

United States  
Department of  
Agriculture

Animal and Plant  
Health Inspection  
Service

Veterinary  
Services

Centers for  
Epidemiology  
and Animal  
Health

# **TRAINING COURSES**

**PROVIDED BY THE**

**CENTERS FOR  
EPIDEMIOLOGY AND  
ANIMAL HEALTH**

**FISCAL YEAR 2009**

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## **NOMINATION/APPLICATION PROCEDURES**

Each field nominee must submit the enclosed nomination request through the Area Office to the Regional Office. Each headquarters nominee must submit the enclosed nomination request through the Associate Deputy Administrator's Office, National Animal Health Policy Programs (NAHPP). The Regional Office and/or the NAHPP, Associate Deputy Administrator's Office will then submit the prioritized nominations to the nomination address listed in the course description. First priority is given to those individual(s) who are in absolute need of the training. More than one person may be placed in priority one status.

The Centers for Epidemiology and Animal Health (CEAH) cannot accept nominations directly unless they come through the Regional Office or the NAHPP, Associate Deputy Administrator's Office. If you have not nominated a participant, or have vacant positions that are to be filled, and want to reserve a space in the course, you may write "to be determined," or, "TBD" on the nomination form. Director approval is required for the named nominations, as well as a commitment to fill or cancel reserved spaces.

All training-related correspondence (select, non-select, cancellation, etc.) will be sent directly to the participants by email with copies to the VSMT, Training Coordinators, and supervisors. Hard copies will no longer be issued. Requests for exceptions may be made to the CEAH Training Coordinator.

## **COURSE DESCRIPTION**

Each course description gives the course title, dates, purpose, and in some cases, objectives, eligibility, location, source person, and nomination contact person.

The course dates do not include travel dates. Travel dates are normally the day before the start of the course and the afternoon and evening of, or the day after, the end of the course.

## **CANCELLATION AND SUBSTITUTION POLICY**

Based on each particular course, it is important that CEAH be notified as soon as possible in the case of a substitution and/or withdrawal of a course participant(s). We will accept substitutions and cancellations up to 1 week before the start of the course. Any changes in the status of nominees or course logistics will be communicated immediately through the Training Coordinators.

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<b>Introduction to Epidemiologic Simulation Modeling</b>	
**This is a 4 ½ day course**	
<b>Location and Date</b>	Ft. Collins, CO <span style="float: right;">January 12 – 16, 2009</span>
<b>Course Purpose</b>	<p>Simulation modeling is an increasingly well established and essential tool for many epidemiologic investigations, including studies of population disease dynamics and evaluation of mechanisms of disease control. This course will serve as an introduction to the principles, methods, and applications of simulation models of epidemiological systems.</p> <p>The course will address concepts of disease spread and control from the perspective of the modeler. These epidemiologic principles will be presented and developed in the context of disease models, beginning with simple, deterministic models of disease spread within a population. Several approaches to disease modeling, including chain binomial, Markov chain, and state transition models will be covered. Additional levels of complexity will be incorporated as stochasticity and concepts of spatial and temporal aspects of disease spread modeling are introduced. Participants will also have the opportunity to explore the economic aspects of disease control.</p> <p>The course will culminate in the use of and development of parameters for a detailed stochastic, temporal, spatial simulation model of contagious disease using <i>NAADSM</i>, a freely distributed disease spread model developed by the Animal Population Health Institute at Colorado State University, the Canadian Food Inspection Agency, the Ontario Ministry of Agriculture, Food, and Rural Affairs, the United States Department of Agriculture – Centers for Epidemiology and Animal Health, and the University of Guelph Department of Computing and Information Science.</p> <p>For more information, please visit our web page at <a href="http://www.naadsm.org/training">http://www.naadsm.org/training</a></p>
<b>Target Audience</b>	This course is intended for epidemiologists, veterinarians, graduate students, and other workers in the fields of animal health and preparedness planning.
<b>Prerequisites</b>	Previous experience with modeling is not required. Participants should be familiar with basic operations in Microsoft Excel (including the use of formulas, the use of relative and absolute cell references, and production of charts).
<b>Cost</b>	Participants will be responsible for the costs of their own travel, lodging, meals, and related expenses. There is no cost for course tuition or materials. A block of hotel rooms for course participants will be available for those who wish to take advantage of it.
<b>Contact</b>	<p><u>Registration:</u> Mary Fraser, <a href="mailto:mary.e.fraser@aphis.usda.gov">mary.e.fraser@aphis.usda.gov</a>, (970) 494-7166</p> <p><u>Course content:</u> Kimberly Forde-Folle, <a href="mailto:kim.n.forde-folle@aphis.usda.gov">kim.n.forde-folle@aphis.usda.gov</a>, (970) 494-7264</p>
<b>Registration Deadline</b>	November 17, 2008 - Space is limited to approximately 40 participants. Please note that these courses fill quickly. If we cannot accommodate you, we will ensure that you have high priority the next time the course is offered. This is currently the only time this course will be offered in 2009. Please register early!

