Project Title: Air Dispersion

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<tr>
<th>Bureau</th>
<th>Environmental Health</th>
<th>Department</th>
<th>Air Quality</th>
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</thead>
<tbody>
<tr>
<td>Practicum Location</td>
<td>Clack Health Center, Lawrenceville</td>
<td>Number of students needed for this project</td>
<td>1</td>
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**Project Description**

Knowledge of the potential for the atmosphere to disperse pollutants is helpful to public health officials, since high concentrations of atmospheric contaminants can produce or exacerbate compromised respiratory and pulmonary conditions and other health issues. Therefore, this project requires an intern to work with detailed historical meteorological data (collected by the Pittsburgh National Weather Service (NWS) and the Allegheny County Health Department’s Air Quality Program (ACHD AQP)) to characterize dispersion conditions throughout the county. Ultimately, various time periods throughout the year (e.g., seasons or months) will be categorized as to their dispersion potential.

**Primary Activities**

This project will build upon the 2015 ACHD AQP study that examined twice daily NWS upper-air data from the past five years. Besides the previous upper-air data, the intern will examine and analyze any available pertinent additional meteorological information including wind data, et al. from NWS and county sites.

**Project Deliverables**

Analysis report including, as appropriate, detailed tables, graphs, figures, and textual description of dispersion potential conditions in Allegheny County.

**Specific Qualifications**

Prior work with large data sets, statistical analysis skills, and Excel database familiarity would be helpful.
## Project Title: Animal Bite Surveillance

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Community Health Promotion/Disease Prevention</th>
<th>Department</th>
<th>Infectious Diseases</th>
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</thead>
<tbody>
<tr>
<td>Practicum Location</td>
<td>3441 Forbes Avenue (Oakland)</td>
<td>Number of students needed for this project</td>
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### Project Description

This is a surveillance project within the Infectious Disease Program focused on surveillance and follow-up of reported animal bites in Allegheny County. All animal bites and exposures are investigated and recommendations are made for follow-up care and/or prophylaxis if needed. The student will have the opportunity to develop important communication and data management skills, as well as interact with a variety of community partners and other governmental agencies.

### Primary Activities

1. Follow up on reported animal bites (primarily conducted via telephone with clients).
2. Help oversee follow-up care and prophylaxis, if needed.
3. Work with Animal Control and other community partners to ensure that testing is done in a timely and efficient manner.
4. Review the animal bite database and make recommendations (and, possibly make changes) to improve usability and efficiency.
5. Other duties, as necessary.

### Project Deliverables

1. The student will be expected to conduct timely follow-up calls for reported animal bites and oversee any follow-up treatment that may be necessary based on the information obtained from the report and interview with the client. This will be documented and added into a database.
2. The student will be expected to prepare a report on possible improvements to the functionality of the animal bite database.
3. If available, the student should plan to participate in the annual Raccoon Rabies Oral Vaccination program, usually conducted during the second week of August.

### Specific Qualifications

- An interest in learning about rabies and its impact on public health.
- Good oral communication skills and comfort talking to the public via telephone.
**Project Title:** Financial and Budgeting Analysis

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<tr>
<th>Bureau</th>
<th>Administration</th>
<th>Department</th>
<th>Fiscal</th>
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<tbody>
<tr>
<td>Practicum Location</td>
<td>542 Fourth Avenue, Downtown</td>
<td>Number of students needed for this project</td>
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</table>

**Project Description**

The Budget, Fiscal, and Facilities Unit is responsible for coordinating the development and implementation of the Allegheny County Health Department’s annual budget in compliance with county and state requirements under Pennsylvania’s Local Health Administration Law (Act 315). Act 315 provides funding to improve local health administration by authorizing state grants to counties and to certain municipalities which have established departments of health and meet certain prescribed requirements. Act 315-funded health departments are required to provide public health programs in the areas of administrative and supportive services, personal health services and environmental health services. Additionally, the Budget, Fiscal, and Facilities unit is responsible for managing revenues and expenditures, and preparing all agreements for services within the department.

