Geographic information science takes computer science to a new level, specializing in technology that offers insights into all that happens on Earth. In this program, you won't just learn how to use GISc but how to develop the software, working with one of the strongest GISc groups in the world.

Program Description

The BS degree program in geographic information science focuses on the computational dimension of geographic information system technology. Students in the program learn:

- commercial and open source GIS and related software
- computational principles in GIS
- concepts in spatial thinking and geographic problem solving
- mathematical and statistical spatial modeling
- programming in multiple languages (e.g., Java, C++, and Python)

These essential programming skills combined with GIS knowledge form the basis for designing and implementing GIS software.

At a Glance

- **College/School:** College of Liberal Arts and Sciences
- **Location:** Tempe campus or online

- **Additional Program Fee:** Yes
- **Second Language Requirement:** No
- **First Required Math Course:** MAT 270 - Calculus w/Analytic Geometry I
- **Math Intensity:** Moderate
Required Courses (Major Map)

2018 - 2019 Major Map (On-campus)
2018 - 2019 Major Map (Online)
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://students.asu.edu/changingmajors for information about how to change a major to this program.

Attend 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.

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/.

Career Opportunities
Career opportunities are found in private and public sectors in the GIS and computer science worlds. In the private sector, students may find employment with top software development companies. Job activities range from designing desktop systems and implementing Web and mobile applications to developing workflow systems. Public sector job activities, such as with local or national governmental agencies, involve customizing desktop and project management systems as well as spatial models and systems, including both Web and mobile applications.

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>Cartographer (Map Maker)</td>
<td>19.4%</td>
<td>$63,990</td>
</tr>
<tr>
<td>Computer Programmer</td>
<td></td>
<td>$82,240</td>
</tr>
<tr>
<td>Computer Scientist</td>
<td>19.2%</td>
<td>$114,520</td>
</tr>
<tr>
<td>Geographic Information Systems Analyst (GIS Analyst)</td>
<td>6.7%</td>
<td>$76,860</td>
</tr>
<tr>
<td>Geographic Information Systems Technician (GIS Technician)</td>
<td>9.3%</td>
<td>$88,510</td>
</tr>
<tr>
<td>Geospatial Information Technologists</td>
<td>9.3%</td>
<td>$88,510</td>
</tr>
<tr>
<td>Geospatial Intelligence Analyst</td>
<td>7.2%</td>
<td>$103,990</td>
</tr>
<tr>
<td>IP/Mosaic Technician</td>
<td>9.7%</td>
<td>$48,090</td>
</tr>
<tr>
<td>Information Technology Manager (IT Manager)</td>
<td>12.0%</td>
<td>$139,220</td>
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</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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