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<b>Spatial Epidemiology Methods Using ArcGIS - I - NEW!!</b> **This is a three-day course**	
<b>Location and Dates</b>	Fort Collins, Colorado April 21 - 23, 2009
<b>Course Purpose</b>	<p>This course will include specialized training in the use of ArcGIS software for the acquisition, management, and analysis of spatial data for epidemiological investigations. Some prior knowledge and experience with ArcGIS is expected and online courses are available to help meet this prerequisite. Participants will learn how Veterinary Services processes spatial data and applies spatial statistical and spatial modeling approaches to better understand the ecology, distribution, and determinants of disease agents in space and time. Using the spatial analysis tools available in ArcGIS, participants will learn to apply methods of classification, population density mapping, point pattern analysis, neighborhood analysis, regionalization/zonation, and change detection methods. This class is intended to provide participants with hands-on experience in the areas of geospatial processing of data prior to analysis and the application of basic spatial statistical analysis tools and spatial modeling techniques in understanding the ecology of pathogens within animal populations and how this information is applied to surveillance activities. This course also serves as a prerequisite for a more advanced follow-up course on Spatial Epidemiology Methods using ArcGIS – II.</p>
<b>Target Audience</b>	<p>This course is intended for disease program managers, analytical epidemiologists, area epidemiologists, wildlife ecologists, surveillance specialists, program analysts, geospatial specialists; disease spread modelers, incident managers, and others who would like to learn how to apply spatial analysis and modeling approaches to address questions regarding the epidemiology and ecology of diseases in animal populations.</p>
<b>Prerequisites</b>	<p>A working knowledge of ArcGIS software that can be obtained through one or more online training courses that is at no cost for USDA employees.</p>
<b>Cost</b>	<p>Participants pay travel and hotel.</p>
<b>Contact</b>	<p>Registration: Mary Fraser, (970) 494-7166, <a href="mailto:mary.e.fraser@aphis.usda.gov">mary.e.fraser@aphis.usda.gov</a>            Course content: Jerry Freier, (970) 494-7275, <a href="mailto:jerome.e.freier@aphis.usda.gov">jerome.e.freier@aphis.usda.gov</a></p>
<b>Registration Deadline</b>	<p><b>March 9, 2009</b>  <b>**Please honor the registration deadline. Thank you.</b></p>

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<b>Global Positioning System Methods for Field Investigations - NEW!!</b> **This is a two-day course**	
Location and Dates	Fort Collins, CO May 5 - 6, 2009
Course Purpose	<p>This hands-on course is designed to provide detailed training in the use of global positioning system (GPS) methods to determine geographic coordinates of point locations, such as premises or livestock facilities. In addition, participants learn how to use GPS methods to map the boundaries of agricultural facilities, or other areas of interest. Training also includes how to create an accuracy check point, how to validate location accuracy and how to transfer coordinate data to a computer. This training course builds skill in using GPS receivers to navigate from one location to another. The Garmin eTrex Legend model GPS receiver will be used for this training course and each student will have a GPS receiver available for their use during the training course. Besides GPS training, this course incorporates the use of digital atlases, such as Delorme Street Atlas, in data validation, navigation, and route planning.</p>
Target Audience	<p>This course is intended for animal health technicians, field veterinary medical officers, disease program managers, area epidemiologists, wildlife specialists, surveillance specialists, program analysts, geospatial specialists, incident managers, and others who would like to learn how to use GPS methods for reporting geographic coordinates and navigating to specific geographic locations.</p>
Prerequisites	None
Cost	Participants pay travel and hotel.
Contact	Registration: Mary Fraser, (970) 494-7166, <a href="mailto:mary.e.fraser@aphis.usda.gov">mary.e.fraser@aphis.usda.gov</a> Course content: Jerry Freier, (970) 494-7275, <a href="mailto:jerry.e.freier@aphis.usda.gov">jerry.e.freier@aphis.usda.gov</a>
Registration Deadline	<b>March 23, 2009</b> <b>**Please honor the registration deadline. Thank you.</b>

