



UNIVERSITY OF CENTRAL FLORIDA

# Aerospace Engineering PhD Graduate Program Handbook

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# Aerospace Engineering PhD

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 College of Graduate Studies.

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

Welcome to UCF's Aerospace Engineering PhD Program! Promoting student success is a primary goal of the program. This serves the best interests of the students, faculty, program, and university. This graduate handbook serves as a guide for all Aerospace Engineering doctoral students (as well as faculty and staff) within the Aerospace Engineering program. In this handbook, we have consolidated and explained many of the details of the graduate student policies and procedures at UCF, as well as specific rules within the Department of Mechanical and Aerospace Engineering (MAE). The objective of the doctoral handbook is to provide effective direction and guidance to graduate students that will lead to their success at UCF. Since the Graduate Catalog serves as the primary source for general policies, this handbook serves as a supplement, providing a more detailed and specific policy manual for students in the program.

The doctoral program in Aerospace Engineering (AE) at UCF is distinguished by offering an outstanding selection of courses and providing students with state-of-the-art research opportunities working with faculty mentors who are active in a wide range of sponsored research. The result is education through research. Students in the graduate AE doctoral program may be supported financially by graduate teaching assistants (GTA) or graduate research assistantships (GRA). The requirements of these positions include teaching and/or research tasks with clear objectives and scientific foundation. During their research, students may develop significant interactions with scientists and engineers from outside UCF and have opportunities for presentations/publications at local, national, and international conferences. In addition to the challenging coursework, the "education through research" approach provides graduates with both scientific competency and a polished professionalism.

The objective of this Handbook is to help students understand the process of completing their graduate degree at UCF, to provide information on resources that will help them develop academically and professionally, and to define the responsibilities of the student to complete the degree program. The Handbook also will serve as a reference tool to guide graduate students through their graduate program and to help students stay on track for degree completion. It also will help faculty and staff to guide those students effectively.

## Advising/Mentoring

Advising and mentoring are two of the greatest elements that bring success to a doctoral student's career. The faculty advisor is a very important person in the life of a graduate student. The faculty advisor will, most likely, end

up being the student's thesis or dissertation committee chair. The Graduate Coordinator, however, will provide initial guidance to new students on overall academic requirements and the program/university policies and procedures. The faculty advisor serves as the primary mentor providing direction on research, advice on plan of study, and guidance on other areas of academic, professional, and even personal life.

## **Roles and Responsibilities**

### **Faculty Advisor**

- helps the student select courses to take
- provides feedback and recommendations on the student's plan of study
- directs the student's research
- reviews and approves the student's thesis or dissertation
- often provides financial support for the student (e.g., based upon a research contract)

### **Student**

- takes coursework as required, maintaining a minimum 3.0 GPA
- maintains a full course load and works diligently to complete all requirements in a timely manner
- develops (in consultation with the faculty advisor) a plan of study prior to completing the first nine hours of coursework
- remains informed of all rules, regulations, and procedures required for graduate studies.

This last item is critical: the graduate program regulations will not be waived, nor will exceptions be granted, because students plead ignorance of the regulations or claim failure of the advisor to keep them informed.

The process in which a student should obtain a faculty advisor is by contacting the various Aerospace Engineering faculty and seeing where there is a common research interest. It is entirely the responsibility of the student to find an advisor. The student should do so within the first few weeks of their studies at UCF. When there is no formal advisor, the Graduate Coordinator can serve as the default academic advisor, until a formal advisor can be found.

The student-advisor relationship is crucially important for both parties, and it is in their best interests to maintain this relationship by communicating frequently and openly. In the rare case when either party desires a change, the need for a change should be discussed with the program Graduate Coordinator.

## **Plan of Study**

The plan of study serves as an agreement between the student and the program, listing all courses necessary for completing degree requirements. Students, with the consultation of their advisor, decide on a course of study for meeting the degree requirements and complete the plan of study form. The plan of study will then serve as a guide for the student to follow and a reference tool for the AE program to track the academic progress of the student. The plan of study (sometimes called a program of study) is completed online and is available via links on the [MAE website](#) and the [CECS Office of Graduate Affairs website](#). Students should submit this form via the online portal, at which point advisors will receive an email with instructions to approve the plan of study or return it for additional edits. At this point, it will go to the AE Graduate Coordinator and College for approval and filing in the student's permanent file. It must comply with the student's relevant catalog.

Plans of study for students seeking a doctoral degree should be on file prior to completion of the initial nine hours of graduate coursework. The student and advisory committee may make changes in the plan of study at any time with approval of the graduate program director. However, once established, the plan study cannot be altered solely due to poor academic performance of the student.

All doctoral students must maintain a minimum 3.0 GPA for their graduate studies at UCF and on their plan of study coursework. If a student, with the agreement of their faculty advisor, wishes to make changes on their plan of study,

they must follow the same process as submitting an initial plan of study. All approvals must be obtained again and the updated plan of study on file with the College.