The role of the intern will be to assist in various accounting and administrative functions with a focus on major public health financial duties.

**Primary Activities**

- Assessing 2015 health department expenses and 2016 year-to-date spending to develop a 2017 budget.
- Assisting in completion of the annual Act 315 report (once audited financials are received from the Controller’s office).
- Working on and submitting the 2017 health department budget.

**Project Deliverables**

- Assessment of budget line items and justifications that will help the fiscal team get a completed budget together. This will be a team effort and the finished product will be a submitted budget for 2017.

**Specific Qualifications**

- Must be proficient in Excel and easily able to adapt to other computer programs, such as PeopleSoft and our budgeting software.
### Project Title: Fireplace Conversion Project

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<tr>
<th>Bureau</th>
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<th>Department</th>
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<tbody>
<tr>
<td>Practicum Location</td>
<td>Clack Health Center, Lawrenceville</td>
<td>Number of students needed for this project</td>
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### Project Description

The Air Quality Program will be implementing a pilot project that involves encouraging County residents to convert their wood burning fireplaces to natural gas fueled stove inserts or vented logs. This pilot project will be funded by the U.S. EPA and it is intended to be conducted in conjunction with the separate and larger ACHD funded open burning outreach effort.

### Primary Activities

- Identifying and contacting potential participating retailers of fireplace conversion products, from the local fireplace or HVAC business community;
- Preparing instructional materials for participating project retailers and County residents, including residents participating in the low income assistance portion of the project and those participating in the conventional non-low income portion of the project;
- Developing and implementing procedures for verifying low income status; and
- Investigating fireplace conversion technologies in order to determine appropriateness for the project.

### Project Deliverables

Project deliverables will include a spreadsheet tracking the progress of resident fireplace conversions and similar tracking mechanism for funding allocated and spent to date. Reports tracking advertising impacts would be expected. The assigned intern will participate in preparation of the periodic (i.e., quarterly) reports expected to be prepared for this project.

### Specific Qualifications

[List any specific skills or resources needed to complete the project, such as access to a vehicle or ability to use specific software.]

Ability to prepare status tracking spreadsheets and prepare written reports.
**Project Title: Lifeguard Availability Study**

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<th>Bureau</th>
<th>Environmental Health</th>
<th>Department</th>
<th>Housing</th>
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<tr>
<td>Practicum Location</td>
<td>3190 Sassafras Way, Pittsburgh (Strip District)</td>
<td>Number of students needed for this project</td>
<td>1</td>
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</table>

**Project Description**

We would like to perform a study to attempt to identify whether or not there is a lifeguard shortage occurring in Allegheny County. It has been alleged that there is difficulty finding lifeguards, especially at certain times of the year, making it difficult for some facilities to follow our regulations that require lifeguards to be present at all times that a facility is operational (excludes hotels and condominiums). We would like to determine if this is actually the case.

We would also like to try to identify lifeguards available to work in Allegheny County and determine ways to increase lifeguard availability if we do find that there is a shortage.

**Primary Activities**

- Contacting apartment associations and pool managers to conduct brief interviews in effort to determine lifeguard availability at different times of the year.
- Identifying other methods of study to determine if there is a lifeguard shortage.
- Analyzing data gathered and making conclusions based on the data.
- Identifying and contacting recognized lifeguard training entities, lifeguards, and lifeguard providers to see if they would like their name/company/organization included on a list of lifeguard providers that could be made available to the public and our pool operators.

**Project Deliverables**

There will be two key deliverables for this project:

- A report that either determines or helps us to determine whether or not there is actually a lifeguard shortage occurring in Allegheny County currently, and
- A comprehensive list of lifeguard providers and/or lifeguards in Allegheny County, and possibly neighboring counties.

