

University of Dayton Mathematics Department
Student Learning Outcomes

Scholarship: All undergraduates will develop and demonstrate advanced habits of academic inquiry and creativity through the production of a body of artistic, scholarly, or community-based work intended for public presentation and defense.

Learning Outcome 1: The student will understand the basic axioms, concepts, constructions, theorems, and proof techniques in the core areas of classical undergraduate mathematics.

Measure 1 (MTA): The student will have successfully passed the introductory foundations course (MTH 308), a course in analysis (MTH 330), a course in abstract algebra (MTH 360), and a course in probability (MTH 411).

Measure 1 (MTE): The student will have successfully passed the introductory foundations course (MTH 308), a course in analysis (MTH 330), and a course in probability (MTH 411).

Measure 1 (MTH): The student will have successfully passed the introductory foundations course (MTH 308), the sequence in analysis (MTH 330 and MTH 430), and a course in abstract algebra (MTH 361).

Measure 2: Among those students who intend to pursue graduate study in a mathematical science, at least 50% will be admitted to a graduate program of their choice.

Measure 3: Each student shall submit at the time of the exit interview a written example to demonstrate reasoning ability in a formal axiomatic system.

Measure 4: Each student shall submit at the time of an exit interview a written example to demonstrate the ability to construct rigorous analytic arguments.

Learning Outcome 2: The students will exhibit the ability to organize and effectively communicate mathematical ideas to others, both in writing and orally.

Measure 1: More than 50% of the graduating seniors will have been employed as teaching assistants or tutors in the Department of Mathematics.

Measure 2: More than 50% of the graduating seniors will have participated in one of the various extracurricular activities available to all UD students. These include: presentation at the Stander Symposium, presentation at Undergraduate Mathematics Day, submission of an article to the Electronic Proceedings of Undergraduate Mathematics Day, participation in the international UMAP competition (which includes writing an article and presenting results to the faculty), a presentation at a meeting of the Math Club.