Ph.D. students who wish to participate in the Advanced Data Science Option must meet the following requirements, in addition to the requirements for the Ph.D.:

**Additional Requirements**

- Pass three of the following four courses:
  - Either STAT 509: Introduction to Mathematical Statistics, or for a more advanced approach, STAT 512: Statistical Inference. In the second case, students should consider also taking STAT 513, the next course in this sequence.
  - CSE 546/STAT 535: Foundational Machine Learning
  - CSE 544: Data Management
  - CSE 512: Data Visualization
- Students must register for four quarters in the weekly eScience Community Seminar, also known as CHEM E 599.

**Recommended Study**

It is recommended that students take a graduate-level course in linear algebra.