

First Year PhD Students*

Recommended Curriculum, 2020-21

August

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

1st term*Advanced Methods in Biostatistics I (140.751, 3 credits)* +*Probability Theory I (EN.553.720 (01), 4 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)***

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)****

Psychological and Behavioral Factors That Affect a Population's Health (552.609.81, 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 I (EN.553.720 (01), 4 credits)* +*Statistical Theory II (140.732, 4 credits)* +Current Topics in Biostatistics Research (140.860, 1 credit)[§]

Biologic, Genetic and Infectious Bases of Human Disease (552.608.81, 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)[§]

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)[§]

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* (EN.553.720, 140.723-724), 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.

[§] 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.

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* (EN.553.720, 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) within the first two weeks of June at the end of the 1st year.

Please consult our [Doctoral Student Academic Standing Guide](#) for more detailed information about academic requirements and expectations.