

0,062	1,524	0,172	4,338	0,282	7,151	0,392	9,964
0,066	1,575	0,174	4,389	0,284	7,202	0,394	10,000
0,068	1,627	0,176	4,440	0,286	7,253		
0,07	1,678	0,178	4,491	0,288	7,304		
0,072	1,729	0,18	4,542	0,29	7,355		
0,074	1,780	0,182	4,593	0,292	7,407		
0,076	1,831	0,184	4,645	0,294	7,458		
0,078	1,882	0,186	4,696	0,296	7,509		
0,08	1,934	0,188	4,747	0,298	7,560		
0,082	2,000	0,19	4,798	0,3	7,611		
0,084	2,036	0,192	4,849	0,302	7,662		
0,086	2,087	0,194	4,900	0,304	7,714		
0,088	2,138	0,196	4,951	0,306	7,765		
0,09	2,189	0,198	5,003	0,308	7,816		
0,092	2,240	0,2	5,054	0,31	7,867		
0,094		0,202	5,105	0,312	7,918		
0,096		0,204	5,156	0,314	7,969		
0,098			5,207	0,316	8,000		

The **Bachelor of Science** in

# Mathematics, Emphasis in Data Science

## Data scientists are shaping the future.

Data science is among the most critical of today's emerging fields. Businesses, governments and institutions in all sectors have access to more information than ever before and have a need to analyze and use that information to make informed decisions. Infinitely accumulating, this Big Data is now a permanent foundation of decision-making that shapes societies around the globe. Opportunities in this field are expected to grow well into the future, with the U.S. Bureau of Labor Statistics reporting that the demand for data science skills will drive a 27.9% rise in employment in the field through 2026.

## The Bachelor of Science in Mathematics, Emphasis in Data Science

The Bachelor of Science in Mathematics with an Emphasis in Data Science provides a sufficient background in mathematics, statistics and (to some extent) computer science, to produce graduates who can work in areas requiring applied mathematical techniques and tools. This degree is structured to allow additional optional courses that enable the student to focus on a variety of further areas of interest.

Students seeking to major in mathematics are first designated as "pre-mathematics majors" until they have completed both MATH 1900 and MATH 2000 or equivalent courses with grades of C or better.

Upon completion of the BS in Mathematics with an Emphasis in Data Science, graduates will be able to write clear, logically consistent proofs; read, understand and assess the veracity of logical arguments or mathematical proofs; reformulate problems or questions in relevant mathematical terms; solve problems which involve analysis, algebra or linear algebra, elementary number theory; interpret, formulate and solve problems and assess data related questions from an advanced probabilistic and statistical viewpoint.

## 2+3 BS/MA Dual Degree Program

The Master of Arts in Mathematics is also offered in the 2+3 program format. This unique 2+3 dual degree program provides a pathway for students to earn both a bachelor's and a master's degree in Mathematics with fewer total credit hours than would be required to complete each degree independently. Once all requirements have been met, students will be awarded both a BS and an MA and are able to enter the job market with a competitive edge.

## Transforming Lives

The Bachelor of Science in Mathematics with an Emphasis in Data Science at UMSL is earned through our College of Arts and Sciences, the academic core of the University of Missouri–St. Louis. Through academic programs offered on- and off- campus, traditional and nontraditional students gain knowledge, skills and intellectual leadership for a variety of career paths, advanced study and research in many academic disciplines.

Graduates are known for their professionalism on the job and their strong sense of civic responsibility. Students in our programs engage in creative and critical thinking, learn to analyze evidence, to appreciate patterns of complexity and to reflect on important issues that impact our daily lives. Students gain skill sets to prepare for a changing workplace that requires flexible, dynamic, and well-educated employees.

The Department of Mathematics and Statistics conducts pivotal research in areas such as data science, computational mathematics, topology, probability and statistics. Many faculty members have received international recognition for contributions to their fields. The Math Academic Center provides free individual assistance to all students. The Math Technology Learning Center (MTLC) is a resource dedicated to our math students where they can access study space, do homework online, take advantage of various resource materials or get help from an instructor or student teacher.

## Serious education. Serious value.

The Bachelor of Science in Mathematics with an Emphasis in Data Science is designed to provide specialized knowledge, skills and training in a flexible format, with classes available in person, online and in a hybrid format. You'll learn from highly qualified educators and researchers who hold terminal degrees from some of the world's most prestigious academic institutions.

The University of Missouri–St. Louis provides the knowledge, resources, tools, skills and support students need to be successful in our programs. Our comprehensive student support services include workshops, tutoring and career services to help you develop skills and strategies to be successful in the classroom and beyond. UMSL welcomes transfer students and our transfer specialists will assist you with getting the most transfer credits possible. We're also committed to increasing access to higher education, which is why UMSL is consistently ranked number one in affordability in the St. Louis region.

## Learn more at [umsl.edu/mathstats](https://umsl.edu/mathstats)

The University of Missouri–St. Louis is the largest public research university located in Missouri's most populous and economically important region. UMSL provides high-quality, affordable education to one of the most diverse student bodies in the state. No university is better connected to the surrounding region than UMSL. Seventy-three percent of our graduates stay in St. Louis. The region needs a well-equipped workforce with strong analytical skills and UMSL is prepared to help you meet those needs. Choose the University of Missouri–St. Louis for data science.

## Career Opportunities

Accountant  
Actuary  
Computer Systems Analyst  
Data Scientist  
Financial Analyst  
Market Research Analyst  
Math Teacher  
Mathematician  
Statistician

### College of Arts & Sciences

1 University Blvd.  
303 Lucas Hall  
St. Louis, MO 63121  
314-516-5501  
[arts@umsl.edu](mailto:arts@umsl.edu)  
[umsl.edu/divisions/artsandsciences/](https://umsl.edu/divisions/artsandsciences/)

### Department of Mathematics and Statistics

1 University Blvd.  
311 Express Scripts Hall  
St. Louis, MO 63121  
314-516-6355  
[mathstats@umsl.edu](mailto:mathstats@umsl.edu)  
[umsl.edu/mathstats](https://umsl.edu/mathstats)

### Office of Admissions

1 University Blvd.  
351 Millennium Student Center  
St. Louis, MO 63121  
314-516-5451  
[admissions@umsl.edu](mailto:admissions@umsl.edu)  
[admissions.umsl.edu](https://admissions.umsl.edu)



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