UNIVERSITY OF CENTRAL FLORIDA

Graduate Program Handbook - 2023/24

Big Data Analytics, PhD

College of Sciences • Department of Statistics & Data Science • Fall 2022

Contents

Welcome Letter

Welcome to the Big Data Analytics PhD,

As a PhD student, you are an integral part of University of Central Florida. While you are in graduate school, not only will you experience intensive personal and intellectual growth, but you will also make a significant contribution to the scholarly development of other members of the research and teaching faculty.

To be successful, it is important you understand what is expected of you in your program and what you can expect from your advisors, and committee members. Sharing a mutual understanding of expectations will enhance your experience by reducing uncertainties. We designed this handbook to acquaint you with the general procedures, timelines, and requirements to be followed while you are a doctoral student. This handbook should be the first place you turn when guidance is needed on technical requirements for your degree. You should also feel free to turn to your advisor or the Department Graduate Coordinator.

We wish you well in your graduate studies and hope you make the most of your time in our Big Data Analytics PhD.

Edgard Maboudou, Ph.D.
Graduate Coordinator & Professor,
Big Data Analytics PhD

Navigating Policy and Resources at the University of Central Florida

This handbook is one of many sources to consult as you become familiar with the policies, procedures, requirements, resources, and norms of graduate education at the University of Central Florida.

How to Use This Handbook

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 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

Who to Contact for Questions?

Many of your questions about how to meet expectations and thrive as a graduate student will be answered by the various sources of policies, procedures, requirements, resources, and norms listed in this document. Several key positions in this department and on campus are ready to answer your remaining questions.

Graduate Program Staff

- **Elena Sequera**
  Graduate Administrative Assistant
  TC2 212A
  407-823-2407
  elena.sequera@ucf.edu

Director of Graduate Programs

- **Edgard Maboudou, PhD**
  Professor & Graduate Coordinator
  TC2 201
  edgard.maboudou@ucf.edu

Graduate School Services

For general graduate inquiries and graduate student services from the Graduate School, please review the College of Graduate Studies website as an additional resource.

Introduction – Program Description

The Big Data Analytics PhD program consists of at least 72 credit hours of course work beyond the Bachelor's degree, of which a minimum of 42 hours of formal course work, exclusive of independent study, and 15 credit hours of dissertation research (STA 7980) are required. The program requires 15 hours of elective courses. Note that all STA elective courses must be taken at 6000 level or above with the addition of STA 5825.

Students in the Big Data Analytics PhD program are expected to complete their degree in no more than seven years. Our full-time students are expected to complete the PhD degree in four years from the Bachelor's degree or in three years for those with a MS degree in Statistics, Data Science track

Program Requirements & Prerequisites

Students must have the following background and courses completed before starting the Big Data Analytics PhD program. These courses are: MAC 2311C: Calculus with Analytic Geometry I, MAC 2312: Calculus with Analytic Geometry II, MAC 2313: Calculus with Analytic Geometry III, MAS 3105: Matrix and Linear Algebra or MAS 3106: Linear Algebra. These pre-required courses are basic undergraduate courses from the Math department.

Course Requirements

The primary objective of doctoral study is to educate students to a point of excellence in conducting, disseminating, and applying scholarly research, with the explicit goal of making original, substantive contributions to their degree discipline. The advanced nature of doctoral education requires student participation, debate, evaluation, and discussion of diverse ideas and approaches. Careful analysis, independent research, and greater understanding and application of ideas are also expected.
The doctoral degree program requirements will consist of core and elective courses, seminars, directed and doctoral research, and dissertation research.
Each doctoral program of study will include a minimum of 72 semester hours of graduate credit beyond the baccalaureate degree or a minimum of 42 semester hours of graduate credit beyond the master's degree; these graduate credits must be taken as part of an approved graduate program of study.
All graduate credit in a doctoral program must be at 5000 level or higher.
At least one-half of the credit hours used to meet program requirements must be in 6000-level or 7000-level courses, including the allowed number of research and dissertation

hours.
At least 50 percent of the credits offered for the degree are expected to be derived from a single field of concentration (that is, from one department).
Only graduate-level credit with a grade of “B” or higher may be used to satisfy degree requirements.
Independent study (STA 6908) cannot be used towards the doctoral degree, unless instructed by the Graduate Coordinator.
A university-wide minimum of at least 27 hours of formal coursework exclusive of Independent Study (STA 6908), dissertation and research is required for the doctoral programs.
A university-wide minimum of at least 15 hours of dissertation credits is required for the doctoral programs.
The dissertation hour requirements may only be satisfied by enrollment in dissertation hours.

Curriculum

The Ph.D. in **Big Data** Analytics requires 72 hours beyond an earned Bachelor’s degree. Required coursework includes 30 credit hours of courses, 21 credit hours of restricted elective coursework, and 21 credit hours of dissertation research. In general, students cannot use Independent Study to substitute for a required or elective course. Students can use STA 6908 - independent study, for a maximum of 3 credits, to replace an elective course in case the Graduate Coordinator approves it prior to registering for the independent study. This may happen for courses with low enrollment where the Graduate Coordinator may ask registered students to take the courses as independent study. Also, students can use STA 7919 - Doctoral Directed Research, for a maximum of 6 credits as elective courses in case the Graduate Coordinator approves it prior to registering for the independent study.

All Ph.D. students must have an approved Plan of Study (POS) developed by the student and advisor that lists the specific courses to be taken as part of the degree. Students must maintain a minimum GPA of 3.0 in their POS, as well as a “B” (3.0) in all courses completed toward the degree and since admission to the program.

Statistical Colloquium Requirement - The department has a course, STA 7920 (Statistical Colloquium). This is a 0-credit course and should not impact your GPA. However, you will need at least 5 semesters of STA 7920 before you can graduate. With this course, you must attend the departmental colloquial.

Required Courses
(30 credit hours)
STA 6106 - Statistical Computing I 3 Credit Hours
STA 6107 - Statistical Computing II 3 Credit Hours
STA 6236 - Regression Analysis 3 Credit Hours
STA 6326 - Theoretical Statistics I 3 Credit Hours
STA 6327 - Theoretical Statistics II 3 Credit Hours
STA 6246 - Linear Models 3 Credit Hours
STA 6366 - Statistical Methodology for Data Science I 3 Credit Hours
STA 6367 - Statistical Methodology for Data Science II 3 Credit Hours
STA 7348 - Bayesian Modeling and Computation 3 Credit Hours
STA 7920 – Statistical Colloquium 0 Credit Hours

Complete at least 1 of the following:
STA 7722 - Statistical Learning Theory 3 Credit Hours
STA 7734 - Statistical Asymptotic Theory in Big Data 3 Credit Hours

Restricted Electives
(21 Credit Hours) - at least 9 credit hours must be STA coursework. With departmental approval, other courses may be included in the plan of study. Other electives can be used at the discretion of the student advisor and/or Graduate Coordinator.

