First Year PhD Students*

Recommended Curriculum, 2021-22

August
Introduction to Biomedical Sciences (260.600, 4 credits)**

1st term
Advanced Methods in Biostatistics I (140.751, 3 credits) *
Probability Theory I (140.721, 3 credits) *
Statistical Theory I (140.731, 4 credits) *
Statistical Computing (140.776, 3 credits)
Current Topics in Biostatistics Research (140.860, 1 credit)$
Academic and Research Ethics at JHSPH (550.860, 0 credits)***
Take no more than two:
Foundational Principles of Public Health (552.601.81, 0.5 credits)****
The Role of Qualitative Methods and Science in Describing and Assessing a Population's Health (552.603.81, 0.5 credits)****
Essentials of Environmental Health (552.607.81, 0.5 credits)****
Biologic, Genetic and Infectious Bases of Human Disease (552.608.81, 0.5 credits)****
Psychological and Behavioral Factors That Affect a Population's Health (552.609.81, 0.5 credits) ****
The Social Determinants of Health (552.610.81, 0.5 credits)****
Globalization and Health: a Framework for Analysis (552.611.81, 0.5 credits)****
Essentials of One Health (552.612.81, 0.5 credits)****
Special Studies (140.840, credits as needed in order to get to at least 16 credits total)

2nd term
Advanced Methods in Biostatistics II (140.752, 4 credits) +
Probability Theory II (140.722, 3 credits) *
Statistical Theory II (140.732, 4 credits) *
Current Topics in Biostatistics Research (140.860, 1 credit)$
If not taken in 1st term:
Foundational Principles of Public Health (552.601.81, 0.5 credits)****
The Role of Qualitative Methods and Science in Describing and Assessing a Population's Health (552.603.81, 0.5 credits)****
Essentials of Environmental Health (552.607.81, 0.5 credits)****
Biologic, Genetic and Infectious Bases of Human Disease (552.608.81, 0.5 credits)****
Psychological and Behavioral Factors That Affect a Population's Health (552.609.81, 0.5 credits) ****
The Social Determinants of Health (552.610.81, 0.5 credits)****
Globalization and Health: a Framework for Analysis (552.611.81, 0.5 credits)****
Electives and/or Special Studies (140.840, credits as needed in order to get to at least 16 credits total)

3rd term
Advanced Methods in Biostatistics III (140.753, 4 credits) *
Probability Theory III (140.723, 3 credits) *
Statistical Theory III (140.733, 4 credits) *
Current Topics in Biostatistics Research (140.860, 1 credit)$
If not taken in 1st term or 2nd term:
Foundational Principles of Public Health (552.601.81, 0.5 credits)****
The Role of Qualitative Methods and Science in Describing and Assessing a Population's Health (552.603.81, 0.5 credits)****
Essentials of Environmental Health (552.607.81, 0.5 credits)****
Biologic, Genetic and Infectious Bases of Human Disease (552.608.81, 0.5 credits)****
Psychological and Behavioral Factors That Affect a Population's Health (552.609.81, 0.5 credits) ****
The Social Determinants of Health (552.610.81, 0.5 credits)****
Globalization and Health: a Framework for Analysis (552.611.81, 0.5 credits)****
Electives
Special Studies (140.840, credits as needed in order to get to at least 16 credits total)

4th term
Advanced Methods in Biostatistics IV (140.754, 4 credits) +
Probability Theory IV (140.724, 3 credits) +
Statistical Theory IV (140.734, 4 credits) +
Current Topics in Biostatistics Research (140.860, 1 credit)$
If not taken in 1st term, 2nd term, or 3rd term:
Foundational Principles of Public Health (552.601.81, 0.5 credits)****
Essentials of One Health (552.612.81, 0.5 credits)****

Electives
Special Studies (140.840, credits as needed in order to get to at least 16 credits total)

+ The sequences Advanced Methods in Biostatistics I – IV (140.751-754), Probability Theory I-IV (140.721-724), and Statistical Theory I-IV (140.731-734) are required course sequences for the 1st year. Per school policy, for students to remain in satisfactory academic standing, they must meet the minimum grade threshold of a B in required courses.

5 This is a 1-credit required seminar for our first year PhD and ScM students.

*Some students, based on a placement assessment and in consultation with their advisor and graduate program committee, may opt to take the first year of the ScM curriculum and defer the PhD curriculum until their second year. Students who opt for this route typically also are required to successfully complete the ScM qualifying exam.

