Applied Computing, BS

ASACOBS

Learn fundamental computer science and achieve advanced technical expertise while also understanding how these important skills operate in the real world. When you engage in interdisciplinary connections at ASU’s West campus then apply your knowledge through internships and research, you are preparing for a specialized career in computing.

Program Description

Students in the BS program in applied computing learn a computer science foundation and then explore the established knowledge and emerging developments in the high-demand areas of database systems, computer networks and cybersecurity. The program also provides the opportunity to investigate interdisciplinary connections, including the combination of computing with its real-world application in other disciplines through concurrent degrees and minors.

Hands-on class projects, internships, industry partnerships and authentic and impactful research conducted with faculty provide numerous opportunities for students to apply their knowledge before they graduate. Students use their programming expertise, systems knowledge and critical thinking skills to effectively problem-solve and articulate their experience through presentations, scientific posters and professional papers.

This major is eligible for the Western Undergraduate Exchange program at the following location: West campus. Students from Western states who select this major and campus may be eligible for reduced nonresident tuition at a rate of 150% of Arizona resident tuition plus all applicable fees. Students should click the link for more information and eligibility requirements of the WUE program.

At a Glance
• College/School: New College of Interdisciplinary Arts and Sciences
• Location: West campus

• Additional Program Fee: Yes
• Second Language Requirement: No
• First Required Math Course: MAT 210 - Brief Calculus
  or MAT 251 Calculus for Life Sciences
• Math Intensity: Substantial

Required Courses (Major Map)

2022 - 2023 Major Map
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.

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 and master's degree with:

Biological Data Science, MS
Global Management, MGM

Acceptance to the graduate program requires a separate application. During their junior year, eligible students are advised by their academic departments to apply.

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

Global Opportunities

Global Experience
Students gain valuable experience when studying abroad, experience that enhances their resumes. With over 250 programs available, study abroad allows students to tailor their experience to their unique interests and skill sets. Students in applied computing are able to gain hands-on experience in a variety of countries around the world. With the heightened cultural competency and leadership and critical thinking skills they acquire through study abroad, students can stand out in a competitive field. More information on available programs can be found on the Global Experience website. https://goglobal.asu.edu/

Career Opportunities

Graduates are prepared to integrate technology with human activities, respond to global changes, solve problems, and create and manage the technological production of information and creative products.

Core information technology industries are among the fastest growing sectors in the U.S. economy. Graduates find employment opportunities with corporations and businesses, nonprofit and government agencies, digital arts media industries and in the academic world.

With a depth of knowledge and experience in information technology best practices, graduates have a strong foundation in systems with established interconnections among these fields that prepares them for graduate study and for careers that include cybersecurity analysts, database architects and network engineers.

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>Computer Network Administrator</td>
<td>4.3%</td>
<td>$84,810</td>
</tr>
<tr>
<td>Job Title</td>
<td>Growth Rate</td>
<td>Salary</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Computer Network Technician</td>
<td>6.4%</td>
<td>$65,450</td>
</tr>
<tr>
<td>Computer Programmer</td>
<td></td>
<td>$89,190</td>
</tr>
<tr>
<td>Computer Systems Analyst</td>
<td>7.4%</td>
<td>$93,730</td>
</tr>
<tr>
<td>Database Administrator (DBA)</td>
<td></td>
<td>not available</td>
</tr>
<tr>
<td>Information Security Analyst</td>
<td>31.2%</td>
<td>$103,590</td>
</tr>
<tr>
<td>Information Technology Manager (IT Manager)</td>
<td>10.4%</td>
<td>$151,150</td>
</tr>
<tr>
<td>Software Developer</td>
<td></td>
<td>not available</td>
</tr>
<tr>
<td>Web Developer</td>
<td></td>
<td>not available</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

School of Mathematical and Natural Sciences | FAB N100  
mnsadvising@asu.edu | 602-543-3000