



UNIVERSITY OF CENTRAL FLORIDA

# Graduate Program Handbook – 2023-24

*Modeling and Simulation Ph.D. Program*

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Reference this handbook to learn about the unique policies, requirements, procedures, resources, and norms for graduate students in the Modeling and Simulation Ph.D. program.

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EDITED BY GHAITH RABADI • AUGUST 2023 • SCHOOL OF MODELING, SIMULATION, AND TRAINING



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# 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.

## ACADEMIC CATALOGS

These online catalogs can help you quickly locate and save details about our undergraduate and graduate programs. Whether you are a prospective student or already enrolled, you can easily see what the University of Central Florida has to offer!



**Current Undergraduate Offerings**

VISIT CATALOG



**Latest Graduate Programs**

VISIT CATALOG



**Prior Years' Catalogs**

VISIT ARCHIVES



## THE GOLDEN RULE STUDENT HANDBOOK

## STUDENT LIFE

ORLANDO, FL | 73°F

### Student Handbook



### Knight Life at UCF

Don't just go to college — get the most out of it. At UCF, you'll have many ways to get involved inside and outside of the classroom. From application to graduation, you'll be inspired to do amazing things. So whether you prefer academics and research or campus activities and athletics, we'll provide you with the tools and support you need to find your place and foster your purpose.

Discover your next adventure at UCF.

### GRADUATE STUDENT HANDBOOK

[Student Handbook Intro](#)  
[Financial Matters](#)  
[Role of the College of...](#)

## Understanding Your Graduate Experience

## UCF Regulations



HOME NOTICE ARCHIVES SUBSCRIBE TO NOTIFICATIONS UCF POLICIES

## Pathways to Success

Personal and Professional Development Opportunities



## Chapter 5: Students

## How to Use This Handbook

The purpose of the handbook is to provide general information about how we apply and implement the policies from the State of Florida, Southern Association of Colleges and Schools, the College of Graduate Studies, and the Modeling and Simulation Graduate Programs to ensure our students achieve their academic goals. The UCF Graduate Catalog provides the requirements for student degrees and are specific to a given admit term. The UCF Graduate Catalog is the university's official record of graduate policies. In any case where this handbook appears to disagree with the graduate catalog, the graduate catalog is the final authority. It may be accessed via this website: [www.graduatemodeling.ucf.edu](http://www.graduatemodeling.ucf.edu). The Modeling and Simulation graduate programs degree requirements can be found here, as well.

While catalogs apply to the student's admit year, all students are expected to adhere to the current handbook, which is updated annually.

We believe this will be a critical tool for your success with our program, as it will explain fully the expectations and milestones required for the Modeling and Simulation Ph.D. degree.

## 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:

### **Directors of the Graduate Programs and the School of Modeling, Simulation, and Training (SMST)**

The director of the Modeling and Simulation graduate programs is Dr. Ghaith Rabadi ([Ghaith.Rabadi@ucf.edu](mailto:Ghaith.Rabadi@ucf.edu)). Dr. Rabadi is a professor with the School of Modeling, Simulation, and Training and is designated to oversee our programs' educational vision and structure. He reports to Dr. Grace Bochenek ([Grace.Bochenek@ucf.edu](mailto:Grace.Bochenek@ucf.edu)), who is the director of the UCF School of Modeling, Simulation, and Training.

Dr. Rabadi administers the graduate programs with recommendations from the Modeling and Simulation Academic Advisory Board, which is comprised of SMST faculty and its director, as well as constituents from the modeling and simulation discipline. Any concerns about the program's management should be directed to him.

Dr. Bochenek directs the vision, mission, and structure of the UCF School of Modeling, Simulation, and Training, which includes the Institute for Simulation and Training as well as the Modeling and Simulation graduate programs. Any concerns about the school's administration should be directed to her.

### **Graduate Program Support Staff**

Kirsten Seitz ([Kirsten.Seitz@ucf.edu](mailto:Kirsten.Seitz@ucf.edu)) is the program coordinator for the Modeling and Simulation graduate programs. She oversees student services, which includes monitoring academic progress, implementing and enforcing graduate policies, and maintaining program records. She is the point person for program policy and procedures, and well versed in most elements of graduate education that extend beyond academic instruction in your program. She is happy to be your first stop for questions related to anything in this handbook, the graduate catalog, and the university.

