| | |
|---|---|
| **From:** | Smith, Randy |
| **To:** | Andridge, Rebecca |
| **Cc:** | Sutherland, Sue; Reed, Katie; Smith, Randy; Miriti, Maria; Stromberger, Mary; Duffy, Lisa; Hunt, Ryan; Ferketich, Amy; Zadnik, Karla |
| **Subject:** | Proposal to revise the Master of Science in Public Health, Biostatistics Specialization |
| **Date:** | Sunday, September 8, 2024 8:26:24 AM |
| **Attachments:** | image001.png |

Rebecca:

The proposal from the College of Public Health to revise the Master of Science in Public Health, Biostatistics Specialization was approved by the Council on Academic Affairs at its meeting on September 4, 2024. Thank you for attending the meeting to respond to questions/comments.

No additional level of internal review/approval is necessary. This action will be included in the Council's next Annual Activities Report to the University Senate (July 2025).

The Office of the University Registrar will work you with any implementation issues.

Please keep a copy of this message for your file on the proposal and I will do the same for the file in the Office of Academic Affairs.

If you have any questions please contact the Chair of the Council, Professor Sue Sutherland (.43), or me.

Randy

THE OHIO STATE UNIVERSITY

**W. Randy Smith, Ph.D.**
Vice Provost for Academic Programs
Office of Academic Affairs
University Square South, 15 E. 15th Avenue, Columbus, OH 43201
614-292-5881 Office
smith.70@osu.edu
**Assisted by:**
**Katie Reed**
Executive Assistant
(614) 292-5672
reed.901@osu.edu

TO: Randy Smith, Vice Provost for Academic Programs

FROM: Graduate School Curriculum Services

DATE: **5/30/2024**

RE: Proposal to **Revise the MS In Public Health, Biostatistics Specialization** in **Public Health**

The **College of Public Health** is proposing a **Revision to the MS in Public Health, Biostatistics Specialization**.

The proposal was received by the Graduate School on **4/10/2024**. The combined GS/CAA subcommittee first reviewed the proposal on **4/24/2024** and requested revisions. Revisions were received on **5/29/2024**. The proposal is recommended for review at CAA.

*Ohio State University College of Public Health*

**Michael S. Bisesi, PhD, REHS, CIH**
**Vice Dean and Director, Academic Affairs and Academic Administration**
**Professor and Chair,, Environmental Health Sciences**
**Fellow, AIHA**
(614) 247-8290 bisesi.12@osu.edu

TO: Maria Miriti PhD
Associate Dean of Academic Affairs
Graduate School - The Ohio State University
Miriti.1@osu.edu

FROM: Michael S. Bisesi, PhD
Vice Dean of Academic Affairs and Academic Administration
College of Public Health
Bisesi.12@osu.edu

DATE: April 23, 2024

**RE: Curriculum Revision for Master of Science with a specialization in Biostatistics- College of Public Health**

Please accept this notice of revision to the Master of Science (MS) curriculum for the Biostatistics specialization (PUBHLTB-MS) offered by the College of Public Health. The Academic Studies Governance Committee in the College of Public Health approved this revision on 3/22/24.

The change is a result of some minor curriculum revisions, however, no current learning goals/ objectives and/or the assessment plan will change for the degree.

The modifications include:

- Reducing the number of total credit hours required from 45 to 42
- The number of required specialization credit hours from 18 to 19
- Reducing the number of elective credit hours from 12 to 8

The course STAT 6450: Applied Regression Analysis (4 credit hours) was removed as a required specialization course and is being replaced by PUBHBIO 7220: Applied Generalized Linear Models in Public Health (3 credit hours) and STAT 5730: Introduction to R for Data Science (2 credit hours).

The course, PUBHBIO 7220: Applied Generalized Linear Models in Public Health (3 credit hours) has been removed from the list of electives because it is now a required specialization course.
The Biostatistics faculty feel that the revised PUBHBIO 7220 will better serve the needs of students than STAT 6450. They also feel that it is important for them to learn R in addition to Stata.

The goal is to implement the revised curriculum effective Autumn 2024. The proposed curricular change will have no adverse impact to current PUBHLTB-MS students relative to increased credits, costs, or time-to-degree. Current PUBHLTB-MS students (n=12) are able to access the curriculum guide from the time of entry on the College of Public Health website and are aware that their degree requirements differ from PUBHLTB-MS students entering the program in Autumn 2024. The requests constitute a change of 20% from the current degree plan. Attached you will find a current curriculum guide, a redlined curriculum guide, and a proposed curriculum guide.

