



UNIVERSITY OF CENTRAL FLORIDA

Environmental Engineering MSEnvE Graduate Program Handbook

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Table of Contents

Introduction	1
Curriculum	1
Timeline for Completion.....	1
Approximate Timeline for Completion of Degree Program.....	1
Master's Students (Thesis):.....	2
Master's Students (Non-thesis):	2
Advising/Mentoring	2
Roles and Responsibilities.....	3
Plan of Study	3
Examination Requirements	3
Thesis Requirements.....	4
University Dissertation Requirements	4
General Requirements.....	4
Master's Thesis Committee	5
Graduate Research	5
Financial Support.....	5
Graduate Teaching.....	6
Presentation Support.....	6
Graduate Student Associations	6
Professional Development.....	7
Instructor Training and Development	7
Pathways to Success Workshops	7
Graduate Research Forum.....	7
Graduate Excellence Awards	8
Other	8
Job Search.....	8
Forms.....	8
Useful Links	9
Grad Faculty	9
Contact Info	10

Environmental Engineering MSEnvE

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

The Environmental Engineering MSEnvE graduate program focuses on pollution control, pollution prevention, and the correction of pollution impacts on natural and/or human environments. The program includes coursework in drinking water treatment, wastewater treatment, solid and hazardous waste management, atmospheric pollution control and modeling, community noise abatement, water resources modeling, and water resources. The program's overall mission is to prepare students for careers in consulting; federal, state, and local governments; higher education; and industry. Our key objectives include: producing graduates who have strong technical knowledge in critical areas of environmental engineering, providing a professional engineering education that challenges our graduates to think critically, and developing awareness of the changing environmental needs of society and the global environment.

Curriculum

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

Timeline for Completion

Approximate Timeline for Completion of Degree Program

Students must follow a prescribed, yet flexible path, achieving milestones along the way. Although there is no guarantee that each student will be able to complete all the requirements, if a student is hard working and diligent, and is a full-time graduate student, he or she should be able to complete a master's thesis program within 1 to 2 years. For non-thesis master's students who are working full-time and going to school part-time, it may take 3 to 6 years to achieve the degree.

The following listing is intended as a guide and reminder to students and faculty as to the approximate timing of events for graduate students. It is intentionally somewhat vague to account for different starting semesters, different research project needs, and different levels of student capabilities.

Master's Students (Thesis):

Semester 1: Enter UCF, and begin taking courses ensuring articulation courses (if needed) are taken first. If you are not already on a research project at the time of entry, begin searching for a research project and research adviser.

Semester 2: Find a research advisor and start research; complete articulation courses (as needed); continue taking graduate courses; and file a Plan of Study.

Semester 3: Begin working in earnest on research; start literature review; and perhaps finish coursework. Work with adviser to form a committee.

Semester 4: Finish coursework; begin wrapping up research; start writing thesis.

Last Semester: File intent to graduate. Finish writing thesis, get approvals from committee, and defend. Follow all College of Graduate Studies rules and meet all deadlines.

Note: Students are ultimately responsible for their own progress, including compliance with all rules and regulations of the University.

Master's Students (Non-thesis):

Semester 1: Enter UCF, and begin taking courses ensuring articulation courses (if needed) are taken first.

Semesters 2 and 3: Choose an adviser and design a Plan of Study. Continue taking courses.

Semester 4 and on: Take courses maintaining acceptable grades. In semester before last, request scheduling of the comprehensive final exam. Note there is a UCF rule (7-year statute of limitations on courses), so try to finish all your courses in 4 or 5 years.

Last Semester: File intent to graduate; take and pass the comprehensive final exam.

Note: Students are ultimately responsible for their own progress or lack of progress, including compliance with all rules and regulations of the University.

Advising/Mentoring

Advising and mentoring are two very important elements in a graduate student's career. Upon acceptance into the CECE department, graduate students are assigned a faculty adviser, who is identified to the student in the acceptance letter from the department. In most cases, the student will have indicated an area of interest in their application, and the faculty adviser will be specialized in that sub-discipline. The faculty adviser is a very important person in the life of a graduate student. The faculty adviser will most likely end up being the student's thesis adviser.

