

STATISTICS (M.S.)

<https://ceps.unh.edu/mathematics-statistics/program/ms/statistics>

Description

The statistics M.S. consists of graduate-level training in classical and modern methods of statistical analysis and provides a solid background in the foundations and application of these tools. With the number of jobs in data science and related technology fields growing exponentially, you'll be well equipped for a range of positions drawing on your statistical modeling and computing skills.

Admission Requirement

Applicants for the M.S. in statistics will typically have an undergraduate degree in the mathematical, physical, biological, or social sciences or in engineering# must have completed mathematical coursework at least through multivariate calculus# and must have knowledge of basic statistics and basic linear algebra at the undergraduate level.

Applying

Please visit the [Graduate School website](#) for detailed instructions about applying to the master's program.

Requirements

STATISTICS OPTION

This program requires **30 credit hours**, consisting of at least ten semester courses approved by the department, which includes completion of a project (MATH 898) consisting of a substantial application of statistical methodology to a real problem. Most of the courses will be taken from the department's statistics courses in the range MATH 836-MATH 979 and must include all of the following unless some of these or equivalent courses were taken prior to enrollment in the program:

Code	Title	Credits
MATH 839	Applied Regression Analysis	3
MATH 840	Design of Experiments I	3
MATH 855	Probability with Applications	3
MATH 856	Principles of Statistical Inference	3

At most, three of the required ten courses may also be taken from the department's approved non-statistics courses and/or approved courses offered in other departments.

For the Master's Project (MATH 898), the student is required to seek out a faculty member who can serve as project adviser for research and application in an area of mutual interest. Typically this should be done prior to the start of the semester of enrollment in MATH 898. The project concludes with a written report and a public oral presentation. A master's committee of at least two statistics faculty members oversees the student's progress.

MATH 898 may be taken for 3 to 6 credits, depending on the level and amount of research and methodological development required for project completion# the appropriate number of credits is determined by the statistics faculty.

There is no comprehensive examination in this option.

Student Learning Outcomes

- Communicate the theoretical foundations of modern statistical methods to diverse audiences.
- Demonstrate competency in a broad array of statistical methodologies.
- Select, apply, and assess the validity of statistical models and procedures in a variety of situations.
- Demonstrate skill in using computational tools including appropriate use of software to solve practical statistics problems.