**statistics**

**Master of Arts (M.A.) Degree**

**DEGREE INFORMATION**

**Priority Admission Application Deadlines:**

**Fall:** February 1

**Spring:** October 1

International applicant deadlines:

<http://www.grad.usf.edu/majors>

**Minimum Total Hours:** 30

**Level:** Masters

**CIP Code:** 27.0501

**Dept. Code:** MTH

**Major/College Codes:** STC AS

**Approved:** 2006

**CONTACT INFORMATION**

**College:** Arts and Sciences

**Department:** Mathematics and Statistics

**Contact Information:** [www.grad.usf.edu](http://www.grad.usf.edu/)

**MAJOR INFORMATION**

The Department of Mathematics and Statistics offers a Ph.D. in Mathematics with concentrations in Pure and Applied mathematics and in Statistics. The major provides the experience and knowledge to understand and appreciate prior accomplishments in the discipline and develops the skills necessary for a meaningful contribution to the intellectual advancement and applications of the discipline. It prepares its graduates to pursue long-term careers in their field by providing solid and cutting-edge knowledge. Graduates receive training that enables them to conduct independent research and write research papers publishable in peer-reviewed journals of their discipline, as well as a technical education enabling them to take on leading positions in a modern economy.

**ADMISSION INFORMATION**

Must meet University requirements (see Graduate Admissions), as well as requirements for admission to the major, listed below.

* Students should have at least 3.50 GPA average in courses taken during the last two years of their undergraduate or graduate studies.
* Students must have a BA or BS in one of the following areas: Statistics, Mathematics, Physical Sciences, Engineering, or Business.
* Students who expect to specialize in graduate work in statistics are advised to study as much mathematics as possible during their undergraduate years. Some interdisciplinary experience in natural sciences, engineering, economics, or psychology is also highly desirable. Students who do not have at least three semesters of successful course work in calculus will be required to complete additional courses in mathematics before being admitted. Prior course work in intermediate analysis, advanced calculus, and in statistics is strongly recommended, but not mandatory.
* At least a 55th percentile Quantitative score on the GRE; Verbal and Analytic Writing scores on the GRE are also considered. Students whose native language is not English must score at least 550 (paper based) or at least 79 (internet based) on the Test of English as a Foreign Language (TOEFL) exam. However, for students who have a BA or higher degree from an accredited U.S. institution that requirement is waived.
* International students whose native language is not English must submit satisfactory scores on the Test of Spoken English (TSE) or the SPEAK test to be eligible for teaching assignments. Students who score 50 or above on the Speak Test are allowed to teach in the classroom. Those who score 45 to 50 may be allowed to teach on the condition that they enroll concurrently in ENS 4502, with approval. (See the Graduate Catalog for more details.)

The University of South Florida and the Department of Mathematics and Statistics encourage applications from qualified individuals with disabilities and qualified individuals from all cultural, racial, religious, ethnic, and gender groups, and sexual orientations in accordance with all university regulations.

**OTHER INFORMATION**

The most recent supplementary documents for Statistics graduate students, “THE HANDBOOKS FOR BOTH M.A. AND Ph.D. GRADUATE STUDENTS IN STATISTICS/PROBABILITY PROGRAMS,” at the Department of Mathematics and Statistics, University of South Florida, Tampa, Florida, USA, dated October 2007 (revised October 2016) are available at the following websites:

<http://math.usf.edu/grad/stats/ma/>

[http://math.usf.edu.grad.stats.Ph.D./](http://math.usf.edu.grad.stats.phd/)

Prospective graduate students in Statistics are welcome to read the information in the Handbooks. In addition, a HARD COPY OF THESE HANDBOOKS will be provided to graduate students at the time of their FIRST time academic advisement process.

