Actuarial Science, BS

LAACTBS

Learn to examine risk through the lens of mathematics, so you can enjoy a career in which you can provide creative solutions that minimize risk and maximize reward.

Program Description

Actuarial science students learn to use tools from mathematics, statistics and finance to measure the impact of risk in order to improve forecasting and decision-making.

The BS degree program in actuarial science provides students with the preparation necessary for the required professional actuarial credentialing exams offered by the Society of Actuaries and the Casualty Actuarial Society.

In addition to the guidelines in the Concurrent Program Options section below, students interested in pursuing concurrent or second baccalaureate degrees in The College of Liberal Arts and Sciences are advised to visit the college's website for more information and requirements.

At a Glance

- College/School: The College of Liberal Arts and Sciences
- Location: Tempe

- 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)
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.

Accelerated Program Options

This program allows students to obtain both a bachelor's and master's degree in as little as five years. It is offered as an accelerated bachelor's plus master's degree with:

Actuarial Science, MS

Acceptance to the graduate program requires a separate application. Students typically receive approval to pursue the accelerated master's during the junior year of their bachelor's degree program. Interested students can learn about eligibility requirements and how to apply.

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 college, 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

Current ASU students wishing to change their major to actuarial science should have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A"), have completed at least MAT 265 Calculus for Engineers I or MAT 270 Calculus with Analytic Geometry I and CIS 105 Computer Applications and Information Technology (or CSE 100 or CSE 110), and have earned a "B" grade or better in all critical classes they have already completed.

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
Study abroad students are able to enhance their resumes with the heightened cultural competency and leadership and critical thinking skills they acquire through the valuable experience.

Each of the more than 300 Global Education program options, whether in a foreign country, in the U.S. or online, provide an opportunity for students to develop a valuable skill set that can give them an advantage in their career and personal enrichment. Global Education programs encourage students to build communication skills, challenge them to adapt and persevere, expose them to differences around the world and increase their ability to work with diverse groups of people.

Career Opportunities

Risk is a part of daily life and wherever there is risk, there are opportunities for actuarial intervention. Many actuaries work with insurance companies to calculate premiums, determine reserves needed to ensure an organization's financial health and to ensure organizations conform to stringent, complex legal mandates. Others help companies to establish retirement plans or are employed as consultants.

Graduates with a BS in actuarial science possess skills that are transferable to any industry and any organization that requires risk modeling and management, including:

- colleges and universities
- consulting firms
- energy, such as utilities, oil and gas
- environment (on issues such as climate change and the financial impact or risk of extreme events)
- financial services, such as banking and investment management
- government agencies such as Social Security, the Department of Labor and Medicare (to manage social programs and to develop regulations and legislation)
- insurance companies
- retirement and pensions
- transportation, such as shipping and air travel
They can also apply the advanced problem-solving skills learned in the actuarial science undergraduate program to a variety of other professional careers, including:

- analysts
- business operations specialists
- consultants
- teachers

Career example titles and salaries listed below are not necessarily entry level, and students should take into consideration how years of experience, geographical location, and required advanced degrees or certifications may affect pay scales.

<table>
<thead>
<tr>
<th>Career</th>
<th>*Growth</th>
<th>*Median Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuary (Financial Risk Analyst)</td>
<td>23.2%</td>
<td>$113,990</td>
</tr>
<tr>
<td>Business Intelligence Analyst</td>
<td>35.2%</td>
<td>$103,500</td>
</tr>
<tr>
<td>Compliance Manager</td>
<td>3.3%</td>
<td>$128,620</td>
</tr>
<tr>
<td>Economist</td>
<td>6.3%</td>
<td>$113,940</td>
</tr>
<tr>
<td>Financial Analyst</td>
<td>7.6%</td>
<td>$95,080</td>
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<tr>
<td>Insurance Claims Investigator</td>
<td></td>
<td></td>
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<tr>
<td>Insurance Underwriter</td>
<td></td>
<td>$76,230</td>
</tr>
<tr>
<td>Investment Fund Manager</td>
<td>16.0%</td>
<td>$139,790</td>
</tr>
<tr>
<td>Loan Officer</td>
<td>2.9%</td>
<td>$65,740</td>
</tr>
<tr>
<td>Statistician</td>
<td>31.6%</td>
<td>$98,920</td>
</tr>
</tbody>
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* 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

Professional Licensure

ASU programs that may lead to professional licensure or certification are intended to prepare students for potential licensure or certification in Arizona. Completion of an ASU program may not meet educational requirements for licensure or certification in another state. For more information, students should visit the ASU professional licensure webpage.

Contact Information

Schedule an advisor appointment
School of Mathematical and Statistical Sciences | WXLR 216
math@asu.edu | 480-965-7195