



Science, Technology, and Mathematics Externship Opportunities

2012

City of Bethlehem www.bethlehem-pa.gov

Description: The extern will job shadow our water lab technician and our sampling technician as they perform their daily duties of monitoring the City of Bethlehem's water supply to ensure that it is safe for drinking according to the Pennsylvania Department of Environmental Resources.

Majors: Biology, Chemistry, Environmental Science

Length of Externship: 1/2-3days

Special Requirements:

East Penn Manufacturing Company, Inc. www.dekabatteries.com

Description: East Penn is a large company with a variety of opportunities for career exploration. The following is a list of just some shadowed positions/career paths: Battery Test Lab, Analytical Lab, Engineering, Computer Hardware Technician, and computer Networking. The externship will be customized to the students interest.

Majors: Chemistry, Computer Science, Environmental Science, Mathematics, Physics

Length of Externship: 1 day

Special Requirements:

Gateway Ticketing System, Inc www.gatewayticketing.com

Description: The extern will meet iwth our Assistant Product Development Manager who participates in the day-to-day operational management of the Product Development Department. This includes working with the various groups within Product Development and Product Solutions, maintaining the development schedule and being the human resources advocate. Lunch will be provided.

Majors: Computer Science

Length of Externship: 1 day

Special Requirements:

Hawk Mountain www.hawkmountain.org

Description: The externship at Hawk Mountain can be molded to the interest area of the student involved and depends somewhat on the date selected. The host, Laurie Goodrich, serves as a Senior Biologist at Hawk Mountain. The student can shadow her in her daily duties or those of her colleagues in conservation science. Opportunities in the month of May would include conducting bird surveys, checking nest boxes of nesting American Kestrels, conducting raptor surveys, helping enter data from survey efforts in the computer or assisting other Hawk Mountain interns with spring migration counts. Other opportunities at Hawk Mountain include shadowing school group programs given by Hawk Mountain environmental educators, shadowing environmental land management projects conducted by our Land Manager, or other activities ongoing at the sanctuary.

Majors: All Majors Welcomed

Length of Externship: 1 day

Special Requirements: In most cases, being able to hike or walk over a mile or two in rocky terrain, if doing bird surveys.

Lancaster Laboratories, Inc. www.lancasterlabs.com

Description: Lancaster Laboratories offers a shadowing experience in a variety of environmental and pharmaceutical areas.

Please refer to our web-site to learn more about our services.

Majors: All Majors Welcomed

Length of Externship: 1/2 day

Special Requirements: A security form must be read and a Visitor's Release form must be signed before entry. This will be emailed with a visitor's packet.

PA Department of Agriculture www.agriculture.state.pa.us

Description: The extern will acquire experience in conducting field surveys for various exotic invasive agricultural and forestry pests that are of economic importance to the state of Pennsylvania. The experience will involve:

- learn how to identify various agricultural and forestry pests in the field and under the microscope.
- identification of tree species important to the PA Department of Agriculture (PDA)
- use of field laptops to electronically enter field data.
- the biology of important invasive species
- learn to recognize signs and symptoms of pest infestation
- learn how to interact with home/property owners etcetera.

Majors: All Majors Welcomed

Length of Externship: 1 day

Special Requirements: Must have graduated from High School and currently enrolled in an educational/academic institution."

PA Department of Health- Bureau of Laboratories www.health.state.pa.us/labs

Description: The extern will be exposed to the majority of the aspects of the Bureau of Laboratory. The Bureau of Laboratories operates the state public health lab and regulates clinical laboratories serving the citizens of Pennsylvania. The laboratory supports disease prevention through the provision of investigatory, diagnostic and confirmatory testing for both infectious and non-infectious diseases. Routine testing provides information necessary for patient care and aids in monitoring on-going public health problems in Pennsylvania. Approximately 180,000 tests are performed each year for over 100 different disease conditions. The lab maintains a state of readiness to aid in the investigation of disease outbreaks and other public health emergencies including possible acts of terrorism. The Bureau also establishes and monitors the performance standards for over 9,000 clinical and physician office laboratories in the Commonwealth, provides technical assistance, training, and reference services to other labs and recommends certification of clinical laboratories under the requirements of the federal Clinical Laboratory Improvement Amendments. The Bureau of Laboratories is composed of the following three divisions: Laboratory Improvement, Clinical Microbiology & Chemistry & Toxicology. The extern will have the opportunity to shadow various levels of scientists in the three division.