## **Incomplete Grades**

A grade of “I” (incomplete) may be assigned by the instructor when a student is unable to complete a course due to extenuating circumstances and when all requirements clearly can be completed in a short period of time following the close of regular classes. In all circumstances where an “I” grade is received, the student and instructor must complete an agreement form that specifies how and when the incomplete grade will be made up. The instructor submits this agreement form with grade rolls at the end of the semester, and a copy of this agreement is given to the College for further follow-up. After completing the agreed upon course requirements, it is the student’s responsibility to arrange with the instructor for the change of the “I” grade. For those students on financial assistance such as loans, the incomplete (I) must be made up by the agreement date. Failure to complete the agreed upon course requirements by the agreement date typically converts the grade to “F” for courses with letter grades and “U” (unsatisfactory) for courses with S/U grades (e.g., thesis, dissertation, or research hours).

All grades of “I” must be resolved within one calendar year or prior to graduation, whichever comes first. Incompletes in regular course work left unresolved will be changed to “F” if not changed in the allowed time period, and this time period may be sooner for those receiving financial assistance. The exception to this is enrollment in thesis (EAS 6971) and dissertation (EAS 7980) hours, in which case the incomplete grade may be allowed to continue until graduation. UCF fellowship students cannot receive fellowship funds while holding incomplete grades and have thirty days from the issuance of the Incomplete to remedy it in order to continue to receive fellowship funds.

## **Graduation**

Graduation is the culmination of a challenging and rewarding journey in the pursuit of a higher degree. To get to this pinnacle, it takes dedication, sacrifice, and hard work (and meeting all UCF processes and deadlines). In order to eliminate or reduce the potential for any unnecessary delays or complications with graduation, each student must be aware of and comply with all degree requirements and deadlines, and each student must pay close attention to all deadlines to submit all necessary forms on time.

## **Forms and Deadlines**

The following three documents are needed when applying to graduate: Intent to Graduate Form, Graduate Exit Survey, and Final Plan of Study. They are to be submitted to the AE admissions specialist by the end of the semester PRIOR to the semester of graduation. For example, if a student is planning on graduating in Spring of a given year then those forms are due by the end of the preceding Fall semester. The forms can be found online or from the Office of Graduate Affairs for the College of Engineering and Computer Science in ENG 1, Room 281. The final plan of study should indicate every class that has been taken to satisfy the doctoral requirements.

## **Overview of Important General Graduate Policies**

### **Student Responsibility to Remain Informed**

It is the student’s responsibility to remain informed of all rules, regulations, and procedures required for graduate studies. Graduate program regulations will not be waived or exceptions granted because students plead ignorance of the regulations or claim failure of the adviser to keep them informed.

## Definitions of Formal Course Work

**Formal courses:** Existing UCF courses that involve standard class instruction of a defined body of disciplinary knowledge. These courses involve interactions between a formal course instructor and the students that make up the class and can be traditional, face-to-face courses, web courses, and media-enhanced courses. Such classes include both core/required courses as well as elective courses, seminar courses, and independent study courses (EAS 6908) but are distinct from the various categories of individualized research and scholarly courses.

**Independent Study (EAS 6908):** A course of study created outside of the standard-format formal courses offered by the university. Independent Study must have a formally defined core of knowledge that the student(s) will learn. This core of knowledge must be specified and approved by the student(s), the instructor, and the program coordinator as part of the special registration process prior to enrollment in Independent Study.

## Definitions of Research and Scholarly Work

**Directed Research (EAS 6918)** – Graduate-level research/scholarly work; research hours taken at the graduate level. These can include laboratory rotations in addition to standard research and scholarly endeavors directed toward completion of a project.

**Doctoral Research (EAS 7919)** – Doctoral-level research/scholarly work; research hours at the doctoral level taken prior to passing the candidacy exam. These can include laboratory rotations, preparation for candidacy exams, or standard research and scholarly endeavors directed toward completion of a project or dissertation.

**Doctoral Dissertation (EAS 7980)** – Research or scholarly hours taken after advancement to candidacy and directed toward completion of a dissertation.

The AE program recommends that students register for Directed Research (EAS 6918) prior to passing the Qualifying Exam and for Doctoral Research (EAS 7919) after passing the Qualifying Exam. As of the Fall 2024 Graduate Catalog, no more than 18 hours of combined directed research, doctoral research and independent study may be included in a doctoral plan of study. Specific tracks may impose a lower limit.

## Full-time Enrollment Requirements

A full-time, degree-seeking, graduate student must take at least nine credit hours in the fall and spring semesters. A half-time load is defined as enrolled in at least 4.5 credit hours in fall and spring terms. During the summer term, full-time is six credit hours and half-time is three credit hours. Graduate students receiving assistantships, tuition support, and fellowships must be enrolled as full-time degree-seeking students and maintain good academic progress. Students who wish to enroll in part-time hours should consult their adviser.

For doctoral students who have passed the candidacy exam and are registered for doctoral dissertation (EAS 7980) hours only, full-time is three hours per semester until graduation. Such students must continue to enroll in at least three dissertation hours each semester (including summers, without skipping a semester) until they successfully complete the dissertation and graduate.

