# Master of Science in Public Health

Department of Global Health College of Public Health University of South Florida Tampa, Florida

These guidelines are effective Fall 2010 and are intended to supplement the current USF Graduate Catalog.

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## Introduction

The MSPH program is designed for students who seek a more individualized, research-oriented program than that provided by the MPH degree. This program provides an intense research and technical program of study for science-oriented students with an interest in communicable diseases or global health. Individualized courses of study are determined for students with the cooperation of an advisory committee, which allows students to receive specialized training in the recognition, identification, diagnosis, surveillance, control, and prevention of public health problems related to communicable diseases and/or issues impacting global health. This degree program focuses on preparing students to fulfill leadership and research roles in solving or containing public health problems throughout the world with particular emphasis on the problems of resource poor regions. The MSPH culminates with an independent thesis requirement which requires a substantial on-campus time commitment on the part of the student. The thesis work involves extensive one on one interaction between the student, their thesis advisor and their thesis committee.

The MSPH can be earned in two distinct concentrations within the Department of Global Health. Prior to submitting your application, make sure that you understand the major differences between the MSPH in global communicable diseases and the MSPH in global health practice concentrations.

The Masters of Science in Public Health Guidelines have been designed to help you through the process. Read it carefully. It is the student's responsibility to thoroughly understand the requirements. An MSPH is primarily for individuals who are self-directed and can work independently of others when required.

# **Guidelines for Acceptance to the MSPH Program**

#### A. Student Qualifications

Students seeking entrance to the MSPH program must have a specific career direction and an educational background that permits them to focus on a public health issue. This background may include the following academic preparation and prior experience.

#### 1. Education

- Bachelor's degree from an accredited institution in disciplines such as: social sciences, healthrelated areas, and natural sciences. See Admission Criteria below for specific GPA and test score requirements.
- Exceptional students with a bachelor's degree in non-related areas may be considered.

#### 2. Experience

Experience in one or more of the following areas is desirable.

- Experience as a clinical practitioner in a setting appropriate to communicable disease or global health;
- Experience in a research setting such as public health laboratory, clinical trials, health statistics, legislative research, program evaluation, private agencies, or as a research associate in an academic setting;
- Administrative or managerial experience in the organization and delivery of public health services;
- Experience teaching in a public health or related discipline in an academic setting.

While no one set of criteria is an absolute prerequisite, the student must come with a background of sufficient depth to enable him or her to function as a mature and self directed professional in the area of public health. The student should have a good sense of goals and direction, both during the MSPH program of study and in future professional endeavors. Additionally, there must be resources available within the Department of Global Health to provide guidance and supervision for the student. Consequently, not all students who meet the basic criteria for admission will necessarily be admitted. The match between student and faculty is considered to be of as much importance as the background of the student.

## **B. Application and Admission Process**

#### 1. Admission Requirements and Criteria:

Applicants to the MSPH program in the Department of Global Health must meet the following minimum criteria in order to be considered for admission. However, the meeting of these criteria per se shall not be the sole basis for admission. See the COPH Admissions Page for more detailed information.

- Public health course prerequisite: None
- Suggested/preferred undergraduate majors: Biology, Chemistry, Social Sciences, International Studies,
- Studies, Public Health, Regional Studies (i.e., Latin America and Caribbean), and Health Sciences.
- Prerequisite undergraduate courses: None
- Work experience: some public health experience preferred but not required

- Minimum undergrad upper level GPA: 3.2
- Combined Verbal and Quantitative GRE Score of 1030, including a minimum of 450 for the verbal section and 580 for the quantitative section, taken within the past five years. Applicants who have terminal degrees such as the Ph.D. or Ed.D., and those with advanced professional degrees (MD, DDS, JD, DO) from accredited institutions and are licensed in the U.S. may request to waive the GRE.
- International students must score a minimum of 550 (paper) or 213 (computer-based) on the TOEFL in addition to other admission requirements.
- Substitutions: Applicants may substitute an MCAT mean score of 8 for the required GRE Scores
- Other criteria: two letters of recommendations and a detailed statement describing why the applicant wishes to obtain an MSPH degree in the Department of Global Health. This statement must be less than 500 typed words in length.

## 2. Steps in the Application Process

- Per requirements as specified by SOPHAS
- At times, interviews with Department faculty may be requested.
- The Department Admission Committee review process will include the following steps.
  - (1) Determine availability of faculty advisors.
  - (2) Make a determination as to acceptance or rejection of each individual application based on the following considerations:
    - qualifications and experience.
    - · direction and areas of interest,
    - · availability of faculty, and
    - available resources.
- The applicant will be notified of acceptance or rejection by the USF Graduate School. If an
  applicant is accepted, he or she will be notified Department of Global Health and assigned a
  faculty advisor within the Department.

