UNIVERSITY OF CENTRAL FLORIDA

Statistical Computing MS Graduate Program Handbook

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Statistical Computing MS

Together, the Graduate Student Handbook and your graduate program handbook should serve as your main guide throughout your graduate career. The Graduate Student Handbook includes university information, policies, requirements and guidance for all graduate students. Your program handbook describes the details about graduate study and requirements in your specific program. While both of these handbooks are wonderful resources, know that you are always welcome to talk with faculty and staff in your program and in the Graduate College.

The central activities and missions of a university rest upon the fundamental assumption that all members of the university community conduct themselves in accordance with a strict adherence to academic and scholarly integrity. As a graduate student and member of the university community, you are expected to display the highest standards of academic and personal integrity.

Here are some resources to help you better understand your responsibilities:

- Academic Honesty
- Academic Integrity Training - Open to all graduate students at no cost
- Plagiarism

Introduction

Course Requirements

There are two sets of course requirements: one for the Statistical Computing program and one for the Data Mining track.

Satisfactory Academic Progress and Performance

Satisfactory performance involves maintaining the standards of academic progress and professional integrity expected in the Statistical Computing program. Failure to maintain these standards may result in termination of the student from the program.

The university requires that students must maintain a graduate status GPA of at least 3.0 or higher in order to maintain graduate student status, receive financial assistance, and qualify for graduation. The graduate status GPA is the cumulative GPA of graduate courses taken since admission into the degree program. This graduation requirement for a minimum 3.0 GPA in all graduate courses completed since admission into the graduate program cannot be waived. Be aware that a B- (2.75) does negatively impact a GPA. While students are allowed to have six hours of C (2.00) grades or lower (it includes U) in their plan of study, this is the limit. Grades of D+ and lower will count against a graduate GPA but cannot be used toward completion of a degree requirement.

Master's students must complete at least 21 semester credits at UCF (Orlando or regional campuses). Courses older than seven years cannot be applied toward the plan of study unless approved by Graduate Studies.

For additional information on Academic Progress and Performance, please visit the Graduate Catalog.

Steps to Completion

Since the MS degree program in Statistical Computing does not require a thesis, there are two basic steps involved in the completion of the degree: successfully completing 36 credit hours of coursework that satisfies the

program requirements and passing the comprehensive examination. Fulltime students who take 9 credit hours per term and begin the program in the fall term, take the comprehensive exam in August just before they start their second year. Consequently, courses covered on the comprehensive exam must be taken during the student's first year. Fulltime students normally complete the program in two years.

Degree Plan of Study

A student's degree plan of study is the collection of courses that the student will take to earn the degree. In most cases, a student simply follows the guidelines given in the previous section, Course Requirements, to select his or her courses. A specific plan of study, which may vary from student to student, must be formulated jointly by the student and the graduate coordinator before the completion of the first 9 hours of the program. The student may make changes to the plan of study at any time with the approval of the graduate coordinator. However, the plan of study cannot be changed solely due to the poor academic performance of the student.

Advising and Mentoring

The Graduate Coordinator serves as the advisor for all graduate students in the Statistical Computing program including students in the Data Mining track. The advisor will guide the student in matters such as program policies, procedures and requirements, as well as help the student in the selection of courses.

Students may wish to seek out other faculty members for additional advice as needed. For example, students in the Data Mining program may wish to talk with the Director of the Data Mining program or other Data Mining faculty.

It is the student's responsibility to keep informed of all rules, regulations, and procedures required to successfully complete the graduate program. Graduate program regulations will not be waived nor will exceptions be granted because a student pleads ignorance of the regulations. Detailed information on graduate regulations and policies can be found in the [UCF Graduate Catalog](#).

Graduation

In the semester of intended completion, the student must submit an Intent to Graduate online by the withdraw deadline of the term of graduation. The online ITG is available through the student's myUCF account.

Students who submit an Intent to Graduate, but are missing degree requirements (with no indication of completion in process) will be either approved for graduation on a pending status basis or denied. It is the student's responsibility to ensure that the requirements of their degree have been met; therefore, students are encouraged to review their SASS audit regularly. In addition, it is a student's responsibility to check his or her account to ensure there are no financial holds from the university. Any student placed on hold by the university will not receive their degree until the hold is cleared. Graduating students must be enrolled at UCF during the term of graduation.

Curriculum

Please visit the [Graduate Catalog](#) to see the current curriculum for our program.

