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 5543  Applied Regression Analysis (Fall)
STAT 5063  Statistical Machine Learning with R (Spring)

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

Mathematical Statistics
STAT 5253  Mathematical Statistics I (Fall)
STAT 5263  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 STAT prefix may be used as an elective with committee approval.

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, committee members, and fill out a plan of study online at https://gradcollege.okstate.edu/resources/plan-of-study-form-faq.html. The responsibility for doing so rests with the student and his/her advisor. A sample plan of study for students wishing to graduate in 2 years is below. Click here for other plans.
<table>
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<tr>
<th>Course Sequence</th>
<th>Fall</th>
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<td>Analytics</td>
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</table>

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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