

# BIOSECURITY AND DISASTER PREPAREDNESS (BSDP)

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## **BSDP 5100 - Public Health and Disasters**

### **Credit(s): 3 Credits**

This course introduces the growing threat and potential public health consequences of all types of disasters. Content includes an introduction to public health and public health's role in disaster preparedness and response. In this course, threats to public health are introduced. Intentional disasters (chemical, biological, and radiological terrorism) and natural disasters are covered; emphasis is placed on infectious disease emergencies such as biological terrorism and emerging infections. (Offered annually)

## **BSDP 5101 - Fundamentals of Disaster Planning**

### **Credit(s): 3 Credits**

This course provides an overview of strategies for and challenges to planning for all types of disasters. All phases of the emergency management model will be addressed: mitigation, preparation, response, and recovery. Content includes tools and resources needed to develop and/or evaluate a facility or community all hazards response plan and create exercises to test this plan.

## **BSDP 5102 - Introduction to Biostatistics and Decision Analysis**

### **Credit(s): 3 Credits**

This course will cover basic statistical methods, including common inferential statistical tests encountered in infectious disease epidemiology, emergency and public health response and medical intelligence. The course will include an introduction to decision analysis and developing and using decision trees used for optimizing choices in the face of uncertainty.

## **BSDP 5103 - Communicable Diseases and Infection Control**

### **Credit(s): 3 Credits**

This course teaches the fundamentals of communicable diseases. Content includes the microbiology of contagious pathogens, disease transmission, and infection control measures to prevent or stop the spread of communicable diseases. Emphasis is placed on the pathogens that are likely to be used in a bioterrorism attack and new or re-emerging infectious diseases. (Offered annually)

## **BSDP 5104 - Public Health Ecology**

### **Credit(s): 3 Credits**

This course will present the public health triad (interactions between humans, animals, and the environment). Content includes: general human and ecological factors contributing to zoonotic and other disease transmission; notable public health threats of infectious origin; scenarios of transmissible disease outbreaks in the wake of certain ecological changes; risk assessments for biohazards.

## **BSDP 5105 - Medical and Public Health Intelligence**

### **Credit(s): 3 Credits**

This course introduces students to the rationale for the emerging role of the public health and medical communities in the intelligence gathering, analysis and dissemination process. Focusing on early detection of emerging physical threats and novel/emerging infectious diseases it will give the students the requisite knowledge and skills to provide the homeland security community with threat indications and warnings. Students will be given the analytical tools to allow them to gauge the impact of physical threats that would result in mass casualties and novel/emerging infectious diseases. They will be expected to develop and recommend rational and viable courses of action to those threats.

## **BSDP 5106 - Disaster Communications and Media Relations**

### **Credit(s): 3 Credits**

This course will provide an overview of crisis communication challenges associated with disasters, including basic human communications and communication needs, the impact of stressors in communications, risk communications to communities and to crisis communications. Students will learn the theoretical foundations of risk communication, how to apply those principles during a public health crisis, and how to formulate and institute appropriate communications plans for a variety of audiences and disaster response organizations. (Offered annually)

## **BSDP 5200 - Writing for Intelligence**

### **Credit(s): 3 Credits**

This course is designed to provide students with the writing skills required to clearly, concisely and correctly deliver to end-users basic, current and estimative intelligence products. Students will be trained in the process of collecting, collating, analyzing, disseminating and evaluating intelligence products. The course emphasizes the importance of communicating the analyst's evidence based judgments in a clear, concise and easily understandable manner. It is designed to develop and refine the student's critical thinking skills and their ability to translate these skills into an actionable analytical product through the production of Actionable Intelligence Briefings and Travel Assessments.

## **BSDP 5201 - Terrorist Organizations and Their Motivations**

### **Credit(s): 3 Credits**

This course is designed to provide students a broad understanding of terrorist organizations and their motivations. History of terrorism, current movements and organizations (both domestic and international) will be covered. Emphasis will be placed on terrorist use of chemical/biological/radiological/nuclear weapons of mass destruction. (Offered annually)

## **BSDP 5203 - Disaster Planning for Infectious Disease Disasters**

### **Credit(s): 3 Credits**

This course provides an overview of strategies for and challenges to planning for all types of disasters; emphasis is placed on biosecurity emergencies such as bioterrorism and outbreaks of emerging infectious diseases. Content includes tools and resources needed to develop and/or evaluate a facility or community all-hazards response plan and create exercises to test this plan.

