

# Biology (Pharmacology/Toxicology), BS

ASLSCPBS

Are you interested in a discipline that yields astounding breakthroughs and contributions to the medical community? Learn how medications, chemicals and other substances interact with the human body.

## Program description

The pharmacology and toxicology concentration of the BS program in biology provides an emphasis in the biochemical, molecular and physiological components of chemical and body interactions.


The degree program emphasizes experiential learning, and all required core courses have laboratories. By learning in an integrative environment that emphasizes the connectedness of the disciplines, students gain a better understanding of larger scientific concepts, and they can view these concepts from multiple perspectives. To have a thorough understanding of the interactions of chemicals in the biological system, students study both biology and chemistry and become familiar with chemical interactions at physiological, molecular and cellular levels.

Undergraduates have the opportunity to conduct independent research under the mentorship of faculty members or in internships outside the school.

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, resume-building experience by studying abroad. With more than 300 programs available, [study abroad](#) allows students to tailor their educational experience to their unique interests and skill sets. Students pursuing the pharmacology and toxicology concentration can expand their knowledge of how science impacts society in a variety of cultures and gain the global skills they need in order to lead in their career.

## Career opportunities

Graduates are prepared for occupations such as:

- laboratory researcher
- pharmacist
- physician
- physician assistant
- risk assessor
- veterinarian

They may work in governmental agencies or private companies in areas such as:

- clinical trials
- product safety evaluation
- regulatory affairs
- teaching

Graduates are also prepared for entry-level employment in the growing field of environmental toxicology as well as for graduate and professional programs in pharmacology and toxicology.

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
<a href="#">Biological Technician</a> 🌟	4.7%	\$49,650
<a href="#">Climate Change Analyst</a> 🌟	6.1%	\$76,480
<a href="#">Environmental Protection Specialist</a> 🌟	6.1%	\$76,480
<a href="#">Environmental Specialist</a> 🌟	5.8%	\$48,380
<a href="#">Family Practice Medical Doctor (FP MD)</a>	3.7%	\$211,300

<b><u>Industrial Ecologist</u></b> ☀	6.1%	\$76,480
<b><u>Medical Doctor (MD)</u></b>	2.5%	\$214,460
<b><u>Medical Scientist</u></b> ☀	9.8%	\$99,930
<b><u>Pharmacist</u></b>	2.6%	\$132,750
<b><u>Veterinarian (Vet)</u></b> ☀	19.7%	\$103,260

\* 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

## Contact information

School of Mathematical and Natural Sciences | FAB N101  
mnsadvising@asu.edu | 602-543-3000