set up mathematical models for applied word problems in M151, M152, M332, and M491. Measured with quizzes, tests, homework, and written and/or oral reports.