Timeline for Completion

Statistical Computing Program

The typical two-year plan of courses for full-time students in the Statistical Computing program is outlined below.

Year 1

Fall	Spring	Summer
• STA 6236: Regression Analysis (3) • STA 6326: Theoretical Statistics I (3) • Approved Elective (3)	• STA 5205: Experimental Design (3) • STA 6327: Theoretical Statistics II (3) • Approved Elective (3)	• Optional Semester
Semester Total: 9 credit hours	Semester Total: 9 credit hours	

Year 2

Fall	Spring
• STA 6106: Stat. Computing I (3) • STA 6329: Statistical Applications of Matrix Algebra (3) • STA 6707: Multivariate Stat. Methods (3) or STA 6246: Linear Models (3)	• Approved Elective (3) • Approved Elective (3) • Approved Elective (3)
Semester Total: 9 credit hours	Semester Total: 9 credit hours

Data Mining Track Program

The typical two-year plan of courses for fulltime students in the Data Mining track is outlined below.

Year 1

Fall	Spring	Summer
• STA 6236 Regression Analysis (3) • STA 6326 Theoretical Statistics I (3) • STA 5103 Advanced Computer Processing of Statistical Data (3)	• STA 6238 Logistic Regression (3) • STA 6327 Theoretical Statistics II (3) • STA 6714 Data Preparation (3)	• Optional Semester
Semester Total: 9 credit hours	Semester Total: 3 credit hours	Semester Total: 3 credit hours

2th Year of Graduate Training

Fall	Spring
• STA 5703 Data Mining I (3) • Restricted Elective (3) • Restricted Elective (3)	• STA 6704 Data Mining II (3) • Restricted Elective (3) • Restricted Elective (3)
Semester Total: 3 credit hours	Semester Total: 3 credit hours

Examination Requirements

All students completing the MS degree in Statistical Computing are required to pass a Comprehensive Examination. This exam consists of two parts. Part I of the exam will cover the material in STA 6326 Theoretical Statistics I and STA 6327 Theoretical Statistics II, while the composition of Part II will depend on whether the student is in the regular degree program or the Data Mining track. Part II covers STA 5205 Experimental Design and STA 6236 Regression Analysis for the regular program, and STA 5103 Advanced Computer Processing of Statistical Data, STA 6238 Logistic Regression and STA 6714 Data Preparation for the Data Mining track.

On the first sitting for the exam, students must take both parts of the exam and they must have already completed all of the courses covered on their two parts of the exam. Students will be allowed to take the exam two times. If a student fails both parts of the exam on the first attempt, then both parts must be taken on the second attempt, while only the failed part will need to be taken again for students who passed one part.

The comprehensive exam will be offered annually in August just prior to the start of the fall semester, with Part I offered on one day and Part II, the following day. Students will receive an official exam announcement during the spring semester. A second sitting for the exam, if needed, will be scheduled, usually in January before the spring term begins, only for those students that need to retake the exam.

Graduate Research

UCF has three fundamental responsibilities with regard to graduate student research. They are to (1) support an academic environment that stimulates the spirit of inquiry, (2) develop the intellectual property stemming from research, and (3) disseminate the intellectual property to the general public. Students are responsible for being informed of rules, regulations and policies pertaining to research. Below are some general policies and resources.

Research Policies and Ethics Information: UCF's Office of Research & Commercialization ensures the UCF community complies with local, state and federal regulations that relate to research. For polices including required Institutional Review Board (IRB) approval when conducting research involving human subjects (e.g. surveys), animal research, conflict of interest and general responsible conduct of research, please see their website: research.ucf.edu/ > Compliance.

UCF's Patent and Invention Policy: In most cases, UCF owns the intellectual property developed using university resources. The graduate student as inventor will according to this policy share in the proceeds of the invention. Please see the current UCF Graduate Catalog for details: catalog.ucf.edu/index.php?catoid=4 > Policies > General Graduate Policies.

Financial Support

The Department of Statistics offers financial support to some of its graduate students in the form of Graduate Teaching Assistantships (GTAs). These positions are renewable on an academic term basis. Students who are performing well in the program and are also performing their assistantship duties in a satisfactory manner can normally expect to remain in their assistantship position until completing the MS degree. Very few assistantships are available for the summer term.

An assistantship typically requires approximately 20 hours of work per week. A first-year graduate assistant usually helps a faculty member with the teaching of one of our large introductory courses. Some of our second-year students are given full responsibility of teaching a section of one of our introductory courses.