Naya Ramirez ([Nayade.Ramirez@ucf.edu](mailto:Nayade.Ramirez@ucf.edu)) oversees all human resources activity for the School of Modeling, Simulation, and Training. If you are hired as a research assistant by the graduate programs or one of the SMST labs, please contact her for any issue regarding hiring, payroll, and contract/tuition waiver payment.

### **College of Graduate Studies Services**

For general graduate inquiries and graduate student assistance from the College of Graduate Studies, please access their services directory via <https://graduate.ucf.edu/office-directory/>.

## **Onboarding**

Newly admitted students are invited to make an appointment with the Modeling and Simulation graduate program coordinator to receive individualized advisement on their first semester and begin planning their course of study.

# Introduction

## Complete Name of Degree

Modeling and Simulation Ph.D.

## College

Administered by the College of Graduate Studies

Degrees awarded by the College of Engineering and Computer Science and the College of Sciences (students designate college of choice)

## Department

School of Modeling, Simulation, and Training (SMST)

## Program Type

Doctoral

## Program Website

[www.msgrad.ist.ucf.edu](http://www.msgrad.ist.ucf.edu)

## Year of Program Inception

2001

## Program Overview Narrative

The School of Modeling, Simulation, and Training (SMST) houses a series of interdisciplinary graduate degree programs in modeling and simulation, designed primarily for students who wish to pursue careers in any number of sectors, including academic units, government, defense, entertainment, aerospace, healthcare, K-12, technology, service, and manufacturing.

Simulation is used in almost every scientific and engineering field as a technique for exploration, modeling, and analysis. It is also used in training, management, and concept exploration to evaluate the behavior of humans, organizations, equipment, and

systems. Because of the scale and diversity of modeling and simulation’s applications, practitioners have developed both generalized and specialized skills and bodies of knowledge.

Input from researchers and practitioners in government and industry has been instrumental in identifying key competencies for modeling and simulation professionals and has been critical to the development of the school’s degree programs.

The curriculum is divided into three critical bands—people, processes, and technology—with individual courses aligned with one or, at most, two of these bands.

- **People:** Faculty members with doctoral degrees in psychology, education, or computer science may be qualified to teach courses covering cognition, metacognition, cognitive science, learning sciences, human factors, human-computing interactions, and human-centered computing that are particularly relevant in training methods that leverage modeling and simulation.
- **Processes:** Faculty members with doctoral degrees in computer science, industrial engineering, mathematics, or statistics may be qualified to teach courses covering the mathematics and research methods needed to construct models, conduct empirical research related to modeling and simulation, and analyze results.
- **Technology:** Faculty members with doctoral degrees in computer science or industrial engineering may be qualified to teach courses related to designing, developing, testing, and using modeling and simulation tools.

We equip our students with an interdisciplinary core body of knowledge of and skills about modeling approaches, simulation techniques, human factors, computing infrastructure, and visual representation. Students may further develop more specialized skills and research competencies by working alongside faculty members with expertise in specialized fields such as:

- architectural design
- behavioral cybersecurity
- computer visualizations
- virtual reality/extended reality
- healthcare simulation
- human-centered systems
- interactive simulation and intelligent systems
- learning technologies
- machine learning and optimization
- metacognition and self-regulated learning simulation infrastructure
- simulation management
- simulation modeling and analysis

Transdisciplinarity in communication, project work, and research is strongly emphasized within the programs.

## Program Professional Affiliation

Although SMST does not hold specific graduate accreditation, it does align itself with the several professional societies and organizations including the National Center for Simulation ([simulationinformation.com](http://simulationinformation.com)) the National Training & Simulation Association ([NSTA.org](http://NSTA.org)) and the Society for Modeling and Simulation ([SCS.org](http://SCS.org)).

## Student Learning Outcomes

The interdisciplinary nature of the school's curriculum means that student preparation is varied. However, the following core learning outcomes are acquired by everyone who completes the program:

1. **Modeling Methods and Techniques:** Students will develop a deep understanding of modeling methods such as mathematical modeling, statistical modeling, and computational modeling.
2. **Simulation Development Skills:** Students will acquire technical skill in developing simulation models for different simulation paradigms using simulation platforms and programming languages.
3. **Research skills:** Students will learn how to conduct a literature review, identify research gaps, define research questions and hypotheses, and design and perform experiments across different contexts (e.g., lab, simulator, classroom), to test the proposed hypotheses, analyze and present their findings, and prepare and submit their scholarly findings to academic conferences and journals.
4. **Human-Centered Modeling and Simulation Skills:** Students will acquire modeling and simulation knowledge on human-systems, human behavior, and human-centered research.
5. **Interdisciplinary skills:** Given that the field of modeling and simulation is interdisciplinary, students are expected to develop skills to work with people across disciplines.