STA 5104 - Advanced Computer Processing of Statistical Data 3 Credit Hours
STA 5176 - Introduction to Biostatistics 3 Credit Hours
STA 5703 - Data Mining Methodology I 3 Credit Hours
STA 5825 – Stochastic Processes and Applied Probability Theory 3 Credit Hours
STA 6223 – Conventional Survey Methods 3 Credit Hours
STA 6224 – Bayesian Survey Methods 3 Credit Hours
STA 6226 - Sampling Theory and Applications 3 Credit Hours
STA 6237 - Nonlinear Regression 3 Credit Hours
STA 6238 - Logistic Regression 3 Credit Hours
STA 6329 - Statistical Applications of Matrix Algebra 3 Credit Hours
STA 6346 - Advanced Statistical Inference I 3 Credit Hours
STA 6347 - Advanced Statistical Inference II 3 Credit Hours
STA 6507 - Nonparametric Statistics 3 Credit Hours
STA 6662 - Statistical Methods for Industrial Practice 3 Credit Hours
STA 6704 - Data Mining Methodology II 3 Credit Hours
STA 6705 - Data Mining Methodology III 3 Credit Hours
STA 6707 - Multivariate Statistical Methods 3 Credit Hours
STA 6709 - Spatial Statistics 3 Credit Hours
STA 6714 - Data Preparation 3 Credit Hours
STA 6857 - Applied Time Series Analysis 3 Credit Hours
STA 7239 - Dimension Reduction in Regression 3 Credit Hours
STA 7348 - Bayesian Modeling and Computation 3 Credit Hours
STA 7719 - Survival Analysis 3 Credit Hours
STA 7935 - Current Topics in Big Data Analytics 3 Credit Hours

MAP 6195 – Mathematical Foundations for Massive Data and Analysis 3 Credit Hours
MAP 6197 – Mathematical Introduction to Deep Learning 3 Credit Hours
CAP 5610 - Machine Learning 3 Credit Hours
CAP 6307 - Text Mining I 3 Credit Hours
CAP 6315 - Social Media and Network Analysis 3 Credit Hours
CAP 6318 - Computational Analysis of Social Complexity 3 Credit Hours
CAP 6737 - Interactive Data Visualization 3 Credit Hours
CNT 5805 - Network Science 3 Credit Hours
COP 5537 - Network Optimization 3 Credit Hours
COP 5711 - Parallel and Distributed Database Systems 3 Credit Hours
COP 6526 - Parallel and Cloud Computation 3 Credit Hours
COP 6616 - Multicore Programming 3 Credit Hours
COP 6731 - Advanced Database Systems 3 Credit Hours
COT 6417 - Algorithms on Strings and Sequences 3 Credit Hours
COT 6505 - Computational Methods/Analysis I 3 Credit Hours
ECM 6308 - Current Topics in Parallel Processing 3 Credit Hours
EEL 5825 - Pattern Recognition and Learning from Big Data 3 Credit Hours
EEL 6760 - Data Intensive Computing 3 Credit Hours
ESI 5419 - Engineering Applications of Linear, Nonlinear and Integer Programming 3 Credit Hours
ESI 6247 - Experimental Design and Taguchi Methods 3 Credit Hours
ESI 6358 - Decision Analysis 3 Credit Hours
ESI 6418 - Linear Programming and Extensions 3 Credit Hours
ESI 6609 - Industrial Engineering Analytics for Healthcare 3 Credit Hours
ESI 6891 - IEMS Research Methods 3 Credit Hours

Statistics Track

Big Data Analytics, Statistics track, will train researchers with a strong statistics background to analyze massive, structured or unstructured data to uncover hidden patterns, unknown correlations and other useful information that can be used to make better decisions.

The track will provide a strong foundation in statistical theory and the major methodologies associated with Big Data Analytics such as predictive analytics, data mining, text analytics and statistical analysis with an interdisciplinary component that combines the strength of statistics and computer science. It will focus on statistical theory in addition to statistical computing, statistical data mining and their application to business, social, and health problems complemented with ongoing industrial collaborations.

The Ph.D. in Big Data Analytics, Statistics track, requires 72 hours beyond an earned Bachelor's degree. Required coursework includes 30 credit hours of required courses, 21

credit hours of restricted elective coursework, and 21 credit hours of dissertation research and 42 credit hours beyond an earned Master's degree in Statistics & Data Science from UCF.

Total Credit Hours Required: 72 Credit Hours Minimum beyond the Bachelor's Degree

Track Prerequisites

Students must have the following background and courses completed before applying to the Big Data Analytics PhD program. These courses are: MAC 2311C: Calculus with Analytic Geometry I, MAC 2312: Calculus with Analytic Geometry II, MAC 2313: Calculus with Analytic Geometry III, MAC 3105: Matrix and Linear Algebra or MAC 3106: Linear Algebra. These pre-required courses are basic undergraduate courses from the Math department.

Required Courses (Statistics Track)

(30 credit hours)
STA 6106 - Statistical Computing I 3 Credit Hours
STA 6107 - Statistical Computing II 3 Credit hours
STA 6236 - Regression Analysis 3 Credit Hours
STA 6238 - Logistic Regression 3 Credit Hours
STA 6246 - Linear Models 3 Credit Hours
STA 6326 - Theoretical Statistics I 3 Credit Hours
STA 6327 - Theoretical Statistics II 3 Credit Hours
STA 6346 - Advanced Statistical Inference I 3 Credit Hours
STA 6366 - Statistical Methodology for Data Science I 3 Credit Hours
STA 7722 - Statistical Learning Theory 3 Credit Hours

Restricted Electives

(21 Credit Hours) - at least 9 credit hours must be STA coursework. With departmental approval, other courses may be included in the plan of study. Other electives can be used at the discretion of the student advisor and/or Graduate Coordinator.

