

# AGRICULTURAL BIOSECURITY AND FOOD DEFENSE GRADUATE CREDIT CERTIFICATE PROGRAM

<b>Person-in-Charge</b>	Gretchen Kuldau
<b>Program Code</b>	AGBIO
<b>Campus(es)</b>	World Campus

This 12-credit graduate certificate program is designed to provide students with broad training in the field of agricultural biosecurity. Courses cover animal and plant health, and food defense aspects of agricultural biosecurity and food defense. Content is both theoretical and applied but with an emphasis on practical application of knowledge gained. A distance education format is used to accommodate the needs of professionals already active in this area.

The certificate program is an attractive option for those who desire advanced graduate training but do not require the full Master's degree program. It is also ideal for students who wish to move into the degree program once all admissions requirements are fulfilled (e.g., GRE); however, successful completion of a certificate program neither implies nor guarantees admission to a graduate degree program at Penn State. Certificate students who wish to have certificate courses applied towards a graduate degree must apply and be admitted to that degree program. Courses taken in the certificate program may be applied toward a graduate degree, subject to restrictions outlined in GCAC-309 Transfer Credit (<http://gradschool.psu.edu/graduate-education-policies/gcac/gcac-300/transfer-credit/>).

**Effective Semester:** Fall 2023

**Expiration Semester:** Fall 2028

## Admission Requirements

Applicants apply for admission to the program via the Graduate School application for admission (<https://gradschool.psu.edu/graduate-admissions/how-to-apply/>). Requirements listed here are in addition to Graduate Council policies listed under GCAC-300 Admissions Policies (<https://gradschool.psu.edu/graduate-education-policies/>). International applicants may be required to satisfy an English proficiency requirement; see GCAC-305 Admission Requirements for International Students (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-300/gcac-305-admission-requirements-international-students/>) for more information.

Applicants must have a 3.0 or higher undergraduate grade-point average.

## Certificate Requirements

Requirements listed here are in addition to requirements listed in Graduate Council policy GCAC-212 Postbaccalaureate Credit Certificate Programs (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-200/gcac-212-postbaccalaureate-credit-certificate-programs/>).

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[gcac/gcac-200/gcac-212-postbaccalaureate-credit-certificate-programs/](https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-200/gcac-212-postbaccalaureate-credit-certificate-programs/)).

Code	Title	Credits
<b>Required Courses</b>		
AGBIO 520	Agricultural Biosecurity: Protecting a Key Infrastructure	3
AGBIO 521	Food Defense: Prevention Planning for Food Processors	3
AGBIO 801	Veterinary Infectious Disease Diagnostic and Surveillance Systems	3
AGBIO 802	Plant Protection: Responding to Introductions of Threatening Pests and Pathogens	3
<b>Total Credits</b>		<b>12</b>

## Courses

Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

## Learning Outcomes

1. Graduates will be able to describe the four basic steps in agricultural biosecurity preparedness, response and recovery, and recommend actions to support each step.
2. Graduates will be able to identify main threats to plant-based agriculture and will demonstrate knowledge of the current status of national preparedness and future needs against these threats.
3. Graduates will learn, recognize, and apply measures to prevent intentional contamination of the food supply.
4. Graduates will demonstrate knowledge of diagnostic and surveillance systems used to detect infectious diseases and protect against animal agricultural biological attack.

## Contact

<b>Campus</b>	World Campus
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<b>Program Contact</b>	210 Buckhout Lab 361 Science Drive University Park PA 16802
<b>Program Website</b>	View ( <a href="http://www.worldcampus.psu.edu/degrees-and-certificates/agricultural-biosecurity-certificate/overview/">http://www.worldcampus.psu.edu/degrees-and-certificates/agricultural-biosecurity-certificate/overview/</a> )