BA in Mathematics

Degree Program Description
Mathematics is part of the foundation of all the sciences, engineering, statistics, and many social sciences. A degree in mathematics provides one with both the applied mathematics knowledge necessary to engage in these disciplines, and formal reasoning skills that can be applied in any area. The major is well suited for those interested in mathematics alone, or for those looking to supplement another major. Our students go on to jobs or further study in all the above disciplines, as well as many others (medical school or law school, for instance).

Major Program Requirements
All MU General Education ([http://catalog.missouri.edu/academicdegreerequirements/generaleducationrequirements/](http://catalog.missouri.edu/academicdegreerequirements/generaleducationrequirements/)), University graduation requirements ([http://catalog.missouri.edu/academicdegreerequirements/universityrequirements/](http://catalog.missouri.edu/academicdegreerequirements/universityrequirements/)) and Arts and Science Breadth and Depth requirements (for the BA) must be satisfied, in addition to the Department Level Requirements ([http://catalog.missouri.edu/collegeofartsandscience/mathematics/department-level-requirements-mathematics/](http://catalog.missouri.edu/collegeofartsandscience/mathematics/department-level-requirements-mathematics/)). The foreign language requirement must be satisfied either by taking a foreign language for 4 years in high school or by completing a language sequence at MU.

Students may apply to be Math majors upon meeting the following criteria:

• Completion of ENGLSH 1000 and MATH 2300
• Both cumulative GPA and GPA in Math courses numbered 1500 and above (expect for 2100) of 2.5 or above.

All math courses required for the degree must be passed with a grade of C- or above.

Core Math Requirements for all Math degrees (24 credits)
- MATH 1500 Analytic Geometry and Calculus I 5
- MATH 1700 Calculus II 5
- MATH 2300 Calculus III 3
- MATH 3000 Introduction to Advanced Mathematics 3
- MATH 4100 Differential Equations 3
- MATH 4140 Matrix Theory 3
- INFOTC 1040 Introduction to Problem Solving and Programming 3
  or CMP_SC 1050 Algorithm Design and Programming I

Total Credits 25

Additional requirements for the BA degree
- MATH 4700 Advanced Calculus of One Real Variable I
- MATH 4720 Introduction to Abstract Algebra I
- Four approved 4000 level Math electives

Semester Plan
Below is a sample plan of study, semester by semester. A student's actual plan may vary based on course choices where options are available.