# GLOBAL HEALTH ECONOMICS, MHS

### **Overview**

DIRECTOR: Dr. Antonio J. Trujillo

The Master of Health Science (MHS) in Global Health Economics (https://publichealth.jhu.edu/academics/mhs-in-global-health-economics/) is a 9-month STEM academic program that teaches students how to use economic tools to help solve pressing global health problems.

With increasing globalization, there is a growing need for health economists who can translate research into policy and directly inform governments and organizations on the best course of action. Through this degree program, students will learn how health economic principles are used to address global issues such as migration, displaced persons, climate change, and pandemics. They'll also learn how health economics can be used to promote healthy lifestyles, positive health outcomes, and equitable access to care.

Using applied health cases from around the world, students will learn how to conduct economic evaluations of health programs and how to evaluate the impact of social problems on the health of a community or population. They will also gain a solid understanding of how to influence behavior through the use of economic incentives.

The major components of the MHS in Global Health Economics include:

- Nine months of academic coursework building strengths in economics, econometrics, economic evaluation, and epidemiology
  - · Specialty elective courses in international health topics
- · Written comprehensive exam
- · Scholarly paper
  - Integrates material from multiple courses applying econometrics, evaluation, and/or other research techniques to a topic of interest

Within the School, this degree is classified as an academic MHS as it provides an opportunity for advanced study and research in a specific public health discipline and will prepare students for a career in global health economics or further graduate study.

An academic adviser is assigned from the list of Advising Faculty in the student's program area. The MHS Director provides general guidance and supervision over all students in each program area.

#### **Requirements for Admission**

Students must have a strong quantitative background with undergraduate coursework in microeconomics and calculus highly recommended. Some prior international or health systems experience is highly desirable. GRE scores are required.

## **Concurrent Degree Options**

## For admitted doctoral students at the Bloomberg School of Public Health

Students who have been admitted to a PhD program at Bloomberg (except PhD in International Health, Health Systems concentration)

have the opportunity to pursue an MHS in Global Health Economics concurrently with their doctoral program. Students will need to obtain approval from the Chair of their PhD program's sponsoring department.

#### **Contact Us**

Students interested in pursuing this concurrent degree option should contact Cristina Salazar (csalazar@jhu.edu) or Elisabeth Simmons (esimmons@jhu.edu) (esimmo15@jhu.edu) for more information.

## **Bachelor's/MHS Program**

#### For current Johns Hopkins undergraduate students

Johns Hopkins undergraduate students currently majoring or double majoring in Public Health Studies are eligible to apply for the Bachelor's/ MHS in Global Health Economics program.

#### **Prerequisite Courses**

Undergraduate students applying must have completed the following coursework and have received a B or higher on each of the following:

- · AS 280.380 Global Health Principles and Practice
- AS 280.345 Public Health Biostatistics or EN 553.311 Probability and Statistics for the Biological Sciences and Engineering
- · AS 280.350 Fundamentals of Epidemiology
- · AS 180.101 Elements of Microeconomics
- AS 180.301 Intermediate Microeconomics or its advanced equivalent 180.434

#### **Program Benefits**

- Johns Hopkins University undergraduates (only) who take BSPH courses during their undergraduate program can select up to 16 credits of BSPH courses accumulated as undergraduates to transfer into their Master's program.
- Apply by July 1 (summer between Junior and Senior years) without submitting GREs as long as their cumulative and SPH undergraduate grade point average remains above 3.3.
- · Receive an International Health adviser during senior year.

#### **Admissions Requirements**

- Online SOPHAS Express application
- Unofficial JHU transcripts when applying (official transcript is required before starting the MHS degree)
- Three letters of recommendation
- · Current resume or curriculum vitae
- · Statement of purpose
- · Completion of all prerequisite courses (B or higher)
- GRE score is require <u>only</u> if cumulative GPA is less than 3.3 at the time of application

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#### **General Requirements**

Course location and modality is found on the BSPH website (https://publichealth.jhu.edu/courses/).