Majors: Biology, Biochemistry, Chemistry

Length of Externship: 3 day

Special Requirements: Strong science and or public health background.

Pathways Holistic Center www.pathwaysholistic.com

Description: Students will be involved in a mentoring and hands on role. Our center is involved in many forms of indoor gardening and grows wheatgrass and sprouts, for nourishing cells and creating healing. Externs will also have the opportunity to sit in on new client consultation, learn about detoxing, colon hydrotherapy, and possibly transformation sessions. Externs may also assist in greeting clients and assisting with holistic shopping at Pathways.

Majors: All Majors Welcomed

Length of Externship: 3 day

Special Requirements: None

Penn State Extension- Master Gardener <http://agsci.psu.edu>

Description: The extern will get exposure to the workings of a county Penn State Extension Office, learn about the landgrant university concept, the College of Ag Sciences, the role of Master Gardener Volunteers, and the role of Extension in supporting our farmers, food producers, and the green industry. We'll also talk about issues and skills unique to working with a volunteer work force. Interns will get to see and talk with Master Gardeners in action on the Horticulture Hotline. Available May 14 or 15, for 1/2 day either morning or afternoon.

Majors: Biology, Environmental Science

Length of Externship: 1/2 day

Special Requirements:

Philadelphia Zoo www.philadelphiazoo.org

Description: We offer the unique opportunity to volunteer in our Children's Zoo area for a morning while shadowing the animal care staff there. On your shadow day, you are expected to arrive at the Zoo by 8:15 am, participate in a staff meeting at 8:30am and then assist with the cleaning of the Children's Zoo exhibits. Your primary responsibility will be to rake the various barnyards. You will not be handling any animals, although you will work in close proximity to many of the petting zoo animals. Your assignment lasts until 12:00pm. Additionally, interested students may extend their day by shadowing members of our Education staff. You will be stationed at various Zoo exhibits to observe how the Zoo educates visitors about our animals and conservation efforts. Education shadows can be scheduled for anywhere from one to four hours, or for additional days.

Majors: Biology

Length of Externship: 1/2-2 day

Special Requirements: Externs should be comfortable working outdoors, on their feet and not have any allergies to hay or animals

Rosetree Consulting www.RosetreeConsulting.com

Description: Individuals will be accompanying Rosetree Consulting agronomists on farm visits to scout fields for weeds, insects & disease pressure. Farm visits will also include a discussion of how area farms impact the local watershed(s) & how farms are dealing with environmental regulatory compliance issues.

Majors: All Majors Welcomed

Length of Externship: 1

Special Requirements:

The Gress Mountain Ranch www.gressmountainranch.com

Description: The Gress Mountain Ranch is a large/small and exotic animal sanctuary located in Orefield, Pa. The ranch has a double mission of helping both people and animals. We are a forever home to presently 44 animals. The ranch is also a host to at-risk, inner city, special needs children, as well as adults and adolescents on probation. Both children and adults with psychiatric disorders are helped in healing through our "therapeutic ranch." Our unique treatment philosophy rehabilitates the animals and connects their stories of survival and healing to the personal experiences of the people who all have suffered physical, mental, or emotional trauma. Students will have hands-on learning experience with a variety of animals. The animals have a number of medical and even psychiatric disorders and relate to people's health. The students will be educated by Mrs. Kathryn Gress, her husband Ben and other knowledgeable volunteers.

Majors: All Majors Welcomed

Length of Externship: 1/2-3 day

Special Requirements: Students must sign a consent to volunteer form on the first day of the externship. Students must be willing to work outside with animals as well as indoors.

Yuasa Battery, Inc. www.yuasabatteries.com

Description: The student will shadow the Senior Lab Technician for the Engineering department. The exact experience will not be known until closer to the date, but it is expected that the student can observe meetings, testing, and the manufacturing operations.

Majors: Chemistry, Physics

Length of Externship: 1 day

Special Requirements: None

Design Your Own

Description: Work with the Career Development Center to research and arrange your own externship. It takes some time and effort but the benefits of an externship tailored to own academic and career interests is well worth the effort.

Majors: All Majors Welcomed

Length of Externship: Varies

Special Requirements: Students will be responsible for contacting employers and making all arrangements for their externship experience.