## Student Expectations: Program Milestones

To get a Modeling and Simulation doctoral degree, there are course requirements, milestones, and other administrative requirements. Greater detail and protocol for these components are provided further in this handbook, though each student should consult with the program coordinator to confirm their exact credit requirement.

The milestones for the Modeling and Simulation doctoral program are (curriculum requirements that can be completed concurrently are listed beside the milestone):

<b>Milestone 1:</b>		<b>Admission to Ph.D. Program</b>	
Administrative requirements	<ul style="list-style-type: none"> <li>• Plan of Study submitted to program</li> <li>• Collaborative Institutional Training Initiative (CITI) training</li> <li>• 4 Responsible Conduct of Research (RCR) workshops: 2 required, 2 elective</li> </ul>	Curriculum Requirements	Core Classes
<b>Milestone 2:</b>		<b>Qualifying Exam</b>	
Administrative requirements	<ul style="list-style-type: none"> <li>• Build candidacy (dissertation) committee</li> <li>• Submit dissertation research to Institutional Review Board (IRB) for approval or exemption</li> <li>• Start submitting research for publication</li> </ul>	Curriculum Requirements	Elective Classes
<b>Milestone 3:</b>		<b>Candidacy Examination</b>	
Administrative requirements	<ul style="list-style-type: none"> <li>• Format Review</li> <li>• Defense Announcement</li> <li>• Final Defense of Dissertation</li> <li>• 2 publications completed by final defense</li> </ul>	Curriculum Requirements	Dissertation Enrollment (IDS7980)
<b>Milestone 4:</b>		<b>Submission of Dissertation to University</b>	

The milestones for the Modeling and Simulation doctoral degree are all designed to be a consistent experience and to build on one another. Each involves a written document, oral defense, and an assessment of these. For Modeling and Simulation, after admission, there are three major milestones: the qualifying exam, the candidacy exam (which is also the dissertation proposal), and the dissertation defense. Below is a diagram summarizing the purpose or these experiences. The specific criteria and method by which these exams are evaluated are described in the program catalog for your admission year.