Assistantships are usually awarded to new students beginning in the fall semester. Students who begin in the spring term may have to wait until the next fall to have an opportunity for an assistantship. Students who are interested in being awarded an assistantship for the fall term should apply for admission, submit all supporting documents, and submit three letters of recommendation by January 15, for full consideration.

Students on assistantships are required to be full-time students, which means they must be enrolled in 9 credit hours during each fall and spring term. The assistantship provides a stipend which varies from year to year. In addition, students on an assistantship normally get a substantial portion of their tuition costs waived.

International Students

Several types of employment are available to international students, including on-campus employment. For more information about the types of employment available to international students, and the requirements and restrictions based on visa-type, please see the International Affairs and Global Strategies' website: global.ucf.edu/ > Students > Employment.

Assistantships and Tuition Waivers

For complete information about university assistantships and tuition waivers, please see the UCF Graduate Catalog: catalog.ucf.edu/index.php?catoid=4 > Financial Information.

To be employed and to maintain employment in a graduate position, the student must be:

- In good academic standing
- Enrolled full-time

To be awarded and maintain a tuition waiver, the student must be:

- In good academic standing
- Enrolled full-time
- Employed in a graduate teaching position (GTA) or receiving a University fellowship

Master's students can be offered tuition support for a maximum of nine semesters.

GTA Training Requirements

Graduate students may be appointed as graduate teaching assistants (GTAs) to carry out responsibilities as classroom teachers (instructors of record), co-teachers or classroom assistants, graders, lab assistants, or other roles directly related to classroom instruction. Mandatory training requirements must be met for a student to be hired in the position of Graduate Teaching Associate, Assistant or Grader. The training, offered by UCF's Faculty Center for Teaching and Learning, covers course design, learning theories, ethics, and other topics relevant to preparing GTAs for their responsibilities. See GTA Training Requirements for training requirements and registration instructions. Graduate Teaching Associates must have completed at least 18 hours of graduate courses in the discipline they will be teaching.

Students who are non-native speakers of English and do not have a degree from a U.S. institution must pass the SPEAK test before they will be permitted to teach as Graduate Teaching Associates (position code 9183) or Graduate Teaching Assistants (position code 9184). The SPEAK test is not required for students who will be appointed as a Graduate Teaching Grader (position code 9187). Additional information including how to register

for the test can be accessed through the Graduate Teaching section of the College of Graduate Studies student website.

GTA Performance Assessment

At the completion of each semester during which the student is employed as a GTA, the student's performance will be evaluated by the faculty supervisor. The supervisor is typically the faculty member whom the student reports to. These assessments will be used to review strengths and weaknesses in the student's performance in preparation for future employment. Students who receive poor appraisals may not have their assistantships renewed for subsequent semesters.

Miscellaneous

Office space is provided to all graduate teaching assistants. GTAs working for courses that have a computer component will have access to a PC in their office space. GTAs are assigned an email account on the university's Outlook server. It is important that students regularly check this email account even if they have other email accounts that they use, since office staff or faculty may communicate with them via the Outlook account. GTAs also have a mailbox in the Department's mailroom. GTAs can use the Department's copying machines and supplies only for GTA-related activities by first getting approval from the Office Manager.

Graduate Student Associations

The Graduate Student Association (GSA) is UCF's graduate organization committed to enrich graduate students' personal, educational and professional experience. To learn more or get involved, please visit facebook.com/groups/UCFgsa/. For individual department or graduate program organizations, please see program advisor.

Professional Development

Occasionally there are opportunities for summer work for students in the Data Mining track. Interested students should contact the Director of this program.

Travel Support

The College of Graduate Studies offers a Graduate Presentation Fellowship that provides funding for master's, specialist, and doctoral students to deliver a research paper or comparable creative activity at a profession meeting. Students must be the primary author and presenter. For additional information visit Graduate Presentation Fellowship.

Another option is Graduate Students Travel Funding which is available to pay transportation expenses for graduate students who are delivering a research paper or comparable creative activity at a professional meeting. Contact the Student Government Association at 407/823-5648 for more information.

Teaching and Learning

The Faculty Center for Teaching and Learning (FCTL) promotes excellence in all levels of teaching at the University of Central Florida. They offer several programs for the professional development of Graduate Teaching Assistants at UCF.

