

# BIostatISTICS, MSPH

The MSPH program in Biostatistics emphasizes applied data analysis in the areas of public health and medicine, by preparing students to analyze data in a wide range of settings, including public health surveillance and research programs; local, state, and federal government agencies; pharmaceutical research divisions; university research programs; and consulting firms. Students learn to assist in selecting research design appropriate for the goals of the research, estimate sample size requirements, establish and maintain databases, select and conduct the appropriate statistical analysis, and communicate the results of the analysis orally and in writing fields of public health. Coursework concentrates on developing these statistical skills through the use of actual data sets and computerized statistical software packages.

## Program Competencies

- Implement appropriate statistical methods to establish associations and build predictive models for continuous and categorical outcome variables.
- Select and conduct appropriate statistical procedures for evaluation of public health intervention and surveillance programs.
- Contribute to the design of public health programs by estimating the required sample size and power for program monitoring.
- Incorporate knowledge of databases and information systems in data collection and study management of public health intervention and surveillance programs.
- Interpret and effectively communicate statistical analysis results orally and in writing to public health investigators, collaborators, and members of general community.

## Requirements

The MSPH Degree in Biostatistics requires a total of 42 credits that includes:

Course ID	Title	Credits
<b>SPHTM Foundational Requirements</b>		
SPHL 6000	Fundamentals of Interprofessional Collaboration & Practice	1
SPHL 6020	Foundations in Public Health	3
SPHL 6050	Biostatistics for Public Health	3
SPHL 6060	Epidemiology for Public Health	3
SPHL 6070	Health Systems Policy and Management	3
SPHL 6080	Design Strategies in Public Health Programs	3
<b>Biostatistics Course Requirements</b>		
BIOS 6040	Intermediate Biostatistics	3
BIOS 6220	Database Management	3
BIOS 7060	Regression Analysis	3
BIOS 7080	Design of Experiments	3
BIOS 7150	Categorical Data Analysis	3
BIOS 7300	Survival Data Analysis	3
<b>Electives</b>		
Select 6 credits <sup>1</sup>		6
<b>Additional Coursework</b>		
SPHL 9980	Applied Practice Experience	1
SPHL 7950	Integrative Learning Experience	1
<b>Total Credit Hours</b>		<b>42</b>

<sup>1</sup> Selected from courses offered within the department, school, or university in consultation with an academic advisor.

## MSPH in Biostatistics Model Course Schedule

This is an example of a course schedule for a Fall start. Students work with their faculty and student success advisors to create a course schedule tailored to meet their individual needs.

<b>Year 1</b>		<b>Credit Hours</b>
<b>Fall</b>		
SPHL 6000	Fundamentals of Interprofessional Collaboration & Practice	1
SPHL 6020	Foundations in Public Health	3
SPHL 6050	Biostatistics for Public Health	3
SPHL 6060	Epidemiology for Public Health	3
SPHL 6070	Health Systems Policy and Management	3
<b>Credit Hours</b>		<b>13</b>
<b>Spring</b>		
BIOS 6040	Intermediate Biostatistics	3
BIOS 6220	Database Management	3
SPHL 6080	Design Strategies in Public Health Programs	3
Applied Practice Experience Planning		
<b>Credit Hours</b>		<b>9</b>
<b>Summer Session</b>		
SPHL 9980	Applied Practice Experience	1
<b>Credit Hours</b>		<b>1</b>
<b>Year 2</b>		
<b>Fall</b>		
BIOS 7150	Categorical Data Analysis	3
BIOS 7300	Survival Data Analysis	3
Select two Electives		6
<b>Credit Hours</b>		<b>12</b>
<b>Spring</b>		
BIOS 7060	Regression Analysis	3
BIOS 7080	Design of Experiments	3
SPHL 7950	Integrative Learning Experience	1
<b>Credit Hours</b>		<b>7</b>
<b>Total Credit Hours</b>		<b>42</b>

Program String and Field of Study: PHMSP\_GR, BIOS

## Contact

To learn more about the department, visit <https://sph.tulane.edu/bios/home>. (<https://sph.tulane.edu/bios/home/>)