Requirements for

Masters of Science in Applied Statistics

Oklahoma State University

This professional master’s degree is available entirely through online courses. It emphasizes the practical application of statistical methodology and focuses less on the mathematical underpinnings associated with these techniques. This degree is “terminal” in that it does not prepare a student for further study in statistics at the doctoral level. Any student wishing to complete doctoral work in statistics would be required to fulfill missing knowledge not required by this particular program.

This degree requires 32 hours of coursework. It consists of 2 courses in analytics, 2 courses in experimental data analysis, 2 courses in applied mathematical statistics, one course in computer programming with SAS and R, a creative component capstone course and 3 electives.

1. Admission to the Program

It is necessary to have an undergraduate degree, not necessarily in mathematics or statistics, to begin a program of study toward the M.S. degree in statistics. It is expected that some students will be admitted to the program who have either a bachelor’s degree or a master’s degree in some other field. However, the student should have a mathematical background which, as a minimum, is equivalent to the mathematics courses:

MATH 2144 Calculus I
MATH 2153 Calculus II
MATH 2163 Calculus III (Calculus of several variables)
STAT 5013 Statistical Methods I or STAT 4023 Statistical Methods II

Students admitted to the program with deficiencies will be required to remedy such deficiencies. Prospective students are encouraged to remedy calculus deficiencies before applying. In addition to the above courses, each student is required to demonstrate competence in a computer programming language.

2. Grade Requirements.

Students who receive more than two grades of C or below will be dismissed from the program. Students who receive a D in a course with a STAT prefix may be dismissed from the program.

3. Required Courses.

Courses are offered online annually. Courses within each sequence listed below must be taken in the listed order. Sequences of courses can be taken in any order or concurrently. See the course catalog for course descriptions.
Analytics
STAT 4043 Applied Regression Analysis (Fall)
STAT 5063 Multivariate Methods (Spring)

Experimental Data Analysis
STAT 5023 Statistics for Experimenters II (Spring)
STAT 5303 Experimental Design (Fall)

Mathematical Statistics
STAT 4203 Mathematical Statistics I (Fall)
STAT 4213 Mathematical Statistics II (Spring)

Computer Programming
STAT 5193 SAS and R Programming (Fall)

Capstone Course
STAT 5002 Applied Masters Creative Component (Summer)

4. Elective Courses. Three 3-hour 5000 level courses must be completed to fulfill the 32 credit hour requirement. The following STAT courses are offered online. Courses excluding those with a STAT prefix that do not have significant overlap with required STAT courses can be used as an elective with committee approval. STAT 5013 cannot be used as an elective.

STAT 5033 Nonparametric Methods (Fall)
STAT 5053 Time Series Analysis (Fall)
STAT 5073 Categorical Data Analysis (Spring)

5. Plan of Study

Prior to enrollment in the 17th credit hour, all students must choose an advisor and select committee members in consultation with the graduate coordinator and fill out a plan of study online at https://gradcollege.okstate.edu/resources/plan-of-study-form-faq.html. STAT 5013 cannot be listed on the plan of study. The student and his/her advisor are responsible for submitting the plan of study. A sample plan of study for students wishing to graduate in 2 years is below. Click here for other plans.
### 6. Graduate College Requirements

All requirements listed in the current Graduate Catalog must be satisfied.

For answers to questions about the master's degree program or application materials, please contact Dr. Joshua D Habiger or Jeanne Parks.

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<th>Course Sequence</th>
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