THE OHIO STATE UNIVERSITY
COLLEGE OF PUBLIC HEALTH

THE OHIO STATE UNIVERSITY
COLLEGE OF MEDICINE

2026-2027 Curriculum Guide for the online Master of Public Health degree program with a specialization in Biomedical Informatics

The Online Master of Public Health (MPH) degree is intended for students whose interests in Biomedical Informatics (BMI) are oriented towards professional practice within the public health and/or healthcare domains.

Students admitted to the MPH 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 Biomedical Informatics, 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: https://cph.osu.edu/students/graduate/student-handbook , the Graduate School Handbook: https://gradsch.osu.edu/graduate-school-handbook-gsh and the CPH competencies: https://go.osu.edu/cphcompetencies.

PROGRAM OF STUDY

The MPH-BMI curriculum consists of a minimum of 45 credit hours organized into five curricular domains:

1. MPH Foundational Curriculum (11 credit hours)
2. Specialization courses (20 credit hours)
3. Elective courses (9 credit hours)
4. Applied Practice Experience (2 credit hours)
5. Integrative Learning Experience (3 credit hours)
6. Interprofessional Practice and Education (IPE) activities (0 credit hours)*

*In addition to credit hour requirements, the College of Public Health requires all MPH students to participate in IPE activities. To meet this requirement, students will complete IPE activities through the Office of Interprofessional Practice and Education.

MPH Foundational Curriculum (11 credit hours)

Every student in the MPH-BMI program must take the following MPH foundational curriculum:

PUBHBIO 6210	Applied Biostatistics I	3 credit hours
PUBHLTH 6013	Current Topics in Environmental Public Health	2 credit hours
PUBHLTH 6014	Epidemiology through Disease Investigations	2 credit hours
PUBHLTH 6015	Frameworks for Change: Planning and Evaluating PH Programs	2 credit hours
PUBHLTH 6016	Public Health and Healthcare Systems	2 credit hours

Required Specialization courses (20 credit hours)

PUBHBIO 6211	Applied Biostatistics II	3 credit hours
BMI 5710	Introduction to Biomedical Informatics	3 credit hours
BMI 5740	Introduction to Research Informatics	3 credit hours
BMI/PUBHLTH 5760	Public Health Informatics	3 credit hours
BMI 7000+	Advanced Coursework in Biomedical Informatics	3 credit hours
BMI 7891	Seminars in Biomedical Informatics (must take this 1 credit hour course twice)	2 credit hours

Ethics course requirement - Select one course:

BIOETHIC 6010	Biomedical Research Ethics	3 credit hours
NURSING 7781	Responsible Conduct of Research	3 credit hours

Recommended Electives (9 credit hours)**

Course	Course Title	Cr Hrs	Course	Course Title	Cr Hrs
BMI 5551	Survey of AI/ML in Digital Health	3	BMI 8050.01	Special Topics in BMI: Data Science	3
BMI 5552	AI in Medical Imaging	3	BMI 8130	Analysis and Applications of Genome Scale Data	3
BMI 5553	Predictive Analytics in Electronic Health Records	3	BMI 8140	Measuring Patient Experiences and Preferences	3
BMI 5554	Natural Language Processing in Biomedical Research	3	BMI 8150	Rigorous and Reproducible Design and Data Analysis	3
BMI 5556	Human-Centered Design of AI in Healthcare	3	PUBHBIO 6250	Regression Methods for the Health Sciences	3
BMI 5557	Multimodal AI in Healthcare	3	PUBHBIO 6270	Intro to SAS for Pub Hlth Students	2
BMI 5558	R-based Computational Applications for BMI	3	PUBHHMP 7678	Approaches to Health Services Research	3
BMI 5730	Introduction to Bioinformatics	3	PUBHHMP 7682	Info Sys for Health Service Org	1.5
BMI 5750	Methods in Biomedical Informatics	3	CSE 5231	Software Engineering Techniques	2
BMI 5770	Health Analytics: Data to Discovery to Dissemination	3	CSE 5241	Introduction to Database Systems	2
BMI 5780	Programming for BMI	3	CSE 5521	Survey of Artificial Intel I: Basic Tech	2
BMI 7040	Clinical Informatics	3	CSE 5522	Survey of Artificial Intel II: Adv Tech	3
BMI 7050	Meta-Analysis in Health Science Research	3	PUBHEPI 6412	Basic Prin Clinical & Transl. Science	2
BMI 7235	Machine Learning for Bioinformatics	3	PUBHEPI 6413	Conduct & Comm Research in CTS	2
BMI 7530	Proteomics Data Analysis	3	PUBHEPI 6431	Design & Implement Health Surveys	3
BMI 7770	Health Analytics (SP27 and forward)	3			
BMI 7810	Research Design & Method Approaches	3			
BMI 8030.01	Special Topics in BMI: Computational Biology and Bioinformatics	3			
BMI 8040.01	Special Topics in BMI: Clinical and Translational Informatics	3			

*** Students should work with staff and faculty advisors in the Department of Biomedical Informatics to identify suitable electives, not all courses listed are offered distance learning*

Applied Practice Experience

PUBHLTH 7189 Applied Practice Experience in Public Health 2 credit hours

Integrative Learning Experience

PUBHLTH 7998 Integrative Learning Experience in Public Health 3 credit hours

Sample Curriculum Plan for the Master of Public Health in Biomedical Informatics

TERM	COURSE	COURSE TITLE	CREDIT HRS	TERM(S) OFFERED
Year 1 Autumn	PUBHBIO 6210	Applied Biostatistics I	3	AU
	PUBHLTH 6014	Epidemiology through Disease Investigations	2	AU
	BMI 5710	Introduction to Biomedical Informatics	3	AU
Year 1 Spring	PUBHLTH 6013	Current Topics in Environmental Public Health	2	SP
	PUBHLTH 6015	Frameworks for Change: Planning &Evaluating PH Programs	2	SP
	PUBHBIO 6211	Applied Biostatistics II	3	AU, SP
	BMI 5740	Introduction to Research Informatics	3	SP
	BMI 7891	Seminar in Biomedical Informatics	1	AU, SP
Year 1 Summer	PUBHLTH 7189	Applied Practice Experience	2	ANY
	ELECTIVE	Recommend: BMI 5750 Methods in Biomedical Informatics	3	ANY
Year 2 Autumn	BMI/PUBHLTH 5760	Public Health Informatics	3	AU
	BMI 7000+	Advanced Biomedical Informatics Coursework	3	AU
	ELECTIVE		3	ANY
	ETHICS COURSE		2-3	ANY
Year 2 Spring	PUBHLTH 7998	Integrative Learning Experience in Public Health	3	ANY
	PUBHLTH 6016	Public Health and Healthcare Systems	2	ANY
	ELECTIVE		3	ANY
	BMI 7891	Seminar in Biomedical Informatics	0-1	ANY

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 12 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.
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