STA 5104 - Advanced Computer Processing of Statistical Data 3 Credit Hours
STA 5176 - Introduction to Biostatistics 3 Credit Hours
STA 5205 - Experimental Design 3 Credit Hours
STA 5703 - Data Mining Methodology I 3 Credit Hours
STA 5825 – Stochastic Processes and Applied Probability Theory 3 Credit Hours
STA 6223 – Conventional Survey Methods 3 Credit Hours
STA 6224 – Bayesian Survey Methods 3 Credit Hours
STA 6226 - Sampling Theory and Applications 3 Credit Hours
STA 6237 - Nonlinear Regression 3 Credit Hours
STA 6238 - Logistic Regression 3 Credit Hours
STA 6329 - Statistical Applications of Matrix Algebra 3 Credit Hours

STA 6347 - Advanced Statistical Inference II 3 Credit Hours
STA 6367 - Statistical Methodology for Data Science II 3 Credit Hours
STA 6507 - Nonparametric Statistics 3 Credit Hours
STA 6662 - Statistical Methods for Industrial Practice 3 Credit Hours
STA 6704 - Data Mining Methodology II 3 Credit Hours
STA 6705 - Data Mining Methodology III 3 Credit Hours
STA 6707 - Multivariate Statistical Methods 3 Credit Hours
STA 6709 - Spatial Statistics 3 Credit Hours
STA 6714 - Data Preparation 3 Credit Hours
STA 6857 - Applied Time Series Analysis 3 Credit Hours
STA 7239 - Dimension Reduction in Regression 3 Credit Hours
STA 7348 - Bayesian Modeling and Computation 3 Credit Hours
STA 7719 - Survival Analysis 3 Credit Hours
STA 7734 - Statistical Asymptotic Theory in Big Data 3 Credit hours
MAA 6238 - Measure and Probability I 3 Credit Hours
MAA 7239 - Asymptotic Methods in Mathematical Statistics 3 Credit Hours
MAP 6207 - Optimization Theory 3 Credit Hours
MAS 5145 - Advanced Linear Algebra and Matrix Theory 3 Credit Hours
MAP 6195 - Mathematical Foundations for Massive Data and Analysis 3 Credit Hours
MAP 6197 - Mathematical Introduction to Deep Learning 3 Credit Hours
CAP 5610 - Machine Learning 3 Credit Hours
CAP 6307 - Text Mining I 3 Credit Hours
CAP 6315 - Social Media and Network Analysis 3 Credit Hours
CAP 6318 - Computational Analysis of Social Complexity 3 Credit Hours
CAP 6737 - Interactive Data Visualization 3 Credit Hours
CNT 5805 - Network Science 3 Credit Hours
COP 5537 - Network Optimization 3 Credit Hours
COP 5711 - Parallel and Distributed Database Systems 3 Credit Hours
COP 6526 - Parallel and Cloud Computation 3 Credit Hours
COP 6616 - Multicore Programming 3 Credit Hours
COP 6731 - Advanced Database Systems 3 Credit Hours
COT 6417 - Algorithms on Strings and Sequences 3 Credit Hours
COT 6505 - Computational Methods/Analysis I 3 Credit Hours
ECM 6308 - Current Topics in Parallel Processing 3 Credit Hours
EEL 5825 - Pattern Recognition and Learning from Big Data 3 Credit Hours
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ESI 6247 - Experimental Design and Taguchi Methods 3 Credit Hours
ESI 6358 - Decision Analysis 3 Credit Hours
ESI 6418 - Linear Programming and Extensions 3 Credit Hours
ESI 6609 - Industrial Engineering Analytics for Healthcare 3 Credit Hours
ESI 6891 - IEMS Research Methods 3 Credit Hour

Dissertation
Earn at least 21 credits from the following types of courses:

STA 7980 – Dissertation Research 3 Credit Hours

Grand Total Credits: 72

Timeline for Completion

All incoming graduate students are required to take the core course sequences starting in the fall. Students with a Bachelor's degree must follow these guidelines. Note that some course sequences may be switched between Fall and Spring. So, students should think more about completing courses per year rather than per semester.

Big Data Analytics

Year 1

Fall	**Spring**
▪ STA 6236: Regression Analysis (3) ▪ STA 6326: Theoretical Statistics I (3) ▪ STA 6366: Statistical methodology for Data Science I (3) ▪ STA 7920 Statistical Colloquium (0) Semester 1 Total: 9 credit hours	▪ STA 6246: Linear Models (3) ▪ STA 6327: Theoretical Statistics II (3) ▪ STA 6367: Statistical methodology for Data Science II (3) ▪ STA 7920 Statistical Colloquium (0) Semester 2 Total: 9 credit hours

PhD Qualifying Exam after year 1

Year 2

Fall	**Spring**
▪ Choose 1 from STA 7734 and 7722 (3) ▪ STA 6106: Statistical Computing I (3) ▪ STA 7919 (3) or elective (3) ▪ STA 7920 Statistical Colloquium (0) Semester 3 Total: 9 credit hours	▪ STA 6107: Statistical Computing II (3) ▪ STA 7348: Bayesian Modeling & ▪ STA 6714: Data Preparation ▪ STA 7920 Statistical Colloquium (0) Semester 4 Total: 9 credit hours

PhD Qualifying Exam after semester 1 of year 2

Year 3

Fall	**Spring**
▪ Restricted Electives (3) ▪ STA 7919 (3) or elective (3) ▪ Restricted Electives (3) ▪ STA 7920 Statistical Colloquium (0)	▪ Restricted Electives (3) ▪ Restricted Electives (3) ▪ STA 7980: Dissertation Research (3)
Semester 5 Total: 9 credit hours	Semester 6 Total: 9 credit hours

Year 4

Fall	**Spring**
▪STA 7980: Dissertation Research (9)	▪ STA 7980: Dissertation Research (9)
Semester 7 Total: 9 credit hours	Semester 8 Total: 9 credit hours

Total Hours: 72 Hours

Three-Year Full-time Plan

Master's students entering program full-time plan is outlined below:

Year 1

Fall	**Spring**
▪ Choose 1 from STA 7734 and 7722 (3) ▪ STA 6366: Statistical methodology for Data Science I (3) ▪ STA 6106: Stat Computing I (3) ▪ STA 7920 Statistical Colloquium (0)	▪ STA 6246: Linear Models (3) ▪ STA 6367: Statistical methodology for Data Science II (3) ▪ STA 6107: Statistical Computing II (3) ▪ STA 7920 Statistical Colloquium (0)
Semester 1 Total: 9 credit hours	Semester 2 Total: 9 credit hours

PhD Qualifying Exam after Year 1

Year 2

Fall	**Spring**
▪ STA 7348: Bayesian Modeling and Computation (3) ▪ STA 7919 (6) as electives ▪ STA 7920 Statistical Colloquium (0)	STA 7980: Dissertation Research (6)
Semester 3 Total 9 credit hours	Semester 4 Total: 6 credit hours

PhD Candidacy Exam after semester 1 of Year 2

Year 3

Fall	**Spring**
▪ STA 7980: Dissertation Research (6)	▪ STA 7980: Dissertation Research (3)

Total Hours 42 Hours

Big Data Analytics – Statistics Track

Year 1

Fall	**Spring**
▪ STA 6236: Regression Analysis (3) ▪ STA 6326: Theoretical Statistics I (3) ▪ STA 6366: Statistical methodology for Data Science I (3) ▪ STA 7920 Statistical Colloquium (0)	▪ STA 6246: Linear Models (3) ▪ STA 6327: Theoretical Statistics II (3) ▪ STA 6346: Advanced Statistical Inference I (3) ▪ STA 7920 Statistical Colloquium (0)
Semester 1 Total: 9 credit hours	Semester 2 Total: 9 credit hours