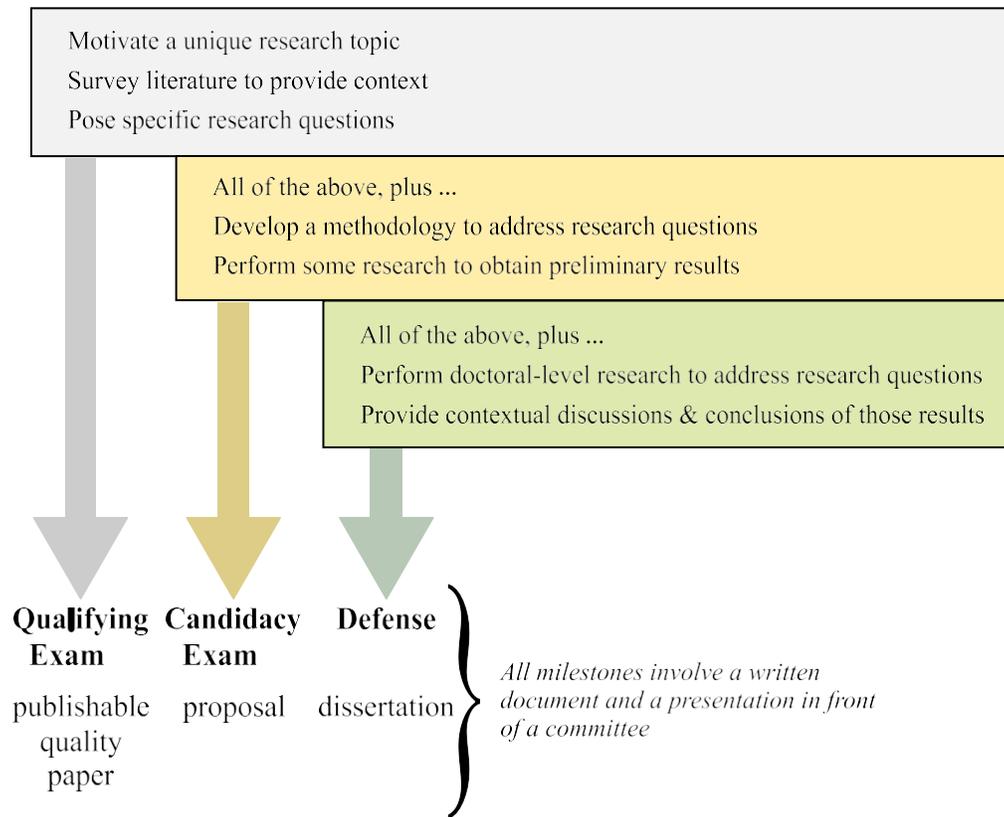


Figure 1. Diagram describing the basic purpose of each milestone. The specific criteria and method of evaluation for these are described in the program catalog for your specific admit year.

In addition to meeting the program’s degree and milestone requirements, the Modeling and Simulation Ph.D. program expects its students to:

- **Manage the business aspects of their degree:** Graduate students need to be strategic, planful, independent and self-reliant. Expect lots of rules, forms, and deadlines that the SMST may have no influence over. Please do not expect your advisor, the program director, or the program coordinator to remind you of missed forms, unfilled requirements, errors in your record, etc.
- **Stay informed about changes and activities:** Graduate students are expected to check email daily. Students are required to employ a UCF-affiliated email account. The official account UCF uses for communication is the student’s address. Those who work for the university may choose to use their employee email addresses. All program- and student-related information and requests will be distributed through the UCF-affiliated account. College of Graduate Studies does not consider “failure to check UCF-affiliated email address” an acceptable excuse for failure to comply with any instruction from the program or university. These can lead to holds and, in extreme cases, denial of degree certification.
- **Be familiar with UCF’s policies:** Read the UCF Golden Rule, the graduate orientation materials, the Graduate Catalog, and the program’s catalog sections for your admit term.

- **Take responsibility for their studies and academic success:**
  - Attend class and be fully prepared. If you have an emergency and need to miss class, contact your professor to discuss *prior* to missing class
  - Treat professors, student colleagues, and staff members with respect and professionalism
  - Students are expected to participate in research from the start of the program until graduation
  - Engage with your program and field-of-study communities:
    - Attend activities (e.g., seminars and workshops)
    - Go to conferences representing your program and field-of-study (consult with your advisor on conferences to participate in and ways to get support)
    - Find ways to serve your local and professional community (e.g., volunteering, participating in community events that relate to your studies, reviewing papers, etc.)
  - Participate in departmental, college, and university-wide research forums and competitions

### **Completing and Updating a Plan of Study**

Students are expected to complete UCF's Plan of Study (PoS) form before the end of their first year in the program; however, the M&S program encourages students to complete this obligation much sooner. The purpose of the PoS is to have the students plan out what courses they intend to take every semester (Fall, Spring, and Summer) over the years they intend to enroll so that all requirements are met and there are no surprises when attempting to graduate. It is an opportunity for the student to chart a personalized course through the program in advance and make sure all degree requirements will be met. The university expects a Ph.D. degree to be completed in at most seven years of enrollment (21 semesters from admit term). Once the PoS is entered into UCF's systems, the systems function as an auditing service to make sure the student receives credit toward degree where credit is due. Students can log into the Graduate Plan of Study online and see their progress toward degree. PoS can be revised when things do not go according to the plan.

## **Program Ethics Statement**

Students in the Modeling and Simulation doctoral program are expected to abide by the ethical standards of the discipline in which they are conducting research—typically the discipline of their dissertation chair. Additionally, students are expected to abide by the UCF Student Conduct Code.

Ethical conduct issues include responsibility to the public, conduct of research, dissemination of information, confidentiality, and academic honesty. All students conducting research involving human subjects are required to complete CITI Training

prior to conducting research or working with participants.

Students are advised to discuss and have agreements regarding roles, responsibilities, and publication credit prior to engaging in collaborative research.

