

MSIA - BIOLOGICAL DEFENSE AND HEALTH SECURITY (PHD)

Subplan Advisory Committee

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

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. 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.

PhD Curriculum

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.

Coursework

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

Code	Title	Credit Hours
Coursework		
Statistics Core		
BIOS 806	BIOSTATISTICS	3
BIOS 808	BIOSTATISTICS II	3
Other Requirements		
GRAD 800	RESPONSIBLE CONDUCT IN RESEARCH TRAINING	0
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- choose another class in Human Health & Disease in consultation with their Supervisory Committee		
MSIA 970	SEMINAR (to be taken for four semesters)	4
MSIA 999	DOCTORAL DISSERTATION	1-9

NOTE: All students must complete the majority of their coursework (all didactic/graded courses but one) from their approved program of study before they can take the comprehensive exam

Code	Title	Credit Hours
Global Health Security Track		
EPI 825	THEORY AND METHODS OF INFECTIOUS DISEASES EPIDEMIOLOGY	3

HPRO 830	FOUNDATIONS OF PUBLIC HEALTH	3
Students within the Global Health Security Track are required to complete 3 electives in consultation with their supervisory committee		

Code	Title	Credit Hours
Biosurveillance & Biodefense Track		
BDHS 801	AEROBIOLOGY: THEORY AND PRACTICE	3
PMI 890	MOLECULAR BIOL VIRUSES	3
Students must choose one additional PMI class from those listed below:		
PMI 898	BACTERIAL GENETICS	3
-OR-		
PMI 910	BACTERIAL PATHOGENESIS	3
Students within the Biosurveillance & Biodefense Track are required to complete 2 electives in consultation with their supervisory committee		