



Mississippi State
UNIVERSITY

College of Veterinary Medicine



USDA, Animal and Plant Health Inspection Service (APHIS), Veterinary Services Temporary Training Opportunities – Externships (Clerkships)

The Mississippi State University's College of Veterinary Medicine represents many disciplines that address urgent issues including new or emerging disease pathogens some of which may be zoonotic or exotic, agroterrorism, bioterrorism, environmental safety, and food safety problems that pose a risk to the well-being of citizens in the United States and around the world. As these threats grow and diversify, there is an increasing demand for veterinarians in the field of public practice and food supply veterinary medicine. The faculty within the Department of Pathobiology and Population Medicine works to prepare students for employment opportunities which will meet these needs. Students are encouraged and provided time to complete externships involving public and corporate practice.

In response to the needs posed by these challenges, Mississippi State has embarked on a partnership with the **United States Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services (USDA, APHIS, VS – www.aphis.usda.gov)** to provide experiential learning opportunities for students during summers, breaks and open rotations. The focus of the learning opportunities is to provide veterinary students with hands-on experience in public veterinary practice through externships as described below. Information on the externships as well as other opportunities may be found at:
<http://www.cvm.msstate.edu/usdaextern/index.html>.

General information on externships

Externships usually last 2-4 weeks and do not require a formal competitive application process. They can be completed throughout the calendar year dependant upon the student's schedule and the program availability. **There is no reimbursement of expenses or a salary provided for externships. Please be aware that the student will have to arrange for housing and transportation during the externship.** The local offices can assist with this if a student is accepted. **Costs for travel and housing are the responsibility of the student.**

Application for Externship

To apply the student is required to submit 1 letter of reference, a cover letter that describes interest, background and the dates of availability for the 2- 4 week externship, and a resume. **The application should be submitted electronically.** Submissions should be made to:

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The descriptions listed below are some of the currently available externship opportunities. If students have an interest in other areas please do not hesitate to inquire about creating an externship.

Centers for Epidemiology and Animal Health (CEAH) – Fort Collins, Colorado – The externships at CEAH require at least 3-4 weeks.

CEAH explores and analyzes animal health and related agricultural issues to facilitate informed decision-making in government and industry. CEAH is comprised of the following three centers.

The Center for Emerging Issues (CEI) identifies and analyzes both emerging animal health issues and emerging market conditions for animal products. CEI's work on emerging animal health issues keeps key agency and industry decision makers and interested members of the public informed regarding health issues that may impact the United States. CEI's work on emerging market conditions serves to inform decision makers on how to better align APHIS products and services to best meet the needs of the public. CEI performs these roles by applying a multidisciplinary approach drawing on the experience of its team of veterinarians, economists, policy analysts, statisticians, and epidemiologists.

The Center for Animal Disease Information and Analysis (CADIA) serves Veterinary Services (VS) by developing, implementing, supporting and utilizing information technology tools for the collection, management, analysis and dissemination of information that is critical to VS programs and other APHIS initiatives. CADIA provides leadership in the areas of information systems, technology for collecting data in non-office environments, managerial and epidemiologic reporting, risk analysis methodologies, and computer-based modeling of animal disease. The Risk Analysis Team (RAT) within CADIA contributes to and utilizes the VS information technologies and data from external sources to develop and apply risk analysis approaches and computer-based models to support regulatory and strategic decision-making for animal health.

The National Surveillance Unit (NSU) is the coordinating entity for activities related to U.S. animal health surveillance. The NSU develops and enhances animal health surveillance through evaluation, design, analysis, prioritization, and integration. NSU projects focus on (1) coordination and integration of surveillance information, (2) surveillance planning and design, (3) data analysis and dissemination of results, (4) evaluation of surveillance programs, and (5) prioritizing surveillance activities.

The National Animal Health Monitoring System (NAHMS) Program Unit conducts national livestock and poultry health studies. The USDA initiated the National Animal Health Monitoring System (NAHMS) in 1983 to collect, analyze, and disseminate information for decision makers. Studies are designed to fill information gaps concerning animal health, animal production, animal welfare, product wholesomeness and the environment.