Any student suspected of violating the discipline's ethical principles, including treatment of research participants and any incidents of plagiarism, will be evaluated by the Modeling and Simulation Curriculum Committee. The committee will evaluate and decide on any proposed remediation action for any ethical violations. In cases where student progress in the program will be substantively impacted by the proposed remediation, the committee will report the offense and proposed incident to the Office of Student Conduct.

Instructors may also report incidents of cheating by students taking courses of record to the Office of Student Conduct and Academic Integrity (<https://scai.sdes.ucf.edu/>)

## Professional Development

There are many great advantages about being an interdisciplinary program! However, one clear challenge is maintaining a community for information, support, and service in the face of such disparate research focuses. To address this challenge, the Modeling and Simulation program goes to great lengths to make community-building a deliberate priority. Students and faculty are encouraged to be involved in these activities.

### Regular Modeling and Simulation Events

There are several regular events that occur throughout the academic year, both educational and celebrational in nature.

- **SMST Seminar Series:** Throughout the Fall and Spring semesters, experts are invited to the school to give seminar lectures on contemporary and extant research topics. All are invited and encouraged to participate.
- **Food for Thought:** During the Fall and Spring semesters, the Modeling and Simulation program gathers students and faculty to share a lunch. Typically, food is provided, and prospective students, current students, alumni, and faculty are invited to attend. It is a great way to get to know other people in the M&S community.
- **Dissertation Proposals and Defenses:** Some dissertation proposals and *all* dissertation defense presentations are open to the public. Doctoral students are strongly encouraged to attend some of these when possible to learn what these main milestones entail.
- **Graduate Celebration:** Annually, the Modeling and Simulation program holds its own, smaller graduation celebration. Graduates are encouraged to invite friends and family. Existing students and faculty are also warmly invited to attend.

- **End-of-Term Socials:** At the end of each term, the Modeling and Simulation program holds an after-hours social where all are invited. It is a great way to get to know others in the community in an informal setting.
- **SMST Day:** Once a year, in the Spring, the SMST hosts a major event that combines student poster sessions with industry networking. Here, students and faculty interact directly with industry experts to increase awareness of one another's activities.

### **Modeling and Simulation Knights (MaSK)**

MaSK is a student organization for the M&S students that organizes its own events and provides support for students in the program. This includes shared space for students, as well as a library of textbooks that students might find useful. Learn more and get involved by referring to <https://mask.ist.ucf.edu>

### **University Organizations and Support Services**

UCF provides many support services for its students. Information about these services can be found in the Graduate Catalog and on the UCF website. In addition to the library and computing services, the university offers various services that promote students' social, physical, psychological, and recreational well-being. Examples of programs offered by the University of Central Florida include:

- The *College of Graduate Studies* offers a web course called 'Plan for Well-Being.' The free course addresses some common stressors that graduate students face. See <https://webcourses.ucf.edu/enroll/LGBMY4>.
- The *College of Graduate Studies* hosts professional development workshops each semester, called [Pathways to Success](#). These can help you identify and learn skills and techniques that can help you build your career.
- The *Student Health Center* provides medical services for the diagnosis and treatment of most illnesses and injuries.
- The *Recreation and Wellness Center* offers cardiovascular training equipment, weight circuits, free weights, a group aerobics room, outdoor pool, sand volleyball courts, a disc golf course, softball fields, and a variety of multipurpose fields.
- The *Office of Student Legal Services* provides qualified students with legal counseling and court representation in certain cases.
- To file a formal complaint or academic appeal at the university level <https://www.sdes.ucf.edu/student-complaints-and-appeals/>
- To *anonymously* report a problem concerning your graduate student experience and the way you are being treated as a graduate student, GTA, GRA etc. to the College of Graduate Studies <https://graduate.ucf.edu/report-problem/>
- The *Student Academic Resource Center* provides students with resources related to succeeding at the University such as workshops concerning study skills.

