



2024-2025 Curriculum Guide for ONLINE Master of Public Health degree program with a specialization in BIOSTATISTICS

The Online Master of Public Health (MPH) degree program is designed to provide students with the knowledge and skills for general and specialized applied public health practice, both in the public sector and in private sector careers related to population health. It includes courses within public health's foundation disciplines of biostatistics, environmental health science, epidemiology, health behavior & health promotion, and health services management and policy. This broad training is complemented by the more in-depth course work within the specialization including an applied practice experience and integrative learning experience.

Students admitted to the MPH degree program are assigned a faculty advisor who will provide guidance through the program until the student selects their Integrative Learning Experience advisor. This document serves as a resource to be used by the student and the advisor in planning a program with a specialization in Biostatistics, 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: <http://cph.osu.edu/students/graduate/handbooks>, the Graduate School Handbook <http://www.gradsch.ohio-state.edu/> and the CPH competencies: <https://go.osu.edu/cphcompetencies>.

PROGRAM OF STUDY

The MPH-Biostatistics curriculum consists of a minimum of 42 credit hours organized into five curricular domains:

1. MPH Integrated Foundational curriculum including the Buck-IPE* (12 credit hours)
2. Required biostatistics courses for the specialization (23 credit hours)
3. Required statistical computing course (2 credit hours)
4. Applied Practice Experience (2 credit hours)
4. Integrative Learning Experience (3 credit hours)

*In addition to credit hour requirements, The Ohio State University College of Public Health requires all Master of Public Health students to participate in interprofessional practice and education activities. To meet this requirement, first-year students will participate in Buck-IPE, a longitudinal curriculum for students in health science and allied health professional programs at The Ohio State University. Information about participation and assessment will be shared with MPH students as part of the Integrated Foundational Curriculum (in PUBHLTH 6002 and 6004).

MPH Integrated Foundational curriculum (12 credit hours)

Every student in the MPH-Biostatistics program must take the following courses in areas of knowledge basic to public health:

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| PUBHTLH 6001 | Methods in Quantitative Data Analysis | 4 credit hours |
| PUBHLTH 6002 | History, Values and Essential Services of the U.S. Public Health System | 2 credit hours |
| PUBHLTH 6003 | Methods in Public Health Planning and Evaluation | 2 credit hours |
| PUBHLTH 6004 | Essentials of Population Health | 4 credit hours |

Biostatistics Specialization courses (23 credit hours)

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| PUBHBIO 6260 | Ethics in Biostatistics | 1 credit hour |
| PUBHBIO 6211 | Applied Biostatistics II | 3 credit hours |
| PUBHBIO 6250 | Regression Methods in the Health Sciences | 3 credit hours |
| PUBHBIO 7215 | Design and Analysis of Clinical Trials | 2 credit hours |
| PUBHBIO 7245 | Biostatistical Collaboration | 2 credit hours |
| PUBHBIO 5280* | Introduction to Genomic Data Analysis | 3 credit hours |
| PUBHBIO 7255* | Introduction to Causal Inference | 3 credit hours |
| PUBHBIO 7230* | Applied Longitudinal Analysis | 3 credit hours |
| PUBHLTH/BMI 5760 | Public Health Informatics | 3 credit hours |

**Other 7000-level PUBHBIO courses may be substituted for these courses with advisor approval in advance of registering*

Statistical Computing course (pick 1 course) (2 credit hours)

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| STAT 5731 and STAT 5732 | Introduction to R for Data Science | 2 credit hours |
| STAT 5740 | Introduction to SAS Software | 2 credit hours |
| PUBHBIO 6270 | Introduction to SAS for Public Health students | 2 credit hours |

STAT 5731, 5732 and 5740 are both delivered online. PUBHBIO 6270 is delivered in person.

Applied Practice Experience

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| PUBHLTH 7189 | Applied Practice Experience in Public Health | 2 credit hours |
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Integrative Learning Experience

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| PUBHLTH 7998 | Integrative Learning Experience in Public Health | 3 credit hours |
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Curriculum Plan for the Master of Public Health in Biostatistics

| (TERM | COURSE | COURSE TITLE | CREDIT HOURS | TERM OFFERED |
|----------------------------------|--|--|--------------|--------------|
| Year 1 Autumn (12 cr hrs) | PUBHLTH 6001 | Methods in Quantitative Data Analysis | 4 | AU |
| | PUBHLTH 6002 | Statistical Computing course | 2 | AU |
| | PUBHBIO 6260 ⁺ | Ethics in Biostatistics | 1 | AU |
| | PUBHLTH/BMI 5760 | Public Health Informatics | 3 | AU |
| | PUBHBIO 6270 or STAT 5731+STAT 5732 or STAT 5740 | Introduction to SAS for Public Health Students or Introduction to R for Data Science or Introduction to SAS Software | 2-3 | AU, SP |
| Year 1 Spring (9 cr hrs) | PUBHLTH 6003 | Methods in Public Health Planning and Evaluation | 2 | SP |
| | PUBHLTH 6004 | Essentials of Public Health | 4 | SP |
| | PUBHBIO 6211 | Applied Biostatistics II | 3 | AU, SP |
| Year 2 Autumn (13 cr hrs) | PUBHBIO 5280 | Introduction to Genomic Data Analysis Regression | 3 | AU |
| | PUBHBIO 6250 | Methods for the Health Sciences | 3 | AU |
| | PUBHBIO 7215 ⁺ | Design and Analysis of Clinical Trials | 2 | AU |
| | PUBHBIO 7255 ⁺ | Introduction to Causal Inference | 3 | AU |
| | PUBHLTH 7189 [^] | Applied Practice Experience | 2 | ANY |
| Year 2 Spring (8 cr hrs) | PUBHLTH 7998 | Integrative Learning Experience in Public Health | 3 | ANY |
| | PUBHBIO 7230 | Applied Longitudinal Analysis | 3 | SP |
| | PUBHBIO 7245 ⁺ | Biostatistical Collaboration | 2 | SP |

These courses include an online, synchronous component (times at which you must be logged on and participating in class). All remaining required courses are available as fully asynchronous online courses.

[^]The Applied Practice Experience (Public Health 7189) is to be completed Autumn Semester of Year 2. It may be completed during Summer or Spring with approval from the faculty advisor.

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 10 of the College of Public Health Graduate Student Handbook.

Office of Academic Programs and Student Services (OAPSS)

OAPSS staff are available to provide assistance with College, Graduate School and University policies and procedures. Students can make an appointment with a staff member in OAPSS by calling (614) 292-8350. OAPSS address: 100 Cunz Hall/1841 Neil Ave/Columbus, Ohio/ 43210