If feasible, we would appreciate an expedited review and approval. Thank you very much.

*Ohio State University College of Public Health*

**Michael S. Bisesi, PhD, REHS, CIH**
**Vice Dean and Director, Academic Affairs and Academic Administration**
**Professor and Chair,, Environmental Health Sciences**
**Fellow, AIHA**
(614) 247-8290 bisesi.12@osu.edu

TO: Maria Miriti PhD
Associate Dean of Academic Affairs
Graduate School - The Ohio State University
Miriti.1@osu.edu

FROM: Michael S. Bisesi, PhD
Vice Dean of Academic Affairs and Academic Administration
College of Public Health
Bisesi.12@osu.edu

DATE: May 29, 2024

**RE: Request for concurrence for Master of Science (MS) from Department of Statistics**

The College of Public Health received concurrence from the Department of Statistics in our request to revise the Master of Science (MS) with a specialization in Public Health.

Attached is the email communication between the Chair of the Division of Biostatistics and the Department of Statistics.

Please let us know if additional information is needed.

## Droesch, Kynthia

**From:** Archer, Kellie
**Sent:** Friday, April 26, 2024 8:29 AM
**To:** Droesch, Kynthia; Bisesi, Michael
**Subject:** FW: Seeking concurrence for change in MS specialization in Biostatistics degree program

Statistics has provided concurrence for our updated MS specialization in Biostatistics (see below). We will need to modify our MS curriculum for Spring 2025 and forward as they are splitting STAT 5730 (2 credits) into 2 one-credit courses (but again not effective until next Spring).

Best,
Kellie

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**From:** Zhang, Yuan <yzhanghf@stat.osu.edu>
**Date:** Friday, April 26, 2024 at 12:39 AM
**To:** Archer, Kellie <archer.43@osu.edu>
**Cc:** Kaizar, Elly <kaizar.1@osu.edu>, Lee, Yoonkyung <yklee@stat.osu.edu>
**Subject:** Re: Seeking concurrence for change in MS specialization in Biostatistics degree program

Dear Kellie,

Thanks for sending the request and materials.

Statistics is happy to provide their concurrence. Meanwhile, we have recently updated our Stat 5730. It has been split into two 7-week, 1 credit hour courses:

- STAT 5731 Introduction to R for Data Science I: Basic R
- STAT 5732 Introduction to R for Data Science II: Intermediate R

The above change will be effective from Spring 2025 onward.

Please let us know if you have any questions.

Warm regards,
Yoonkyung Lee and Yuan Zhang
Curriculum Committee, Department of Statistics

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**From:** Kaizar, Elly <kaizar.1@osu.edu>
**Sent:** Thursday, April 25, 2024 19:21
**To:** Lee, Yoonkyung <yklee@stat.osu.edu>; Zhang, Yuan <yzhanghf@stat.osu.edu>
**Subject:** Fw: Seeking concurrence for change in MS specialization in Biostatistics degree program

Hi Yoon and Yuan,

This came in from Biostatistics. I think we would need to ask them to change 5730 to 5731/2. Otherwise, are you in favor of concurrence?

Thanks,
Elly

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**From:** Archer, Kellie <archer.43@osu.edu>
**Sent:** Thursday, April 25, 2024 12:00 PM
**To:** Kaizar, Elly <kaizar.1@osu.edu>
**Subject:** Seeking concurrence for change in MS specialization in Biostatistics degree program

Hi Elly,

We have modified our MS specialization in Biostatistics to include the following changes:

We have dropped the STAT 6450 requirement because it is redundant with PUBHBIO 6211. We have added STAT 5730 as a required course because we believe MS students should learn R in addition to SAS.

We have also moved PUBHBIO 7220 from an elective to a required course.

I have attached the proposed curriculum, the current curriculum, and the redlined version.

Thanks for your consideration,

Kellie

*Ohio State University College of Public Health*

**Michael S. Bisesi, PhD, REHS, CIH**
**Vice Dean and Director, Academic Affairs and Academic Administration**
**Professor and Chair,, Environmental Health Sciences**
**Fellow, AIHA**
(614) 247-8290 bisesi.12@osu.edu

TO: Maria Miriti PhD
Associate Dean of Academic Affairs
Graduate School - The Ohio State University
Miriti.1@osu.edu

FROM: Michael S. Bisesi, PhD
Vice Dean of Academic Affairs and Academic Administration
College of Public Health
Bisesi.12@osu.edu

DATE: April 8, 2024

**RE: Curriculum Revision for Master of Science with a specialization in Biostatistics- College of Public Health**

Please accept this notice of revision to the Master of Science (MS) curriculum for the Biostatistics specialization (PUBHLTB-MS) offered by the College of Public Health. The Academic Studies Governance Committee in the College of Public Health approved this revision on 3/22/24.