- The *Graduate Student Center* is considered “your graduate space on campus” and provides a place to just hang out, study, or gather for professional development, attend workshops, rehearse presentation and defenses. Check out <https://graduate.ucf.edu/graduate-student-center/> for the center’s most up to date hours or to make a room reservation.
- *UCF Global* serves international students and scholars and provides a social, cultural, and intellectual focus for many university and community activities. Additional services include immigration counseling, international admission processing, and general advice and assistance relevant to international students attending UCF.
- The *University Counseling and Testing Center* provides counseling (individual, group, and crisis), testing, and consultation services that are available to all UCF students.
- The *Multicultural Academic and Support Services* provides comprehensive and academic support, cultural enrichment, consultation, and referral services that promote the recruitment, admission, retention, and graduation of African American, Hispanic American, Asian American, and Native American students.
- *Career Services and Experiential Learning* offers comprehensive services geared to providing students with the skills, resources, and knowledge concerning establishment of careers after graduation. They also provide workshops on developing skills for job searches after graduation, including a workshop on resume development.
- The *Office of Student Financial Assistance* provides students with information and assistance pertaining to available scholarships, grants, loans, and other sources of financial assistance available through the University.

## Advising and Mentoring

Advising and mentoring relationships are a central part of academia, important to both the experience and development of students and faculty members alike.

Pursuing a doctoral degree is not an easy task. The best way to navigate the process is by building a healthy and diverse system of mentors. We encourage students to take a broad view of mentorship.

There are many sources of potential mentoring, each with their own purposes:

- Research and Academic
  - The student’s dissertation faculty advisor—the canonical mentor
  - Faculty, other than the dissertation chair, in the student’s discipline
- Administrative and Professional
  - University administrators and staff
  - Professionals (private and public sector) in the student’s discipline
- Personal and Emotional

- Spouse, loved ones, family and friends
- Fellow graduate students and researchers
- If from a marginalized population, a representative professional

Some will be best-suited to guide you with the course and degree requirements; others will be more appropriate to advise you about developing and conducting doctoral level research; while others can help you manage the pressure that comes with pursuing a rigorous advanced degree. These might be the same person; however, in many cases, they are not. We encourage students to build their community and find mentors that address a wide array of needs. It is reasonable to expect your primary advisor (typically your dissertation chair) to provide guidance about negotiating the dissertation process, including developing, conducting, and publishing your research. Not all advisors will know the university's and program's specific administrative protocols, so students are expected to confirm with the Modeling and Simulation graduate program coordinator that they are fulfilling all the "paperwork requirements," especially because our doctoral students can be advised by faculty outside SMST.

Sometimes, students will need emotional and moral support during the pursuit of their degree. Please keep in mind that you are not alone! There are dozens of doctoral students in the Modeling and Simulation program, and thousands across UCF, all with different experiences. The College of Graduate Studies and UCF have support services that can help with a variety of challenges. Students are encouraged to come talk to the Modeling and Simulation program coordinator or program director for guidance and resources, if such support is desired.

The student-advisor/mentor relationship is meant to be symbiotic and reciprocal. Both are responsible for making their expectations clear to each other, communicate with each other, and hold each other accountable. Be sure to discuss this with your advisor.

## Selecting an Advisor and Committee Members

Every Modeling and Simulation Ph.D. student must have a faculty advisor, who (ideally) will become their candidacy and dissertation chair. This should be fulfilled **before** the student completes their core coursework (i.e., by the end of their first year). The Modeling and Simulation program does not assign advisors; however, you can schedule an appointment with either the program coordinator or the program director to discuss your research interests. Often some suggestions can be generated. So, while we expect each student to find her or his own advisor, the department can help by providing ideas and introductions.

There are two types of faculty members who can serve on dissertation committees at UCF: Graduate Faculty (GF) and Graduate Faculty Scholars (GFS). The UCF Graduate Catalog lists all GF and GFS at UCF, including those who can serve as dissertation chairs. You can find definitions and distinctions of both types at the [Graduate Studies Website](#). For subject matter experts who are not listed but meet the requirements, they

can be vetted and approved to serve on committees. The program management handles the vetting and approval process.

To maximize the interdisciplinarity of our program, we allow students to be advised by any faculty member at UCF who meets the graduate faculty credentials established by Graduate Studies. That is, Modeling and Simulation doctoral students can have an advisor from another department on campus, as long as that faculty member is willing to advise the student and the program director approves of that advisor and the student's committee. Students are encouraged to find a faculty member who has the appropriate expertise to provide the proper guidance for their specific doctoral research topic.

