Choose UMSL

And your major.

Mathematics BA

This degree provides a well-rounded liberal education in addition to developing the analytic and technical skills necessary for graduate study, as well as other career opportunities. It is more flexible than the BS degree, so it may be a better option if you are interested in a double major with another program or wish to combine a mathematics degree with a minor. UMSL Faculty in Mathematics and Statistics have created sequences of courses dedicated to helping you develop the skills applicable to the career path you choose.

Career Outlook

Mathematicians and statisticians solve real-world problems by applying mathematical and statistical models in industry, academia, and government. Careers in mathematics and statistics are consistently among the top-rated careers in terms of job satisfaction, and job prospects are projected to be very good over the next decade.

Our graduates have gone on to be educators, to work for governmental agencies like the NGA and NSA, to work in the insurance industry in companies like RGA, and to work at top local companies like Boeing, Ameren, Centene, and Anheuser-Busch.

Future Career Options

- Data Scientist
- Statistician
- Data Analyst
- Actuary
- High School Teacher
- College Professor
- Industrial Mathematician
- Cryptographer
- Geospatial Analyst
- Financial Analyst
- Business Analyst
- Biomedical Researcher
- Mathematical Researcher
- Mathematical Consultant

Skills Developed by Degree Completion

- Apply critical-thinking and problem-solving skills to real-world problems
- Analyze data to make well-informed decisions
- Apply mathematical or statistical models to make decisions
- Clearly communicate technical ideas
- Read, understand, and assess the veracity of mathematical arguments and proofs

4-YEAR ACADEMIC MAP

Successful alumni have gone on to fulfill many of the opportunities above. Additional possibilities are taken from the Bureau of Labor Statistics.
Contact an advisor to discuss additional future career options.

UMSL | Arts & Sciences
University of Missouri–St. Louis

College of Arts and Sciences
Department of Mathematics and Statistics
311 Express Scripts Hall
314-516-6355
umsl.edu/mathstats

Academic Advising
303 Lucas Hall
314-516-5501
artscience@umsl.edu
umsl.edu/cas/advising

Bachelor of Arts in Mathematics

Year 1

FALL SEMESTER *(15 credit hours)*
- INTDSC 1003: University Studies (1)
- ENGL 1100: First-Year Writing (3)
- MATH 1800: Analytic Geometry and Calculus I (5)
- GEN ED EXPLORE: Humanities & Fine Arts (3)
- GEN ED EXPLORE: Social Sciences (3)

SPRING SEMESTER *(17 credit hours)*
- MATH 1320: Introduction to Probability and Statistics (3)
- MATH 1900: Analytic Geometry and Calculus II (5)
- CMP SCI 1250: Introduction to Computing (3)
- GEN ED EXPLORE: Social Sciences (3)
- GEN ED CORE: US History & Government (3)

Year 2

FALL SEMESTER *(16 credit hours)*
- MATH 2000: Analytic Geometry and Calculus III (5)
- MATH 3250: Foundations of Mathematics (3)
- GEN ED EXPLORE: Humanities and Fine Arts (3)
- Foreign Language 1001 (5)

SPRING SEMESTER *(14 credit hours)*
- MATH 2020: Introduction to Differential Equations (3)
- MATH 2450: Elementary Linear Algebra (3)
- GEN ED EXPLORE: Social Sciences (3)
- Foreign Language 1002 (5)

Year 3

FALL SEMESTER *(15 credit hours)*
- ENGL 3100: Junior-Level Writing (3)
- MATH 4400: Introduction to Abstract Algebra I (3)
- Foreign Language 2101 (3)
- GEN ED EXPLORE: Humanities and Fine Arts (3)
- GEN ED CORE: Communication Proficiency (3)

SPRING SEMESTER *(15 credit hours)*
- MATH 4100: Real Analysis I (3)
- Cultural Diversity Requirement (3)
- 2000-level Related Area Requirement (3)
- Elective or Minor (6)

Year 4

FALL SEMESTER *(15 credit hours)*
- MATH: 4000+ level course (3)
- 2000-level Related Area Requirement (3)
- Elective or minor (3)
- 2000-level Elective (6)

SPRING SEMESTER *(13 credit hours)*
- MATH 4000-level course (3)
- 2000-level Elective (3)
- Elective or Minor (7)

Degree completed!

Last Updated May 2023

2023-2024
4-YEAR ACADEMIC MAP

This is a sample academic map for the courses to take each academic semester/session. ***This map is not a substitute for academic advisement.*** Contact your advisor when making final selections.

– **University Studies** is required for all first-year students and those with less than 24 credit hours.

– **Milestone courses** should be taken in the order shown to ensure you stay on a timely and accurate path toward graduation.

– **Summer and Intersession courses** Don't forget that summers and winter breaks are a way to fast-track your route to degree completion – and lighten your load during fall and spring!