# **MSPH Learning Objectives**

## A. Global Health Practice Concentration/Track

In addition to the overall Master of Science in Public Health degree objectives, the Department of Global Health Concentration in Global Health Practice graduates will be able to:

#### Have a general knowledge to:

- Critically evaluate the utility of a broad range of theories, which have relevance for research and practice in resource poor settings.
- Use concepts and methods from social and behavioral sciences in the design and implementation
  of public health research and intervention programs specific to global health in resource poor
  settings.
- Understand the relationships between psychological, interpersonal, social structural, cultural and biological factors as they impact on disease prevention and health promotion in resource poor settings.
- Critically evaluate scholarly research in global health in terms of its theoretical soundness, scientific rigor, appropriate use of concepts and methods, and contribution to knowledge.

#### Have Research Skills to:

- Conduct needs assessments focused on health behavior change and the social impact of planned health programs within the context of resource poor settings.
- Use qualitative and quantitative research methods for studying the impact of psychological, interpersonal, social structural, cultural and biological factors in the etiology and social consequences of global health problems in global health settings.
- Carry out, with faculty supervision, all phases of the research process, including project design, proposal development, data collection, data analysis, and interpretation and writing up of results.
- Use ethical principles guiding the conduct of research on human subjects.

#### Have Practical Applications in Public Health to:

- Identify areas in which social and behavioral science expertise can contribute to the design, implementation and evaluation of global health programs.
- Determine the appropriate level of intervention within resource poor settings for different health problems, including individual behavior, family systems, community organization, complex social systems and the social and physical environment.
- Critically evaluate research and translate it into evidence-based practice and public policy.

## B. B. Global Health Communicable Disease Concentration/Track

In addition to the overall **Master of Science in Public Health** degree objectives, the **Department of Global Health** *Concentration in Communicable Disease* graduates will be able to:

- Recognize and describe the natural history of disease-causing parasites, bacteria, viruses, fungi, and other organisms of major public health concern and the disease processes and clinical manifestations caused by those infectious organisms;
- Identify and describe the appropriate diagnosis, surveillance, control, treatment and prevention of communicable diseases;
- Identify and describe the natural human defenses, the appropriate use of diagnostic techniques and serological surveillance, and the role of preventive interventions and treatments such as vaccines and antibiotics against communicable diseases;
- Identify the cultural, social, and economic factors that contribute to the incidence and prevalence, as well as the transmission, control, treatment, and prevention of communicable disease:
- Analyze data collected through epidemiologic studies and interpret the findings;

- Design programs for the surveillance and control of communicable diseases and identify the
  public health conditions and problems related to the surveillance and control of communicable
  diseases in developing countries;
- Choose and apply culturally appropriate technology and interventions and identify the ethical considerations regarding diagnosis, surveillance, control, treatment, and prevention of communicable diseases; and
- Present information about communicable diseases to other members of health-related professions and to members of the public, in both a written and oral format, in a professional and effective manner.

# **MSPH Plan of Study Requirements**

## A. MSPH / Supervisory Committee

The Department will appoint the major professor (advisor) for each student upon admission. During the first semester of coursework, the student will identify and formalize a Supervisory Committee. The advisor will assist in

the choice of MSPH committee members. The Supervisory Committee consists of a minimum of three members:

two from the Department of Global Health and one from another department. The committee chair must be a credentialed faculty member of the Department of Global Health. The student will request approval of the MSPH Committee (Supervisory Committee) from the COPH Associate Dean of Academics and the Dean of the Graduate School. The Supervisory Committee will approve the student's course of study and plan for research, prepare and grade the written comprehensive examination, supervise the thesis research, read and approve the thesis and participate in the thesis defense.

The department chairperson and the Office of Academics must approve committee membership or changes in membership. The Supervisory Committee may meet at any time to discuss orevaluate the student's progress or to suggest changes in the plan of study. The student may also request a committee meeting at any time. It is recommended that the Supervisory Committee meet with the student at least annually.

#### 1. Responsibilities of Masters (MSPH) Student

In the Department of Global Health, it is recognized that entering a master of science in public health degree program is an endeavor that is to be taken seriously by the student and the faculty. Since the students who enter the MSPH program bring a broad spectrum of academic and professional experiences and interests, they are encouraged to shape their MSPH program to meet their individual needs, goals and desires.

