

Mathematics Major

Degree Type

Major

Mathematics Mission: The mission of the undergraduate program in mathematics at Missouri Valley College is to provide students with opportunities to explore and comprehend their world through mathematics. The program helps students understand mathematics, communicate mathematically, and apply mathematics in preparation for enriching their future endeavors.

Learning Outcomes:

- Students will demonstrate the ability to use symbolic, graphical, numerical, and written representations of mathematical ideas.
- Students will demonstrate the ability to read, write, listen to, and communicate an understanding of mathematics.
- Students will use mathematical reasoning to solve problems, and a generalized process to solve problems written in words.
- Students will demonstrate the ability to use mathematics in everyday life.
- Students will use basic mathematical skills as well as appropriate technology to enhance mathematical thinking and understanding, solve mathematical problems, and judge the reasonableness of the results.

Major assessment: All seniors completing a mathematics major must take a comprehensive examination and complete Senior Seminar (MA 485), which includes the preparation of a research paper.

Major Requirements

MA190, MA240, MA250, MA315, MA360, MA485

+ 15 hours from MA330, MA340, MA350, MA380, MA420, MA430, MA349/449

+ 9 credit hours MINIMUM of MA electives MUST be taken on the MVC Campus

Item #	Title	Hours
MA 190	Analytic Geometry and Calculus I	5
MA 240	Analytic Geometry and Calculus II	5
MA 250	Introduction to Mathematical Reasoning	3
MA 315	Analytic Geometry and Calculus III	5
MA 360	Linear Algebra	3
MA 485	Senior Seminar	3

15 hours of MA from

Item #	Title	Hours
MA 330	Probability and Statistics	3
MA 340	Ordinary Differential Equations	3
MA 350	Numerical Analysis	3
MA 380	Foundations of Geometry	3
MA 420	Modern Abstract Algebra	3
MA 430	Real Variables	3
MA 349	Special Topics in Mathematics	1-3
MA 449	Special Topics in Mathematics	1-3
Total Credits		38-39