PhD in Statistics Degree Course Work

Program Pre-requisites

Students are expected to have a good foundation in the material covered in the core courses of our Master's program (ST 512, 521, 522, 552), even if the Master's degree was received at another institution. Some students with previous Master's degrees find it useful to take these courses at NCSU. However this tends to lengthen the time to degree. Students are also expected to have had courses comparable to MA 425-426 (Mathematical Analysis I and II).

Required Course Work

Students that join our doctoral program with a Master of Statistics from another university are required to have a minimum of 54 credit hours in their doctoral Plan of Work (POW). Students who receive the Master's degree from NCSU must have a minimum of 72 credit hours on the Master's and PhD POWs combined. The POW may include research credit hours (ST 895 and 899); however, students are required to take 22 hours of coursework consisting of core courses, a consulting course (if necessary), and electives as detailed below.

- **ST 779**: Advanced Probability
- **ST 793**: Advanced Statistical Inference
- **ST 758**: Computation for Statistical Research
- **ST 790**: Asymptotic Statistics, Advanced Bayesian Methods, or Modern Nonparametric Methods
- **ST 841**: Statistical consulting (unless student has taken ST 641 in our department)

Electives

6 hours of statistics Ph.D. electives are required from the following list:

- **ST 740**: Bayesian Inference and Analysis
- **ST 746**: Stochastic Processes
- **ST 762**: Nonlinear Statistical Models
- **ST 782, 783**: Time Series Analysis
- **ST 784**: Multivariate Analysis
- Additional Core Option courses
- Approved special topics courses

3 hours of [supporting electives](http://www.stat.ncsu.edu/programs/grad/phd/course_work.php)