

Applied Statistics

Master of Applied Statistics (M.A.S.)



Overview

This Master of Applied Statistics (M.A.S.) online degree trains you in the practical application of statistics, focusing on methods and computational aspects. The program is taught by the same faculty and features the same innovative content as the on-campus Master of Applied Statistics program, but offers the flexibility you need from an online degree. Upon completion of the program, you will possess the knowledge and skills needed to start working in industry, government, or academia as a practicing statistician – a growing, in-demand profession.

Courses are offered in eight-week subterms and span topics from survey statistics and regression modeling to environmental statistics and simulation. The program begins with two concurrent, three-week, noncredit math and computing skills courses. It concludes with a six-week capstone consulting course, where you will enhance your communication skills and complete a project that allows you to integrate methods learned during your course of study to a professional scenario. The program can be completed in less than two years.

“The Bureau of Labor Statistics projects increasing demand for statisticians. Our Master of Applied Statistics will quickly prepare students to be competent practitioners of statistics, positioning them for a rewarding career in a growing job market.”

-Mary Meyer, associate statistics professor-



Requirements & Curriculum

You will begin the M.A.S. degree with two online, noncredit mathematics and computing skills courses completed in the three weeks preceding the Fall semester. The Math Skills for Statistical Analysis (MSSA) course provides an intensive review of the necessary methods in calculus and linear algebra to ensure that all students are prepared and have consistent skill sets. The Computing Skills for Statistical Analysis (CSSA) course introduces you to SAS and R software applications for use throughout the program.

The traditional Fall and Spring semesters are each divided into eight-week subterms, made up of four classes (seven credits). Three 2-credit classes and one 1-credit class are offered in each subterm, for a total of 28 credits during the regular academic year. During the first year of the M.A.S. program (2012-13), online students will only be able to complete 15 credits; after that, the full schedule of courses will be available online.

The M.A.S. program concludes with a six-week capstone consulting class in May and June, during which you will learn communication skills and complete a consulting project that allows you to apply the methods learned during the year.

Subterm 1

Is three weeks, beginning prior to each Fall semester. These noncredit courses are required; however, students with appropriate background may petition for one or both to be waived.

- GSLL 3095 – Math Skills for Statistical Analysis (0 cr.)
- GSLL 3096 – Computing Skills for Statistical Analysis (0 cr.)

Subterm 2

- STAA 551 – Regression Models and Applications (2 cr.)
- STAA 561 – Probability with Applications (2 cr.)
- STAA 565 – Quantitative Reasoning (1 cr.)
- STAA 573 – Analysis of Time Series (2 cr.)

Subterm 3

- STAA 552 – Generalized Regression Models (2 cr.)
- STAA 562 – Mathematical Statistics (2 cr.)
- STAA 566 – Computational and Graphical Statistics (1 cr.)
- STAA 572 – Nonparametric Methods (2 cr.)

Subterm 4

- STAA 553 – Experimental Design (2 cr.)
- STAA 567 – Methods in Simulation and Computation (1 cr.)
- STAA 571 – Survey Statistics (2 cr.)
- STAA 576 – Methods in Environmental Statistics (2 cr.)

Subterm 5

- STAA 554 – Mixed Models (2 cr.)
- STAA 568 – Topics in Industrial and Organizational Statistics (1 cr.)
- STAA 574 – Multivariate Analysis (2 cr.)
- STAA 575 – Applied Bayesian Statistics (2 cr.)

Subterm 6

- STAA 556 – Statistical Consulting (3 cr.)

Admission Requirements

- A four-year bachelor's degree from a regionally-accredited university
- Three semesters of calculus (or at least through multiple integration)
- A course in linear algebra
- At least one undergraduate-level statistics course
- GRE scores not required, but strongly recommended

Completion Requirements

- 31 credits

Time Frame

Can be completed in two years. Program duration for online students may vary based on previous coursework, intensity of study, and course availability.

Career Opportunities

- Statisticians are in high demand in all areas of industry, especially the high-tech, medical, and pharmaceutical sectors for functions such as quality control, market research, and product development. This master's degree will help you advance your career by teaching you how to apply statistical procedures to these and other industries.
- According to the Bureau of Labor Statistics, employment of statisticians is projected to grow 13 percent from 2008 to 2018. While the demand for individuals with a background in statistics is projected to grow, some jobs will be in occupations with titles other than statistician.
- As data processing continues to become more efficient and less expensive, an increasing number of employers will want to employ statisticians to take advantage of the new information available.

For More Information

online.colostate.edu/degrees/applied-statistics

READY TO GET STARTED

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