Students selected for externships at CEAH will participate in various stages of studies, research and special projects utilizing specialized data systems and tools. The student may also develop reports.

New York Animal Import Center – Newburgh, New York (3rd and 4th year students)

The New York Animal Import Center (NYAIC) serves as a quarantine facility for livestock and pet birds entering the United States from Europe and other parts of the world. The majority of the time NYAIC serves horses and various species of birds, but can also house ruminants, swine and zoo animals. The extern will shadow the veterinarians and animal caretakers at NYAIC, learning about the business of international livestock transportation, regulatory control of imported animals, and husbandry/veterinary care of quarantined livestock. There is also the potential for exposure to the airport entry point for NYAIC.

Eastern Regional Office – Raleigh, North Carolina

The Regional Offices for Veterinary Services function as a liaison between the policy staffs in Riverdale, Maryland and the field offices. This particular externship would be working with the regional import/export staff and the Regional Epidemiologists. Each student would spend time in Import Export working on questions from the field. They would be assigned questions and provided the resources to research those questions. Their responses would be reviewed by Import Export staff before being distributed. This will give them the opportunity to learn about the way Veterinary Services policy is communicated to staff and customers. They will also have the opportunity to work on portions of larger projects such as information gathering from the field or preparation of materials for training. This would be another opportunity for them to explore VS policy, how it is developed and maintained, and how it is communicated.

Participants would meet with Regional Epidemiologists to discuss the disease programs that Veterinary Services coordinates. This will provide an opportunity to learn about domestic disease program policy and program management. They may also have the opportunity to work on portions of larger projects such as information gathering from the field or preparation of materials for training. This would be another opportunity for them to explore VS policy, how it is developed and maintained, and how it is communicated.

We would also be willing to help each student coordinate visits with other Veterinary Services personnel to learn about other job opportunities in Veterinary Services, if the student has interest. The Eastern Regional Office staff can accommodate volunteer externs at any time throughout the year.

Western Regional Office – Fort Collins, Colorado

The Regional Offices for Veterinary Services function as a liaison between the policy staffs in Riverdale, Maryland and the field offices. The extern would be integrated into management and implementation of regional operations including disease control and eradication programs (e.g. tuberculosis, scrapie, CWD, Avian Influenza, brucellosis in the Greater Yellowstone area),

import/export and emergency management. Opportunities to interact with regional epidemiologists (eight in total), 2 import/export coordinators and the regional management team will provide a very broad scope of activity within Veterinary Services. Arrangements may be made to conduct field visits.

The Western Regional Office oversees Veterinary Services programs in the 23 states west of the Mississippi through the 20 area offices. Opportunities for interaction at Area Offices to observe field level activities may be available.

National Center for Animal Health Programs – Riverdale, Maryland

The National Center for Animal Health Programs initiates, leads, coordinates, and facilitates, national certification and eradication programs which promote, ensure, and improve U.S. animal health, by preventing, minimizing, or eradicating animal diseases of economic concern in light of constituent values. Please visit <http://www.aphis.usda.gov/vs/nahps> to learn more about the VS National Center for Animal Health Programs.

This Veterinary Services (VS) volunteer externship assignment will provide students with the opportunity to shadow a Program Managers of the VS National Center for Animal Health Programs, in Riverdale, Maryland. The student may choose to spend the majority of the time working with the national coordinator of the Scrapie program. The student would learn about the scrapie program in detail. The student would be involved with assisting in reviewing data and correspondence and answering questions regarding the program, drafting policy memos, etc. Alternatively, the student may choose to spend some time with several managers of the various programs such as tuberculosis and brucellosis briefly learning about each program; its objectives, methods, authorities, and how VS collaborates with State animal health officials, the livestock industries, private veterinarians, other agencies, and congress.

Emergency Management Staff – Riverdale, Maryland

The National Center for Animal Health Emergency Management (NCAHEM) has three sections. Collectively they develop strategies and policies for effective incident management and coordination of incident responses. These sections assist in the planning and delivery of training that will ensure personnel preparedness for emergency response assignments.

