

**University of South Florida, College of Public Health
Department of Environmental and Occupational Health**

PhD: Environmental & Occupational Health

In addition to the overall **Doctor of Philosophy** degree competencies, graduates with a concentration in **Toxicology & Risk Assessment** will be able to:

1. Demonstrate general knowledge of public health in the context of environmental factors, occupational exposures, personal risk factors, and related health outcomes;
2. Demonstrate knowledge of the history of environmental and occupational health;
3. Interpret literature regarding environmental and occupational health and understand the limitations and strengths of the research presented;
4. Conduct discipline-specific literature reviews to assess current issues and develop research questions;
5. Demonstrate special knowledge in a specific area of interest in environmental and occupational health;
6. Articulate research needs for new methods and improvement of existing methods;
7. Formulate substantive research questions;
8. Design and execute a feasible research plan to address gaps in the state of knowledge in environmental and occupational health;
9. Develop and apply experimental design skills, and laboratory and field methodologies to test a research hypothesis;
10. Understand study design and data structure, and be able to interpret results;
11. Conduct research responsibly with an understanding of scientific integrity with respect to data collection, analysis, interpretation, and reporting;
12. Perform all research ethically with respect for the protection of human participants;
13. Communicate effectively with other scientists and the public;
14. Collaborate with researchers in other disciplines;
15. Prepare manuscripts presenting the results of research;
16. Present research at professional conferences and seminars;
17. Teach at a university level and work as a productive member of a research team and collaborate in writing research proposals to obtain extramural funding to support research projects;
18. Provide leadership in toxicology and risk assessment at the local, state, national and international levels.

Association between courses and the competencies for
Ph.D. with a Toxicology/Risk Assessment Concentration

Required concentration courses	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
DISSERTATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PHC 6051 Biostatistics II									X	X	X				X				
HSC 6556 Pathobiology of Human Disease I	X	X	X							X			X						
PHC 6356 Environmental Risk Assessment	X	X								X			X	X					
PHC 6310 Environmental Occupational Toxicology	X	X	X	X	X								X	X					
PHC 6359 Xenobiotic Metabolism in Environmental and Occupational Health	X	X		X															
PHC 6369 Industrial Toxicology	X	X	X	X	X									X					
PHC 6350 Occupational Risk Assessment	X	X								X			X	X					
Seminar													X	X		X			
HSC 6557 Pathobiology of Human Disease II			X	X	X								X						
Suggested Support Courses																			
PHC 7908 Specialized Study				X	X	X	X	X							X				
PHC 7910 Directed Research				X	X	X	X	X	X	X	X	X	X	X	X			X	X
Graduate Course in Pharmacology										X			X	X					
Graduate Course in Biochemistry										X			X	X					