**Specific Qualifications**

- Software: Word, Excel, Access
- Writing skills, research skills
The Allegheny County Health Department (ACHD) has embraced Health in All Policies (HiAP) as a way of improving population health generally and, more specifically, to advance the goals of the Plan for a Healthier Allegheny (PHA), the Health Department’s community health improvement plan. The PHA was released in May 2015 and is a strategic response to the Health Department’s comprehensive Community Health Assessment, also released in May 2015. These documents offer a roadmap for measurable, positive change in Allegheny County over the next five years. The PHA sets specific strategies and goals in five priority areas: (1) increasing access to health care, insurance, and transportation, (2) reducing chronic disease risk behaviors, (3) ameliorating environmental quality, (4) improving maternal child health, and (5) mitigating negative impacts of mental health and substance use disorders.

A key element of an effective HiAP strategy is transportation, which promotes community resilience, supports economic activity, facilitates physical activity, creates access to healthcare and other services, and contributes to better air quality, among many other benefits. ACHD has already collaborated with the Port Authority of Allegheny County by providing research on the health benefits of transit-oriented development. ACHD also hopes to contribute a health perspective to the work of the Regional Transportation Alliance:

http://www.alleghenyconference.org/PDFs/NewsReleases/2015/RTALaunch093015.pdf. This project will develop the transportation element of the Department’s Health in All Policies Strategy with a particular emphasis on chronic disease and access to healthcare services.

Primary Activities

The student will identify ways for ACHD to collaborate with the Port Authority and other transit stakeholders like the Regional Transportation Alliance or individual municipalities on strategies promoting transportation access to health care, affordable healthy food, tobacco cessation and other health resources, as well as continue to support transit-oriented development projects, among other things.

The student will conduct policy research, programmatic research, and conduct key informant interviews with both organizational representatives and transit users.

Project Deliverables

The key deliverable will be a strategy to be delivered to ACHD and other key regional transit stakeholders by the end of the summer. This will include specific policy recommendations with an assessment of their difficulty to execute, opportunities for programmatic collaboration, and a summary of some of the main benefits of transit access for health-related economic activity.

Specific Qualifications

Policy research background a plus
Interest in land use valuable
Experience in chronic disease research and policy a plus
Must be a high quality writer and researcher who is comfortable interacting with organizational leadership.
2016 Pittsburgh Summer Institute
Project Title: Annual School Vaccination Report

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<tr>
<td>Assessment, Statistics, and</td>
<td>Epidemiology</td>
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<td>Epidemiology</td>
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Practicum Location: 542 Fourth Avenue (Downtown)  
Number of students needed for this project: 1

Project Description
This is a project in applied epidemiology focused primarily on school vaccination data in Allegheny County and Pennsylvania. The student will be working with an epidemiologist to prepare an annual school vaccination summary report. The report is distributed to all school districts in Allegheny County and also serves as a public resource on the ACHD web site. During the course of the practicum, the student will examine vaccination rates to identify any unique characteristics amongst certain districts, schools, or environments (e.g., rural vs. suburban). There will also be opportunities to gain hands-on experience with PA-NEDSS, Pennsylvania’s Web-Based Electronic Disease Reporting System, and assist with other surveillance activities and case investigations of vaccine-preventable diseases.

Primary Activities
- School vaccination data (3/4 time)
  - Review school vaccination submission process for county and state
  - Orientation of Excel database of school vaccinations
  - Analyze school data for the past school year and prepare summary w/ charts and tables
    - Orient data via person, place, and time
      - Vaccination levels by grade level (person)
      - Vaccination levels by school district and school (place)
      - Vaccination levels by fall and spring (time)
    - Questions to answer:
      - Are there any unique characteristics to districts/schools/grade levels with low vaccination rates (<90%)?
        - Same school districts?
        - Are certain grade levels more likely to have lower vaccination rates?
        - Are there certain “hotspots” of low vaccination rates? Suburban? Urban? Rural?
        - Are there certain types of schools that have low vaccination rates? Public? Private? Special Education?
- PA-NEDSS (1/4 time)
  - Assist with data entry and case investigation of vaccine-preventable diseases

