

Applied Biological Sciences (Sustainable Horticulture), BS

TSABSUBS

Are you interested in growing sustainable plants, foods and herbs? Acquire the skills needed to oversee greenhouses, botanical gardens or arboretums. Engage in field trips and hands-on experiences to learn about [advanced technologies and best practices](#) for promoting a more sustainable world.

Program description


The sustainable horticulture concentration within the BS program in applied biological sciences is designed for students who want theoretical and practical experiences in distinct aspects of plant culture in an urban desert environment.

Students acquire the skills to produce, design and care for ornamental and edible plantscapes. Students interested in sustainable practices have the opportunity to specialize in vertical farming and other plant-related technologies. Students in this program contextualize knowledge through experience-based learning activities, including:

- case studies
- faculty-guided research and service-learning projects
- field trips
- greenhouse experiences
- internships

This major is eligible for the Western Undergraduate Exchange program at the following location: Polytechnic 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: [College of Integrative Sciences and Arts](#)
- Location: [Polytechnic](#) **WUE**
- Second language requirement: No
- **First required math course:** 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.

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 plus master's degree](#) with:

[Applied Biological Sciences, MS](#)

Acceptance to the graduate program requires a separate application. Students typically receive approval to pursue the accelerated master's during the junior year of their bachelor's degree program. Interested students can learn about eligibility requirements and [how to apply](#).

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 can explore habitats and ecosystems around the world in one of several [Global Education programs](#); opportunities include working with scientists and conducting independent research. Students can stay on track for graduation by earning ASU credit while becoming immersed in other cultures. Studying abroad builds professional skills that employers demand, such as collaboration and critical thinking.

Career opportunities

Horticulture is a multibillion-dollar national and international enterprise that offers a diverse and exciting choice of professional careers. Graduates can pursue numerous entry-level careers in horticulture. Employment opportunities exist in private and public sectors. The general program in sustainable horticulture also prepares graduates to succeed in roles such as:

- arboretum or botanical garden manager
- city horticulturist
- horticultural consultant, plant researcher or educator
- horticulture supply sales representative
- integrated pest management specialist
- interior plant specialist or plant propagator
- landscape designer or contractor
- nursery plant broker or cultivator and plant salesperson

- organic urban farmer or permaculturist
- urban plant ecologist, forester, tree specialist or arborist

Career opportunities for urban horticulture graduates are not limited to any one geographic location; graduates can embark on careers throughout the United States, Canada, Mexico and overseas.

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
<u>Agricultural Manager</u>		\$75,760
<u>Agriculture Professor</u> ☀️	4.8%	\$85,860
<u>Biological Scientist (General)</u>	3.9%	\$87,300
<u>Customs and Border Protection Officer (CBPO)</u>	3.3%	\$65,790
<u>Life Scientist</u> ☀️	5.2%	\$83,930
<u>Soil Scientist</u> ☀️	4.7%	\$65,730

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

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Contact information

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