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A minimum of 67 credits in formal coursework must be earned over four academic quarters. Required and elective courses are described in the curriculum section. Students must be continuously registered until all requirements for the degree program have been satisfied. Failure to register for a quarter will result in automatic withdrawal. A withdrawn student must be formally readmitted before resuming a program of study. Upon readmission, a student must be registered for a minimum of two consecutive terms prior to completing degree requirements.

#### **Ethics Requirement**

Ethics – All master's students are required to take the course PH.550.860 Academic & Research Ethics at JHSPH. This is an online course for 0 credits that every student is required to take in their first term of matriculation. Failure to complete this course will prevent students from matriculating for 3rd term.

Students who are being funded by an NIH training grant must also take one of the following two courses: PH.550.600 Living Science Ethics - Responsible Conduct of Research offered first term OR PH.306.665 Research Ethics and integrity offered third term.

### **Core and International Health Requirements**

Students in the MHS in Global Health Economics must complete the required courses listed below. Schedule permitting, students can take additional electives provided they do not conflict with the required and elective courses. A list of elective courses is provided. Additional electives not included in the list need to be approved by the MHS Program Director.

All core and elective courses must be taken for letter grades. Course substitutions are not allowed for any of the required or elective courses. Students cannot take more than 22 credits per term. For additional information on course requirements please view our departmental academic guide (https://publichealth.jhu.edu/departments/international-health/programs/academic-guides-and-competencies/) published in August of each academic year.

Updates regarding course availability can be found on the BSPH Course Directory System.

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Code	Title Cr	edits		
Example of Core and International Health Requirements				
First Term				
PH.140.621	Statistical Methods in Public Health I	4		
PH.220.601	Foundations of International Health (On campus only)	4		
PH.220.841	International Health Masters Independent Goals Analysis (International Health Masters Individual Goals Analysis)	1		
PH.221.619	Introduction to Global Health Economics	3		
PH.221.801	Health Systems Program Seminar I	1		
PH.313.601	Economic Evaluation I	3		
PH.340.721	Epidemiologic Inference in Public Health I	5		
PH.550.860	Academic & Research Ethics at JHSPH			
PH.552.603	The Role of Qualitative Methods and Science in Describing and Assessing a Population's Health	0.5		
Second Term				
PH.140.622	Statistical Methods in Public Health II	4		
PH.221.646	Health Systems in Low and Middle income Countries	3		

	PH.221.802	Health Systems Graduate Seminar 2	1
	PH.313.602	Economic Evaluation II	3
	PH.313.643	Health Economics	3
	Third Term		
	PH.221.617	Behavioral Economics in Health Decisions	2
	PH.221.651	Econometrics I	4
	PH.221.652	Financing Health Systems for Universal Health Coverage	3
	PH.221.662	Health, Equity, and Economic Development	3
	PH.221.803	Health Systems Graduate Seminar 3	1
	PH.221.851	MHS Global Health Economics Scholarly Paper (MHS Global Health Economics Scholarly Paper)	2
	PH.313.603	Economic Evaluation III	3
	PH.313.644	Intermediate Health Economics	3
	Fourth Term		
	PH.221.620	Applying Summary Measures of Population Health to Improve Health Systems	3
	PH.221.647	Advanced Topics in Economic Evaluation & Modeling for Global Health	3
	PH.221.663	Globalization and Health: Framework for Analysis	3
	PH.221.804	Health Systems Graduate Seminar 4	1
	PH.221.851	MHS Global Health Economics Scholarly Paper (MHS Global Health Economics Scholarly Paper)	2

NOTE: Students must choose from the elective selection given to them for each term. They cannot substitute with a course not listed.