## Review of Academic Performance

The primary responsibility for monitoring academic performance standards rests with the degree program. However, the academic college and the UCF College of Graduate Studies will monitor a student's progress and may dismiss any student if they fail to maintain performance standards or academic progress as specified by the program, college or university. Satisfactory academic performance in a program includes maintaining at least a 3.0 graduate status GPA (defined below) in all graduate work taken since admission into the program. Satisfactory performance also involves maintaining the standards of academic progress and professional integrity expected in a particular

discipline or program. Failure to maintain these standards may result in dismissal of the student from the program. For more details on the process of academic probation and dismissal governed by the College of Graduate Studies, please review the [Academic Performance Policies](#).

## **Continuous Attendance**

Failure to enroll in three consecutive semesters (spring, summer, and fall) is considered non-continuous enrollment.

Students are expected to maintain enrollment and to complete their graduate study expeditiously. A Special Leave of Absence should be requested when students anticipate they will not be enrolled for three consecutive semesters or more. If students are not enrolled in the university for a period of three consecutive semesters (spring, summer, fall) and do not obtain Special Leave of Absence approval for such interruptions in their plans of study, they will be discontinued and must reapply for admission. Readmission is not guaranteed.

All (domestic and international) students taking thesis or dissertation hours are required to be enrolled continuously (including summer) until the thesis or dissertation is completed.

Because of U.S. government regulations, international students must be enrolled every fall and spring semester. For students in this category, Special Leave of Absence is only available for documented medical reasons.

A student without an approved Leave of Absence who breaks continuous enrollment will lose the option of fulfilling the degree requirements originally listed in his/her official plan of study already on file and instead will fulfill the degree requirements listed in the graduate catalog in effect at the time the student resumes his/her attendance.

## **Reminder to International Students Regarding Employment**

According to U.S. Citizenship and Immigration Services (USCIS) regulations, graduate students who are on an F-1 or J-1 visa may accept employment on campus without prior USCIS approval as long as students are enrolled full-time and employment does not interfere with their studies.

Graduate students who desire to engage in off-campus employment must be approved by the UCF Global for Curricular Practical Training (CPT) prior to beginning the employment. CPT is defined as employment that is an integral part of the established curriculum and can be in the form of an internship or cooperative educational experience. In order to qualify for CPT, there are several requirements that must be met. Please speak with an adviser at the UCF Global for more information on these requirements and prior to engaging in off-campus employment.

During the fall and spring semesters, on-campus employment is limited to no more than 20 hours per week while school is in session. During the summer, on-campus employment may be up to 40 hours per week. (Please note that all graduate assistants during the summer must enroll in a full-time course load.) Employment may also be up to 40 hours per week during vacation or other break periods. Please speak with an adviser at the UCF Global for clarification of these policies.

On-campus employment is not permitted after completion of the program of study unless the student is issued a Form I-20A-B to begin a new program and intends to enroll in the next regular academic term or session.

Students who received a bachelor's degree at one school and will start a master's degree or PhD at UCF are eligible to work during the summer at UCF as long as a Form I-20A-B was issued for the new master's or PhD program.

International students on an F-1 visa are eligible to apply for one year of optional practical training (OPT) after completion of their program.

For more information about the employment of international students, contact the UCF Global at (407) 823-2337 or visit the office to speak with an advisor.



## Aerospace Engineering Program Policies

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 also are expected.

The doctoral degree program requirements will consist of core and elective courses, seminars, directed and doctoral research, independent study, and dissertation research.

- Each doctoral plan 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 plan of study.
- All graduate credit in a doctoral program must be at the 5000-level or higher.
- At least one-half of the credit hours used to meet program requirements must be in 6000- or 7000-level courses, including the allowed number of research and dissertation hours.
- Only graduate-level credit with a grade of "C-" or higher may be used to satisfy degree requirements.
- A university-wide minimum of at least 27 hours of formal course work exclusive of Independent Study (EAS 6908) is required for all doctoral programs; the Aerospace Engineering PhD requires a minimum of 39 hours of formal course work. Students entering the program with a master's degree are required to complete 15 hours of formal course work, as well as any university-level requirements on formal course work.
- A university-wide minimum of at least 15 hours of dissertation credits is required for all doctoral programs, although some programs require a greater number of dissertation hours.

### Course Levels

**6000- and 7000-Level Courses:** Minimum of 36 credit hours (including courses taken in a master's program) must be in 6000-level and 7000-level courses, which are designed, respectively, for graduate students and doctoral students only. For students with waived hours from an earned master's, this amount is at least one-half of the program hours remaining after the waived hours are applied.

### Time Limitation and Continuous Enrollment

A student has seven years from the date of admission to the doctoral program to complete the dissertation and earn the doctoral degree. No courses used in a plan of study may be older than seven years at the time of graduation. There is no time limitation for waived or transferred hours from a completed master's degree used toward a doctoral degree.

