University of South Florida, College of Public Health

Department of Environmental & Occupational Health

MSPH: Toxicology / Risk Assessment

This in the biomedical sciences with specialized training in research skills. The program is designed with a balanced curriculum in the areas necessary for understanding the response of organisms to chemical insult, and in the research approaches necessary for the evaluation of these responses. Students will be able to make decisions based upon an understanding of both the uses and the limitations of animal research as it relates to human and health effects. The MSPH provides a thesis experience to allow for research in a well-defined area consistent with the students and faculty interests.

In addition to the overall Master of Science in Public Health degree competencies, *Toxicology / Risk Assessment* graduates will be able to:

1. Identify chemical hazards, and how their physical and chemical properties influence and interact with the environment, and in turn, the human body;
2. Explain uses and limitations of animals for toxicity testing and inferences that can be made for human health effects;
3. Analyze risks associated with chemical exposures, both environmental and occupational, and methods of intervention and prevention;
4. Identify pathways and pharmacological aspects of chemical exposure;
5. Interpret and translate research findings and apply to problems arising from chemical pollution;
6. Use a variety of laboratory techniques to evaluate chemical, biological and radiological hazards.
7. Build communication skills, both written and verbal;
8. Apply ethical principles guiding the conduct of research on human subjects, including principles for ethical decision-making beyond the regulatory purview of institutional review boards; and
9. Demonstrate, through preparation and defense of a thesis, mastery of research skill and curriculum content.

Association between courses and the competencies for
MSPH with a Toxicology/Risk Assessment Concentration

Courses	Competencies								
Required concentration courses (0 credits)	1	2	3	4	5	6	7	8	9
PHC 6051 Biostatistics II			x		x		x		
HSC 6556 Pathobiology of Human Disease I	x			x	x		x	x	
PHC 6356 Environmental Risk Assessment	x		x		x		x		
PHC 6310 Environmental Occupational Toxicology	x	x	x	x	x		x		
PHC 6359 Xenobiotic Metabolism in Environmental and Occupational Health	x	x		x			x	x	
PHC 6369 Industrial Toxicology									
PHC 6350 Occupational Risk Assessment	x		x	x	x		x	x	
PHC 6934 Selected Topics in Public Health	x		x		x		x		
PHC 6930 Public Health Seminar	x		x		x			x	
HSC 6557 Pathobiology of Human Disease II	x			x			x	x	
Suggested Support Courses *PHC 6373 Bioterrorism and Biodefense*	X			X	X	x	x		
PHC 6934 Hazardous Materials Management and Communication	x		x	x			x		

College of Public Health - Program Curriculum Checksheet

Name: **Dept:** EOH

Advisor: **Degree:** MSPH

Semester/Year Accepted: **Concentration:** Toxicology / Risk Assessment

Any grade below a C (C- to F) is required to be retaken. The grade will be included in the student's GPA.

				Grade	Sem/Yr Taken
Prerequisites (not included in total GPA hours)		**Total Needed**	**6**		
HSC	4551	Survey of Human Disease	3		
College Core Courses		**Total Needed**	**9**		
PHC	6000	Epidemiology	3		
PHC	6050	Biostatistics I	3		
		Select one from the following			
PHC	6102	Principles of Health Policy and Management	3		
PHC	6357	Environmental and Occupational Health	3		
PHC	6410	Social and Behavioral Sciences Applied to Health	3		
Required Concentration Courses		**Total Needed**	**25**		
PHC	6051	Biostatistics II	3		
HSC	6556	Pathobiology of Human Disease I	3		
PHC	6353	Environmental Risk Assessment	2		
PHC	6310	Environmental Occupational Toxicology	3		
PHC	6359	Xenobiotic Metabolism in Environmental and Occupational Health	3		
PHC	6369	Industrial Toxicology	2		
PHC	6350	Occupational Health Risk Assessment	3		
PHC	6934	Selected Topics in Public Health	2		
PHC	6930	Public Health Seminar	1		
HSC	6557	Pathobiology of Human Disease II	3		
Electives *(Must be related to Environmental Health)*		**Total Needed**	**3**		
Culminating Experiences		**Total Needed**	**6**		
PHC	6971	Thesis	6		
		Comprehensive Exam (*2 credit hour enrollment required*)	0		
Minimum 43 credit hours		**Total GPA Hours**			**GPA**
		Total Hours Attempted			

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