PhD Qualifying Exam after year 1

Year 2	
Fall ▪ STA 7722: Statistical Learning Theory (3) ▪ STA 6106: Stat Computing I (3) ▪ STA 7919 (3) as electives or electives (3) ▪ STA 7920 Statistical Colloquium (0) Semester 3 Total: 9 credit hours	**Spring** ▪ STA 6107: Statistical Computing II (3) ▪ STA 6238: Logistic Regression (3) ▪ STA 7919 (3) as electives or elective (3) ▪ STA 7920 Statistical Colloquium (0) Semester 4 Total: 9 credit hours
PhD Candidacy Exam after semester 1 of year 2	

Year 3	
Fall ▪ Restricted Electives (3) ▪ Restricted Electives (3) ▪ Restricted Electives (3) ▪ STA 7920 Statistical Colloquium (0) Semester 5 Total: 9 credit hours	**Spring** ▪ Restricted Electives (3) ▪ STA 7980: Dissertation Research (3) ▪ Restricted Electives (3) Semester 6 Total: 9 credit hours

Year 4	
Fall ▪ STA 7980 or 7919: Dissertation Research (9) Semester 7 Total: 9 credit hours	**Spring** ▪ STA 7980: Dissertation Research (9) Semester 8 Total: 9 credit hours
Total Hours: 72 Hours	

Three-Year Fulltime Plan

Master's students entering program fulltime plan is outlined below:

Year 1

Fall	**Spring**
▪ STA 7722: Statistical Learning Theory (3) ▪ STA 6366: Statistical methodology for Data Science I (3) ▪ STA 7919 as electives (3) or Electives (3) ▪ STA 7920 Statistical Colloquium (0) Semester 1 Total: 9 credit hours	▪ STA 6346: Advanced Statistical Inference I (3) ▪ STA 6107: Statistical Computing II (3) ▪ STA 6246: Linear Models (3) ▪ STA 7920 Statistical Colloquium (0) Semester 2 Total: 9 credit hours

PhD Qualifying Exam after Year 1

Year 2

Fall	**Spring**
▪ STA 7919 as electives (3) or Electives (3) ▪ Electives (6) ▪ STA 7920 Statistical Colloquium (0) Semester 3 Total: 9 credit hours	▪ STA 7980: Dissertation Research (6) Semester 4 Total: 6 credit hours

PhD Candidacy Exam after semester 1 of Year 2 Year 3

Year 3

Fall	**Spring**
▪ STA 7980: Dissertation Research (6)	▪ STA 7980: Dissertation Research (3)

Total Hours: 42 Hours

Examinations

Qualifying Examination

Eligibility to continue a doctoral program should be limited to superior students who have demonstrated intellectual ability, high achievement, and adequate preparation for advanced study and research in Big Data Analytics.
The qualifying examination is a written examination that will be administered by the doctoral exam committee at the start of the fall term (end of the summer) and spring term (beginning of the year). The courses required to prepare for the examination are STA 6236, STA 6246, STA 6366, STA 6326, STA 6327 and STA 6367 for Big Data Analytics and STA 6236, STA 6246, STA 6366, STA 6326, STA 6327 and STA 6346 for Big Data Analytics – Statistics Track.

Students must obtain permission from the Graduate Program Coordinator to take the examination. Students normally take this exam just before the start of their third year and are expected to have completed the exam by the start of their fourth year. To be eligible to take the Ph.D. qualifying examination, the student must have a minimum grade point average of 3.0 (out of 4.0) in all the coursework for the Ph.D. The exam may be taken twice. If a student does not pass the qualifying exam after the second try, he/she will be dismissed from the program.
To pass the exam, students need to pass all 4 parts. Students must take all parts of the qualifying exam in their first attempt and must have completed all courses covered by the exam. The composition of the exam along with a list of any materials that students can use is given below:

Big Data Analytics

Part I (Theoretical Statistics): STA 6326 Theoretical Statistics I, STA 6327 Theoretical Statistics II
Materials: Course textbook.

Part II (Applied Statistics): STA 6236 Regression Analysis, STA 6246 Linear Models
Materials: TBA

Part III (Data Science): STA 6366 Data Science I, STA 6367 Data Science II
Materials: You may use a one-page formula sheet.

Part IV: Take home exam.

Materials: No restrictions as far as you work independently.
Students must work independently. Academic dishonesty will result in a grade of zero for this exam.

Big Data Analytics – Statistics Track
Part I (Theoretical Statistics): STA 6326 Theoretical Statistics I, STA 6327 Theoretical Statistics II
Materials: Course textbook.

Part II (Applied Statistics): STA 6236 Regression Analysis, STA 6246 Linear Models
Materials: TBA

Part III: STA 6366 Data Science I, STA 6346 Advanced Statistical Inference I
Materials: TBA

Students who are more than ten minutes late to a specific Part will not be allowed to take that Part of the exam and will receive a failing grade for that Part. So, it is your responsibility to be in the classrooms prior to exam start times.

Note that no late reports will be accepted for the take home portion. Also, students are not allowed to have access to their exams after the results are given.

It is strongly recommended that the student select a dissertation adviser by the completion of 18 credit hours of course work, and it is strongly recommended that the student works with the dissertation adviser to form a dissertation committee within two semesters of passing the qualifying exams.

Master's Along the Way

PhD Students in Big Data Analytics can obtain their Master's degree in Statistics & Data Science - Data Science Track along the way to their PhD degree:

- MS degree can be completed in the thesis or non-thesis option.
- Complete the 36 credit requirements.
- In order to apply for the MS degree, the student must complete the thesis or non-thesis option requirement, apply for the **Intent to Graduate** In addition, complete the COS & the **Department Graduate Exit Survey** Once the department survey becomes available, the student will receive an invite from webcourses.

PhD Students in Big Data Analytics – Statistics Track can obtain their Master's degree in Statistics & Data Science along the way to their PhD degree:

- MS degree can be completed in the thesis or non-thesis option.
- Complete the 36 credit requirements.
- In order to apply for the MS degree, the student must complete the thesis or non-thesis option requirement, apply for the **Intent to Graduate** In addition, complete the COS & the **Department Graduate Exit Survey** Once the department survey becomes available, the student will receive an invite from webcourses.