Project Deliverables
- A brief (<10 pages) report summarizing findings following a pre-existing template.
- Customized letters (using mail merge)

Specific Qualifications
- Familiarity with MS Excel, including Pivot Tables (training by OEB staff will be provided if needed)
- Working knowledge of MS Word, including editing, formatting, inserting tables/charts, mail merges
**2016 Pittsburgh Summer Institute**

**Project Title: Spatial Variation in Chronic Disease Health Outcomes**

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<th>Bureau</th>
<th>Environmental Health</th>
<th>Department</th>
<th>Air Quality</th>
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<tr>
<td>Practicum Location</td>
<td>Lawrenceville</td>
<td>Number of students needed for this project</td>
<td>1</td>
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</table>

**Project Description**

The student will work on a health outcome specific project as part of a series on health surveillance in Allegheny County. Objectives include analyzing rates for a previously agreed upon health outcome that could be related to air pollution (ex. respiratory outcomes, low birth weight) for Allegheny County as a whole and for defined smaller geographical areas within Allegheny County.

**Primary Activities**

- Help to determine which health outcome to study (this will be influenced by availability of data, needs of the Allegheny County Health Department, and interest of the intern)
- Calculate age-adjusted or age-specific rates of these determined health outcomes in Allegheny County as a whole and for defined smaller geographical areas within Allegheny County
- Create a report with the findings

**Project Deliverables**

By the end of the practicum, the student will be expected to present, at minimum, the following:

- A descriptive report on relevant health outcome, including
  - A brief literature review of the association between selected health outcomes and air pollution
  - Description of methods used
  - Results (age-adjusted or age-specific rates, and 95% CIs, for Allegheny County and divisions of the county) including tables, graphs, or other diagrams
  - Conclusions
- A health outcome specific database of hospitalization, emergency room, birth, and/or death records

**Specific Qualifications**

- An interest in air quality, and how the Air Quality Program works to promote overall community health.
- Knowledge of epidemiology and direct age adjustment.
- Strong written communication skills.
- A desire to learn about working for a government agency.
This is a collaborative project with ACHD’s Bureau of Administration and Infectious Diseases Program to improve the efficiency of the annual Raccoon Rabies Oral Vaccination Baiting Program. The program, sponsored by the U.S. Department of Agriculture, is part of a multi-state effort to eradicate raccoon rabies. While the number of rabid raccoons has steadily declined over the years, more importantly curbing rabies in raccoons has significantly reduced the risk of this deadly disease for people and their pets. In an annual week-long campaign in early-mid August, ACHD employees and community partners distribute 230,000 baits by hand in all municipalities on foot and from vehicles. The primary focus of this project will be to manage the rabies baiting program alongside the Housing Administrator from start to finish performing follow-up in order to make improvements to the program for next year. In addition, the student intern will help recruit, organize, and train volunteers to expand the program’s reach.

1. Organize and facilitate recruitment of program volunteers through both existing channels and new ones.
2. Manage the daily activities of the baiting program.
3. Take calls from the public and troubleshoot during baiting week.
4. Provide recommendations for improved program efficiency, to include performing a survey of volunteers.
5. Assist with follow-up calls for both the baiting program and animal bite complaints.
6. Other duties, as needed.

1. The deliverables of this practicum will be met by working to implement the rabies baiting program.
2. Documentation during the annual Raccoon Oral Rabies Vaccination Program to include compilation and recording of the daily work report sheets to ensure work is completed.
3. Documentation from any follow-up calls related to baiting and/or animal bites.