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<b>Workshop on the Fundamentals of Risk Analysis for Decision Makers and Technical Risk Analysts</b>	
<b>Location and Dates</b>	Fort Collins, Colorado August 4 – 6, 2009
<b>Course Purpose</b>	<p>This 3-day workshop will introduce the fundamentals of risk analysis from the perspectives of both decision makers and technical risk analysts. The course is a mix of lectures/presentations, discussion, and exercises. Participants will learn about the fundamentals of risk analysis, how it is conducted, and how it can be used to assist in decision-making. The workshop consists of two parts:</p> <ol style="list-style-type: none"> <li>(1) A non-technical overview of the risk analysis process; and,</li> <li>(2) A technical discussion of quantitative and qualitative risk analysis methods, probability, and probability distributions.</li> </ol> <p>The technical part covers:</p> <ol style="list-style-type: none"> <li>a. How to conduct a quantitative or qualitative risk analysis and evaluate it critically;</li> <li>b. The probability laws and concepts on which risk analysis is based; and,</li> <li>c. How to use probability distributions to model data and expert opinions in a risk analysis model.</li> </ol> <p>Real-life examples will be presented and discussed throughout the course. The examples will discuss:</p> <ul style="list-style-type: none"> <li>• Formulating the question;</li> <li>• Selecting and designing an approach;</li> <li>• Running models using @Risk software;</li> <li>• Interpreting results; and,</li> <li>• Risk communication techniques.</li> </ul>
<b>Target Audience</b>	Decision makers and intermediate to technical risk analysts.
<b>Prerequisites</b>	None. Some familiarity with Excel and probability/statistics is useful, but not required. Students are encouraged to bring problems, questions, or issues related to risk analysis for classroom discussion.
<b>Costs</b>	Travel, lodging, meals. A notebook computer with Excel and @Risk installed would be useful for exercises, but computers and software will be provided. For questions on software, please contact Tim Clouse.
<b>Contact</b>	<p>Registration: Mary Fraser-- <a href="mailto:mary.e.fraser@aphis.usda.gov">mary.e.fraser@aphis.usda.gov</a> (970) 494-7166</p> <p>Course content: Tim Clouse-- <a href="mailto:Timothy.L.Clouse@aphis.usda.gov">Timothy.L.Clouse@aphis.usda.gov</a> (970) 494-7292 Katie Portacci-- <a href="mailto:Katie.A.Portacci@aphis.usda.gov">Katie.A.Portacci@aphis.usda.gov</a> (970) 494-7189</p>
<b>Registration Deadline</b>	<p><b>June 22, 2009</b></p> <p><b>** Please honor the registration deadline. Thank you.</b></p>

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<b>Spatial Epidemiology Methods using ArcGIS - II - NEW!!</b> **This is a three-day course**	
<b>Location and Dates</b>	Fort Collins, CO <span style="float: right;">September 15 – 17, 2009</span>
<b>Course Purpose</b>	<p>As a follow-up to Spatial Epidemiology Methods – I, this course continues with specialized training in the use of ArcGIS software for the management, analysis, and modeling of spatial data for epidemiological studies. Using the spatial analysis and modeling tools available in ArcGIS, participants will learn to apply methods of measuring geographic distributions, identifying patterns within populations, creating spatial weights, identifying clusters, and determining biological and ecological relationships to spatial variation in animal populations. This class is intended to provide participants with hands-on experience in using more specialized spatial statistical analysis tools in understanding the ecology of pathogens within animal populations. This course also emphasizes and how spatial analysis and modeling results may be applied to surveillance planning and in the development of disease management strategies.</p>
<b>Target Audience</b>	<p>This course is intended for disease program managers, analytical epidemiologists, area epidemiologists, wildlife ecologists, surveillance specialists, program analysts, geospatial specialists, disease spread modelers, incident managers, and others who would like to learn how to apply spatial analysis and modeling approaches to address questions regarding the epidemiology and ecology of diseases in animal populations.</p>
<b>Prerequisites</b>	Spatial Epidemiology Methods and Applications using ArcGIS – I course
<b>Cost</b>	Participants pay travel and hotel.
<b>Contact</b>	Registration: Mary Fraser, (970) 494-7166, <a href="mailto:mary.e.fraser@aphis.usda.gov">mary.e.fraser@aphis.usda.gov</a> Course content: Jerry Freier, (970) 494-7275, <a href="mailto:jerome.e.freier@aphis.usda.gov">jerome.e.freier@aphis.usda.gov</a>
<b>Registration Deadline</b>	<b>August 3, 2009</b> <b>**Please honor the registration deadline. Thank you.</b>

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**NOMINATION REQUEST**

**PLEASE PRINT CLEARLY**

**COURSE TITLE:** \_\_\_\_\_

**DATE OF THE COURSE:** \_\_\_\_\_

1. Participant's name , mailing address, phone and fax number, and e-mail address:

\_\_\_\_\_  
(Dr. Mr. or Ms.) Name

\_\_\_\_\_  
Mailing address (street, city, state, and zip code)

\_\_\_\_\_  
Phone number                                      Fax number                                      E-mail address

2. Job Title: \_\_\_\_\_

3. Participants Official Duty Station: \_\_\_\_\_

4. Estimated costs (This information is needed for the preparation for the Quarterly Travel Plan):

No. of days for per diem \_\_\_\_\_

POV (need # of miles round trip): \_\_\_\_\_

Miscellaneous expenses (round trip estimates): \_\_\_\_\_  
{shuttle, parking, taxi, etc.}

Common carrier fare: \_\_\_\_\_

Method of purchase for common carrier (GTR, GVTS, CC, etc.): \_\_\_\_\_

GOV (Check if this mode of transportation will be used): \_\_\_\_\_

Car Rental: \_\_\_\_\_

5. Method of Transportation: \_\_\_\_\_

6. Supervisor's signature for approval: \_\_\_\_\_

7. Region's approval: \_\_\_\_\_

**PLEASE FAX TO THE REGIONAL OFFICE. THE REGIONAL OFFICE WILL FAX TO THE NOMINATIONS CONTACT PERSON NOTED AT THE END OF EACH COURSE DESCRIPTION.**

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