Data Science, BS

LADATSCIBS

Use data to solve real-world issues with a dynamic career in data science that inspires global change. With a growing shortage of data analysts in the U.S., this high-demand field allows you to do everything from predicting consumer behavior to extracting information from medical images.

Program Description

Modern science and technology use sophisticated mathematical and computational tools to extract patterns from large, complex and often unordered data sets. Machine learning and data mining are invaluable technologies with applications as diverse as detecting fraudulent online credit-card transactions, understanding the dynamics of social movements, and personalizing medical treatments based on a tumor's unique genetic profile.

The BS degree program in data science prepares students to be critical analysts and users of data in a variety of areas such as business, research and government. This transdisciplinary program allows students to choose a focus area from a variety of fields to center their understanding of data science. With a mathematical core consisting of linear algebra, statistical inference and classification, data mining, machine learning and associated computer methods, students leave the program with a strong background in data-related skills that are useful in solving real-world issues.

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.

https://thecollege.asu.edu/concurrent-and-second-baccalaureate-degrees

At a Glance

- College/School: The College of Liberal Arts and Sciences
• Location: Tempe or Online, ASU Local

• Additional Program Fee: Yes
• Second Language Requirement: No
• **First Required Math Course:** MAT 270 - Calculus w/Analytic Geometry I
  or MAT 265 Calculus for Engineers I
• **Math Intensity:** Substantial

**Required Courses (Major Map)**

2022 - 2023 Major Map (On-campus)
2022 - 2023 Major Map (Online)
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

**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.

**Attend Online**

ASU Online

ASU offers this program in an online format with multiple enrollment sessions throughout the year. Applicants may view the program description and request more information [here](https://changemajor.apps.asu.edu).

ASU Local

It is now possible to earn an ASU degree with ASU Local, an integrated college experience in which students take advantage of in-person success coaching and programming experiences on site while
completing one of 130+ undergraduate online degree programs, all of which come with online faculty interaction and tutoring support. Those interested may learn more about ASU Local here.

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. Students may learn more about these programs by visiting the admission site: https://admission.asu.edu/transfer/MyPath2ASU.

Global Opportunities

Global Experience
With over 250 programs in more than 65 countries (programs vary in length, from one week to one year), study abroad is possible for all ASU students who wish to acquire 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 they may apply financial aid and scholarships toward program costs. https://goglobal.asu.edu/

Career Opportunities

Glassdoor.com ranks data scientist as second in the top 50 Best Jobs in America and reports the average annual salary in 2021 for data scientists was $113,736. The McKinsey Global Institute projects a shortage of qualified workers with deep analytical skills.

In the data science program, students learn skills related to data analysis, data prediction models and ethical uses of research data, helping them prepare to meet the expressed needs of society.

Graduates of this program work in a variety of fields such as governmental research, education, health services, consumer behavior and business.

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>Bioinformatics Scientist</td>
<td>2.2%</td>
<td>$85,290</td>
</tr>
<tr>
<td>Occupation</td>
<td>Growth Rate</td>
<td>Salary</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Bioinformatics Technician</td>
<td>not available</td>
<td></td>
</tr>
<tr>
<td>Business Intelligence Analyst</td>
<td>not available</td>
<td></td>
</tr>
<tr>
<td>Clinical Data Manager</td>
<td>not available</td>
<td></td>
</tr>
<tr>
<td>Data Scientist</td>
<td>not available</td>
<td></td>
</tr>
<tr>
<td>Financial Quantitative Analyst</td>
<td>not available</td>
<td></td>
</tr>
<tr>
<td>Scientist/Biochemist</td>
<td>4.0%</td>
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<tr>
<td>Software Developer</td>
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<tr>
<td>Statistician</td>
<td>34.6%</td>
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<tr>
<td>Urban Planner</td>
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<td>$75,950</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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