- The Interagency Coordination staff coordinates and creates partnerships with other Federal, State, and local entities to strengthen early detection and rapid response capabilities at all levels. It identifies resources that may be utilized during an incident and markets current response strategies to partners.
- The Preparedness and Incident Coordination staff plans, organizes and leads efforts to support and improve response preparedness. It also develops and disseminates emergency response guidelines based on the Incident Command System for responding effectively and efficiently to a foreign animal disease (FAD) or pest. This staff also ensures these guidelines are current, flexible, and adaptable to any disease or animal pest situation. They coordinate investigations and disseminate information about suspected FAD outbreaks.
- The National Veterinary Stockpile staff leads efforts to ensure that supplies and equipment are readily available in sufficient supply to assist personnel in a response to an animal emergency incident.

The selected student will work in an office environment as part of a team of NCAHEM veterinarians and support personnel on issues related to highly contagious FAD preparedness/response and agriculture homeland security issues. The NCAHEM student coordinator may assign projects (some with a short turnaround time) that may require the student to research, organize, analyze, and present data in a Microsoft Word, PowerPoint, or Excel format suitable for presentation or distribution. The student may assist with the development of FAD or emergency management training materials, or may be assigned to another APHIS staff working collaboratively with NCAHEM.

Field Positions – Various Locations

Veterinary Services (VS) area offices carry out the agency mission at the State level across the country. Each office has an Area-Veterinarian-in-Charge who is responsible for the actual implementation of the disease prevention, control, and eradication programs mandated by Congress. The area offices also provide the necessary services to support the importation and exportation of animals and animal products. Specific programs and services include, but are not limited to:

- Health certificate endorsement
- Export certifications
- Import inspections
- Disease surveillance for brucellosis, tuberculosis, pseudorabies, bovine spongiform encephalopathy, scrapie, and chronic wasting disease
- Veterinary accreditation
- Responding to animal health emergencies and conducting FAD investigations
- Cervidae tuberculosis accreditation
- Scrapie program
- Informational presentations and materials
- Animal health monitoring programs

The selected extern would be exposed to a vast array of activities and would participate in actual field work. These activities may include drawing blood, observing the application of a comparative cervical tuberculosis test, taking samples required for disease surveillance, assisting in the development of an epidemiology work-up, and performing inspections for importation/exportation. If the selected state has a laboratory, the student may spend time learning about the variety of diagnostics tests required to support VS programs. Mississippi State will work with the student to secure a position in a State which is of interest. Some specific positions are listed below:

California – Import/Export and Field Activities

The duties of USDA, APHIS, Veterinary Services in California are diverse. They include all of the field position responsibilities as listed below as well as port functions.

Port Functions: The California Area oversees the importation and exportation of animals and animal products at the port of Los Angeles and the Mexican border. The Los Angeles International Airport/Long Beach serves as an approved port of entry for horses, pet birds and other animals as well as animal products. Veterinary Services employees insure that imported animals and products are inspected and meet the import requirements of the United States.

Specific programs and services include, but are not limited to:

- Health certificate endorsement
- Export certifications
- Import inspections
- Bird Quarantine Facility

Field Responsibilities: Veterinary Services and California Department of Food and Agriculture (CDFA) personnel work throughout California.

Specific programs and services include, but are not limited to:

- Disease surveillance for brucellosis, tuberculosis, pseudorabies, bovine spongiform encephalopathy, scrapie, Exotic Newcastle Disease, Avian Influenza and chronic wasting disease
- Veterinary accreditation
- Responding to animal health emergencies and conducting FAD investigations
- Outreach and Education Programs

Minnesota Area

As a primary assignment the extern will assist with various aspect of the bovine tuberculosis eradication effort in Minnesota. These duties will include both office and field assignments. There may also be opportunities to gain experience with other program diseases.

Mississippi Area

The individual selected for the volunteer externship in Mississippi would be afforded the opportunity to participate in a variety of field work and office work. Field work may include observance of biosecurity measures to prevent the spread of disease, assisting in the collection of Bovine Spongiform Encephalopathy (BSE) samples from a targeted cattle population, assisting in the baiting and setting of traps used to capture and test feral hogs for Pseudorabies (PRV), participating in trainings/meetings with MS Board of Animal Health's Emergency Response program, assisting the area epidemiologist or field veterinary medical officers in epidemiological work-ups, observation, and assistance with foreign animal disease investigations. The extern may also assist field veterinary medical officers with facility inspections for importation/exportation of animals and/or animal products and may spend time in the area office gathering knowledge related to various activities performed by area office personnel. The individual may participate in additional sample collection, testing, investigations, trainings, and meetings related to additional program diseases not mentioned above.

