Applied Mathematics for the Life and Social Sciences, BS

LAAMLBS

Do you want to help prevent disease outbreaks, disasters or addictions? We have access to more data than ever before, making math crucial to understanding and improving human safety, health and security. Learn the practical theories, models and approaches for applying math and data science to the challenges we face today.

Program description

The BS in applied mathematics for the life and social sciences is unlike any other math program. It offers a novel approach to investigating, integrating and solving problems in the physical, life and social sciences in such topics as mass violence, contagion, wildlife-human interactions and the transmission of behaviors through influence.

Degree-seekers in this program are immersed in the use of mathematical theory, modeling and computational methods while collaborating with and contributing to diverse fields such as anthropology, global health and environmental social science.

The insights and skills gained allow graduates to confidently create accurate, versatile and practical answers desperately needed in order to improve or remedy contemporary issues.

At a glance

- **College/School:** College of Global Futures
- **Location:** Tempe

- **Second language requirement:** No
- **First required math course:** MAT 270 - Calculus w/Analytic Geometry I
- **Math intensity:** Substantial 

Required courses (Major Map)

2024 - 2025 Major Map
Major Map (Archives)

Concurrent program options

Students pursuing concurrent degrees (also known as a "double major") earn two distinct degrees and receive two diplomas. Working with their academic advisors, students can create their own concurrent degree combination. Some combinations are not possible due to high levels of overlap in curriculum.

Admission requirements

General university admission requirements:
All students are required to meet general university admission requirements.
First-year | Transfer | International | Readmission

Tuition information

When it comes to paying for higher education, everyone's situation is different. Students can learn about ASU tuition and financial aid options to find out which will work best for them.

Change of Major Requirements

ASU students who would like to change their major to applied mathematics for the life and social sciences are required to have a minimum cumulative ASU GPA of 3.00 based on at least 12 credit hours of ASU coursework.

Students should visit the Change of Major form for information about how to change a major to this program.

Transfer options

ASU is committed to helping students thrive by offering tools that allow personalization of the transfer path to ASU. Students may use MyPath2ASU® to outline a list of recommended courses to take prior to transfer.

ASU has transfer partnerships in Arizona and across the country to create a simplified transfer experience for students. These pathway programs include exclusive benefits, tools and resources, and they help students save time and money in their college journey.

Global opportunities

Global experience

With more than 300 Global Education program opportunities available, applied mathematics for the life and social sciences students are able to tailor their experience to their specific interests and skill sets. Whether in a foreign country, in the U.S. or online, students build communication skills, learn to adapt and persevere, and are exposed to research and internships across the world, increasing their professional network.

Students also may participate in a School of Sustainability study abroad program. More information is available on the College of Global Futures study abroad website.

Career opportunities

Graduates of the program possess the quantitative, scientific and analytical skills that are critical for professionals working in the environmental, life, health, mathematical and social science fields. Nationally recognized experts ensure graduates are well equipped for prestigious career paths in government, medicine, technology, security or other fields requiring rigorous data analysis, with an insight into human behavior.

The need for scientists and professionals quantitatively trained in the life and social sciences is strong in Arizona and the nation. This program's applied use of mathematics, modeling, statistics and simulation methodologies are in high demand and provide excellent training for future academics and professionals in industries including:

- bioinformatics
- computational sciences
- ecology
- genomics
- data mining
- mathematical analysis
- mathematical epidemiology
- nonlinear dynamics
- population dynamics
- social science

Example job titles and salaries listed below are not necessarily entry level, and students should take into consideration how years of experience and geographical location may affect pay scales. Some jobs also may require advanced degrees, certifications or state-specific licensure.

Career	*Growth	*Median salary

Actuary (Financial Risk Analyst)	23.2%	$113,990
Bioinformatics Scientist	3.9%	$87,300
Clinical Data Manager	35.2%	$103,500
Clinical Trial Manager	4.8%	$144,440
Data Scientist	35.2%	$103,500
Health Sciences Manager	4.8%	$144,440
Human Behavior Researcher	4.8%	$50,470
Mathematical Science Assistant	6.2%	$71,700
Mathematician	2.2%	$112,110
Statistician	31.6%	$98,920

* Data obtained from the Occupational Information Network (O*NET) under sponsorship of the U.S. Department of Labor/Employment and Training Administration (USDOL/ETA).

Bright Outlook

Contact information

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