Qualifying Examinations

This exam takes place prior to admission to Candidacy Status. A student must demonstrate his or her readiness for the PhD program by successfully completing the candidacy examination before admission to full doctoral status and enrollment into dissertation hours. This is permanently filed in the student's permanent records. It is taken at the end of student's first year in the program and is expected to be completed by the end of student's second year in the program. To be eligible to take the Ph. D. qualifying examination, the student must have a minimum grade point average of 3.0 (out of 4.0) in all the coursework for the Ph. D. The exam may be taken twice. If a student does not pass the qualifying exam after the second try, he/she will be dismissed from the program. The qualifying exam must be passed before being allowed to enroll in doctoral dissertation (STA 7980) hours. It is strongly recommended that the student select a dissertation adviser by the completion of 18 credit hours of course work, and it is strongly recommended that the student works with the dissertation adviser to form a dissertation committee within the first year in the program. The student will need to form his/her candidacy committee, by completing the Committee Dynamic Form and take the Webcourse Training Thesis and Dissertation Form

Admission to Candidacy

The candidacy exam is administered by the student's dissertation advisory committee and will be tailored to the student's individual program to propose either a research- or project-based dissertation. The candidacy exam involves a dissertation proposal presented in an open forum, followed by an oral defense conducted by the student's advisory committee. This committee will give a Pass/No Pass grade. In addition to the dissertation proposal, the advisory committee may incorporate other requirements for the exam. The student can attempt candidacy any time after passing the qualifying examination, after the student has begun dissertation research (STA7919, if necessary), but prior to the end of the second year following the qualifying examination. The candidacy examination can be taken no more than two times. If a student does not pass the candidacy exam after the second try, he/she will be removed from the program.
Admission to candidacy will be approved by the program director and the college coordinator and
forwarded to the UCF College of Graduate Studies for status change. Only after admission

to candidacy may a student register for doctoral dissertation hours (STA 7980). Effective beginning in the fall 2010 term, students must have passed candidacy and have the candidacy and dissertation advisory committee documentation received and processed by the College of Graduate Studies prior to the first day of classes for the term to enroll in dissertation hours for that term. Students enrolling in dissertation hours for the first time during the summer must have their paperwork submitted prior to the first day of classes for Summer C, regardless of which summer session they will enroll in.

The following are required to be admitted to candidacy and enroll in dissertation hours.

- Completion of all coursework, except for dissertation hours
- Successful completion of the qualifying examination
- Successful completion of the candidacy examination including a written proposal and
- oral defense
- The dissertation advisory committee is formed, consisting of approved graduate faculty and graduate faculty scholars.
- Submittal of an approved program of study

Doctoral students admitted to candidacy are expected to enroll in dissertation hours and to devote full-time effort to conducting their dissertation research and writing the required dissertation document. Students in doctoral candidacy must continuously enroll in at least three hours of dissertation course work (STA 7980) each semester (including summer) until the dissertation is completed.

Candidacy Examination

The purpose of the Candidacy Examination is for the student to demonstrate a strong foundation of knowledge within the specific discipline, and the ability and preparation to conduct independent scholarly research. The committee may examine a broad range of appropriate capabilities, including theory, bibliography, research methodology, and the evaluation of preliminary research, when appropriate. The examination must have a written component; it also may include an oral defense of a written report or dissertation proposal. All written examination materials will be kept in the student's file in the program.

Dissertation

Dissertation Requirements

- STA 7980 - Dissertation Research 21 credit hours

Note that student can register for STA 7980 only after the student passes the candidacy exam. So, student can register for STA 7919 in case the student has not passed the PhD candidacy exam yet.

Department Dissertation Requirements

Dissertations are required in all PhD programs. The dissertation consists of an original and substantial research study designed, conducted, and reported by the student with the guidance of the Dissertation Committee. The written dissertation must include a common theme with an introduction and literature review, details of the study, and results and conclusions prepared in accordance with program and university requirements. The dissertation is expected to represent a significant contribution to the discipline. Since this work must be original, it is important that care is taken in properly citing ideas and quotations of others. Failure to do so is academic dishonesty and subject to termination from the program without receiving the degree. An oral defense of the dissertation is required.

Department Dissertation Requirements

After passing the qualifying exam, the student must select a dissertation adviser. In consultation with the dissertation adviser, the student should form a dissertation advisory committee. The dissertation adviser will be the chair of the student's dissertation advisory committee. In consultation with the dissertation advisor and with the approval of the chair of the department, each student must secure qualified members of their dissertation committee. This committee will consist of at least four faculty members chosen by the candidate, three of whom must be from the department and one from outside the department or UCF. Graduate faculty members must form the majority of any given committee. A dissertation committee must be formed prior to enrollment in dissertation hours.

The dissertation serves as the culmination of the coursework that comprises this degree. It must make a significant original theoretical, intellectual, practical, and creative or research contribution to the student's area within the discipline.
The dissertation can be either research- or project-based depending on the area of study, committee, and with the approval of the dissertation advisor. The dissertation will be completed through a minimum of 15 hours of dissertation research credit.

Enrollment in Dissertation Hours

The university requires all doctoral students to take a minimum of 15 credit hours of doctoral dissertation hours; however, specific programs may require more than this minimum. Dissertation research is considered to be a full-time effort, and post-candidacy enrollment in at least three doctoral dissertation (STA 7980) credit hours constitutes full-time graduate status. Doctoral students who have passed candidacy and have begun taking doctoral dissertation hours (STA 7980) must enroll in at least three dissertation hours each semester (including summers, without skipping a semester) and continue doing

so until they complete and successfully defend the dissertation. Students wishing to enroll in fewer than 3 credit hours must have approval from their advisor.

*Students who need to interrupt their dissertation work for extenuating circumstances must submit a **Leave of Absence Form** to the College of Graduate Studies. Submission and approval of the form must be obtained prior to the first day of classes for the term of non-enrollment.*

STA 7980 - Dissertation Research 15 credit hours

Note that student can register for STA 7980 only after the student passes the candidacy exam. So, student can register for STA 7919 in case the student has not passed the PhD candidacy exam yet.

Dissertation Advisory Committee Membership

Doctoral students must have a Dissertation Advisory Committee prior to advancement to candidacy status. The Committee will consist of a minimum of four members who are approved members of the Graduate Faculty or Graduate Faculty Scholars (see Graduate Faculty). At least three members must be Graduate Faculty, one of whom must serve as the chair of the committee. One member must be from either outside the student's department at UCF (or college if a college-wide program) or outside the university. The Graduate Program Committee may specify additional advisory committee membership beyond the minimum of four. These additional advisory committee members must also be approved members of the Graduate Faculty or Graduate Faculty Scholars. Graduate Faculty members must form the majority of any given committee.
Committee membership must be approved by the program director and submitted to the College of Graduate Studies. All members must be in fields related to the dissertation topic. The UCF College of Graduate Studies reserves the right to review appointments to a dissertation advisory committee, place a representative on any dissertation advisory committee, or appoint a co-chair. A student may request a change in membership of the dissertation advisory committee with the approval of the program director and re-submission to the College of Graduate Studies.
All members vote on acceptance or rejection of the dissertation proposal and the final dissertation. The dissertation proposal and final dissertation must be approved by a majority of the committee.