Students who anticipate being away from UCF for an extended period (at least one term) due to extenuating circumstances (e.g., illness, injury, family needs, military deployment) should apply for a Special Leave of Absence. Students should be proactive in maintaining accurate records with the university and petition for a Special Leave of Absence prior to the need, if possible. When not possible, students should do so promptly after the need arises.

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.

## Transfer Credits

Graduate transfer credits consist of hours completed at a regionally accredited institution (including UCF) or recognized international institution. In the past few years, UCF has updated its policies around transfer credits. The definitive [Transfer of Credit policy](#) is in the catalog.

To request transfer credit, a student should submit a plan of study that includes the requested courses and their equivalent course at UCF during the first semester of enrollment (i.e., the student's admit term). Requests must be received by the end of the semester following their admit term. A student seeking transfer credit should make an appointment for a joint meeting with the Graduate Coordinator and their advisor to discuss the courses that may be eligible for transfer credit. The following documents typically are required:

- transcript from prior institution(s) that includes the requested course(s) name and number
- syllabi from the courses to be transferred
- syllabi from the equivalent courses at UCF (the student's faculty advisor can help gather these materials)

The Graduate Coordinator will review the student's transcript and associated syllabi to decide whether transfer credit is appropriate. In some cases, additional review with faculty in the relevant areas may be necessary. Upon approval by the Graduate Coordinator, the College of Graduate Studies also will review and determine whether transfer credit is appropriate. The following limits apply to transfer requests for all degree programs, including the Aerospace Engineering PhD:

- The total number of transfer credits cannot exceed 50% of the UCF degree requirements, and at least 15 credit hours of graded (A-F) courses must be taken at UCF once admitted.
- Only graduate-level courses taken post-baccalaureate with a grade of "B" or high can be transferred. No S/U or Pass/Fail courses can transfer.
- Transfer of international credits may be permitted with the required Josef Silny and Associates, Inc. or World Education Services (WES) transcript evaluations (see Admissions Equivalency Information). If the official transcript or syllabus are not provided by the international institution in English, the student should provide a translation performed by a certified translator at the issuing institution, government agency, or by a translator certified by the American Translators Association (<https://atanet.org/>).
- Courses older than 7 years cannot be transferred unless they have been reviewed and approved by a formal committee comprised of graduate faculty in the program. Program-level approvals must be accompanied by statements demonstrating the currency of the course content in the context of the student's experience. The course must then be approved by the dean or dean's designee of the relevant college. Approval documentation must be attached with the transfer request to the College of Graduate Studies. All other transfer policies apply. Approved courses are valid if the student maintains continuous enrollment in the graduate program. If the student is readmitted after discontinuation or dismissal, the student must initiate a new transfer request for courses older than 7 years.
- There are several exceptions to this list of constraints (see the full [Transfer of Credit policy](#)), including:
  - To minimize disruption to the student's research and progress to degree, graduate students recruited to transfer to UCF when their faculty supervisor is being hired by UCF from another institution may transfer up to 2/3 of the total degree requirements if all other transfer requirements are met. In this case, the student's transfer must be requested by the faculty supervisor being hired by UCF (rather than initiated by the student). This exception still requires the student to complete the following at UCF: a minimum of 9 hours of graded coursework, the requirements for Doctoral Candidacy, and a minimum of 15 hours of dissertation.

## Curriculum

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

# Timeline for Completion

## Timeline for Students with an Aerospace Engineering Masters of Science Degree

(Or closely related MS degree) and transferring 30 hours from the MS – electives should be coordinated with your PhD thesis advisor and/or with the graduate program coordinator.

### 1<sup>st</sup> Year of Graduate Training

Fall	Spring	Summer
<ul style="list-style-type: none"><li>EML 5060 Math. Methods in MAE (3 hours)</li><li>Electives (6 hours)</li></ul> Semester Total: 9 credit hours	<ul style="list-style-type: none"><li>Elective (9 hours)</li></ul> Semester Total: 9 credit hours	<ul style="list-style-type: none"><li>Directed Research, optional</li></ul> Semester Total: 6 credit hours

### 2<sup>nd</sup> Year of Graduate Training

Fall	Spring	Summer
<ul style="list-style-type: none"><li>Electives (9 hours)</li><li>Qualifying Exam</li></ul> Semester Total: 9 credit hours	<ul style="list-style-type: none"><li>Electives/Doctoral research (9 hours)</li><li>Candidacy Exam</li></ul> Semester Total: 9 credit hours	<ul style="list-style-type: none"><li>EAS 7980 Dissertation</li></ul> Semester Total: 3 credit hours

### 3<sup>rd</sup> Year of Graduate Training

Fall	Spring	Summer
<ul style="list-style-type: none"><li>EAS 7980 Dissertation</li></ul> Semester Total: 3 credit hours	<ul style="list-style-type: none"><li>EAS 7980 Dissertation</li></ul> Semester Total: 3 credit hours	<ul style="list-style-type: none"><li>EAS 7980 Dissertation</li></ul> Semester Total: 3 credit hours