The change is a result of some minor curriculum revisions, however, no current learning goals/ objectives and/or the assessment plan will change for the degree.

The modifications include:

- Reducing the number of total credit hours required from 45 to 42
- The number of required specialization credit hours from 18 to 19
- Reducing the number of elective credit hours from 12 to 8

The course STAT 6450: Applied Regression Analysis (4 credit hours) was removed as a required specialization course and is being replaced by PUBHBIO 7220: Applied Generalized Linear Models in Public Health (3 credit hours) and STAT 5730: Introduction to R for Data Science (2 credit hours).

The course, PUBHBIO 7220: Applied Generalized Linear Models in Public Health (3 credit hours) has been removed from the list of electives because it is now a required specialization course.
The Biostatistics faculty feel that the revised PUBHBIO 7220 will better serve the needs of students than STAT 6450. They also feel that it is important for them to learn R in addition to Stata.

The goal is to implement the revised curriculum effective Autumn 2024. The proposed curricular change will have no adverse impact to current PUBHLTB-MS students relative to increased credits, costs, or time-to-degree. Current PUBHLTB-MS students (n=12) are able to access the curriculum guide from the time of entry on the College of Public Health website and are aware that their degree requirements differ from PUBHLTB-MS students entering the program in Autumn 2024. Attached you will find a current curriculum guide, a redlined curriculum guide, and a proposed curriculum guide.

If feasible, we would appreciate an expedited review and approval. Thank you very much.

*Effective Autumn 2024*

THE OHIO STATE UNIVERSITY
COLLEGE OF PUBLIC HEALTH

# 2024-2025 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. The MS degree may also serve as an 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. The MS degree requires preparation and defense of a thesis on Biostatistical methods/applications. 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 Biostatistics, but is not inclusive of all important degree, college, and university requirements. This is not considered an on-line degree program; however, students will enroll in a combination of courses designed for on-campus in-person delivery (IP), distance learning (DL), or hybrid (HY). 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 MS Biostatistics curriculum consists of a minimum of 42 credits.

**Required Foundation Courses (9 credit hours)**

| | | |
|---|---|---|
| PUBHLTH 6010 | Essentials of Public Health | 3 credit hrs |
| PUBHBIO 6210 | Applied Biostatistics I | 3 credit hrs |
| PUBHEPI 6410 | Principles of Epidemiology | 3 credit hrs |

**Required Specialization Courses (19 credit hours)**

| | | |
|---|---|---|
| PUBHBIO 6211 | Applied Biostatistics II | 3 credit hrs |
| PUBHBIO 6260 | Ethics in Biostatistics | 1 credit hr |
| PUBHBIO 6270 | Introduction to SAS for Public Health Students | 2 credit hrs |
| PUBHBIO 7220 | Applied Generalized Linear Models in Public Health | 3 credit hrs |
| PUBHBIO 7245/STAT 7755 | Biostatistical Collaboration | 2 credit hrs |
| STAT 5730 | Introduction to R for Data Science | 2 credit hrs |
| STAT 6301 | Probability for Statistical Inference | 3 credit hrs |
| STAT 6302 | Theory of Statistical Analysis | 3 credit hrs |

**Electives (8 credit hours)**

Choose a minimum of 8 credit hours from this list, or other courses approved by the advisor.

| | | |
|---|---|---|
| PUBHBIO 5280 | Introduction to Genomic Data Analysis | 3 credit hrs |
| PUBHBIO 7215 | Design and Analysis of Clinical Trials | 2 credit hrs |
| PUBHBIO 7225/STAT 6510 | Survey Sampling Methods | 3 credit hrs |
| PUBHBIO 7230 | Applied Longitudinal Analysis | 3 credit hrs |
| PUBHBIO 7235/STAT 6605 | Applied Survival Analysis | 3 credit hrs |
| PUBHBIO 7240/STAT 6520 | Applied Statistical Analysis with Missing Data | 3 credit hrs |
| PUBHBIO 7255 | Introduction to Causal Inference | 3 credit hrs |
| PUBHBIO 8450 | Stochastic Epidemic Models | 3 credit hrs |
| STAT 6625 | Statistical Analysis of Genetic Data | 3 credit hrs |
| STAT 6730 | Introduction to Computational Statistics | 2 credit hrs |

