

# 2022-2023 Curriculum Guide for Master of Science degree program with a specialization in EPIDEMIOLOGY

The Master of Science (MS) degree is intended for students whose interests in epidemiology are academically oriented rather than directed toward professional practice. MS graduates will have the knowledge and skills to participate in basic and applied research and will have the foundation to enter into a research-oriented career. The MS degree is also a natural entry point for students who are qualified to pursue a PhD degree which requires broader scope and depth of content via additional didactic courses and more intensive research emphasis. To reflect this research and academic orientation, the MS degree requires preparation and defense of a hypothesis-based thesis. The MS degree typically can be completed within two years.

Students admitted to the MS degree program are assigned a faculty advisor who will provide guidance throughout the program. This document serves as a resource to be used by the student and the advisor in planning a program with a specialization in Epidemiology (EPI), but is not inclusive of all important degree, college, and university requirements. All students are expected to be familiar with the College of Public Health (CPH) *Graduate Student Handbook* <a href="http://cph.osu.edu/students/graduate/handbooks">http://cph.osu.edu/students/graduate/handbooks</a>, the *Graduate School Handbook* <a href="http://www.gradsch.ohio-state.edu/and-the-competencies">https://go.osu.edu/cphcompetencies</a>.

3 credits

#### **PROGRAM OF STUDY**

PURHRIO 6211

The MS Public Health – Epidemiology specialization curriculum consists of a minimum of 46 credits.

#### **Required Foundation Courses (9 credits)**

PUBHLTH 6010	Essentials of Public Health	3 credits
PUBHBIO 6210	Applied Biostatistics I	3 credits
PUBHEPI 6410	Principles of Epidemiology	3 credits

#### Required Courses in the Specialization (31-32 credits)

Applied Biostatistics II

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PUBHBIO 6270	Introduction to SAS for Public Health Students	2 credits
PUBHEPI 6411^	Biological Basis of Public Health	3 credits
PUBHEPI 6431	Design & Implementation of Health Surveys	3 credits
PUBHEPI 6442	Social Epidemiology	3 credits
PUBHEPI 7410	Epidemiology II & Lab	4 credits
PUBHEPI 7430	Epidemiology III	4 credits

#### *Select three of the following four methods courses:*

PUBHBIO 7220	Applied Generalized Linear Models in Public Health	3 credits
<sup>‡</sup> PUBHBIO 7230	Longitudinal Data Analysis	3 credits
PUBHBIO 7235	Applied Survival Analysis	3 credits
STAT 6450	Linear Regression	4 credits

<sup>^</sup>Required for students who do not have an MD, DVM, or equivalent clinical degree.

#### Electives (3-4 credits)

PUBHEPI 5411 Outbreak Investigations	3 credits	<sup>‡</sup> PUBHEPI 6440 Reproductive and Perinatal Epidemiology	3 credits
PUBHEPI 5412 Global Epidemiology of Infectious Disease	3 credits	PUBHEPI 6441 Epidemiology of Women's Health	3 credits
PUBHEPI 5438 Cardiovascular Disease Epidemiology	3 credits	PUBHEPI 7411 Epidemiology in Environmental Health	3 credits
<sup>‡</sup> PUBHEPI 6415 Nutrition in Public Health	2 credits	PUBHEPI 7412 Principles & Procedures for Human Clinical Trials	3 credits
PUBHEPI 6432 Injury Epidemiology	2 credits	<sup>‡</sup> PUBHEPI 7413 Molecular Epidemiology of Cancer	3 credits
<sup>‡</sup> PUBHEPI 6433 Psychiatric Epidemiology	2 credits	PUBHEPI 8411 Epidemiology of Obesity	3 credits
<sup>‡</sup> PUBHEPI 6434 Tuberculosis: A Public Health Issue	3 credits	<sup>‡</sup> PUBHEPI 8412 Group-Randomized Trials	3 credits
<sup>‡</sup> PUBHEPI 6435 Chronic Disease Epidemiology	3 credits	<sup>‡</sup> PUBHEPI 8413 Molecular Epidemiology of Infectious Disease	3 credits
<sup>‡</sup> PUBHEPI 6436 Infectious Disease Epidemiology	3 credits	PUBHHMP 7686 Qualitative Methods for Health Research	3 credits
PUBHEPI 6437 Cancer Epidemiology  †PUBHEPI 6439 Genetic Epidemiology	3 credits		

PUBHEPI 6439 Genetic Epidemiology

#### **Thesis**

Master's Thesis Research in Public Health PUBHLTH 7999

3 credits

# Sample Curriculum Plan for the Master of Science in Epidemiology

This is one option. Other options that are consistent with curriculum guide are possible. However, students who want to deviate from the proposed plan below are advised to consult their advisor to ensure the logistical feasibility of their proposed plan.

Year 1	PUBHEPI 6410	Principles of Epidemiology	3 credits	AU
Autumn	PUBHBIO 6210	Applied Biostatistics I	3 credits	AU, SP
	PUBHBIO 6270	Introduction to SAS for Public Health Students	2 credits	AU
	PUBHEPI 6431	Design & Implementation of Health Surveys	3 credits	AU
Year 1	PUBHEPI 7410	Epidemiology II & Lab	4 credits	SP
Spring	PUBHBIO 6211	Applied Biostatistics II	3 credits	SP
	PUBHLTH 6010	Essentials of Public Health	3 credits	SP
	METHODS COURSE		3 credits	varies
Year 2	PUBHEPI 6442	Social Epidemiology	3 credits	AU
Autumn	PUBHEPI 7430	Epidemiology III	4 credits	AU
	PUBHBIO 7220 or STAT	Applied Generalized Linear Models in Public Health or Applied	3-4 credits	AU
	6450	Regression Analysis		
	ELECTIVE		3-4 credits	ANY
Year 2	PUBHEPI 6411	Biological Basis of Public Health	3 credits	SP
Spring	PUBHLTH 7999	Master's Thesis Research in Public Health	3 credits	ANY
	PUBHBIO 7230 or 7235	Applied Longitudinal Data Analysis or Applied Survival Analysis	3 credits	SP

## **Grade Policy:**

In addition to the general Graduate School requirements of a cumulative grade point average of 3.0 or higher, students must meet specific college policies regarding grades in Foundation and Specialization courses. Students should familiarize themselves with Section 11 of the College of Public Health Graduate Student Handbook.

## College of Public Health - Office of Academic Programs and Student Services (OAPSS)

OAPSS staff are available to provide assistance with College, Graduate School and University policies and procedures. (614) 292-8350/100 Cunz Hall/1841 Neil Ave/Columbus, Ohio/ 43210/cph.osu.edu

<sup>\*</sup>Not offered 2022/2023