### 4<sup>th</sup> Year of Graduate Training

Fall	Spring
<ul style="list-style-type: none"><li>EAS 7980 Dissertation</li></ul> Semester Total: 3 credit hours	<ul style="list-style-type: none"><li>EAS 7980 Dissertation</li><li>Dissertation Defense</li></ul> Semester Total: 3 credit hours

## Optional Timeline for Students without an Aerospace Engineering or closely related Master's Degree

### 1<sup>st</sup> Year of Graduate Training

Fall	Spring	Summer
<ul style="list-style-type: none"> <li>Required courses from MS track (6 hours)</li> <li>Elective (3 hours)</li> </ul> Semester Total: 9 credit hours	<ul style="list-style-type: none"> <li>Required courses from MS track (6 hours)</li> <li>Elective (3 hours)</li> </ul> Semester Total: 9 credit hours	<ul style="list-style-type: none"> <li>Doctoral Research, optional</li> </ul> Semester Total: 6 credit hours

### 2<sup>nd</sup> Year of Graduate Training

Fall	Spring	Summer
<ul style="list-style-type: none"> <li>Electives (9 hours)</li> </ul> Semester Total: 9 credit hours	<ul style="list-style-type: none"> <li>Electives (9 hours)</li> <li>Qualifying Exam</li> </ul> Semester Total: 9 credit hours	<ul style="list-style-type: none"> <li>Doctoral Research, optional</li> </ul> Semester Total: 6 credit hours

### 3<sup>rd</sup> Year of Graduate Training

Fall	Spring	Summer
<ul style="list-style-type: none"> <li>Electives (3 hours)</li> <li>Doctoral Research</li> </ul> Semester Total: 9 credit hours	<ul style="list-style-type: none"> <li>Doctoral Research</li> <li>Candidacy Exam</li> </ul> Semester Total: 9 credit hours	<ul style="list-style-type: none"> <li>EAS 7980 Dissertation</li> </ul> Semester Total: 3 credit hours

### 4<sup>th</sup> Year of Graduate Training

Fall	Spring	Summer
<ul style="list-style-type: none"> <li>EAS 7980 Dissertation</li> </ul> Semester Total: 3 credit hours	<ul style="list-style-type: none"> <li>EAS 7980 Dissertation</li> </ul> Semester Total: 3 credit hours	<ul style="list-style-type: none"> <li>EAS 7980 Dissertation</li> </ul> Semester Total: 3 credit hours

### 5<sup>th</sup> Year of Graduate Training

Fall
<ul style="list-style-type: none"> <li>EAS 7980 Dissertation</li> <li>Dissertation Defense</li> </ul> Semester Total: 3 credit hours

# **Examination Requirements**

## **Qualifying Exam**

Usually taken within the first two years for students who have completed an MS degree and after 30 hours of coursework for students entering into the PhD program directly from the BS. The doctoral qualifying exam is offered twice each year, during the fall and spring semesters. This is a three-day written examination consisting of open- and/or closed-book questions and is intended to evaluate the student's mastery of the field of Aerospace Engineering. The subject matter for the examination includes undergraduate-level and introductory graduate-level topics. The AE faculty determine the questions and grading of the exam, which is done on a pass/fail basis. The exam may be re-taken at the discretion of the AE faculty.

## **Candidacy Exam**

The candidacy exam is scheduled by mutual agreement of the student and their dissertation committee. The student must prepare a written description of their proposed dissertation research and share this document with the committee two weeks prior to the examination. Additionally, the student must present their proposed dissertation research to their dissertation committee during the candidacy examination. The committee often poses questions to the student during the examination, typically on topics relevant to the proposed dissertation research. The exam may be re-taken at the discretion of the dissertation committee.

# **Dissertation Requirements**

## **Admission to Candidacy**

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. The candidacy examination should be taken when the student is nearing the end of course work. The exam is administered by the members of the student's dissertation advisory committee. External committee members of the dissertation advisory committee are not appointed until after the student has passed the Candidacy exam. Admission to candidacy will be approved by the Program Coordinator and College then forwarded to the UCF College of Graduate Studies for status change. Only after admission to candidacy may a student register for doctoral dissertation hours (EAS 7980).

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 (EAS 7980) each semester (including summer) until the dissertation is completed. Students wishing to enroll in part-time hours should consult with their adviser.

## **Dissertation Advisory Committee Membership**

Doctoral students must have a Dissertation Advisory Committee prior to the Candidacy Examination. The Committee must consist of a minimum of four members: three must be faculty members of the graduate program faculty approved to direct dissertations, one of whom is qualified to serve as Chair, and one must be at large from outside the degree program. The committee Chair must be a member of the graduate faculty approved to direct dissertations. Adjunct faculty and off-campus experts may serve as the "outside" person in the committee. The College of Graduate Studies reserves the right to review appointments to advisory committees, place a representative on any advisory committee, or appoint a co-adviser. At least three members and a majority of the committee must have Graduate Faculty status. Additional information regarding the criteria for serving as a member,

co-chair, or chair of a Dissertation Advisory Committee is provided in the [Graduate Faculty and Graduate Faculty Scholars policy](#).