Responsibilities of Members of Doctoral Advisory Committees:

- All members of the doctoral advisory committee have responsibilities. See the Graduate Faculty and Graduate Faculty Scholars Policy for this information.
- Dissertation Preparation

Thesis and Dissertation (ETD) describes university requirements and formatting instructions for dissertations and outlines the steps graduate students must follow in order

to submit their dissertations electronically to the UCF College of Graduate Studies. The Thesis and Dissertation Office offers online and face-to-face workshops to inform graduate students about procedures, deadlines, and requirements associated with preparing a dissertation. Students who have just passed Candidacy are strongly encouraged to visit the online workshop.

Dissertation students will submit their dissertations electronically. Electronic thesis/dissertation (ETD) submissions will be archived by the UCF library in digital format and will be more widely accessible. In addition, students may use video and audio clips as well as other formats that may be appropriate for their field of study.

All dissertations that use research involving human subjects, including surveys, must obtain approval from an independent board, the Institutional Review Board (IRB), for this prior to starting the research. Graduate students and the faculty that supervise them are required to attend training on IRB policies, so this needs to start well in advance of the research start date. It is imperative that proper procedures are followed when using human subjects in research projects. Information about this process can be obtained from the Office of Research and commercialization (www.research.ucf.edu). Click on “Compliance” and the *IRB Policy and Procedures Manual* is available. In addition, should the nature of the research or the faculty supervision change since the IRB approval was obtained, then new IRB approval must be sought. Failure to obtain this prior approval could jeopardize receipt of the student’s degree.

Students who wish to complete their degree requirements in a Students who wish to complete their degree requirements in a given semester must take their oral defense and submit their dissertation to the UCF College of Graduate Studies by the dates shown in the Academic Calendar.

Dissertation Defense

The dissertation defense is an oral presentation and defense of the written dissertation describing the student's research. The advisory committee will evaluate and judge the dissertation defense. Successful students must demonstrate that they are able to conduct and report original independent research that contributes substantially to the discipline in which they study. The defense is a formal academic requirement and should be accorded respect and dignity, and thus, no refreshments or other distractions should be served during the defense.

Dissertations will be approved by a majority vote of the Dissertation Advisory Committee. Further approval is required from the Dean or Dean designee and the UCF College of Graduate Studies before final acceptance of the dissertation in fulfilling degree requirements. The dissertation defense can be taken no more than two times. If a student does not pass the dissertation defense exam after the second try, he/she will be removed from the program.

Graduate programs may elect to offer alternatives to face-to-face dissertation defense. Programs that choose to offer such alternatives must develop and ensure procedures for the implementation of the alternative defense process and procedures must be published in

the program's handbook. These procedures should address the form and time for the student's request for an alternative defense and the process for seeking approval.

Students, faculty, staff, and other interested parties are strongly encouraged to attend dissertation final defense sessions. Notices providing the date, time, and location of such meetings must be announced at least 2 weeks prior to the defense to all academic departments.

Review for Original Work

The university requires all students submitting a dissertation as part of their graduate degree requirements to first have their electronic documents submitted through iThenticate for advisement purposes and for review of originality. The dissertation chair is responsible for scheduling this submission to iThenticate and for reviewing the results from iThenticate with the student's advisory committee. The advisory committee uses the results appropriately to assist the student in the preparation of their dissertation.
Before the student may be approved for final submission to the university, the dissertation chair must indicate completion of the Review for Original Work through iThenticate by signing the Dissertation Approval Form.

Dissertation Dissemination

While UCF respects the wishes of students who would like to publish their work and/or apply for patents, it is essential for scholarly research conducted at a university to be available for dissemination. While several options are available for the release of an ETD, it is the goal of the university that all dissertations be available through the UCF Libraries catalog. Students with potential patent concerns are required to discuss the following options with their dissertation adviser and indicate the availability choice on the Thesis and Dissertation Release Option electronic form, which the student submits in the myUCF Student Center.

For those with no patent or copyright concern

- Immediate worldwide dissemination with no restrictions.

For those who have patent issues, dissemination options must be discussed and agreed to with your adviser. Choices are:

- Pending dissemination of the entire work for six months for patent or other proprietary issues, with an additional six months extension available. Once the patent and proprietary issues are resolved, then immediate worldwide dissemination with no restrictions.
- Pending dissemination of the entire work for six months for patent or other proprietary issues, with an additional six months extension available. Once the patent and proprietary issues are resolved, choosing this option allows the student to

make the dissertation available to the university community for the period chosen below, and then for it to be distributed via the Web beyond that time.
    - one year
    - three years*
    - five years*

For those who have copyright concerns, dissemination options are a student decision within the guidelines of individual departments that may have requirements for dissemination. If a department has no guidelines for dissemination, then students are free to choose one of the options below. In general, those in the sciences and engineering will choose one year while students in the arts and humanities may choose longer. Choosing this option allows the student to make the dissertation available to the university community for the period chosen below, and then for it to be distributed via the Web beyond that time.

- one year
- three years*
- five years*

**Does not require dissertation adviser signature and approval.*

Public Access

Students, faculty, staff, and other interested parties are strongly encouraged to attend dissertation final defense sessions. Notices providing date, time, and location of such meetings must be distributed to all academic departments.
These sessions are educational and informative for graduate students and provide an opportunity for colleagues to observe the work of their peers with students. At the discretion of the Chair of the Committee, questions may be invited from the audience. That part of the session involving committee discussion leading to a vote on the acceptance of the work will be closed. Sessions may be recessed briefly to excuse visitors and the candidate before this stage begins.

To summarize, the College of Graduate Studies Thesis and Dissertation page contains information on the university's requirements for dissertation formatting, format review, defenses, final submission, and more. A step-by-step completion guide is also available on Thesis and Dissertation Services Site.
All university deadlines are listed in the Academic Calendar. Your program or college may have other earlier deadlines; please check with your program and college staff for additional deadlines.

The following requirements must be met by dissertation students in their final term:

- Submit a properly formatted file for initial format review by the format review deadline
- Submit the Thesis and Dissertation Release Option form well before the defense
- Defend by the defense deadline

- Receive format approval (if not granted upon initial review)
- Submit signed approval form by final submission deadline
- Submit final dissertation document by final submission deadline

Students must format their dissertation according to the standards outlined in Thesis and Dissertation Webcourse. Formatting questions or issues can be submitted to the Format Help page in the Thesis and Dissertation Services site. Format reviews and final submission must be completed in the Thesis and Dissertation Services site. The Dissertation Approval Form is also available in the Thesis and Dissertation Services site. The College of Graduate Studies offers several thesis and dissertation Workshops each term. Students are highly encouraged to attend these workshops early in the dissertation process to fully understand the above policies and procedures.