**Thesis (6 credit hours)**

| | | |
|---|---|---|
| PUBHLTH 7999 | Thesis Research in Public Health | 6 credit hrs |

**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)

| TERM | COURSE | COURSE TITLE | CREDIT HRS | TERM(S) OFFERED | DELIVERY MODE |
|---|---|---|---|---|---|
| **Year 1 Autumn** | PUBHBIO 6210 | Applied Biostatistics I | 3 credits | AU | DL |
| | PUBHBIO 6260 | Ethics in Biostatistics | 1 credit | AU | IP OR DL |
| | PUBHBIO 6270 | Introduction to SAS for Public Health Students | 2 credits | AU | IP |
| | STAT 6301 | Probability for Statistical Inference | 3 credits | AU | IP |
| | PUBHEPI 6410 | Principles of Epidemiology | 3 credits | AU | DL |
| **Year 1 Spring** | PUBHBIO 6211 | Applied Biostatistics II | 3 credits | AU, SP | IP OR DL |
| | STAT 5730 | Introduction to R for Data Science | 2 credits | AU, SP | IP |
| | STAT 6302 | Theory of Statistical Analysis | 3 credits | SP | IP |
| | PUBHLTH 6010 | Essentials of Public Health | 3 credits | SP | IP |
| **Year 2 Autumn** | PUBHLTH 7999 | Thesis Research in Public Health | 3 credits | | |
| | PUBHBIO 7220 | Applied Generalized Linear Models in Public Health | 3 credits | AU | IP |
| | Elective | | 2-3 credits | | |
| | Elective | | 3 credits | | |
| **Year 2 Spring** | PUBHLTH 7999 | Thesis Research in Public Health | 3 credits | | |
| | PUBHBIO 7245/STAT 7755 | Biostatistical Collaboration | 2 credits | SP | IP |
| | Elective | | 3 credits | | |

**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

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

*Effective Summer 2023*

THE OHIO STATE UNIVERSITY
COLLEGE OF PUBLIC HEALTH

# 2023-2024 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. The MS degree may also serve as an 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. The MS degree requires preparation and defense of a thesis on Biostatistical methods/applications. 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 Biostatistics, but is not inclusive of all important degree, college, and university requirements. This is not considered an on-line degree program; however, students will enroll in a combination of courses designed for on-campus in-person delivery (IP), distance learning (DL), or hybrid (HY). 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* https://gradsch.osu.edu/handbook and the CPH competencies: https://go.osu.edu/cphcompetencies.

## PROGRAM OF STUDY

The MS Biostatistics curriculum consists of a minimum of 45 credit hours.

**Required Foundation Courses (9 credit hours)**

| | | |
|---|---|---|
| PUBHLTH 6010 | Essentials of Public Health | 3 credit hrs |
| PUBHBIO 6210 | Applied Biostatistics I | 3 credit hrs |
| PUBHEPI 6410 | Principles of Epidemiology | 3 credit hrs |

**Required Specialization Courses (18 credit hours)**

| | | |
|---|---|---|
| PUBHBIO 6211 | Applied Biostatistics II | 3 credit hrs |
| PUBHBIO 6260 | Ethics in Biostatistics | 1 credit |
| PUBHBIO 6270 | Introduction to SAS for Public Health Students | 2 credit hrs |
| PUBHBIO 7245 | Biostatistical Collaboration | 2 credit hrs |
| STAT 6301 | Probability for Statistical Inference | 3 credit hrs |
| STAT 6302 | Theory of Statistical Analysis | 3 credit hrs |
| STAT 6450 | Applied Regression Analysis | 4 credit hrs |

**Electives (12 credit hours)**

Choose a minimum of 12 credit hours from this list, or other courses approved by the advisor.

| | | |
|---|---|---|
| PUBHBIO 5280 | Introduction to Genomic Data Analysis | 3 credit hrs |
| PUBHBIO 7215 | Design and Analysis of Clinical Trials | 2 credit hrs |
| PUBHBIO 7220 | Applied Logistic Regression | 3 credit hrs |
| PUBHBIO 7225/STAT 6510 | Survey Sampling Methods | 3 credit hrs |
| PUBHBIO 7230 | Applied Longitudinal Analysis | 3 credit hrs |
| PUBHBIO 7235/STAT 6605 | Applied Survival Analysis | 3 credit hrs |
| PUBHBIO 7240/STAT 6520 | Applied Statistical Analysis with Missing Data | 3 credit hrs |
| PUBHBIO 7255 | Introduction to Causal Inference | 3 credit hrs |
| PUBHBIO 8450 | Stochastic Epidemic Models | 3 credit hrs |
| STAT 6625 | Statistical Analysis of Genetic Data | 3 credit hrs |
| STAT 6730 | Introduction to Computational Statistics | 2 credit hrs |