Code	Title	Credits
<b>Elective Courses</b>		
PH.140.624	Statistical Methods in Public Health IV	4
PH.140.632	Introduction to the SAS Statistical Package	3
PH.140.640	Statistical Methods for Sample Surveys	3
PH.221.627	Issues in the Reduction of Maternal and Neonat Mortality in Low income Countries	tal 4
PH.221.639	Health Care in Humanitarian Emergencies	3
PH.221.650	Health Policy Analysis in Low and Middle incom Countries	ne 3
PH.223.687	Vaccine Policy Issues	3
PH.223.680	Global Disease Control Programs and Policies	4
PH.340.600	Stata Programming I (Basic)	2
PH.380.712	Methods in Analysis of Large Population Survey	/s 3

#### **Comprehensive Exam**

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Satisfactory performance is required on a written comprehensive examination. Students will take the exam in the 4th term date to be announced in February. The exam will cover the materials taught in the core courses and the required courses from International Health.

A minimum overall passing grade of 75 is required. Exams will be graded by the co-instructors of the Capstone course. Those scoring below this level may retake the entire examination on a later term decided by the co-Director of International Health (student must maintain registration if taking the comprehensive exam a second time). Only one reexamination is permitted. Students failing twice are terminated from the MHS program.

#### **Scholarly Paper**

Students are expected to write a scholarly paper during their four-term degree. Students must work with their adviser on their papers starting 1st term. Students must register for course 221.851 MHS Global Health Economics Scholarly Paper for 2 credits, during third and fourth terms to work solely on their scholarly paper. The paper must be completed during the fourth term and the due date for the paper is TBA. The scholarly paper will be graded by two faculty members: the Director of the MHS program in Global Health Economics and the student's adviser. If a student identifies a topic that does not align with their adviser's research area, the student must identify a new adviser and needs to seek approval for this change from the MHS Program Director.

#### **Time of Completion of Requirements**

Students are expected to complete all requirements for the degree in one year (four terms). Delays will be considered, but in no case may the time in the program exceed four years from the time of matriculation, regardless of the residence status of the student (other than leave of absence).

#### **Individualized Goals Analysis (IGA)**

The IGA is a process of discussion with your adviser resulting in a written document.

Part 1: Briefly explain what knowledge, skills, and experiences you bring to the program.

Part 2: Identify your goals for your education by explaining what you hope to gain in terms of knowledge, skills, personal and professional contacts, and other experiences while a student in the program. Describe one or more topics for your scholarly paper and indicate how these will be used to build your competencies and achieve your goals.

Part 3: Identify what courses and electives you intend to take and when you plan to complete your courses. Course descriptions in the catalogue indicate when courses are generally offered. Your tracking sheet should include a tentative list of electives you plan to complete and the total credit hours. Carefully review your paper and tracking sheet with your adviser to ensure the proposed curriculum is not only feasible but that it meets program requirements. Explain how your curriculum plan is aligned with the goals you identified in Part 2. A spreadsheet is often the best way to do this part.

## MHS in Global Health Economics Program Learning Outcomes

According to the requirements of the Council on Education for Public Health (CEPH), all BSPH degree students must be grounded in foundational public health knowledge. Please view the list of specific CEPH requirements by degree type (https://e-catalogue.jhu.edu/publichealth/ceph-requirements/).

Upon completion of the MHS in Global Health Economics program, individuals are equipped to:

- Apply and analyze statistics and econometric methods (including statistical inferences, regression methods, and applied econometric methods) to solve public health problems all while assessing burden of disease:
- Measure and calculate the cost, health effects, and equity of public health interventions, distinguishing between methods and modeling practices used in economic evaluation;

- Apply economic evaluation tools and modeling, and microeconomic concepts, to interpret, analyze, and evaluate issues of health, health care delivery, organizations and financing, and public health policy in a global context;
- Measure and integrate issues of access and equity for vulnerable populations into economic evaluations of public health policy;
- Evaluate the health status and globalization of LMIC populations including incidence and prevalence of disease morbidity and mortality, and life expectancy in LMICs;
- Examine the link between governance, economic development, financing of health care, and poverty.

#### **MHS in Global Health Economics Program Policies**

For a full list of program policies, please visit the MHS in Global Health Economics (https://publichealth.jhu.edu/academics/mhs-in-global-health-economics/) webpage where students can find a link to our most recent Academic Guide (https://publichealth.jhu.edu/departments/international-health/programs/academic-quides-and-competencies/).