Oklahoma Area

The selected extern would be exposed to a variety of Oklahoma Area Veterinary Services activities and would assist regulatory personnel in actual field work. These activities will include observance of biosecurity measures to prevent the spread of disease prior to field work. Activities may include blood collection from various species, assistance in necropsies and postmortem sample collection, observing the application of supplemental tuberculosis tests, observation and assistance in field epidemiological investigations for various disease programs, assisting in the development of an epidemiological work-up, observation and assistance with foreign animal disease investigations, performing inspections for importation/exportation of animals and animal products, and spending time in the state/federal laboratory learning about the variety of diagnostic tests required to support VS programs.

Ohio/West Virginia Area

The extern would be involved with a number of field activities including epidemiological investigations of scrapie, brucellosis, tuberculosis, and avian influenza. The extern may also participate in obtaining blood, tissue or swabs from sheep, cattle, swine, horses, poultry and other species. Other activities would include inspections of animals, products or facilities to assure compliance with import and export requirements. The student may also be involved in investigations of suspected foreign animal diseases as well as participation in emergency management planning, training and exercises. The extern will also have the opportunity to observe the various roles of the Area office professionals. A specialized externship could be arranged that meets the requirements for a Master in Public Health (MPH) program with veterinary medicine emphasis.

South Carolina Area

The Veterinary Services (VS) Area Office in South Carolina would like to provide a broad range of work experiences for the assigned extern. The objective of the externship is to provide exposures which may facilitate the student deciding to embark upon a career in regulatory medicine or food animal medicine. As such, we will provide experiences that would include the following (opportunities provided will depend on scheduling):

DIAGNOSTICS

1. rotation with Clemson Diagnostic Laboratory

DISEASE MONITORING and SURVEILLANCE

1. assist VS field personnel with monitoring and surveillance activities for disease programs, etc. (tuberculosis, pseudorabies, scrapie, brucellosis, etc.)
2. rotation with state poultry specialist
3. assist VS personnel with collection of bovine spongiform encephalopathy (BSE) samples
4. assist VS personnel with National Animal Identification System (NAIS) visits to obtain premises identification for producers
5. rotation with state animal health/extension personnel

ADMINISTRATIVE

1. assist administrative personnel with cooperative agreement activities
2. assist office personnel with planning of technical meetings

EMERGENCY MANAGEMENT

1. assist area emergency coordinator with emergency management activities (exercise planning, conferences, after action reviews, etc)

IMPORT/EXPORT

1. assist export documents examiner (EDE) with providing information to veterinary practitioners and clients on import requirements for their animals (small animals, livestock, poultry, fish and exotics).
2. assist EDE with providing information to clients on import requirements for animal by-products (pet foods, nutritional supplements, ingredients for further processing, etc.)
3. assist VS personnel with export isolation inspection activities

PUBLIC HEALTH

1. rotation with public health veterinarian

The student must have her/his own transportation.

At the conclusion of the externship, the student is expected to provide a presentation on the overview of her/his experiences. The presentation (likely to be a Powerpoint presentation with photographs) would provide information on what the student learned from the experience and also provide feedback on how the experience can be made better for the next extern. A copy of the presentation is to be provided to the Area Veterinarian in Charge (AVIC). This presentation will be utilized as a point of reference for the future.

Virginia Area

The selected extern would be exposed to a vast array of activities and would participate in actual field work. These activities may include drawing blood, observing the application of a comparative cervical tuberculosis test, taking samples required for disease surveillance, assisting in the development of an epidemiology work-up, and performing inspections for importation/exportation. The locations available in Virginia include Blacksburg, Harrisonburg and Richmond. The Richmond position includes exposure to field work in addition to import/export certification and work with the Area Epidemiology Officer and Area Emergency Coordinator.

For further information and questions or to apply for an externship, please contact:

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