By working in cooperation with the faculty and members of the Supervisory Committee, the student has the responsibility to:

- develop and maintain the understanding that the MSPH program is a serious commitment of time and dedication;
- take the lead in designing the course of study;
- participate in intellectual and scholarly activities of the Department;
- demonstrate continuous progress through the MSPH program from start to finish;
- respect the many demands that are placed on the faculty;
- be responsible for knowing and adhering to mandatory deadlines, forms, signatures set forth by
- the department, college, and university; arrange and schedule committee meetings as deemed necessary;
- maintain continual contact with the Supervisory Committee throughout the MSPH process;

- be open and receptive to the challenges set forth by the Supervisory Committee; and
- assume a place in a community of scholars and family of learners.

#### 2. Responsibilities of the Supervisory Committee

Master of Science in Public Health studies are a joint effort of the faculty and students. In a very real way, we all learn together. The faculty tries to create the atmosphere and opportunity for each student to learn and explore new areas of knowledge. However, students must chart their own course, take responsibility for their own learning program, and use the faculty for guidance and support. In the Department of Global Health, the faculty is committed to the serious obligation of mentoring and guiding students through the MSPH process. Thus, the Supervisory Committee Chair and members:

- advise on curriculum and course selection;
- direct the writing and grading of the comprehensive examination;
- guide and direct the thesis research;
- read and edit all drafts of the thesis in a timely manner;
- act as a liaison between the student and other committee members as needed:
- determine when the student is prepared to present the research proposal and thesis;
- prepare the student for the format and rigor of the thesis; and
- introduce students into the community of scholars and family of learners.

#### 3. Research Requirements

Students who complete a MSPH should be able to design and conduct applied research projects (e.g., Communicable disease intervention, trials, community needs assessments, program evaluation).

Upon completion of the MSPH, students should be able to:

- Select appropriate research methods for problem identification and resolution, program planning
- and evaluation.
- Apply epidemiological concepts and techniques to address public health problems.
- Review and interpret data from vital statistics, census, surveys, service utilization and other relevant special reports.
- Design an applied research project.
- Collect qualitative/quantitative data.
- Design a reliable and valid survey.
- Assist in using appropriate techniques to analyze data
- Prepare a clear and accurate summary of research findings.
- Apply ethical standards to human subjects research.

#### Preceptor and Thesis Project Selection

Students in the Communicable Disease concentration are required to complete at least two six (6) week rotations in the lab or a prospective MSPH mentor. For candidates who do not desire a lab-based MSPH thesis, the rotations will involve research training in the area of interest for the faculty member and the student. At the completion of the rotations or no later than the end of the spring semester in year 1 of the program, the student must be accepted by an accredited Communicable Diseases faculty mentor. Students who fail to identify a thesis mentor will not proceed to year 2 of the program and will be encouraged to convert to the MPH Global Communicable Diseases track.

Each student will work with the faculty mentor to develop a thesis project proposal of 10-15 pages. The proposal will be presented to the MSPH student's committee no later than the end of the student's first year in the program. Projects vary, but students should expect a minimum of 4-6 months of research to complete the thesis research, plus additional time to write and defend the thesis.

#### 4. Course Requirements

With the assistance of the Supervisory Committee the student will develop a course plan comprised of the following coursework for either the Communicable Disease concentration or the Global Health Practice concentration.

#### Note:

\*All courses listed below are 3 credit hours each unless otherwise noted.

\*\*The course choices for MSPH is more flexible when compared to that for the MPH program as there is a stronger emphasis on research followed by thesis writing, defense and faculty committee approval to meet the degree requirement.

## MSPH Communicable Disease Course Requirements

#### **College Core Courses (9 credits)**

PHC 6000 Epidemiology PHC 6050 Biostatistics I And one of the following:

PHC 6102 Principles of Health Policy and Management PHC 6357 Environmental and Occupational Health

PHC 6410 Social and Behavioral Sciences Applied to Health

## **Research Methods Courses (9 credits)**

PHC 6051 Biostatistics II

PHC 6934 Laboratory Techniques in Public Health

PHC 6934 Laboratory Rotation in Communicable Diseases Research

One additional research courses related to student's focus area (2)

#### **Suggested Concentration Courses (18 credits)**

PHC 6251 Disease Surveillance and Monitoring

PHC 6510 Emerging Infectious Diseases

PHC 6511 Public Health Immunology

PHC 6512 Vectors of Human Disease

PHC 6513 Public Health Parasitology

PHC 6930 Public Health Seminar (1)

PHC 6562 Microbiology for Health Care Workers

PHC 6314 Infection Control Program Design

PHC 6517 Infectious Disease Prevention Strategies

PHC 6514 Infectious Disease Control in Developing Countries

PHC 6934 HIV in Public Health

PHC 6002 Infectious Disease Epidemiology

PHC 6934 Intermediate Infectious Disease Epidemiology

PHC 6934 Food Safety (3)

