



2016-2017 Curriculum Guide for Master of Science degree program with a specialization in BIostatISTICS

The Master of Science (MS) degree is intended for students whose interests in biostatistics 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. It is also a natural entry point for students who are interested in pursuing a PhD degree. Because of this orientation, the emphasis in the MS degree program is on building a strong foundation in a particular specialty field, along with the research methods important in that field. To reflect this research and academic orientation, the MS degree ordinarily requires the preparation of a thesis, though it is available under a non-thesis option at the discretion of the division or specialization.

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 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* (available at <http://cph.osu.edu/students/graduate/handbooks>) and with the *Graduate School Handbook* (available at <http://www.gradsch.ohio-state.edu/>).

The Master's program with a specialization in Biostatistics presupposes a basic statistical background at the level of PUBHBIO 6210-6211 (Design & Health Analysis of Studies in the Health Sciences I and II).

PROGRAM OF STUDY

The MS-Biostatistics curriculum consists of a minimum of 45 credits organized into four curricular domains:

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| 1. Epidemiology requirement | 3 credits |
| 2. Biostatistics specialization and Selectives | 27 credits |
| 3. Electives | 12 credits |
| 4. Thesis | 3 credits |

Epidemiology requirement (3 credits)

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| PUBHEPI 6410 Principles of Epidemiology | 3 credits |
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Required Courses in the Specialization (18 credits)

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| PUBHBIO 6212 Regression Methods for the Health Sciences | 3 credits |
| PUBHBIO 7245/STAT 7755 Biostatistical Collaboration | 2 credits |
| STAT 6740 Data Management and Graphics for Statistical Analyses | 3 credits |
| STAT 6301 Probability for Statistical Inference | 3 credits |
| STAT 6302 Theory of Statistical Analysis | 3 credits |
| STAT 6450 Applied Regression Analysis | 4 credits |

Selectives: Select three of the following courses (9 credits)

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| PUBHBIO 7220 Applied Logistic Regression | 3 credits |
| PUBHBIO 7230 Applied Longitudinal Analysis | 3 credits |
| PUBHBIO 7235/STAT 6605 Applied Survival Analysis | 3 credits |
| PUBHBIO 7225/STAT 6510 Survey Sampling Methods | 3 credits |
| PUBHBIO 7240/STAT 6520 Applied Statistical Analysis with Missing Data | 3 credits |

*****Questions regarding the student's program of study should be directed to their advisor*****

Electives (12 credits)**

Because of the research orientation of the degree, it is essential that students work closely with their advisors to plan their use of electives to build the expected skills and support their thesis.

Thesis (3 credits)

PUBHLTH 7999 Master's Thesis Research in Public Health 3 credits

Sample Curriculum Plan for the Master of Science in Biostatistics

(THIS IS ONE OPTION, STUDENTS ARE ADVISED TO CONSULT WITH THEIR ADVISOR FOR OTHER OPTIONS)

Year 1 Autumn	PUBHBIO 6212 STAT 6740 STAT 6301	Regression Methods for the Health Sciences Data Management & Graphics for Stat Analysis Probability for Statistical Inference	3 credits 3 credits 3 credits	AU AU AU
Year 1 Spring	STAT 6302 ELECTIVES STAT 6450	Theory of Statistical Analysis Select 1-2 Elective courses approved by advisor Applied Regression Analysis	3 credits 3-6 credits 3 credits	SP AU, SP AU, SP
Year 2 Autumn	SELECTIVES ELECTIVES** PUBHEPI 6410	Select 1-2 Selective courses Select 1-2 Elective courses approved by advisor Principles of Epidemiology	3-6 credits 3-6 credits 3 credits	ANY ANY AU, SP
Year 2 Spring	PUBHLTH 7999 PUBHBIO 7245/STAT 7755 SELECTIVES ELECTIVES**	Master's Thesis Research in Public Health Biostatistical Collaboration Select 1-2 Selective courses Select 1-2 Elective courses approved by advisor	3 credits 2 credits 3-6 credits 3-6 credits	SP AU, SP AU, SP

**A total of 12 hours of electives are required for the degree, however they can be taken during any semester

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 Core and specialization courses. Students should familiarize themselves with Section 11 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/cph.osu.edu

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