

MSIA - BIOLOGICAL DEFENSE AND HEALTH SECURITY MASTER OF SCIENCE

Subplan Advisory Committee

Dr. Joshua Santarpia and Dr. John Lowe (Co-Chairs) and Graduate faculty members associated with the Global Center for Health Security

MS Curriculum

Students enrolled in this sub-plan will engage in and learn processes and methodologies affiliated with the fundamental elements and scientific principles needed to develop successfully in the emerging global security areas related to defense against infectious disease. Two tracks are available to students: one focused on biosurveillance and biodefense science related to national security and another focused on basic and clinical science related to global health. Either track will consist of a mix of technical courses designed to develop a deep technical understanding of the student's focus area, and practical or policy courses designed to guide the student to successful application. Many basic scientists do not receive formal training in methods for understanding global public health or national security applications of their work, but it is critical that biodefense and health security students have training grounded in the principles to conduct research aimed at protecting civilian and military populations, and an appreciation for the unique research applications in this area

General requirements

- Completion of at least 30 semester credits beyond the bachelor's degree, including both lecture coursework and research credits
- Completion of coursework
- Completion of the comprehensive examination
- Completion of a research project consistent with a master's level achievement
- Completion and successful defense of a master's thesis (Thesis Option)

Coursework

The coursework requirements for the MSIA - Biological Defense and Health Security MS program are listed below:

Code	Title	Credit Hours
Statistics Requirement		
BIOS 806	BIOSTATISTICS	3
Other Requirements		
BDHS 802	RESEARCH APPLICATIONS IN BIOLOGICAL DEFENSE AND HEALTH SECURITY	3
EPI 805	HUMAN HEALTH AND DISEASE IN PUBLIC HEALTH	3
Students may take EPI 805 -or- take another class in Human Health & Disease in consultation with their Supervisory Committee.		
MSIA 970	SEMINAR (to be taken for two semesters)	2
MSIA 899	MASTERS THESIS	variable
Completion of a thesis project		
Electives (2 courses):		

Students will work with their Supervisory Committee to select appropriate electives.

Comprehensive Exam

Final Oral Exam

Code	Title	Credit Hours
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Biosurveillance & Biodefense Track Core (choose one course)

BDHS 801	AEROBIOLOGY: THEORY AND PRACTICE	3
PAMM 890	MOLECULAR BIOLOGY OF VIRUSES	3
PAMM 898	BACTERIAL GENETICS	3

or

PAMM 910	BACTERIAL PATHOGENESIS	3
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Code	Title	Credit Hours
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Global Health Security Track Core

EPI 825	THEORY AND METHODS OF INFECTIOUS DISEASES EPIDEMIOLOGY	3
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