Committee membership must be approved by the Program Coordinator and submitted to the College of Graduate Studies. All members must have expertise 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.

In unusual cases, with approval from the department Chair, a professor may serve as a co-chair of a committee. Joint faculty members may serve as committee chairs, but off-campus experts and adjunct faculty may not serve as committee chairs.

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 advisory committee.

## **Responsibilities of Members of Doctoral Advisory Committees**

See the full [Graduate Faculty and Graduate Faculty Scholars policy](#) in the Graduate Catalog.

### **Responsibilities of all members of doctoral advisory committees**

- To meet at regular intervals at least once per year to: (i) discuss and approve the proposed dissertation research and the plans for carrying out the research; and (ii) to assess progress towards the dissertation and give the student a yearly letter of evaluation in addition to S/U grades awarded for 7980 courses.
- To review iThenticate results from dissertation submittals.
- To participate in the candidacy and/or dissertation prospectus examination.
- To participate in the dissertation defense to assure: (i) that the dissertation is acceptable as original research and a contribution to the discipline; and (ii) that it meets the standards of the University.

### **Responsibilities of the chair (and co-chair) of doctoral advisory committees**

- In cooperation with the Graduate Coordinator, to review the program of study, the research, and all other degree requirements by meeting with the student early in the program and immediately after appointment as chair/co-chair.
- To suggest to the student possible committee members who could serve on the dissertation committee.
- To establish timelines for the research, set expectations, and evaluate the student progress based upon these.
- To meet at regular intervals with the student to discuss the proposed dissertation research and the plans for carrying out research.
- To review in a timely manner all written materials submitted by the student and offer suggested revisions.
- To meet at least once per year with the student and the dissertation committee to assess progress toward the dissertation and give the student an annual review in addition to the S/U grades awarded for 7980 courses. The chair shall send the annual review to the program director after consultation with the dissertation committee.
- To coordinate the ongoing efforts of the committee as its chair, and to participate fully in the responsibilities of the committee members as a member of the dissertation committee.
- To chair the candidacy and/or dissertation prospectus examinations.
- To be physically present and chair the dissertation defense, ensure its proper conduct as described above, and submit to the program director for the student's records all necessary grades, forms and other materials.

## Responsibilities of the external committee member of a dissertation advisory committee

- External committee membership will entail the full responsibilities of other committee membership as specified above, including being present at the final defense.
- External committee members should bring specific disciplinary knowledge or research expertise to the committee.

It is the responsibility of the student, with agreement from their committee members, to schedule the date, time, and location of their candidacy exam. There are room reservation listings available online that can be used to schedule a classroom and/or conference room on campus. The CECS Office of Graduate Affairs maintains an [online list](#) with relevant points of contact. The student can seek the assistance of the AE program assistant to reserve a room if needed.

## Converting Doctoral Research to Dissertation

In the semester that a student successfully passes their candidacy exam, they are allowed to register for Doctoral Research credit hours and have those hours converted to dissertation hours once they formally pass their candidacy. The candidacy exam must be passed before the withdrawal deadline for that semester (this signifies the halfway point of the semester). The process for converting the hours is that the faculty advisor for that student submits a memo or informal email to the program assistant approving that their student has passed the candidacy exam. That memo/email is then used as the necessary backup for converting the student's hours from doctoral research to dissertation with the College. It is at this stage in the process when the student formally decides their committee members for their dissertation. The member names are to be listed on the candidacy memo/exam.

## Dissertation

A doctoral student's dissertation may be among their biggest academic efforts that they ever make. It is highly recommended for a student to discuss format and content with their advisor, and to peruse other dissertations before getting started.

The following is from the [UCF Graduate Catalog Dissertation Requirements](#) section:

"Dissertations are required in all PhD programs. For EdD programs, some tracks require a dissertation, while others require a dissertation-in-practice (see the program information for a description of a dissertation-in-practice). 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 very 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."

## University Dissertation Requirements

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.

All university deadlines are listed in the [Academic Calendar](#).

**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](#). The webcourse contains the format review (as an assignment), instructions for the final submission, and instructions for the Dissertation Approval Form. Students can receive formatting help during various hours Monday-Thursday from an ETD Graduate Ambassador in the Graduate Student Center (TCH 213). Students seeking assistance should make an appointment using the [formatting help Calendly](#). In addition, students may send formatting questions to [ETDHelp@ucf.edu](mailto:ETDHelp@ucf.edu).

The College of Graduate Studies offers several thesis and dissertation workshops each term, listed on the [Thesis and Dissertation website](#). Students are highly encouraged to attend these workshops early in the dissertation process to understand the above policies and procedures fully.

The College of Graduate Studies thesis and dissertation office is best reached by email at [editor@ucf.edu](mailto:editor@ucf.edu).

