Applied Mathematics for Life and Social Sciences, BS

Do you want to help prevent disease outbreaks, disasters, destructive behaviors, addictions, and other contemporary risks? Math has become a leading and crucial piece of the puzzle in humanity's progress toward collective 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 and in-demand approach to investigating, integrating and solving for the physical, life and social sciences, across new, pressing applications such 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 proven 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.

Nationally recognized experts ensure program graduates are well equipped for prestigious career paths in government, medicine, technology, security or other fields requiring vigorous data analysis or accurate projections, with an insight into human nature.

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)

2020 - 2021 Major Map
Major Map (Archives)

### Admission Requirements

**General University Admission Requirements:**

All students are required to meet general university admission requirements.

[Fasttran | Transfer | International | Readmission]

### Change of Major Requirements

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

Students should refer to [https://changingmajors.asu.edu/request](https://changingmajors.asu.edu/request) 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 the [Transfer Map search](https://admission.asu.edu/transfer/pathway-programs) 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**
With over 250 programs in more than 65 countries (ranging from one week to one year), study abroad is possible for all ASU students wishing to gain global skills and knowledge in preparation for a 21st-century career. Students earn ASU credit for completed courses, while staying on track for graduation, and may apply financial aid and scholarships toward program costs. https://mystudyabroad.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: http://links.asu.edu/SAO.applied-mathematics.

**Career Opportunities**

The bachelor's degree program in applied mathematics for the life and social sciences prepares students to enter the environmental, life, health, mathematical and social science fields. Graduates of the program possess the quantitative, scientific and analytical skills that are critical for professionals working in these areas.

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:

- astrophysics
- biostatistics
- chemical engineering
- communications
- computational biology
- computer animation
- data mining
- demography
- digital and medical imaging
- e-commerce
- education
- forensics
- genomics
- informatics and complex systems research
- materials science
- neuroscience
- pharmaceutical engineering
- political science
public health
risk management
security and military
social network analysis

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>22.5%</td>
<td>$101,560</td>
</tr>
<tr>
<td>Clinical Trial Manager</td>
<td>9.9%</td>
<td>$118,970</td>
</tr>
<tr>
<td>Health Sciences Manager</td>
<td>9.9%</td>
<td>$118,970</td>
</tr>
<tr>
<td>High School Teacher</td>
<td>7.5%</td>
<td>$59,170</td>
</tr>
<tr>
<td>Mathematical Science Assistant</td>
<td>11.0%</td>
<td>not available</td>
</tr>
<tr>
<td>Mathematical Technician</td>
<td>7.8%</td>
<td>not available</td>
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<tr>
<td>Mathematician</td>
<td>29.7%</td>
<td>$103,010</td>
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<tr>
<td>Mathematics Professor</td>
<td>9.2%</td>
<td>$70,910</td>
</tr>
<tr>
<td>Statistician</td>
<td>33.8%</td>
<td>$84,060</td>
</tr>
</tbody>
</table>

* 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  Green Occupation

Contact Information

Schedule an advisor appointment
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