

#### RELATED TERMS

- Animal Health
- Biosecurity
- Infectious Diseases
- Professional Development



**Lessons Learned  
Information Sharing**

[www.LLIS.gov](http://www.LLIS.gov)

**GOOD STORY**

#### PRIMARY DISCIPLINES

- Veterinary
- Public Health
- Emergency Management

## Purdue University's Graduate Certificate Program in Veterinary Homeland Security

### SUMMARY

Purdue University's School of Veterinary Medicine, in cooperation with the Purdue Homeland Security Institute (PHSI), the Indiana State Board of Animal Health (BOAH), and the Indiana Department of Homeland Security (IDHS), launched a Graduate Certificate Program in Veterinary Homeland Security in May 2006. The distance-learning program trains practicing veterinarians as well as public health and homeland security professionals in emergency response techniques related to animal health issues.

### BACKGROUND

In the fall of 2005, BOAH began training Indiana veterinarians in animal health-related emergency response and disease surveillance. With support from IDHS, BOAH trained practicing veterinarians to serve on small, deployable veterinary first-response teams called Animal Surveillance and Emergency Response Teams (ASERT). IDHS saw an opportunity to expand the ASERT training into a larger educational initiative. The executive director of IDHS contacted the associate director of the Purdue Homeland Security Institute and the director for biosecurity and preparedness planning at BOAH in the summer of 2005 to suggest establishing a graduate program on veterinary homeland security. Both officials eagerly supported the idea.

The IDHS, Purdue, and BOAH officials made several key decisions concerning the program's orientation and organization. They determined that a Certificate program would best cater to the program's target audience, many of whom are professionals who already possess an advanced degree. They also decided to make the program distance-learning to encourage participation by veterinarians and professionals from outside of Indiana. The program's creators selected Purdue University's School of Veterinary Medicine as the program's institutional home. The School's National Biosecurity Resource Center for Animal Health Emergencies, a joint creation of PHSI and BOAH, provided necessary resources and guidance. The program's affiliation with PHSI enables it to reach out to homeland security professionals as well as to veterinarians.

### GOALS

The Graduate Certificate Program in Veterinary Homeland Security trains veterinarians and other homeland security professionals in animal health issues and emergency response. Students enhance their understanding of natural and intentional threats to animal health, strengthen their skills in management of animal health emergencies, and develop problem-solving expertise to be effective members of an animal emergency response team.

## **DESCRIPTION**

The Purdue Certificate program is the first graduate-level program on veterinary homeland security in the United States. It builds understanding of animal health threats and develops the emergency response skills of its participants through an interdisciplinary curriculum designed to link the veterinary and homeland security fields. The program also seeks diversity in its lecturers and student body to reinforce this interdisciplinary approach.

### ***Program Curriculum***

An interdisciplinary program curriculum prepares students for the animal health-related threats or emergencies that they may encounter. The nature of these threats demands that responders acquire general knowledge in other response disciplines including public health, environmental health, agriculture, law enforcement, hazardous materials, radiology, and numerous others. The program's required courses address the fundamental knowledge in these fields, while electives allow students to explore particular topics in greater detail.

### **Required Curriculum**

Required courses provide students with a basic proficiency in the foundational concepts of animal health threats and emergency response. These courses in emergency response build familiarity with the incident command system (ICS), emergency operations plans, or other core emergency response concepts. Courses on animal health issues address such issues as zoonotic diseases, food- and water-borne diseases, bioterrorism, biosecurity, and other topics. Selected lectures examine the veterinarian's role in community planning, business continuity planning, outbreak investigation, and general emergency response operations. Students are also required to become certified at the 100 level in the ICS.

### **Elective Courses**

Elective courses provide students with the opportunity to investigate issues relevant to their individual interests. Students can study such topics as: high-consequence diseases including bovine, equine, swine, avian, and minor species diseases; euthanasia and carcass disposal; food-borne illnesses; Geographic Information Systems applications; radiological events; crime scene management; and emergency management. Several courses train students to work with law enforcement officials and criminal investigators in the event of a deliberate criminal act.

### ***Faculty and Administration***

The Certificate program is jointly directed by the associate director of PHSI, the agricultural outreach coordinator of PHSI, and the director for biosecurity and preparedness planning at BOAH. These three staff members collaborate to recruit students, to select course lecturers, and to manage the program's administrative needs.

The program's faculty is composed largely of working professionals with knowledge in a particular subject area pertinent to veterinary homeland security. The introductory course has incorporated presentations by Purdue professors, representatives of state agencies like BOAH, and officials from the Department of Defense, the U.S. Department of Agriculture, and the U.S. Army Veterinary Corps. The Indiana Department of Homeland Security, Indiana State Police, and Indiana National Guard have all offered lectures for future courses. Each course consists of a series of pre-recorded presentations from different lecturers.

### ***Distance Learning***

As a distance-learning initiative, the Certificate program engages its student body entirely through the Internet. Enrolled students may access all course materials via a secure portal on the National Biosecurity Research Center's website. The pre-recorded lectures are available on the portal 24 hours a day in video, audio, and transcript format.

This ease of access to course material attracts a diverse group of students. As of June 2006, the program had recruited applicants from 18 states and Singapore for the fall 2006 semester. The flexibility of the distance-learning program encourages applications from busy professionals whose schedules may not accommodate attendance at traditional classroom lectures.

### **Application Process and Requirements**

The Certificate program encourages applications from all professionals who may contribute to an animal health-oriented emergency response. Applicants who do not possess a degree in veterinary medicine must demonstrate the relevancy of their professional interests by submitting proof of an appropriate Bachelor's degree, resume, and letters of reference.

### **Costs**

Tuition for all students conforms to Purdue University's standard rate of \$254.14 per credit hour. The University has helped subsidize the program in its early stages, as small initial enrollment numbers and tuition payments alone cannot cover all administrative costs.

## **REQUIREMENTS**

### **Keys to Success**

#### **Institutional Ties**

The executive director of IDHS was a former managing director at PHSI. These strong professional ties with Purdue helped win support for the program among PHSI's current staff. IDHS also appealed to the goals of BOAH to gain additional support.

#### **Diversity and Outreach**

Program administrators seek to recruit a diverse student body for the Certificate program, which they believe is key to building a solid base of veterinary emergency responders. Program staff initially advertised in veterinary journals and at veterinary conferences but are now looking to recruit through media avenues with a wider audience of emergency response professionals.

## **REFERENCES**

Sandra Amass. Associate Director, Purdue Homeland Security Institute. Interview with *Lessons Learned Information Sharing*. 26 Jun 2006.

## **DISCLAIMER**

This website and its contents are provided for informational purposes only and do not represent the official position of the US Department of Homeland Security or the National Memorial Institute for the Prevention of Terrorism (MIPT) and are provided without warranty or guarantee of any kind. The reader is directed to the following site for a full recitation of this Disclaimer: [www.llis.gov](http://www.llis.gov).