Applied Computing (Cybersecurity), BS

ASACOCBS

Become grounded in computer science and skilled in risk assessment, analytics and information security. Hone your critical thinking and problem-solving skills by applying your cyber knowledge in industry and research settings.

Program description

The innovative cybersecurity concentration builds upon the BS degree program in applied computing.

Students acquire the technical knowledge of how to secure networks and applications; an understanding of cybersecurity governance models and risk management fundamentals; methods of communicating complex risk issues; and solutions for the challenges of implementing cybersecurity controls within various organizational models. Leadership, critical thinking and effective communication are also emphasized.

Students gain experience with authentic cybersecurity organizations, protecting digital assets against compromise or theft.

The cybersecurity concentration prepares students for a continuing and progressive career in cybersecurity.

This major is eligible for the Western Undergraduate Exchange program at the following location: West Valley 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 Valley WUE

- **Second language requirement:** No
- **First required math course:** MAT 210 - Brief Calculus
  or MAT 251 Calculus for Life Sciences
- **Math intensity:** Moderate 

Required courses (Major Map)

2024 - 2025 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.

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 higher education, 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

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

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

Students gain valuable experience when studying abroad, experience which enhances their resumes. With more than 300 programs available, Global Education programs allow students to tailor their experience to their unique interests and skill sets. Students focusing on cybersecurity are able to gain hands-on experience in programs in a variety of countries around the world. In a competitive field, graduates stand out with the heightened cultural competency, leadership and critical thinking skills they acquired when studying abroad.

Career opportunities

This is an ideal degree for students interested in careers in cybersecurity. Opportunities are available both in the private sector and within governmental agencies (e.g., the FBI, U.S. Department of Homeland Security, the National Security Agency and the Department of Defense).

Graduates of the applied computing program with a concentration in cybersecurity are well prepared for graduate study as well as entry-level employment with businesses, nonprofits, government agencies and academic institutions. Cybersecurity-focused positions include:

- chief information security officer
- cyber risk analyst
- information security engineer
- network security engineer
- security operations center analyst

Example job titles and salaries listed below are not necessarily entry level, and students should take into consideration how years of experience and geographical location may affect pay scales. Some jobs also may require advanced degrees, certifications or state-specific licensure.

Career	*Growth	*Median salary
Computer Network Administrator	2.5%	$90,520
Computer Science Professor	5.3%	$84,760
Computer Scientist	22.7%	$136,620
Computer Systems Analyst	9.6%	$102,240
Information Security Analyst	31.5%	$112,000
Information Technology Manager (IT Manager)	15.4%	$164,070

* Data obtained from the Occupational Information Network (O*NET) under sponsorship of the U.S. Department of Labor/Employment and Training Administration (USDOL/ETA).

Contact information

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