**Thesis (6 credit hours)**

| | | |
|---|---|---|
| PUBHLTH 7999 | Thesis Research in Public Health | 6 credit hrs |

**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)

| TERM | COURSE | COURSE TITLE | CREDIT HRS | TERM(S) OFFERED | DELIVERY MODE |
|---|---|---|---|---|---|
| **Year 1 Autumn** | PUBHBIO 6210 | Applied Biostatistics I | 3 | AU | DL |
| | PUBHBIO 6260 | Ethics in Biostatistics | 1 | AU | IP or DL |
| | PUBHBIO 6270 | Introduction to SAS for Public Health Students | 2 | AU, SP | IP or DL |
| | STAT 6301 | Probability for Statistical Inference | 3 | AU | IP |
| | PUBHEPI 6410 | Principles of Epidemiology | 3 | AU | DL |
| **Year 1 Spring** | PUBHBIO 6211 | Applied Biostatistics II | 3 | AU, SP | IP or DL |
| | STAT 6450 | Applied Regression Analysis | 4 | AU, SP | IP |
| | STAT 6302 | Theory of Statistical Analysis | 3 | SP | IP |
| | PUBHLTH 6010 | Essentials of Public Health | 3 | SP | IP |
| **Year 2 Autumn** | PUBHLTH 7999 | Thesis Research in Public Health | 3 | | |
| | Elective | | 3 | | |
| | Elective | | 3 | | |
| | Elective | | 3 | | |
| **Year 2 Spring** | PUBHLTH 7999 | Thesis Research in Public Health | 3 | | |
| | PUBHBIO 7245 | Biostatistical Collaboration | 2 | SP | IP or DL |
| | Elective | | 3 | | |

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

*Effective ~~Summer 2023~~Autumn 2024*

THE OHIO STATE UNIVERSITY
COLLEGE OF PUBLIC HEALTH

# 2024~~3~~-2024~~5~~ 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. The MS degree may also serve as an 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. The MS degree requires preparation and defense of a thesis on Biostatistical methods/applications. 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 Biostatistics, but is not inclusive of all important degree, college, and university requirements. This is not considered an on-line degree program; however, students will enroll in a combination of courses designed for on-campus in-person delivery (IP), distance learning (DL), or hybrid (HY). 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* https://gradsch.osu.edu/handbook and the CPH competencies: https://go.osu.edu/cphcompetencies.

## PROGRAM OF STUDY

The MS Biostatistics curriculum consists of a minimum of 4~~5~~2 credit hours.

**Required Foundation Courses (9 credit hours)**

| | | |
|---|---|---|
| PUBHLTH 6010 | Essentials of Public Health | 3 credit hrs |
| PUBHBIO 6210 | Applied Biostatistics I | 3 credit hrs |
| PUBHEPI 6410 | Principles of Epidemiology | 3 credit hrs |

**Required Specialization Courses (1~~9~~8 credit hours)**

| | | |
|---|---|---|
| PUBHBIO 6211 | Applied Biostatistics II | 3 credit hrs |
| PUBHBIO 6260 | Ethics in Biostatistics | 1 credit |
| PUBHBIO 6270 | Introduction to SAS for Public Health Students | 2 credit hrs |
| PUBHBIO 7220 | Applied Generalized Linear Models in Public Health | 3 credit hrs |
| PUBHBIO 7245/STAT 7755 | Biostatistical Collaboration | 2 credit hrs |
| STAT 5730 | Introduction to R for Data Science | 2 credit hrs |
| STAT 6301 | Probability for Statistical Inference | 3 credit hrs |
| STAT 6302 | Theory of Statistical Analysis | 3 credit hrs |
| ~~STAT 6450~~ | ~~Applied Regression Analysis~~ | ~~4 credit hrs~~ |

**Electives (~~128~~ credit hours)**

Choose a minimum of ~~128~~ credit hours from this list, or other courses approved by the advisor.

