



**KENT COUNTY HEALTH DEPARTMENT  
ACADEMIC HEALTH DEPARTMENT  
PROJECT DESCRIPTION**

**PROJECT NAME:** Public Health Laboratory Science and Applied Epidemiology  
**SEMESTER:** Spring/Summer 2019  
**PRECEPTOR:** Ali Glazier/Kristen Smith/Lyna Goto  
**Number of Available Internships:** 2

**DESCRIPTION:** The Public Health Epidemiologist and the Public Health Laboratory Scientist serve the community as investigators of environmental concerns and health conditions, moderators of cross-agency communications, educators of community members and stakeholders, and KCHD points of contact for response to and expertise regarding environmental exposures and public health.

Emergent environmental and health related issues with potential to impact population health require multidisciplinary, cross-agency response. This program serves as a bridge between Divisions of the Kent County Health Department (KCHD) including Administration, Environmental Health, and Community Wellness. We work closely with state agencies such as the Michigan Department of Health and Human Services and the Michigan Department of Environmental Quality as well as national entities such as the Environmental Protection Agency and the Centers for Disease Control and Prevention.

This unique internship will familiarize the student with the inner workings of the public health laboratory while concurrently providing experience and training in applied epidemiology.

**IMPORTANCE TO PUBLIC HEALTH:** Laboratories, by necessity, are very closed off from the public and from observation. This is a unique opportunity for the student to gain experience in a laboratory setting, and to gain critical knowledge of the function and services of the laboratory. The student will be able to observe clinical and environmental testing, will help the senior scientists with environmental tests, and will work with KCHD staff to develop and perform educational outreach. Furthermore, once familiarized with the laboratory, the student will interact with the public answering questions about testing and the laboratory.

**APPLICABLE ESSENTIAL PUBLIC HEALTH SERVICES:**

- Monitor health status
- Diagnose and investigate
- Inform, educate, and empower
- Mobilize community partnerships
- Develop policies and plans
- Enforce laws and regulations
- Link people to health services
- Evaluate effectiveness
- Research for new insights

**PROJECT DELIVERABLES:**

Working closely with the medical scientists and the laboratory supervisor, the intern will develop and implement a quality improvement project. The project will be designed to facilitate a measurable improvement in laboratory function and the student will present on their work for student research day.

Additional deliverables may include the development of new quality control forms, a health education presentation, or other materials.

**MINIMUM QUALIFICATIONS:** Students applying for this internship must have a high school diploma or be enrolled in an associates, bachelor's or master's degree program. Computer proficiency is required.

**SKILLS:** The student selected for this internship opportunity should expect to develop public health skills and competencies in the following categories:

- Communication
- Laboratory testing
- Laboratory regulation
- Quality control
- Better understanding of public health science.

Additional opportunities for engagement in public health science will be available, the student may practice the following alongside the laboratory supervisor/epidemiologist:

- Creation of data collection instruments including surveys and biospecimen protocols
- Data collection, cleaning, analysis, and interpretation
- Utilization of analytical software
- Environmental Health Investigation
- Public Health Education of Community Members and Stake Holders
- Multi-agency Response Coordination and Collaboration
- Dissemination of Crucial Public Health Information