### **Candidacy/Dissertation Committee Composition:**

UCF and the College of Graduate Studies have very specific criteria about the composition of a student's candidacy/dissertation committee. The committee must be formed, submitted, and approved by the program and the university **before** the student completes their candidacy examination. The committee must have a minimum of four members: a chair and three members (or two co-chairs and two members). Of these four members, three members must be credentialed as Graduate Faculty by the College of Graduate Studies. The fourth may be a Graduate Faculty Scholar. Additionally, of these four members, the chair and two members must be internal to the student's program, and the fourth from another program at UCF or from outside the university (external). If a student has more than four members on their committee, the majority of the members (including the chair) must be internal Graduate Faculty.

The College of Graduate Studies defines an internal member as a faculty member from the student's degree program. However, based on the transdisciplinarity of this program, SMST has successfully negotiated a more appropriate operational definition for internal committee members. For the purposes of the Modeling and Simulation Ph.D. program, an "internal member" is classified as a Graduate Faculty member from SMST, OR the student's designated college (either College of Sciences or College of Engineering and Computer Science). Students who choose an advisor from outside these parameters may choose to do so but will be required to designate a co-chair from SMST or their specified college. In this instance, the advisor would be classified as the student's external committee member. If a student has any questions about a faculty member's eligibility for a committee, they are expected to consult the Modeling and Simulation graduate program coordinator or program director.

For a list of graduate faculty, please refer to [graduate.ucf.edu/graduate-faculty/](http://graduate.ucf.edu/graduate-faculty/)

We encourage students to schedule brief meetings with potential faculty advisors. Meet with them face-to-face to discuss your research interests and learn about theirs to find the best match. Remember that this is a symbiotic relationship, so you are interviewing them as much as they are interviewing you. Of course, it is very important that the faculty member have the expertise in the area that you would like to study, but it is also important that you believe you can work well under that individual's guidance.

Discuss with your advisor the potential committee members and contact them or meet with them if possible— not just to gauge their interest and availability in serving, but also to make sure you understand what their expectations are. Students should not expect the same level of involvement in their research from the members of their committee. Remember that most faculty have a handful of advisees but may be on dozens of committees. Your advisor can help you navigate these introductions and discussions.

You may wish to have a discussion with a prospective advisor about their work and mentoring styles, expectations, and standards. Below are some questions to consider when selecting an advisor. This is not a complete list, but should give students an idea of what their relationship with a dissertation advisor will entail. You should reflect on what is most important to you with your academic and research goals, and use these questions to guide your discussion accordingly.

### **Questions to Ask of Prospective Advisors**

- What kind of progress reporting and/or workflow expectations does this faculty member have of doctoral students?
- Does this faculty member have the time to provide the kind of guidance you believe you will need?
- Do you believe you will work well with this faculty member?
- What research projects would be available to you if you joined their group/lab?
- Would these projects expose you to the different approaches that correlate to your goals?
- In general, how available is the faculty member to consult with you, one-on-one,
- What is your philosophy regarding the amount of guidance an advisor should provide to a student during the dissertation process? Does the faculty member's philosophy match/complement yours?
- How much time does the faculty member expect you to commit each day/week to your research? To their projects and/or lab? Will these be paid or voluntary hours?
- What regularly scheduled activities (e.g., group meetings, workshops, research clubs) does your faculty member advise you participate in to have an opportunity to get outside input on your research project? To hear and learn about the work of others in the discipline? Would these be considered required or voluntary activities as part of your working relationship?
- Does the faculty member help students to submit to and attend professional meetings where they can interact with colleagues/researchers from the discipline? Is networking exposure part of what you want from this relationship?

- Does the faculty member include their graduate students in professional activities that will familiarize them with their discipline, such as reviewing manuscripts and meeting with visiting speakers? Is this something that will support your academic and professional goals?
- What are former graduate students and/or mentees (if any) of the potential advisor doing now?
- What is their general philosophy of graduate training and what goals do they have for their graduate students? Do these match and/or complement your philosophy and goals?

#### REMEMBER:

No faculty member is obligated to accept a student's request to serve as an advisor, though invitations are often accepted unless the faculty member judges that a different advisor would serve your needs better. At that point, the faculty member is likely to provide a referral.

### Changing Your Advisor

As the advisor-student relationship is one of mutual agreement, it may be terminated by either party. If either you or your advisor believe you would be better served by a different faculty member, discuss this with your current as well as prospective advisor before determining if a change is appropriate. While a student may wish to change their advisor at some point while pursuing the doctoral degree, the later this decision is made, the more disruptive it is and the more likely it will delay the student's degree progress.