| | | |
|---|---|---|
| PUBHBIO 5280 | Introduction to Genomic Data Analysis | 3 credit hrs |
| PUBHBIO 7215 | Design and Analysis of Clinical Trials | 2 credit hrs |
| ~~PUBHBIO 7220~~ | ~~Applied Logistic Regression~~ | ~~3 credit hrs~~ |
| PUBHBIO 7225/STAT 6510 | Survey Sampling Methods | 3 credit hrs |
| PUBHBIO 7230 | Applied Longitudinal Analysis | 3 credit hrs |
| PUBHBIO 7235/STAT 6605 | Applied Survival Analysis | 3 credit hrs |
| PUBHBIO 7240/STAT 6520 | Applied Statistical Analysis with Missing Data | 3 credit hrs |
| PUBHBIO 7255 | Introduction to Causal Inference | 3 credit hrs |
| PUBHBIO 8450 | Stochastic Epidemic Models | 3 credit hrs |
| STAT 6625 | Statistical Analysis of Genetic Data | 3 credit hrs |
| STAT 6730 | Introduction to Computational Statistics | 2 credit hrs |

**Thesis (6 credit hours)**

| | | |
|---|---|---|
| PUBHLTH 7999 | Thesis Research in Public Health | 6 credit hrs |

**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)

| TERM | COURSE | COURSE TITLE | CREDIT HRS | TERM(S) OFFERED | DELIVERY MODE |
|---|---|---|---|---|---|
| **Year 1 Autumn** | PUBHBIO 6210 | Applied Biostatistics I | 3 | AU | DL |
| | PUBHBIO 6260 | Ethics in Biostatistics | 1 | AU | IP or DL |
| | PUBHBIO 6270 | Introduction to SAS for Public Health Students | 2 | AU, SP | IP or DL |
| | STAT 6301 | Probability for Statistical Inference | 3 | AU | IP |
| | PUBHEPI 6410 | Principles of Epidemiology | 3 | AU | DL |
| **Year 1 Spring** | PUBHBIO 6211 | Applied Biostatistics II | 3 | AU, SP | IP or DL |
| | STAT ~~6450~~5730 | ~~Applied Regression Analysis~~Introduction to R for Data Science | ~~4~~2 | AU, SP | IP |
| | STAT 6302 | Theory of Statistical Analysis | 3 | SP | IP |
| | PUBHLTH 6010 | Essentials of Public Health | 3 | SP | IP |
| **Year 2 Autumn** | PUBHLTH 7999 | Thesis Research in Public Health | 3 | SP | |
| | ~~Elective~~PUBHBIO 7220 | Applied Generalized Linear Models in Public Health | 3 | | |
| | Elective | | 3 | | |
| | Elective | | 3 | | |
| **Year 2 Spring** | PUBHLTH 7999 | Thesis Research in Public Health | 3 | | |
| | PUBHBIO 7245/STAT 7755 | Biostatistical Collaboration | 2 | SP | IP~~ or DL~~ |
| | Elective | | 3 | | |

**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.

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THE OHIO STATE UNIVERSITY

# Curriculum Proposal Checklist

**Title of Program:** Master of Science - Public Health Biostatistics specialization

**Effective term:** Autumn 2024 **College:** Public Health

**New/Establish:** ☐ **Secondary Major Eligible:** ☐ **Academic Unit:** Division of Biostatistics

**Revise:** ☐ **50% Revision:** ☐ **Mark Up:** ☑ **Program Contact:** bisesi.12

**Terminate:** ☐ **Suspend:** ☐ **Certificate Category*:**

**Degree/Credential:** Master of Science

**Program of Study :** Graduate Program **Title:** Master of Science

**Code:** PUBHLTB-MS

**Program Focus*:** Specialization Biostatistics

**Credit hours to degree/credential:** 42 **Is this a change to the current total?** ☑ **Yes** ☐ **No**

**Program offered only online?** ☐ **Yes** ☐ **No** **If yes, is there a signed MOU with ODEE?** ☐ **Yes** ☐ **No**

**Campus(es) where offered:** ☑ **Columbus** ☐ **ATI** ☐ **Lima** ☐ **Mansfield** ☐ **Marion** ☐ **Newark**

**Rationale:** The requested changes are a result of workforce development needs.

**Student Curriculum Sheet Required:** ☑

**Four Year (or appropriate) Plan:** ☑

**Academic Unit Curriculum Committee approval date:** 3/22/24

**College Curriculum Committee approval date:** 3/22/24

**Graduate School Council approval date*:**

**Regional Campus approval date*:**

**Council on Academic Affairs approval date:**

**University Senate approval date*:**

**Board of Trustees approval date*:**

**ODHE approval date*:**

* If applicable