## Enrollment in Dissertation Hours

The university requires all doctoral students to take a minimum of 15 credit hours of doctoral dissertation hours. Dissertation research is considered to be a full-time effort, and post-candidacy enrollment in at least three doctoral dissertation (EAS 7980) credit hours constitutes full-time graduate status. Doctoral students who have passed candidacy and have begun taking doctoral dissertation hours (EAS 7980) must enroll in at least three dissertation hours each semester (including summers, without skipping a semester) and continue doing so until they complete the dissertation and graduate. Students wishing to enroll in part-time hours should consult with their adviser.

## Dissertation Defense

Usually scheduled after completing and writing the dissertation. This exam determines whether the student has completed satisfactory work and fully understands the work completed. The oral defense of the dissertation is administered by the dissertation committee, which makes a critical inquiry into the work reported in the dissertation and into the areas of knowledge that are immediately relevant to the research. All members vote on acceptance or rejection of the dissertation. The dissertation must be approved by a majority of the Committee. The committee has the final say on whether the student passes or fails.

## Scheduling a Room

It is the student's responsibility to schedule a room for their doctoral defense. They must make sure that it can seat all who may be in attendance and is equipped with all the necessary media capabilities that would be required for their defense presentation. Students may speak with the program assistant if needing guidance regarding choosing a room for their defense. Students must make sure to reserve the room well in advance of their defense date to ensure a quality location. Since finding an available room may take some time, students are encouraged to start this process at least four weeks before their defense date.

## Defense Announcement

All students, upon agreement and approval from the dissertation chair/faculty advisor, must supply a defense announcement TWO WEEKS prior to their defense date, as it will be posted on the CECS website. The defense



announcement should include the following information: date, time, location, committee member names, dissertation title, abstract and that the defense is open to the public.

## Paperwork/Forms Completed During Defense

Prior to every defense, the program assistant will organize any necessary paperwork to be completed by the committee chair and other committee members during the student's doctoral defense. It is the responsibility of the student to pick up these forms, have them filled out by the appropriate members, and submitted back to the program assistant for filing.

## Annual Review

Each year, graduate students should make a self-assessment of their progress toward their degree and career objectives. Faculty advisors should review this assessment, provide feedback, and give their own review of the graduate student's progress. This review should address both student performance and the reasonableness of the student's upcoming plans.

## Graduate Research

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

- In the Aerospace Engineering program, much of our research is carried out as a part of contracted sponsored research. Faculty members obtain sponsored research from many different government agencies and/or industry and thus commit the university to performing 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 grants/contracts may use the results of their work as the basis for their thesis or dissertation.
- 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 the Graduate Catalog for policies pertaining to [Academic Misconduct](#).
- Patents and inventions may arise from the faculty and graduate student research. UCF has clear guidelines regarding [Student Intellectual Property](#) and the [Ownership of Intellectual Property](#). [UCF Regulation 2.029](#) also governs Patents, Trademarks and Trade Secrets.
- There are specific Laboratory Safety Procedures that must be followed by each student working in a laboratory. It is the program policy that each student is responsible for knowing and following the Safety Procedures. Please see the laboratories manager and/or your faculty advisor to get a copy of the Safety Procedures for the appropriate laboratory.

## 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 laboratory teaching) are available in limited numbers, (3) Graduate Research Assistantships – GRAs (for assisting faculty with research) are more widely available in the AE program and depend on the research funding available to individual faculty. The College of Graduate Studies provides additional resources on its [website](#) to help understand the various funding mechanisms.

## Assistantships

All students are expected to maintain a 3.0 GPA in their Plan of Study, and they must not earn more than two 'C' grades. Students on contract are expected to work 10-20 hours per week on their assigned tasks (e.g., grading, laboratory teaching, research) while maintaining satisfactory progress in completing their academic courses.

Students must meet their obligations to continue to receive their financial support. If the students are hourly (e.g., OPS rather than GRA/GTA), time worked must be submitted by the posted deadline. If they are on contract, they must maintain satisfactory work as defined by their supervisor. Also, being on contract requires that the students register for the proper number of hours of classes in time to process tuition waivers and to meet other academic requirements.

The duration of financial support may vary from part of one semester to a multi-year renewable fellowship.

International students are expected to register as full-time students and may not work off campus except under very strict conditions. More information on [International student employment](#) can be found in the Graduate Catalog.

## Tuition Support and Health Insurance

Tuition support and student health insurance correspond with a student's assistantship. A full assistantship is 20 hours per week (0.50 FTE); half assistantships (10 hours per week, 0.25 FTE) also are possible. Students on a full assistantship (either GRA or GTA) automatically qualify for health insurance and for re-classification as "in-state" for tuition purposes; moreover, the academic portion of their in-state tuition will be either waived (if GTA) or paid on their behalf by their research advisor's funds (if GRA). Coverage of additional fees (e.g., Activity & Service Fee, Technology Fee, ID Service & Access Fee) is not guaranteed but may be provided at the discretion of the faculty advisor. [Tuition remission information](#) and frequently asked questions concerning tuition waivers can be found on the College of Graduate Studies' [Funding](#) website. Information regarding [health insurance coverage](#) for qualifying graduate assistantship and university fellowship students also is on the College of Graduate Studies website.