**CURRICULUM REQUIREMENTS**

**Total Minimum Hours** **30 hours**

Core – 15 hours

Electives – 15 hours

**Core Requirements**

**Sequences:**

STA 5166 – Statistical Methods 3

STA 6167 – Statistical Methods II 3

STA 5326 – Mathematical Statistics I 3

STA 6327 – Mathematical Statistics II (proposed course) 3

STA 6208 – Linear Statistical Models 3

The student must earn a 3.00 average in I and II and the student must earn a 3.00 average inI, Mathematical Statistics II, and Linear Statistical Models

**Electives:**

STA 5446 – Probability Theory I 3

STA 6447 – Probability Theory II 3

STA 5526 – Nonparametric Statistics 3

STA 6746 – Multivariate Analysis 3

STA 6876 – Time Series Analysis 3

MAT 6932 – Special Topics (Survival Analysis) 3

STA 6206 – Stochastic Processes 3

STA 6823 – Stochastic Dynamic Modeling (proposed course) 3

MAT 6932 – Special Topics (Time Series Analysis II) 3

MAT 6932 – Special Topics (Nonlinear Time Series Analysis) 3

MAT 6908 – Independent Study (as indicated by professor)

MAT 6932 – Special Topics Courses 3

**Non-thesis/Thesis**

Students opt for either a non-thesis research project or thesis.

**Non-thesis Research Project – 3 hours minimum**

Completing at least 3 hours of Research Project work which is counted towards the 30 credit-hours requirement.

* Taking the course MAT 6908 – Independent Study (Non-Thesis Option) and presenting a paper exemplifying the creative component of the major. This may be, but is not restricted to, a literature review, a report of independent research, design and (or) analysis of a sample survey or experiment, a report on consulting with research workers outside the department, or a report on the construction of a computer program requiring statistical numerical analysis.
* Passing one Qualifying Exam on Statistical Methods or Math Statistics at master's level.

Under this option, the student is required to present a paper representing the creative component of the major. This may be, but is not restricted to, a literature review, a report of independent research, the design and (or) analysis of a sample survey or experiment, a report on consulting with research workers outside the department, or a report on the construction of a computer program requiring statistical numerical analysis.

**Thesis Option – 6 hours minimum**

MAT 6971 Thesis 6 hours

Students may opt to complete a thesis in lieu of 6 hours of electives.

A master's thesis is a scholarly composition that demonstrates the ability of the author to do independent and creative work. It explores in some depth a problem or issue related to the major field of study. Although considerable variations in format and style are acceptable, precise expression, logical construction, and meticulous attention to detail are essential. A thesis in statistics should deal with some aspect of statistical methodology or theory, or the development of statistical models for a class of problems related to a scientific question. While most theses will include a case study or example that involves scientific data, the analysis of a particular data set does not, alone, constitute the level of scholarly accomplishment required for a thesis.

**Student’s Graduate Committee**

Students working toward a thesis will have the benefit of a committee of members of the graduate faculty, appointed by the graduate director/departmental chairperson and approved by the Dean of the College. The Committee will approve the course of study for the student and plan for research, supervise the research and any comprehensive qualifying exams, and read and approve the thesis for content and format.

* Successful Oral Defense of the Thesis
* Final Submission of Approved Thesis.

**Other requirements**

A candidate must complete at least 30 credit hours for a MA. At least twenty hours must be in formal regularly scheduled course work, ten of which must be at the 6000-level. The student must maintain a 3.00 average to remain a candidate for a degree. Failure to do this will result in being placed on probation. A letter from the major professor is required to remove a student from probation after he/she regains a 3.00 average.

Department may waive some of the course requirements for those students who have taken equivalent course work at another institution. In such instances, students will be required to complete other coursework to meet the minimum hours required for the degree.

**Comprehensive Examination**

Graduation from the Master’s major also requires the completion of either a thesis or both written and oral examinations.

**Written Comprehensive Examination** The written exam is designed to cover material presented during the first year of graduate work. The purpose of the exam is to make sure the students have reviewed their first year's work before starting the second year and to point out weaknesses which should be overcome during their second year in order to graduate. Students are expected to pass this exam in at most two attempts. More specifically, the material for the above examination will be taken primarily from the following sequences of courses Semester 1: STA 5166 Statistical Methods I and STA 5326 Mathematical Statistics I; Semester 2: STA 6167 Statistical Methods II and MAT 6326 Mathematical Statistics II, and STA 6208 Linear Statistical Models.

**COURSES**

 See <http://www.ugs.usf.edu/course-inventory/>