Program Competencies for the PhD in Environmental Health Sciences

1. Define: how environmental exposures affect human health; how individuals differ in their susceptibility to these exposures; and how these susceptibilities change over the life span.
2. Initiate and conduct a literature review to summarize and evaluate the state of the science regarding a topic in the environmental health sciences.
3. Identify research needs in the literature, formulate research questions designed to address those needs, and develop a study to address those needs.
4. Prepare an original research proposal to address the study hypotheses, with particular attention to study design; subject selection; measurement of variables; methods for sample size determination, data collection, data management and data analysis; and interpretation of results.
5. Initiate and conduct quality research that contributes to improvements in environmental health.
6. Manage, appropriately analyze, and effectively report the data.
7. Explain the study’s purpose, methods, results, and conclusions to informed audiences orally and in writing. Prepare publishable manuscripts summarizing the results and interpreting the findings.
8. Identify and critically analyze major methodological and substantive issues and controversies in the research area.

In addition graduates will be able to accomplish at least one of the following:

1. Investigate environmental conditions that may affect a community’s health status, and provide technical assistance and leadership to address the concerns of communities.
2. Develop and implement effective strategies and programs for the maintenance of health and the prevention and management of disease and injury.
3. Develop effective environmental health policies.
4. Collaborate and work with communities for the promotion of health and the prevention and control of disease.