## Important Contacts

International Services Center: [global.ucf.edu/](http://global.ucf.edu/)

Financial Aid, <https://www.ucf.edu/financial-aid/>

UCF Graduate Catalog, <https://www.ucf.edu/catalog/graduate/#/home>

## 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/](https://facebook.com/groups/UCFgsa/).

[American Institute of Aeronautics and Astronautics \(AIAA\)](#) broadens the horizons of students interested in aerospace engineering and aids their futures by bridging the gap between students and industry.

[Students for the Exploration and Development of Space \(SEDS\)](#) promotes space exploration and the drive to become a space-faring civilization by providing members with experience on real life projects.

[American Society of Mechanical Engineers \(ASME\)](#) promotes and enhances the technical competency and professional well-being of our members, through quality programs and activities in mechanical engineering.

[The Florida Engineering Society](#) prepares engineering students of all disciplines for the high level of performance and responsibility that is required to succeed in today's job market, while providing the opportunity to develop professional relationships with professional engineers, educators and peers.

[National Society of Black Engineers \(NSBE\)](#) strives to increase the number of culturally responsible black engineers who excel academically, succeed professionally, and positively impact the community.

[Society of Hispanic Professional Engineers \(SHPE\)](#) promotes the development of Hispanics in engineering, science and other technical professions.

[Society of Women Engineers \(SWE\)](#) is a useful resource for women in technical fields including engineering.

[Theta Tau Professional Engineering Fraternity](#) develops and maintains a high standard of professional interest among its members.

For the most current listing of student organizations for the discipline, visit the [Student Organizations webpage](#).

## Professional Development

Students have many opportunities to further their careers while pursuing graduate work here at the university. While working with faculty advisors, they can and should seek opportunities to present papers and posters at various conferences, develop their grant writing skills while assisting with proposals, and gain establish a reputation for research excellence through their publications. A graduate student's professional development goes beyond completing course work, passing exams, conducting research for a thesis or dissertation, and meeting degree requirements. Professional development also involves learning and practicing the academic and non-academic skills needed to become successful in the field of choice. The College of Graduate Studies provides a robust [professional development program](#) that, together with other offices at UCF, hosts events like:

- Preparing Tomorrow's Faculty Program, sponsored by Faculty Center for Teaching and Learning
- Career Services and Experiential Learning
- Internship and Career Fairs
- Pathways to Success Workshops
- Graduate Research forum, sponsored by the College of Graduate Studies

A complete list of current professional development offerings can be found on the [UCF Events Calendar](#), filtered for Graduate Studies events.

UCF also sponsors several [Excellence Awards](#) through the College of Graduate Studies:

- Outstanding Dissertation
- Outstanding Master's Thesis
- Outstanding Graduate Creative Work
- Excellence by a Graduate Teaching Assistant
- Excellence in Graduate Student Teaching

## 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](http://career.ucf.edu). The College of Engineering and Computer Science also hosts a website dedicated to [Internships and Fellowships](#)

## Forms

The CECS Office of Graduate Affairs hosts events like the [Go For Launch Workshops](#) each semester to help students identify relevant deadlines. The Office also hosts a website with [Commonly Used Forms](#) collected in a single spot for convenience. Additional resources include the [College of Graduate Studies Forms and References](#) page, which contains a complete listing of general forms and references for graduate students, with direct links.

Several forms of note include:

- Graduate Petition Form: when unusual situations arise, petitions for policy exceptions may be requested by the student. For assistance, the student may 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, or unique laboratories, this form must be completed and approved.

## Useful Links

- [Mechanical and Aerospace Engineering](#)
- [College of Engineering and Computer Science](#)
- [CECS Office of Graduate Affairs](#)
- [College of Graduate Studies](#)
- [Academic Calendar](#)
- [Bookstore](#)
- [Campus Map](#)
- [Counseling Center](#)
- [Financial Assistance](#)
- [Golden Rule](#)
- [Graduate Catalog](#)
- [Graduate Student Association](#)
- [Graduate Student Center](#)
- [Housing and Residence Life](#)
- [Housing, off campus](#)
- [Library](#)
- [NID Help](#)
- [Office of Student Involvement](#)
- [Pathways to Success](#)
- [Recreation and Wellness Center](#)
- [Parking Services](#)
- [Shuttle Tracker](#)
- [Student Health Services](#)
- [Thesis and Dissertation \(ETD\)](#)
- [UCF Global](#)
- [UCF IT Technology Services](#)
- [University Writing Center](#) and [online](#)

## Graduate Faculty

Faculty members in the MAE Department are listed, along with research areas, on the [MAE website](#). Faculty eligible to serve as a dissertation committee chair/co-chair can be found on the [Graduate Faculty list](#) on the College of Graduate Studies website.

## Contact Info

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