In some cases, incoming MS graduate students will not have indicated a strong research preference, or may arrive just prior to the start of the semester, and will need to register for courses before they can meet with their adviser, or may be assigned an adviser who does not fit comfortably with the student's interests. In those cases, the student will be advised into courses for at least the first semester by the graduate coordinator. New students should meet with the graduate coordinator upon arrival at UCF if they cannot meet with their adviser.

The graduate coordinator will provide initial guidance on overall academic requirements, program and university policies and procedures, while the faculty thesis adviser serves as a mentor providing direction on research, advice on plan of study, and guidance on other areas of academic and personal life. All non-thesis master's

students should contact the graduate coordinator for an initial interview (may be conducted by telephone), who may then assign an appropriate faculty adviser, or will advise the student directly.

Roles and Responsibilities

Faculty Adviser

- The adviser helps the student select which courses to take.
- The adviser (in consultation with the student) develops the student's plan of study.
- The adviser directs the student's research.
- For MS thesis option, the adviser reviews and approves the student's thesis.
- The adviser often provides financial support for the student (based on a research grant).

Student

- The student takes coursework as required, maintaining a minimum 3.0 GPA.
- The student maintains a full course load and works diligently to complete all requirements in a timely manner.
- The student (in consultation with the faculty adviser) develops a plan of study prior to completing the first 9 hours of coursework.
- The student identifies (in consultation with the faculty adviser) a suitable research topic.
- The student works in the lab or field or other venue as needed to complete his or her research.
- The student is responsible for knowing and meeting all university deadlines, rules, and regulations – see the section titled [Student Responsibilities](#) in the Graduate Catalog.
- If a student wants to change faculty advisers, the student should discuss the situation with his or her current faculty adviser first, and then request the change through the graduate coordinator. The change must be approved by the current faculty adviser, the new faculty adviser, and the graduate coordinator.

Plan of Study

The Plan of Study (POS) serves as an agreement between the student and the program, listing course and other requirements for completing the degree. Each student must have an approved Plan of Study (POS). The POS is developed by the student and his/her adviser and lists the specific courses to be taken as part of the degree requirements. The student must maintain a minimum GPA of 3.0 in his or her POS.

For all master's students, the POS must be signed and submitted during the first semester that the student is at UCF, or no later than upon completion of 9 credit hours of graduate coursework. The POS can be revised later to reflect necessary changes in the courses, but it is crucial that a POS be on file, signed by the student and the faculty adviser, and approved by the graduate coordinator. For each master's program, certain courses are required and others are elective (as was discussed previously). Any substitutions must be approved by the graduate coordinator.

Examination Requirements

Thesis Students: After conducting research and writing the thesis, the student will defend the thesis, and stand for an oral examination. Questions will come from the committee and may cover topics other than what was done in the research (e.g., topics from courses taken). The committee has the final say on whether the student passes or fails. If failed, this exam may be retaken once at the discretion of the committee.

Non-thesis Students: In the last semester of coursework, the student must contact his or her faculty adviser or the graduate coordinator to schedule the comprehensive final exam. The exam will consist of questions that

represent knowledge that should have been gained from the various courses taken by the student. The exam may be open or closed book or have questions of both types. If failed, this exam may be retaken once.

For additional information, see ucf.catalog.acalog.com/content.php?catoid=4&navoid=235 > Master's Program Policies.

Thesis Requirements

University Dissertation Requirements

A thesis is optional for this program; the following information is intended for those choosing to complete a thesis.

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.

General Requirements

- Students will complete a formal thesis on a topic selected in consultation with an advisory committee and will meet both departmental and university requirements for the thesis.
- A minimum of six credit hours of thesis credits is required.
- No more than six credit hours of thesis credits will be applied toward degree requirements.
- To be considered full-time after completion of coursework, students must be continuously enrolled in three hours of thesis research every semester (including summers) until successful defense and graduation. This enrollment each semester reflects the expenditure of university resources. Students that wish to enroll in part-time hours must consult with their adviser. For more details about enrollment, please refer to the UCF Graduate Catalog: ucf.catalog.acalog.com/index.php?catoid=4 > Policies > Master's Program Policies > Thesis Requirements > Thesis Enrollment Requirement and the UCF Graduate Catalog: ucf.catalog.acalog.com/index.php?catoid=4 > General Policies > Full-time Enrollment Requirements.