PHC 6934 Public Health Virology

PHC 7931 Advanced Interdisiplinary Seminars in Global Health Infectious

Disease Research

#### **Culminating Experiences (6 credits minimum)**

- 1. PHC 6971 Thesis (6 minimum)
- 2. Comprehensive Exam (no credit)

**TOTAL CREDITS**: 42

#### MSPH Global Health Practice Requirements

#### College Core Courses (9 credits) PHC 6000 Epidemiology PHC 6050 Biostatistics I And one of the following: PHC 6102 Principles of Health Policy and Management PHC 6357 Environmental and Occupational Health PHC 6410 Social and Behavioral Sciences Applied to Health **Research Methods Courses (9 credits)** PHC 6051 Biostatistics II Two additional research courses related to student's focus area (6) Required Global Health Practice core courses (12 credits) PHC Global Health I PHC Global Health II PHC Global Health IIII PHC Global Health IV Suggested Concentration Courses (6 credits) PHC 6251 Disease Surveillance and Monitoring PHC 6510 Emerging Infectious Diseases PHC 6511 Public Health Immunology PHC 6512 Vectors of Human Disease PHC 6513 Public Health Parasitology PHC 6930 Public Health Seminar (1) Microbiology for Health Care Workers PHC 6562 Infection Control Program Design PHC 6314 PHC 6517 Infectious Disease Prevention Strategies PHC 6514 Infectious Disease Control in Developing Countries PHC 6934 HIV in Public Health PHC 6002 Infectious Disease Epidemiology PHC 6934 Intermediate Infectious Disease Epidemiology PHC 6934 Food Safety (3) **Culminating Experiences (6 credits minimum)** 1. PHC 6971 Thesis (6 minimum) 2. Comprehensive Exam (no credit)

## 5. Comprehensive Examination

To be eligible for the comprehensive examination, students must have

- completed all required core courses,
- no "I" incomplete or "M" missing grades,
- completed all or currently enrolled in required concentration area courses (only if taking concentration section),
- attained a 3.0+ GPA and be in good standing,
- met with their advisor to determine eligibility,
- enrolled for minimum of two (2) semester hours during the semester of the Comprehensive
- Examination,
- submit an application to COPH Academic Affairs at least one month prior to the examination date (see important deadlines & dates published by the Office of Academics), approved by the student's advisor.

**TOTAL CREDITS**: 42

Students should consult with Supervisory Committee chair when preparing for the examination.

#### 6. Thesis Proposal and Oral Presentation

#### 1. The Proposal

The student will work under the supervision of their faculty mentor and committee members to develop a proposal. The proposal should consist of the following sections:

- (1) Statement of the Problem;
- (2) Review of Literature;
- (3) Conceptual Framework and Hypothesis (or research questions); and
- (4) Methods (data collection and analyses)

The proposal will be subject to formal committee approval before the research begins. A tentative proposal date is scheduled by common agreement of the student and Supervisory Committee members and is shared with the Department chairperson. The student may **not** advertise the proposal presentation date until all members of the supervisory committee sign the *Thesis Proposal Presentation Approval* indicating that they have read the proposal and approve it for presentation. Approval for presentation is not necessarily an endorsement of the proposal as a completed research plan. The proposal is formally presented in a formal meeting to the Supervisory Committee. The Committee may decide to make the presentation open to the public. The draft proposal must be distributed to committee members for review at least five weeks prior to the anticipated proposal defense date. Committee members are permitted two weeks to review the proposal and discuss changes prior to signing the *Thesis Proposal Presentation Approval* form. Once signed, the student is responsible for creating the advertisement and submitting it to the Department Chair for Approval. Once approved, the Academic Coordinator will post the announcement. The presentation must be advertised for two weeks prior to the scheduled date.

A copy of the final proposal, *as it is to be presented*, is provided by the student to members of the Supervisory Committee no less than seven days in advance of the proposal defense. No further changes can be made to the proposal at this time.

The purpose of the proposal defense is to refine the proposal and make final determination of the appropriateness of the research being proposed. Following the proposal meeting, the committee members convene to deliberate recommendations for change in the proposal. When a student's committee recommends modifications of the proposal, the student will make suggested recommendations under the supervision of the Supervisory Committee chairperson. When the committee approves the proposal as an appropriate research study, formal notification that the proposal has been presented and approved is made to the Department chairperson. The committee may require that a proposal be presented for a second time before being approved, if actions taken after the initial proposal meeting indicate that substantive modifications in the proposal are necessary. Students are advised not to collect data for their research study until final approval of the proposal is completed by the Supervisory Committee and all required IRB training and documentation have been approved.