The College of Graduate Studies thesis and dissertation office is best reached by email at editor@ucf.edu

Academic Integrity Training

All students newly admitted to doctoral programs must complete training designed to inculcate an awareness and understanding of the fundamental issues of academic integrity and the responsible conduct of research (RCR) in a manner that is consistent with federal regulations. This required training includes: (1) the online Collaborative Institutional Training Initiative (CITI) "Responsible Conduct of Research" training module in the appropriate disciplinary area; and (2) four face-to-face ethics/RCR workshops coordinated by the College of Graduate Studies and the Office of Research and Commercialization, or an approved alternative training offered as a program requirement for all students in the program. Students in a program that has approved alternative ethics/RCR training must still complete the online CITI Responsible Conduct of Research training in the appropriate disciplinary area.
The workshops and CITI training modules are open to all UCF graduate students and postdoctoral fellows and associates. For the ethics/RCR workshops, priority is given to doctoral students who are required to complete these workshops prior to advancement to can

Deadlines:

1. All academic integrity/RCR training requirements must be completed prior to a student's advancement to candidacy.
2. The CITI module should be completed by the end of a student's second major (Fall/Spring) term of enrollment.
3. All academic integrity and RCR training requirements must be completed in a manner that is consistent with federal regulations.

A doctoral student who has not completed the required training in academic integrity and the responsible conduct of research will not be advanced to candidacy.

Workshops

The College of Graduate Studies and the Office of Research and Commercialization offer a series of workshops to enable students to fulfill the four-workshop requirement. Students must take at least two workshops from a set of core workshops which focus on: personal integrity in the classroom; plagiarism; data management (including fabrication, falsification, and confidentiality); authorship and peer review; mentor and trainee responsibilities; collaborative research; and conflicts of interest. Students must complete two additional workshops from among the set of core workshops or a series of additional workshops, which will provide more specialized training such as human subjects, animal welfare: and other areas of ethical concern unique to a discipline or research area.

Programs may develop alternatives for the training workshops that focus on issues of particular relevance to their specific disciplines and fields, or that better accommodate the schedules of their students. Alternative training must be offered as a program requirement for all students in the program. The training content must be specified in the syllabus/syllabi of required formal courses and include the core topics listed above as well as other topics appropriate to the specific discipline. Alternative training content must be submitted for review and approval by the College of Graduate Studies and the Office of Research and Commercialization prior to student attendance.

Further information concerning workshop sessions and registration and how to complete the CITI training module may be found at Academic Integrity Training.

Time Limitation and Continuous Enrollment

A student has seven years from the date of admission to the doctoral program to complete the dissertation and the doctoral degree. No courses used in a program of study can be older than seven years at the time of graduation. Credits that are part of an earned master's degree are exempt from this 7-year expiration, including those earned "along-the-way" in a doctoral program.

Students who anticipate being out for an extended period of three consecutive semesters or longer should apply for a Special Leave of Absence no later than the end of the add/drop period of the third semester of absence. Students who do not maintain continuous enrollment without a Special Leave of Absence (see Continuous Attendance and Special Leave of Absence in the General Graduate Policies) must file for readmission to the university, although seven years is measured from when the student was first admitted to the program.

Readmission

If doctoral students do not maintain continuous enrollment (see Continuous Attendance in the General Graduate Policies), they must file for readmission to the university. To file for

readmission, the student must complete a new online Application. For more information about readmission, refer to the Admissions in this catalog.

Readmission decisions are individually made, based on such factors as space in the program, reasons for the break in graduate education, progress in the degree program, among others. Readmission is not guaranteed.

Conferral of Master's Degrees for Students in Doctoral Degree Programs

A student making satisfactory progress in a doctoral program may be eligible to be awarded a master's degree in the same discipline. Policies concerning these degrees can be found under Master's Program Policies.

Transfer of Credits

Graduate coursework completed prior to enrolling in a graduate program at UCF may be eligible for transfer or waiver into the graduate program. Graduate students are expected to make transfer requests (and include course syllabi) with their graduate program director during the first semester of enrollment in the graduate program. For transfer credits, program faculty will determine the equivalency of the courses requested by reviewing the syllabi. Only courses and earned master's degree credits approved by the graduate program will be moved into a program of study.

Below is the university transfer policy for the 3 types of transfer credits. Graduate programs may stipulate additional constraints beyond those included in the university transfer policy.

1. External transfer credits: course credits completed at a regionally accredited institution (excluding UCF) or recognized international institution.

External transfer credits are eligible for transfer only if they meet the following criteria:

- Only graduate-level courses may be accepted as transfer credits.
- Only courses with a grade of "B-" or higher are allowed to be transferred into a program of study (not petitionable).
- Only hours that are no more than seven years old at the time of transfer may be transferred, unless part of an earned graduate degree.
- Only formal course work hours, but not thesis or research hours, may be used as transfer credits (not petitionable).

External transfer credits are limited to up to 9 credit hours for students who do not have a completed graduate degree or for students in doctoral programs that require a master's degree for admission.

2. Internal transfer credits: graduate-level course credits completed at UCF prior to enrolling in the program for which the degree is sought, including those taken in

undergraduate status at UCF as part of a Senior Scholar or accelerated program; or as a Traveling Scholar (see Traveling Scholars in the General Graduate Policies for more information).

Internal credits are eligible for transfer only if they meet the following criteria:

- Only graduate-level or higher courses may be accepted as transfer credits.
- Only courses with a grade of "B-" or higher are allowed to be transferred into a program of study (not petitionable).
- Only hours are no more than than seven years old at the time of transfer may be transferred, unless part of an earned graduate degree.

(Note: Internal thesis or research hours may be used as transfer credits, but may not be used to satisfy formal course work requirements.)

Graduate degree programs are permitted to accept as internal transfer credits up to nine hours of graduate-level course work taken by a student while in undergraduate status at UCF. More than nine hours may be accepted if part of a formally approved accelerated program.

3. Waived credits: 30 credit hours in a program of study that are waived on the basis of an earned master's degree, not based on individual courses.

For students in doctoral programs that do not require a master's degree for admission, students with an earned master's degree may have 30 credit hours waived if the following criteria are met:

- the earned degree is from a regionally accredited institution or recognized foreign institution.
- the master's degree was earned in the same or a closely related area of study.

Transfer Credit Limits

The sum of all transfer and waived credits may not exceed 50% of the total degree requirements of any doctoral degree, with one exception. An exception is possible for graduate students recruited to transfer to UCF when their faculty supervisor is being hired by UCF from another institution. In this case, the student's transfer is requested by his/her faculty supervisor (rather than initiated by the student), often to minimize disruption to the student's research and progress to degree. This exception allows the student to transfer up to 66.7% of the total degree requirements of the doctoral degree as long as the student completes at least 9 hours of graded coursework at UCF, earns Doctoral Candidacy at UCF, completes 15 hours of dissertation at UCF, and meets all other university policy requirements for external transfer credits.

