

## Second Year PhD Students\*

## Recommended Curriculum, 2020-21

1<sup>st</sup> term

*Advanced Data Science I (140.711, 3 credits)*<sup>+</sup>  
 Statistical Computing (140.776, 3 credits) (*if not taken in first year*)  
 Epidemiologic Inference in Public Health I (340.721, 5 credits) (*if not taken in first year*)<sup>§</sup>  
 Responsible Conduct of Research (550.600, 1 credit)\*\*  
 “[Cells to Society](#)” modules, if applicable\*\*\*  
 Academic and Research Ethics at JHSPH (550.860, 0 credits) (*if not taken in a previous term*)\*\*\*\*  
 Electives  
 Special Studies (140.840, credits as needed in order to get to at least 16 credits total)

2<sup>nd</sup> term

*Advanced Data Science II (140.712, 3 credits)*<sup>+</sup>  
 “[Cells to Society](#)” modules, if applicable\*\*\*  
 Electives  
 Special Studies (140.840, credits as needed in order to get to at least 16 credits total)

3<sup>rd</sup> term

Electives  
 “[Cells to Society](#)” modules, if applicable\*\*\*  
 Thesis Research (140.820) (credits as needed in order to get to at least 16 credits total) and/or Special Studies (140.840, credits as needed in order to get to at least 16 credits total)

4<sup>th</sup> term

Electives  
 “[Cells to Society](#)” modules, if applicable\*\*\*  
 Thesis Research (140.820) (credits as needed in order to get to at least 16 credits total) and/or Special Studies (140.840, credits as needed in order to get to at least 16 credits total)

+ The courses *Advanced Data Science I-II* (140.711-712) are required course sequences for the 2<sup>nd</sup> year. Per school policy, for students to remain in satisfactory academic standing students must meet the minimum grade threshold of a B in required courses.

§ Students who HAVE NOT already taken 3 credits of Epidemiology coursework and 550.865 (Public Health Perspectives on Research) must complete at least 3 credits of Epidemiology coursework.

\* Students joining the PhD program on and after August 1, 2018, are required to take a minimum of 16 credits of advanced elective courses in Biostatistics or other related disciplines (e.g. computer science). Students joining the PhD program on or before July 31, 2018, are NOT required but are encouraged to take 16 credits in advanced elective courses. Please consult our [List of Elective Courses for PhD Students](#) for recommended elective courses.

\*\* Students may take the 3<sup>rd</sup> term course 306.665 Research Ethics and Integrity: US and International Issues in lieu of 550.600.

\*\*\* Students are required to take the eight 552.xxx “[Cells to Society](#)” courses listed here (552.601.81, 552.603.81, 552.607.81, 552.608.81, 552.609.81, 552.610.81, 552.611.81, 552.612.81) by the end of Year Two if they have not already taken them in Year One.

\*\*\*\* Although this course is offered in subsequent terms, continuing students who have not previously taken the course are required to take this during 1<sup>st</sup> term and will not be able to register for 2<sup>nd</sup> term until they have done so.

## NOTES:

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

In order for PhD students to graduate from the Bloomberg School of Public Health: At least 18 credit units of formal coursework are required in courses outside the student's primary department. At least nine of these credits must be taken in the School of Public Health. Students must also satisfactorily complete the courses 550.860 Academic and Research Ethics at JHSPH and 550.600 Responsible Conduct of Research.

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](#)).

Students are required to attend departmental seminars and participate in a working group.

During the course of the second year, students should start the process of identifying a thesis topic/advisor with the expectation that they start the thesis work at the beginning of their third year.

In order to take the preliminary schoolwide oral exam (usually to be held no later than end of December of the 3<sup>rd</sup> year), students should prepare a paper/proposal related to their potential thesis topic.

When selecting a preliminary oral exam committee, note that at least two members are expected to be non-statistical scientists and the chair must approve the committee.

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