

TROPICAL MEDICINE, MS

Overview

The MS in Tropical Medicine is an academic degree designed to build a strong knowledge of infectious diseases of global public health importance. Coursework provides a solid foundation in parasitology, vector biology and other infectious diseases. Specialty courses in biological, cellular and epidemiological aspects of pathogens and infectious disease comprise the curriculum. Students are required to carry out original research and write a thesis based on the findings of the research project.

Graduates of the MS degree in Tropical Medicine are expected to find careers in public health, biomedical sciences, or related fields at academic institutions, governmental and non-governmental organizations, health care organizations, or biotechnology/pharmaceutical companies. Many individuals enter the program with the intention of subsequently pursuing doctoral or medical degrees.

Program Competencies

The following competencies are necessary for success in the particular branch of public health to which this degree relates. They were developed through rigorous analysis of employers, community and global needs, and the quality standards set forth by accrediting bodies.

- 1.Explain infectious disease including types of organisms, mechanisms or transmission, and natural history.
- 2.Demonstrate knowledge of the biology and immunology of host -pathogen interactions and their outcomes.
3. Effectively communicate research-based peer-reviewed literature.
- 4.Analyze how research projects address specific questions as applied to tropical medicine.
- 5.Identify appropriate statistical analyses and research methodology for performing hypothesis-driven research that address public health problems.
6. Appraise the strengths and weaknesses of biomedical methods used in public health.

Requirements

The MS degree requires a total of 42 credits that includes:

Required Courses

Course ID	Title	Credits
SPHL 6020	Foundations in Public Health	3
SPHL 6050	Biostatistics for Public Health	3
SPHL 6060	Epidemiology for Public Health	3
TRMD 6050	Medical Helminthology	3
TRMD 6060	Medical Entomology	3
TRMD 6070	Medical Protozoology and Malaria	3
TRMD 6170	Immunology	3
TRMD 6250	Biomedical Research Methods	3
TRMD 6420	Tropical Virology	3
TRMD 6330	Microbial Disease of the Tropics	3
TRMD 7020	Infectious Disease Seminar (taken two semesters)	1
TRMD 9980	Master's Thesis Research	0
Electives		11
Total Credit Hours		42

Thesis

Students pursuing the MS degree in Tropical Medicine must successfully complete a thesis based on a rigorous and independent research project demonstrating scholarship in Tropical Medicine research. The project will be supervised by a thesis director who is a faculty member of the Department of Tropical Medicine.

Students who have completed required coursework may register in TRMD 9980 (Thesis Research) each semester while conducting the research and writing the thesis. The master's thesis should be completed within a year of completion of the required courses.

Model Course Schedule

Year 1		
Fall		Credit Hours
SPHL 6020	Foundations in Public Health	3
SPHL 6050	Biostatistics for Public Health	3
TRMD 6170	Immunology	3
TRMD 6050	Medical Helminthology	3
TRMD 6330	Microbial Disease of the Tropics	3
Credit Hours		15
Spring		
TRMD 6060	Medical Entomology	3
TRMD 6070	Medical Protozoology and Malaria	3
TRMD 6250	Biomedical Research Methods	3
TRMD 7020	Infectious Disease Seminar	1
SPHL 6060	Epidemiology for Public Health	3
Credit Hours		13
Summer Session		
TRMD 9980	Master's Thesis Research	0
Credit Hours		0
Year 2		
Fall		
TRMD 7020	Infectious Disease Seminar	1
Electives		5
TRMD 9980	Master's Thesis Research	0
TRMD 6420	Tropical Virology	3
Credit Hours		9
Spring		
TRMD 9980	Master's Thesis Research	0
Electives		5
Credit Hours		5
Total Credit Hours		42