**Prerequisite(s):** BSDP 5103

## **BSDP 5204 - Epidemiological Methods and Infectious Disease Surveillance**

### **Credit(s): 3 Credits**

Through audio lectures and readings, this course will present the student with the descriptive and analytical tools of epidemiology and surveillance. The student will analyze a data set using the epidemiological software package Epi Info. Students will participate in weekly internet discussions and analysis of problem sets. (Offered annually)

**Prerequisite(s):** BSDP 5103

## **BSDP 5205 - Behavioral and Cultural Aspects of Disasters**

### **Credit(s): 3 Credits**

This course examines the behavioral and cultural implications of terrorism and other disasters. Students will study a range of adaptive and abnormal responses to catastrophic events. Cultural and psychosocial sources of resilience to terrorism will be reviewed. (Offered annually)

**BSDP 5206 - Disaster Management and Risk Analysis**

**Credit(s): 3 Credits**

This course will give the student an overview of the importance of biosecurity and the performance of vulnerability and risk assessments. It will also teach them the skills necessary to be a competent manager/leader during an emergency. Management case studies will be used to help students identify limits to their knowledge and to help them recognize when they need to obtain additional resources. (Offered annually)

**BSDP 5207 - Legal and Ethical Implications of Disasters**

**Credit(s): 3 Credits**

**BSDP 5208 - Facing the Challenge of International Bioterrorism**

**Credit(s): 3 Credits**

This course will examine bioterrorism- the hostile infliction of disease, and how National and Global governance should manage the challenges it raises. The issue will be addressed from a variety of perspectives including: political, legal, medical and public health, with a special focus on international cooperation in dealing with bioterrorism.

**BSDP 5209 - Emerging Infections: Epidemiology and Public Health Importance**

**Credit(s): 3 Credits**

This course will present to the student an overview of Emerging Infectious Diseases, not only in the United States, but internationally. The course will lead off with an overview of the topic, emphasizing topical issues and concerns. Selected topics in order of importance to public health will be examined, with an emphasis on the epidemiology of the infection and its public health impact, either potential or actual.

**BSDP 5210 - Preparing for Disasters: Resiliency and Stress Inoculation**

**Credit(s): 3 Credits**

While many private and public agencies have some sort of disaster response plan, few take into account the mental and emotional ramifications of disaster upon general and vulnerable populations. This course will investigate the use of resiliency and stress inoculation before disasters to lessen disaster impact and encourage effective and prompt recovery.

**BSDP 5211 - Business Continuity and Pandemic Planning**

**Credit(s): 3 Credits**

This course will give the student an understanding of Business Continuity Management and Pandemic Planning concepts. It will lay a foundation for recovery of people, places and technology in a business setting. This class will also focus on the unique aspects of planning for a pandemic.

**BSDP 5212 - Global Health and Infectious Diseases**

**Credit(s): 3 Credits**

The purpose of the research ara synthesis (RAS) is for the student to demonstrate sufficient command of an area of research and advance a body of knowledge. This is achieved by independently completing an extended review paper (e.g., 50-75 double spaced pages) that critically appraises and synthesizes the research literature on a particular topic. The result of this document shall include an assessment of major theories or perspectives, key findings, research design assets and limitations, and measurement issues, and development of a future research agenda. Limited to Ph.D. program in social work students who are in their final semester of coursework.

**BSDP 5930 - Special Topics**

**Credit(s): 1-3 Credits (Repeatable for credit)**

**BSDP 5960 - Capstone in Biosecurity and Disaster Preparedness**

**Credit(s): 3 Credits**

Prerequisite: All other courses must be completed before enrolling in the Practicum, unless the student has special permission from the Program Associate Director or Director. Students may enroll in the Practicum during their final semester, even if they are taking another course(s) at the same time. This course is the capstone project for the Biosecurity and Disaster Preparedness programs. Students will demonstrate the skills of interdisciplinary planning and consequence management needed to respond to a bioterrorist event or naturally occurring epidemic. Students will develop an exercise using an infectious disease scenario. (Offered annually)

**BSDP 5980 - Graduate Reading in Biosecurity and Disaster Preparedness**

**Credit(s): 1-3 Credits**

This course provides specialized study in environmental health to enhance skills in literature review and problem solving. Content is developed jointly between the student(s) and a faculty mentor.

**BSDP 6930 - Special Topics**

**Credit(s): 1-3 Credits (Repeatable for credit)**

**BSDP 6980 - Independent Study**

**Credit(s): 1 or 3 Credits (Repeatable for credit)**