- A written thesis and final oral defense are required for each thesis student.
- The thesis document may be among the biggest academic efforts that you will ever make. It is required that all theses be officially submitted in electronic form. It is highly recommended that you (the student) discuss format and content with your adviser and carefully review other theses before you get started.

Master's Thesis Committee

- The thesis committee will consist of a minimum of three members. All committee members should hold a doctoral degree and be in fields related to the thesis topic. At least two members must be department faculty (one to serve as chair). Off-campus experts, joint faculty members, adjunct faculty, and other university faculty members may serve as the third person in the committee.
- In unusual cases, with approval from the department chair, two professors may chair the committee jointly. For additional information, please visit ucf.catalog.acalog.com/content.php?catoid=4&navoid=204.
- All members vote on acceptance or rejection of the thesis proposal and the final thesis. The final thesis must be approved by a majority of the advisory committee.

Graduate Research

Research is a vital part of graduate education. The development of research skills and the practice of good research ethics begin with graduate study. Faculty serve a crucial role and are the primary source for teaching research skills and modeling research ethics.

- In the CECE department, much of our research is carried out as a part of Contracted Sponsored Research. Faculty obtain sponsored research from many different government agencies, and/or industry, and thus commit the university to doing certain research tasks. Students are typically hired to help the faculty conduct the research, and as such are contractually obligated to give their “best efforts” to accomplishing the research tasks. In most cases, students who are supported on contracts may use the results of their work as the basis for their thesis.
- Faculty research interests include drinking water treatment, wastewater treatment, storm water quality control, air pollution control and modeling, solid waste engineering, and community noise control and modeling.
- It is important to be honest and ethical in conducting research as well as in taking classes. Report all data factually and completely. Please see Thesis and Dissertation Requirements at ucf.catalog.acalog.com/content.php?catoid=4&navoid=204.
- Patents and inventions may arise from the faculty and graduate student research. UCF has clear guidelines and a Patent and Invention Policy in the Graduate Catalog. Please see ucf.catalog.acalog.com/content.php?catoid=4&navoid=201.
- Students should be aware that in our department, we require that theses be written in a journal article format. The university conducts workshops on thesis and dissertation formatting, library research, and writing essentials. Students, when beginning to write their thesis, should always see the College of Graduate Studies Thesis and Dissertation website graduate.ucf.edu/thesis-and-dissertation/. It is highly recommended that each student coordinate with his or her faculty adviser as to the preferred journal format, prior to beginning to write the thesis.
- There are specific Laboratory Safety Procedures that must be followed by each student working in a lab in the CECE Department. It is department policy that each student is responsible for knowing and following the safety procedures. Please see the laboratories manager and/or your faculty adviser to get a copy of the safety procedures for the appropriate lab.

Financial Support

Financial support is a major concern for graduate students, especially since many rely on financial support from the university to pursue graduate study. In combination, the college, the university, and the department provide financial assistance to graduate students in several ways: (1) fellowships and scholarships are available to

academically outstanding students, (2) Graduate Teaching Assistantships – GTAs (for grading or for lab teaching) are available in limited numbers, (3) Graduate Research Assistantships – GRAs (for helping faculty with research) are more widely available depending on the funding levels of the faculty.

- The thesis option is the only option for students who are receiving a fellowship or assistantship (GTA or GRA) from the department.
- Students with assistantship agreements are expected to work 10 to 20 hours per week on their assigned tasks (whether it be grading, lab teaching, or research), while they are maintaining satisfactory progress in completing their academic courses.
- To maintain financial support, students must meet their obligations by making satisfactory progress towards their degree, enrolling full time, maintaining a 3.0 GPA in their Plan of Study, and doing acceptable research or grading or teaching work as defined by their supervisor.
- The duration of financial support may vary from one semester to another.
- International students are expected to be here as full-time students, and may not work off campus except under certain strict conditions. For information about the types of employment available to international students, and the requirements and restrictions based on visa type, see the International Services Center's website: global.ucf.edu/ > Students > Employment.