- **GTA Training** (mandatory for employment as a GTA)
  This training provides information and resources for students who will be GTAs. The training covers a variety of topics, including course development, learning theories, lecturing, and academic freedom. For details on the required GTA training, visit GTA Training Requirements.
- **Preparing Tomorrow's Faculty Program**
  This certificate program (12-weeks) consists of group and individualized instruction by Faculty Center staff and experienced UCF professors. Textbooks and materials are provided. International students are provided the same training as well as information regarding language immersion and tricks and cultural awareness as a way of knowing what to expect from American students.

For more information, visit the UCF Faculty Center for Teaching and Learning's website at fctl.ucf.edu/ > Events > GTA Programs.

Pathways to Success Workshops

Coordinated by the College of Graduate Studies, the Pathways to Success program offers free development opportunities for graduate students including workshops in Academic Integrity, Graduate Grantsmanship, Graduate Teaching, Personal Development, Professional Development, and Research. For more information and how to register, please visit graduate.ucf.edu/pathways-to-success/.

Graduate Student Association

facebook.com/groups/UCFgsa/

Graduate Research Forum

Sponsored by the College of Graduate Studies, the Research Forum is an opportunity for students to showcase their research and creative projects and to receive valuable feedback from faculty judges. Awards for best poster and best oral presentation in each category will be given and all participants will receive recognition. For more information, contact researchweek@ucf.edu.

For grant-proposal writing resources: uwc.cah.ucf.edu/.

Discipline Societies

American Statistical Association (ASA)
The American Statistical Association is the world's largest community of statisticians. The ASA supports excellence in the development, application, and dissemination of statistical science through meetings, publications, membership services, education, accreditation, and advocacy.

Institute of Mathematical Statistics (IMS)
The IMS is an international professional and scholarly society devoted to the development, dissemination, and application of statistics and probability.

Royal Statistical Society (RSS)

The [Royal Statistical Society](#) (RSS) is the UK's only professional and learned society devoted to the interests of statistics and statisticians. It is also one of the most influential and prestigious statistical societies in the world.

Mathematical Association of America (MAA)
There is an organization for people who love the mathematical sciences. A community that values discussion and exposition, for meeting colleagues and building knowledge together. An organization with roots in the nineteenth century and a powerful role in the twenty-first. It's the [Mathematical Association of America](#).

International Association for Statistical Education
The [International Association for Statistical Education](#), seeks to promote, support and improve statistical education at all levels everywhere around the world. It is the international umbrella organization for statistics education.

Job Search

Career Services and Experiential Learning

[career.ucf.edu/](#)

Graduate career development issues are unique and include evaluating academic and nonacademic career choices, discussing graduate school effect on career choices, as well as learning, evaluating, and refining networking and interviewing skills. Whatever your needs, the offices of Career Services and Experiential Learning offer services and resources to aid in the career exploration and job search of Master and Doctoral students in every academic discipline.

For a listing of job links specific to the statistics discipline visit the [Statistics program links webpage](#).

Forms

- [College of Graduate Studies Forms and References](#)
  A complete listing of general forms and references for graduate students, with direct links, may be found here.
- [Graduate Petition Form](#)
  When unusual situations arise, petitions for exceptions to policy may be requested by the student. Depending on the type of appeal, the student should contact his/her program adviser to begin the petition process.
- [Traveling Scholar Form](#)
  If a student would like to take advantage of special resources available on another campus but not available on the home campus; for example, special course offerings, research opportunities, unique laboratories and library collections, this form must be completed and approved.

Useful Links

- [Statistical Computing MS](#)
- [College of Sciences](#)
- [College of Graduate Studies](#)
- [Academic Calendar](#)
- [Bookstore](#)
- [Campus Map](#)
- [Computer Labs](#)
- [Counseling Center](#)
- [Financial Assistance](#)

- [Golden Rule Student Handbook](#)
- [Graduate Catalog](#)
- [Graduate Student Association](#)
- [Graduate Student Center](#)
- [Housing and Residence Life](#)
- [Housing, off campus](#)
- [Knights Email](#)
- [Learning Online](#)
- [Library](#)
- [NID Help](#)
- [Pathways to Success](#)
- [Recreation and Wellness Center](#)
- [Register for Classes](#)
- [Shuttles Parking Services](#)
- [Student Health Services](#)
- [Thesis and Dissertation (ETD)](#)
- [UCF Global](#)
- [UCF IT](#)
- [University Writing Center](#)

Grad Faculty

Asterisk = has previous committee experience, which qualifies the person to serve as vice chair

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