#### Note:

The format of the thesis must be in compliance with the guidelines set forth by the Graduate School. Acceptance of the proposal in its final form constitutes an agreement between the student and the Supervisory Committee and approval of the following:

- (1) Comprehensive understanding of the research subject areas as demonstrated by the literature review and framework for the study:
- (2) Research questions;
- (3) Data collection methods; and
- (4) Data analysis plan.

#### 2. Thesis

Students are encouraged to meet individually with committee members, in addition to the chairperson, as needed. Preparation and distribution of preliminary copies of the thesis are the responsibility of the student. Copies should be received by the committee members at least five weeks prior to the anticipated

defense date. Committee members are permitted two weeks to review the proposal and discuss changes prior to signing the *Thesis Oral Defense Approval* form, indicating that they have read the thesis and approve it for presentation. Once signed, the student is responsible for creating an advertisement for the presentation and submitting it to the Department Chair for approval. The advertisement must be posted two weeks prior to the scheduled presentation date and will be posted by the Academic Coordinator after the Chair has approved it. Prior approval does not preclude changes in the final form of the thesis, which may be suggested during or after the oral defense.

#### 3. Oral Defense

A tentative defense date is scheduled by common agreement of the student and Supervisory Committee members and is shared with the Department chairperson. The student provides a copy of the final draft of the thesis for each committee member at least one week prior to the scheduled oral defense date. The student also provides a copy of the thesis to the Department Chairperson (if the Chair is not already a member of the Supervisory Committee). No changes should be made to the document after that time. Successful completion of the oral thesis defense is the final culminating step of the MSPH program. This is the student's opportunity to present his/her thesis in a public forum where faculty, other students and guests are invited. During the oral defense, the student presents his/her research. At the completion of the presentation, the committee members will ask questions of the student. Following the committee questions, the audience has an opportunity to ask additional questions.

The student's Supervisory Committee has final approval of the oral defense presentation and the written product. Following the oral defense meeting, the Supervisory Committee convenes without the student present to assess the student's performance in defending the research. The Supervisory Committee may require modifications of the thesis following the defense and before granting its approval. If the modifications are extensive, the committee may ask the student to undergo another formal presentation and/or committee meeting.

A student is recommended for the MSPH only if the members of the committee, with at most one exception, judge both the thesis and the performance of the student in the oral defense to be satisfactory. Signatures on appropriate forms indicate approval of the thesis. The student has sole responsibility for assuring that all forms related to the proposal and thesis are completed, and all work related to the thesis conforms to the accepted style and format of the USF Graduate School.

#### 4. Publish Work

MSPH students in the Department of Global Health are expected to to submit their theses (or portions of) to scholarly journals for peer review and publication. Consult with your faculty mentor and Supervisory Committee for guidance.

\*\* The department publishes a calendar of due dates each semester in accordance with Graduate School submission dates. Students must meet all dates if they intend to graduate that term. No exceptions will be made.

## THESIS CHECKLIST

 Conduct lab rotations and identify faculty mentor (required for Communicable Disease track)
Pass Comprehensive Examination
Register for PHC 6971
Prepare Thesis Proposal
Submit Written Proposal to Supervisory Committee (minimum of five weeks prior to
presentation)
 Create Notice & Submit to the Department Chair for Approval (4 days prior to posting date)
Advertise Proposal Presentation - to be posted by the Academic Coordinator (two weeks prior to
presentation)
Distribute final draft to Supervisory Committee. No additional changes should be made. (seven

days prior to presentation)
Present Proposal
Turn in completed <i>Thesis Proposal Presentation Approval</i> form to advisor and CFH Coordinator
Complete/Update IRB and/or IBC Training (if appropriate)
Complete IRB and/or IBC Approval Documents for Thesis research
Conduct Research
Determine Appropriate Style and Review Format Guidelines from Graduate School
Write, Edit and Meet with Committee members
Submit to Graduate School for Format Check by required date
Submit Final Thesis to Committee (four and a half weeks prior to anticipated defense date)
Create Advertisement and Submit to the Department Chair for Approval (4 days prior to posting
date)
Advertise Proposal Presentation - to be posted by the Academic Coordinator (two weeks prior to
presentation)
Oral Defense Presentation
Turn in Completed <i>Thesis Oral Defense Approval</i> form
Make Changes/Modifications to Thesis if required
Submit Final Copy to the Graduate School (electronically)