All transfer and waived credits to be used toward a doctoral degree should be finalized by the end of the third major (fall/spring) term of program enrollment (based on full-time enrollment), and must be finalized prior to the change to candidacy status.

The thesis or dissertation credit requirements of a program may not be satisfied by waived or transfer credits.

Students may be required to obtain a Josef Silny or WES evaluation to obtain transfer or waived credits from recognized international institutions.

For students who do not have a completed graduate degree, the total number of transfer credits are limited to up to 15 credit hours, or up to all of the hours taken to fulfill an earned UCF graduate certificate.

For students in doctoral programs that require a master's degree for admission, the total number of transfer credits are limited to up to 15 credit hours, or up to all of the hours taken to fulfill an earned UCF graduate certificate. Credits from the required, earned master's degree may not be used to satisfy doctoral program requirements.

For students in doctoral programs that do not require a master's degree for admission, students with an earned master's degree from a regionally accredited institution or recognized foreign institution may:

- waive 30 credit hours of requirements and credits in a program of study; or
- transfer up to 30 credit hours from any earned masters degree in the same or a closely related area of study, provided a course-by-course review is performed.

Students who transfer up to 30 credit hours from any earned master's degree or who have 30 credit hours waived from an earned master's degree may also transfer up to 9 additional graduate credits, provided the sum of all transfer and waived credits does not exceed 50% of the total degree requirements.

Professional Development

Professional Conduct

Students are expected to adhere to the rules and regulations as stipulated by the University of Central Florida (UCF) and the Department of Statistics & Data Science (DSDS) Program handbook. Professionalism encompasses behaviors and qualities that are expected of graduate students in both the academic setting and in the professional world. University of Central Florida PhD big Data Analytics degrees begin at the time of program application; therefore, professional conduct is assessed from that point forward.
Attendance, timeliness, and attire are all reflections of professionalism. In the assessment of professionalism, instructors and program administrators will consider each student’s conduct; the quality of interactions; tone of oral and written communication; language; meaningful engagement in all aspects of the program; and substantive contribution to class discussions. Students who are in violation of these behaviors will be counseled and reminded of UCF/DSDS expectations. In such events, the faculty or program administrators

may conclude that the student is not able or willing to demonstrate an acceptable standard of courtesy and professionalism. Repeated disregard or violation of these behaviors will lead to dismissal from the program. Some of the criteria by which a student's professional demeanor is measured are below.

Communication: All communications between a graduate student and the department should start and go through the Graduate Coordinator. Only the Graduate Coordinator can evaluate and grant a request from a graduate student to move forward. Also, it is prohibited for a graduate student to cancel a scheduled activity (lecture, office hour, …) without the approval of the Graduate Coordinator.

Civility: Students are expected to behave in a respectful and courteous manner to instructors, fellow students, guest speakers, college and university administrators, DSDS staff, and other UCF Staff. Examples of respectful behavior include but are not limited to modulated tone of voice; professional language that avoids inappropriate, vulgar, or foul expressions; maintaining control of emotions and avoiding threatening or bullying behaviors; respect for others' personal space; respect for DSDS and UCF property; refraining from distracting and disruptive behaviors while on campus (DSDS or other UCF campuses), in hallways and in classrooms; and a generally civil demeanor.

Attendance: It is required for students to attend each lecture and comply with the instructor's attendance policy as stated in the course syllabus.

Timeliness: Students are expected to regularly arrive in class on time and to comply with each instructor's tardiness policy as stated in the course syllabus.

Use of Technology: The use of computers, cell phones, or electronic devices during class that are unrelated to course activities or not allowed by instructors (i.e., web searches, IMs, etc.) is considered unprofessional.

Use of Electronic Media: As per Florida Law (§ 934.03) it is illegal to audio or video record any interaction with another individual without their explicit consent. This includes lectures, meetings with instructors, meetings with fellow students, or any situation involving DSDS staff or UCF personnel.

Professional Attire: Refers to a minimum of business casual that may include pants, khakis, dress shirts, skirts, dresses, and jeans free of rips/tears/fraying that are neat and clean. Note that clothes that are revealing (plunging necklines, tank tops, open midriffs, short skirts/shorts, sheer fabrics); offensive T-shirts; sweatpants, leggings, workout clothes; thongs/flip-flops/Croc-like sandals; and overpowering perfumes/colognes can be distracting or annoying to others.

Guest Speakers / Presentations: The DSDS often invites guest speakers from UCF, other universities, or local businesses. Students in the program must demonstrate professional conduct, respect, and appreciation for these professionals' donation of their time to enrich students' educational experiences.

Students are expected to arrive at the talk on time and be attentive as a sign of appreciation for their time. Professional business attire is required when guest speakers are present.

Dismissal Policy and Process

A student may be dismissed if any of the following occurs:
The following may be grounds for dismissal from the DSDS programs.

- Receiving a “D” or “F” grade in a course listed as a part of the program’s curriculum. The student will be summarily dismissed from the program at that time.
- Failure to achieve ≥3.0 GPA after 9 credit hours of Academic Probation.
- Receiving more than 6 credit hours of “C” grades. Exceeding this limit is a reason for dismissal from the program.
- Students on Restricted Admission due to earning <70% on admission modules that do not achieve a grade of B or higher in all courses in the initial semester will be dismissed.
- Cheating: Which includes plagiarizing of materials from previously published sources or previously submitted course assignments. Students will not discuss the content of written or oral examinations until cleared to do so by the course instructor. See Golden Rule, UCF’s Student Handbook- Rules of Conduct.
- Unprofessional behavior: Behavior that is inconsistent with the aforementioned expected professionalism or failure to correct unprofessional behavior as defined by the DSDS handbook is grounds for dismissal from the Program. This includes failure to attend classes or excessive unexcused absences, or repeated lateness.

Annual Review
Information projected to be entered in 2021-2022.

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:ucf.catalog.acalog.com/index.php?catoid=4> Policies > General Graduate Policies.

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.

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.

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.

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.

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/.

Student Research Week/Student Scholar Symposium

Sponsored by the College of Graduate Studies, the Student Scholar Symposium 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 Student Research Week.
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 Job Opportunities webpage.
Occasionally there are opportunities for summer work for students. Interested students should contact the Director of this program.

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

- Big Data Analytics PhD
- 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
- Statistical Computing Program
- Student Health Services
- Student Life
- Thesis and Dissertation(ETD)
- UCF Global
- UCFIT
- University Writing Center

Graduate Faculty

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

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