Graduate Teaching

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 graduate.ucf.edu/graduate-teaching/ for training requirements and registration instructions.

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.

Presentation Support

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

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 your program adviser.

Professional Development

A graduate student's professional development goes beyond completing coursework, passing exams, conducting research for a thesis, and meeting degree requirements. Professional development also involves developing the academic and nonacademic skills needed to become successful in the field of choice.

- UCF has an active professional development program for graduate students, including the Professoriate Program, sponsored by Faculty Center for Teaching and Learning, the GTA Certificate Program, sponsored by FCTL, the Pathways to Success Workshops, the Graduate Research forum, sponsored by the College of Graduate Studies, and special award recognitions such as the Award for Excellence by a Graduate Teaching Assistant, the Award for Excellence in Graduate Student Teaching, the Award for the Outstanding Master's Thesis, and the Award for the Outstanding Dissertation (see section below for more information).
- Students are expected to publish the results of their research. In fact, the CECE department strongly encourages students to write their thesis in the journal paper format.
- Graduate students in CECE are encouraged to present a poster or a topic of research at conferences while still a student, and often their faculty mentor will be able to fund one or more such opportunities. See the Financial Support section of this handbook for information about travel support.

Instructor Training and Development

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 instructors in a two-day workshop. The seminars cover a variety of topics, including course development, learning theories, lecturing, and academic freedom. Those interested in additional training can also attend an optional training session that normally follows the mandatory training.
- **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.
For more information: fctl.ucf.edu/ > Events > GTA Program or call 407-823-3544.

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 Research Forum

The Graduate Research Forum will feature poster displays representing UCF's diverse colleges and disciplines. It is an opportunity for students to showcase their research and creative projects and to receive valuable feedback from faculty judges. Awards for best poster presentation in each category will be given and all participants will receive recognition.

The College of Graduate Studies and the Graduate Student Association invite all UCF students, community, and employers to attend the Graduate Research Forum. For more information, contact researchweek@ucf.edu.

Graduate Excellence Awards

Each year, the College of Graduate Studies offers graduate students who strive for academic and professional excellence the opportunity to be recognized for their work. The award categories include the following:

Award for Excellence by a Graduate Teaching Assistant – This award is for students who provide teaching support and assistance under the direction of a lead teacher. This award focuses on the extent and quality of the assistance provided by the student to the lead instructor and the students in the class. (Not intended for students who are instructor of record)

Award for Excellence in Graduate Student Teaching – This award is for students who serve as instructors of record and have independent classroom responsibilities. The focus of this award is on the quality of the student's teaching and the academic contributions of those activities.

Award for the Outstanding Master's Thesis – It recognizes graduate students for excellence in the master's thesis. The focus of this award is on the quality and contribution of the student's thesis research. Excellence of the master's thesis may be demonstrated by evidence such as, but not limited to: publications in refereed journals, awards and recognitions from professional organizations, and praise from faculty members and other colleagues in the field. The university award will be forwarded to a national-level competition sponsored by the Council of Southern Graduate Schools (CSGS) when the thesis discipline corresponds to the annual submission request.

For the nomination process and eligibility criteria, see the College of Graduate Studies administrative graduate.ucf.edu/awards-and-recognition/.

Other

For information about the Council of Southern Graduate Schools (CSGS) thesis and dissertation awards, see their website: csgs.org/ > Awards.

For grant-proposal writing resources: uwc.cah.ucf.edu/ > Writing for Graduate School.

Job Search

UCF's Career Services department offers a wide range of programs and services designed to assist graduate students. These services include evaluation and exploration of career goals, preparation for the job search and job search resources. To learn more, visit their website at career.ucf.edu/.

For specific services or resources provided by the academic program, please contact the graduate program director or academic adviser.

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

- [Civil, Environmental, and Construction Engineering](#)
- [College of Engineering and Computer Science](#)
- [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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Research interests: Drinking Water Quality, Treatment, Distribution System, Aeration, Membranes, Ion Exchange, Granular Activated Carbon, Coagulation, Filtration, Disinfection, Disinfection By-products, Operations Research, Stabilization Corrosion Control

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