Applied Mathematics for Life and Social Sciences, BS

Do you want to help prevent disease outbreaks, disasters or addictions? Today, 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 of this new scientific movement.

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 to improve or remedy real-life issues.

At a Glance

- **College/School:** The College of Liberal Arts and Sciences
- **Location:** Tempe campus
- **Additional Program Fee:** Yes
- **Second Language Requirement:** No
• **First Required Math Course:** MAT 270 - Calculus w/Analytic Geometry I
  
• **Math Intensity:** Substantial

**Required Courses (Major Map)**

- [2021 - 2022 Major Map](#)
- [Major Map (Archives)](#)

**Admission Requirements**

**General University Admission Requirements:**
All students are required to meet general university admission requirements.

[Freshman](#) | [Transfer](#) | [International](#) | [Readmission](#)

**Change of Major Requirements**

A current ASU student has no additional requirements for changing majors.

Students should refer to [https://changemajor.apps.asu.edu](https://changemajor.apps.asu.edu) 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 help students save time and money in their college journey. Students may learn more about these programs by visiting the admission site: [https://admission.asu.edu/transfer/pathway-programs](https://admission.asu.edu/transfer/pathway-programs).

**Global Opportunities**

**Global Experience**
Students studying applied mathematics can gain valuable experience through study abroad opportunities that enhance their overall college experience and prepare them for careers upon graduation. The wide range of faculty-directed study abroad programs are designed to connect students with real life issues that impact local communities yet transect borders.

Graduates who possess the heightened cultural competency and leadership and critical thinking skills acquired through study abroad may stand out in a competitive field. [https://goglobal.asu.edu/](https://goglobal.asu.edu/)
The College of Liberal Arts and Sciences recommends the following study abroad programs for students majoring in applied mathematics for life and social science:

https://mystudyabroad.asu.edu/students/major/applied-mathematics.

## 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 program 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 degree'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

Career examples include but are not limited to those shown in the following list. Advanced degrees or certifications may be required for academic or clinical positions.

<table>
<thead>
<tr>
<th>Career</th>
<th>*Growth</th>
<th>*Median Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuary (Financial Risk Analyst) 🟢</td>
<td>17.6%</td>
<td>$111,030</td>
</tr>
<tr>
<td>Clinical Trial Manager 🟢</td>
<td>4.8%</td>
<td>$137,940</td>
</tr>
<tr>
<td>Health Sciences Manager ✨</td>
<td>4.8%</td>
<td>$137,940</td>
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<tr>
<td>High School Teacher</td>
<td>3.8%</td>
<td>$62,870</td>
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<td>Mathematical Science Assistant ✨</td>
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<td>Mathematician</td>
<td>3.0%</td>
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<tr>
<td>Mathematics Professor</td>
<td>1.3%</td>
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<tr>
<td>Statistician ✨</td>
<td>34.6%</td>
<td>$92,270</td>
</tr>
</tbody>
</table>
Bright Outlook  Green Occupation

Contact Information

Schedule an advisor appointment
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shesc.undergrad@asu.edu | 480-965-6215