You must be available for the Raccoon Rabies Oral Vaccination Program, which is typically conducted over the course of 5 days in early-mid August. The exact dates will be determined in the spring.
Project Title: Responder Safety and Health

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Public Policy and Community Relations</th>
<th>Department</th>
<th>Preparedness</th>
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<tbody>
<tr>
<td>Practicum Location</td>
<td>542 Fourth Avenue, Downtown</td>
<td>Number of students needed for this project</td>
<td>1</td>
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Project Description

The Preparedness Program at ACHD is responsible for All-Hazards Planning for emergency situations that pose a threat to public health (for example, infectious disease outbreaks, chemical releases, extreme weather, flooding, power outages, radiological exposures). A large part of ACHD’s preparedness program focuses on responder safety and health (CDC Preparedness Capability 14). This involves identifying responder health and safety risks, identifying personal protective needs, coordinating with partners to facilitate risk-specific safety and health training, and monitoring responder safety and health actions.

The student will play an important role in implementing responder safety trainings at ACHD, including CPR, First Aid, Respirator Fit Testing, and HAZMAT operations. The student will also be involved in various preparedness activities, such as tabletop exercises focused on anticipated or emerging health threats, as well as some planning work with community partners involved in response activities.

This is also a great opportunity to receive training and get some useful certifications!

Please note that this practicum will require coordinating and teaching classes at various health department locations throughout the city. All locations are easily accessible by bus.

Primary Activities

- Assist with implementing responder safety trainings for all ACHD staff.
- Work with preparedness staff to ensure that responder safety trainings planned for 2016 and 2017 meet CDC requirements.
- Play a key role in the training process from start to finish – including planning, registration, tracking, certification, and evaluation.
- Ensure that all ACHD staff members are up-to-date with required preparedness trainings.
- Assist with running the ACHD Safety Committee meetings.
- Help plan preparedness drills, exercises, and other fun activities.

Project Deliverables

The deliverables of this project will be met by assisting with the implementation of all responder safety trainings planned during the course of the Pittsburgh Summer Institute. A significant outcome will also be to take on an active role in planning for 2017 trainings.

Specific Qualifications

- Strong organizational skills; Comfort with public speaking in a small classroom setting; An interest in learning about public health preparedness.
# Project Title: Viral Hepatitis and Vector-borne Disease Surveillance

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<td>Epidemiology</td>
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<tr>
<th>Practicum Location</th>
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<tbody>
<tr>
<td>542 4th Ave (Downtown)</td>
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</table>

## Project Description

The Bureau of Epidemiology and Biostatistics provides data to programs within the Health Department, as well as to the community at large. Through the use of timely and accurate data, appropriate plans can be designed to target groups most at risk, and to identify those risk factors that can help predict disease outcomes within our community. While occasional work in the field may be required, most is completed in a business casual office environment. This practicum will involve disease surveillance activities, with a primary focus on viral hepatitis and vector borne conditions.

## Primary Activities

- data collection
- data entry
- data management
- data analysis
- report development
- risk communication
- assistance with other activities, including outbreak response, as needed

## Project Deliverables

Upon completion of the practicum, the student will develop a brief report and present their work to Bureau of Epidemiology and Biostatistics staff. Other work products may include a written report, the development of educational materials and databases.

## Specific Qualifications

This practicum requires:

- comfort speaking on the phone/talking with the public
- familiarity with excel
- knowledge of and some experience with data analysis software such as SAS is a plus
- willingness to conduct occasional fieldwork as needed
- a desire to work in a local health department setting
### Project Title: Vital Statistics Data Analysis and Reporting

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<tr>
<td>Department</td>
<td>Vital Statistics</td>
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<tr>
<td>Number of students needed for this project</td>
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## Project Description

The Bureau of Epidemiology and Biostatistics provides data to programs within the Health Department, as well as to the community at large. Through the use of timely and accurate data, appropriate plans can be designed to target groups most at risk, and to identify those risk factors that can help predict disease outcomes within our community. This is a data analysis project dealing with vital statistics; the work will be primarily focused on reviewing birth and death data to identify sentinel events. The project will provide a hands-on opportunity to develop and refine data analysis skills as well as the chance to author a variety of public health reports.

