

Indoor Farming, Certificate

LSIFRMCERT

Imagine a future where multistory buildings can produce tens of thousands of pounds of nutritious fruits and vegetables daily in any weather to feed local communities. Be part of a paradigm shift that addresses water scarcity, soil degradation, groundwater contamination and carbon dioxide emissions through this certificate program.

Description

The future of farming may be vertical and urban. The novel indoor farming certificate program trains students and working professionals interested in cultivating indoor crops with technology enhancements, including precise environmental control of temperature and lighting, sustainable energy management and optimal nutrient amendment to achieve significant improvements in crop productivity, resource consumption and environmental impact.

This certificate program provides specific training in indoor crop production and management, including production of clean fruits, vegetables and ornamental plants. Through classroom instruction and hands-on laboratories, students gain knowledge and skills related to plant physiology, indoor crop production systems and facility management, which are necessary for the emerging indoor farming industry.

At a glance

- **College/School:** [College of Integrative Sciences and Arts](#)
- **Location:** [Polytechnic](#)

Program requirements

[2024 - 2025 Certificate Map](#)

[Certificate Map \(Archives\)](#)

This certificate requires a minimum of 15 credit hours, including at least nine upper-division credit hours. Six credit hours must be taken from courses offered by the College of Integrative Sciences and Arts. A grade of "C" (2.00 on a 4.00 scale) or better is required in all courses.

Required Courses -- 6 credit hours

[ABS 365: Future of Agriculture: Vertical Farming](#) (3)

[ABS 369: Hydroponic Food Crop Production](#) (3)

Elective Courses -- 9 credit hours

At least three credit hours of certificate electives must be from upper-division courses.

[ABS 260: Fundamentals of Sustainable Horticulture \(SG\)](#) (4)

[ABS 314: Applied Plant Physiology](#) (3)

[ABS 319: Food, Health and Human Biology](#) (3)

[ABS 368: Plant Propagation](#) (3)

[ABS 414: Plant Pathology \(L\)](#) (3)

[ABS 462: Greenhouse/Nursery Management](#) (4)

[ABS 464: Desert Horticulture](#) (3)

[AGB 100: Introduction to Agribusiness](#) (3)

[AGB 250: Economics of Resource Allocation: Food and Agriculture](#) (3)

[AGB 333: Agribusiness Finance](#) (3)

[AGB 425: Food Supply Networks](#) (3)

Prerequisite courses may be needed in order to complete the requirements of this certificate.

Enrollment requirements

Prior to adding the certificate, current ASU students are required to complete BIO 100 The Living World or BIO 181 General Biology I or BIO 182 General Biology II.

Nondegree-seeking students are required to have a BS degree.

A student pursuing an undergraduate certificate must be enrolled as a degree-seeking student at ASU. Undergraduate certificates are not awarded prior to the award of an undergraduate degree. A student already holding an undergraduate degree may pursue an undergraduate certificate as a nondegree-seeking graduate student.

Career opportunities

Students can advance their career options with an undergraduate certificate. The certificate in indoor farming helps students become more marketable to employers when they have complemented their major program of study with this specialization.

Students who complete this undergraduate certificate along with their major often pursue employment in nursery and greenhouse management, plant science, or farm and ranch management. Advanced degrees or certifications may be required for academic or clinical positions.

Contact information

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