**The credits of this course count toward the first term.

*** Although this course is offered in subsequent terms, incoming students are required to take this during their first term and will not be able to register for 2nd term until they have done so.

**** Students are required to take the eight 552.xxx courses listed here by the end of Year Two. Students unable to complete all eight of the 552.xxx courses in Year One must do so in Year Two. Students must complete these eight courses by the end of Year Two; however, we recommend that students complete these during Year One. Note that several of the 552.xxx courses are offered Aug 2 – 29; if you take courses during this time, the credits will show up as 1st term credit hours. Further, given the course load for first term, we recommend completing at most 2 (two) 552.xxx courses during the first term; one per each half term. For example, 552.601 (Aug 30 – Sept 26) followed by 552.603 (Sept 27 – Oct 24). Students unable to complete all eight of the 552.xxx courses in Year One must do so in Year Two. The required eight courses and course offering times are listed in the table below:

<table>
<thead>
<tr>
<th>Required 552 Course</th>
<th>Term(s)/Dates Offered</th>
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<tbody>
<tr>
<td>Foundational Principles of Public Health, 552.601</td>
<td>1st/ Aug 2-29; Aug 30-Sept 26</td>
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<td>2nd/ Oct 26-Nov 22</td>
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<td>3rd/ Jan 24-Feb 20</td>
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<tr>
<td>The Role of Qualitative Methods and Science in Describing and Assessing a Population's Health, 552.603</td>
<td>1st/ Aug 2-29; Sept 27-Oct 24</td>
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<td>2nd/ Nov 22-Dec 19</td>
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<td></td>
<td>3rd/ Feb 21-Mar 18</td>
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<tr>
<td>Essentials of Environmental Health, 552.607</td>
<td>1st/ Aug 30-Sept 26</td>
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<td>2nd/ Oct 26-Nov 21</td>
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<td></td>
<td>3rd/ Jan 24-Feb 20</td>
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<td>Biologic, Genetic and Infectious Bases of Human Disease, 552.608</td>
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<td>3rd/ Feb 21-Mar 18</td>
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<tr>
<td>Psychological and Behavioral Factors That Affect a Population's Health, 552.609</td>
<td>1st/ Aug 2-Aug 29; Aug 30-Sept 26</td>
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<td>3rd/ Jan 24-Feb 20</td>
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<td>The Social Determinants of Health, 552.610'</td>
<td>1st/ Aug 2-29; Sept 27-Oct 24</td>
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<td>2nd/ Nov 22-Dec 19</td>
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<td>3rd/ Feb 21-Mar 18</td>
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<tr>
<td>Globalization and Health: a Framework for Analysis, 552.611</td>
<td>1st/ Aug 2-Aug 29; Sept 27-Oct 24</td>
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<td>2nd/ Nov 22-Dec 19</td>
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<td></td>
<td>3rd/ Feb 21-Mar 18</td>
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<tr>
<td>Essentials of One Health, 552.612</td>
<td>1st/ Sept 27-Oct 24</td>
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<td>4th/ Mar 28-Apr 24</td>
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</table>
NOTES:

Students must enroll in a minimum of 16 credits per term. The 16 credits can be reached by enrolling for special studies credit (140.840). These special studies must have a clearly defined objective.

It is strongly recommended that by the end of the first year, students should have earned 12 credits in non-Biostatistics courses (of which 6 credits must come from SPH courses). Special studies (800-level) courses in another department do NOT count toward this requirement.

By no later than the end of the fall term in the fourth year in-program, and in advance of scheduling the final oral exam (i.e. thesis defense), students MUST have earned a minimum of 16 credits from advanced elective courses in Biostatistics or other related disciplines (e.g. computer science). The course sequences Advanced Methods in Biostatistics I – IV (140.751-754), Probability Theory I-IV (140.721-724), Statistical Theory I-IV (140.731-734), and Advanced Data Science I-II (140.711-712) do NOT count toward this requirement. Please consult our List of Elective Courses for PhD Students for recognized elective courses. Students may take courses not included in this list, but they MUST first consult and obtain approval from both their advisor and the graduate program committee.

All students are expected to obtain training in the statistics/science interface (see Expectations of Doctoral Students Regarding Training at the Statistics-Science Interface).

All students must attend the weekly Biostatistics seminar series.

There will be a qualifying exam (multiple-hour in-class exam) in June and within 3-4 weeks after the 4th term of the 1st year ends.

Please consult our Doctoral Student Academic Standing Guide for more detailed information about academic requirements and expectations.