### Primary Activities

- Review vital statistics to identify sentinel events (a sentinel event is an unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof).
- Organize and analyze data, including mortality, natality, and deaths from unintentional injuries.
- Prepare reports based upon analysis of vital statistics described above.

### Project Deliverables

Upon completion of the practicum, the student will:

- Prepare reports for CDC based upon review and analysis of mortality data, natality data, and data regarding deaths from unintentional injuries;
- Create a database that facilitates analysis and reporting of vital statistics.

### Specific Qualifications

Proficiency in Microsoft Office, including Word, Excel, and PowerPoint. The student should have an interest in learning about the role of vital statistics in public health practice, as well as a desire to learn about working at a government agency.
2016 Pittsburgh Summer Institute  
Project Title: West Nile Virus Control

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Housing &amp; Community Environment/Vector Control</th>
<th>Department</th>
<th>West Nile Virus Control Program</th>
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<tr>
<td>Practicum Location</td>
<td>3190 Sassafras Way (Strip District)</td>
<td>Number of students needed for this project</td>
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**Project Description**

This practicum opportunity is with ACHD’s West Nile Virus (WNV) Control Program. The majority of the experience will be spent in the field trapping mosquitoes in Allegheny County and conducting surveillance for WNV. For more information about WNV and mosquito surveillance in Pennsylvania go to [www.westnile.state.pa.us](http://www.westnile.state.pa.us).

This practicum requires approximately 300 hours. At a minimum, the student must be available to work from mid-May 2016 to the end of August 2016 for approximately 16-20 hours per week. It is preferred that the student works until the end of September; therefore flexibility will be given around class schedule. Most hours will be worked during the first half of the week (Monday-Wednesday). A personal vehicle for field work and a valid driver’s license are a requirement.

**Primary Activities**

**PRIMARY ACTIVITIES**

- Mosquito surveillance *(dipping for immature mosquitoes & trapping for adult mosquitoes; minimum of 20 traps/week must be set once trapping locations are learned)*
- Sorting and preparing mosquitoes to be sent for laboratory testing
- Database entry of surveillance results

**POTENTIAL SECONDARY ACTIVITIES**

- Mosquito larvicide treatments in wetlands *(student may participate if available to work in April 2016 when treatments take place)*
- Mosquito adulticide treatments *(assisting during potential late-evening treatments)*
- WNV Catch Basin Program *(student may participate in one un-paid evening of this program for extra exposure to mosquito control activities)*
- Asian tiger mosquito oviposition trap study *(student may participate in collecting oviposition traps to help track the spread of this nuisance mosquito)*
- Public education *(e.g. door-to-door neighborhood outreach, responding to mosquito complaint calls, etc.)*
- Revising/creating vector control pamphlets & educational material
- Other mosquito study that the student could use for graduate thesis material

**Project Deliverables**

The student will learn trapping locations from the preceptor for the first month, and then trap on their own for the remainder of the summer. The student will assist the preceptor in meeting a weekly trap minimum as set in the 2016 WNV Grant provided by the PA Department of Environmental Protection to ACHD. All surveillance data will be entered into the WNV database within one day of field work.

**Specific Qualifications**

A valid driver’s license and personal vehicle are necessary to transport mosquito traps to and from the field. Mileage will be reimbursed at the Pennsylvania Mileage Reimbursement Rate (currently $0.575/mile). The student must be able to lift 50 pounds and be willing to haul traps in their personal vehicle that may get dirty and have an odor from the bait used to lure mosquitoes. The majority of time will be spent in the field therefore the student must be physically able to conduct such work for the duration of the summer. A personal GPS device would be helpful when driving around to locate trap sites. When interacting with the public, the student must be able to represent the WNV Control Program with professionalism and provide information about the roles and responsibilities of the program.