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 Ph.D. 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  
   MATH 3013 Linear Algebra  
   MATH 4013 Calculus of Several Variables  
   MATH 4023 Intro to Modern Analysis  

   Students admitted to the program with deficiencies will be required to remedy such deficiencies. In addition to the above courses, each applicant is required to demonstrate competence in a computer programming language.

2. **Credit Requirements**
   A total of 90 hours above the B.S. degree is required. At least 12 hours but not more than 30 hours of STAT 6000 are to be included on the plan of study.

3. **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.

4. **Required Coursework**

   **Statistics Courses**  
   STAT 5123 Probability  
   STAT 5223 Inference  
   STAT 5023 Statistics for Experimenters II  
   STAT 5093 Statistical Computing  
   STAT 6113 Intermediate Probability Theory  
   STAT 6203 Large Sample Inference  
   STAT 5303 Experimental Design  
   STAT 5323 Linear Models I  
   STAT 5333 Linear Models II  
   STAT 5513 Multivariate Analysis  
   STAT 6001 Statistics Literature  
   STAT 6223 Advanced Statistical Inference  
   STAT 6910** (3) Special Problems

   **Mathematics Courses**  
   MATH 5043 Advanced Calculus I  
   MATH 5053 Advanced Calculus II  
   MATH 5143 Real Analysis I

   Students are also required to complete two hours of STAT 6001 Statistics Literature. These two hours MUST be obtained in two separate semesters (1 credit hour each). All Ph.D. students are strongly encouraged to attend Statistics Literature (also known as "Journal Club") every semester.
* Students are encouraged to enroll in STAT 5193 SAS and R Programming to gain experience with SAS and R.

** This course is required of every doctoral student and is to consist of material relating to the student’s research interest. The course will be taught by the dissertation advisor and may be used to prepare the dissertation proposal. The prerequisite is permission of the instructor.

Outside Courses
One three-hour 5000 level or higher graduate course, excluding those with a STAT prefix is required. Outside courses taken for a Master's degree may count toward this requirement.

5. Timeline and Ph.D. exam process

Please see the document Ph.D. Process for details and a typical timeline.

6. Plan of Study
The plan of study is usually made with the help of the advisory committee prior to the re-enrollment date during the second full semester of enrollment. The Ph.D. Preliminary Examination must be passed before the appointment of an advisory committee. The selection of courses for an acceptable program is the responsibility of the student and the advisory committee. STAT 3013 Intermediate Statistical Analysis, STAT 4013 Statistical Methods I, STAT 4023 Statistical Methods II, STAT 4203 Mathematical Statistics I, STAT 4213 Mathematical Statistics II, STAT 5013 Statistics for Experimenters I are not allowed on the plan of study.

7. The Ph.D. Preliminary Exam
The examination consists of material from the courses STAT 5123 Probability, STAT 5223 Inference, STAT 5303 Experimental Design, and STAT 5323 Linear Models I. Doctoral students are required to take the preliminary exam at the first opportunity after the completion of courses STAT 5123 Probability, STAT 5223 Inference, STAT 5303 Experimental Design, and STAT 5323 Linear Models I, or equivalent graduate level courses, as approved by the advisor. Failure to take the exam at the first opportunity will result in a failure of the exam on the first attempt. The examination may be taken at most twice. Students will be evaluated based on the results of all subjects simultaneously.

8. Qualifying Exam
This examination is required by the Graduate College and is to be administered by the student’s advisory committee. It is to consist of a written and oral presentation of the thesis proposal as well as written and oral questions submitted to the student by his/her advisory committee. The student must have passed the preliminary examination and must have secured the permission of his principal advisor.

9. Defense
Please see the Guide to Defense Presentations for information on the defense of the dissertation.

All requirements listed in the Graduate Catalog must be satisfied.

For answers to questions about the degree program or application materials, please contact:

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