Before and during your work on the candidacy examination, changing advisors is relatively straightforward and informal. Discuss the change with both faculty members, and as long as there is mutual agreement among the three of you then proceed with the new advisor. If there is disagreement, the dispute should be mediated by the Modeling and Simulation Program Director. Make sure all mutually agreed upon commitments (e.g., existing GRA agreements, outstanding research assignments) are honored prior to the change.

Often, students switch advisors because they change their dissertation topic. If the student has already started the candidacy examination (i.e., dissertation proposal) work, the student is at risk of losing time and effort spent on the proposal. Still, such a change can be handled informally as described in the paragraph above (subject to any general and program-specific catalog requirements).

Once the student has advanced to candidacy and is enrolled in dissertation hours, a change cannot be managed informally. Taking the candidacy examination empanels the committee, and the dissertation chair(s) and committee members are officially reviewed, approved, and processed by the university as the committee of record. To change any

part of this at this point will require a resubmission to the university for committee approval. This will entail a number of people to sign off on the change, including the new advisor, the new committee members, and the program director. If the student intends to pursue a committee change at this point, they are expected to consult with the Modeling and Simulation graduate program coordinator to ensure they meet all university and program requirements.

Make sure that you understand the expectations of the new advisor. For a topic change, some advisors may require the student to defend a new proposal. Changes at this point can have a drastic effect on the student's timeline, and such a change may not be considered a sufficient reason for an exception to the university's 7-year rule.

## Program Costs and Fees

Students are assessed an equipment fee each semester. This fee helps subsidize the expense to provide (and maintain) the technology necessary to teach our students up-to-date processes in modeling and simulation. Additionally, the fees are used to acquire and equip computers for students to use to complete assignments and practice skills. Each full-time student is charged a flat rate fee of \$27.00, and part-time students, \$13.50. UCF Tuition and costs are available [at this page](#).

## Program Assessment

There is a lot of assessment that goes on at a university, at all levels. Doctoral students, in particular, are heavily evaluated.

Of course, the primary direct measurement of students during coursework is via course grades. In particular, graduate students are required to maintain a grade point average (GPA) above 3.0, and they cannot receive more than two grades below B- but above C (i.e., B-, C+, C, or U). If a student earns one of these grades, they are required to request to the program that the course be included in their plan of study. After core and elective coursework is completed, doctoral research credit is graded on a "Satisfactory/Unsatisfactory" basis. Even the course milestones are primarily a pass/fail activity. Consult the Graduate Catalog for a detailed description of grade requirements for doctoral students: <http://www.graduatecatalog.ucf.edu/>

Even though the student may feel as though they are being judged by some of the assessment tools used, often, the program and/or university are actually judging something else entirely. For instance, each milestone comes with a series of assessment measures regarding the student. These assessment measures do measure student competencies in key areas, but the result and purpose of these measures are not directly related to the student. We perform these measurements to measure how

effectively the program is progressing students between milestones. The result does not affect the student at all, but it can affect the program by telling us when curriculum changes are working well or not. This feedback allows us to improve our curriculum and program standards for the students who come behind you.

Additionally, doctoral students are required by Graduate Studies to go through an annual review each year (see the annual review section). This does not examine how good of a student you are; it allows the student and their program to document progress to the student's degree, their goals/objectives for the coming year, and identifies any early indicators about problems the student is experiencing.

There are also opportunities for the student to assess their class, faculty, and program. Each term, near the end of the semester, students are asked to fill out the Student Perception of Instruction surveys for each class. These are taken very seriously by the university and instructors, most instructors make changes to classes based on these. Also, all teaching faculty are required to include them in their annual and cumulative performance evaluations, and during any promotion process.

Every seven years, every degree program at UCF must undergo a program review. This is performed by academic professionals from other universities across the country who assess the program's efficacy to achieve its learning objectives, as well as prepare its students for the professional arena. All aspects of the program are examined, including the curriculum, faculty performance, graduation rates, diversity, student and alumni experience, and the program's impact on the public and private sectors. All the feedback and data are reviewed by the outside professionals and recommendations are made to the program for improvement. Student and alumni experiences are critical during this process and, often, their feedback is implemented to improve the program for future students.

Also, when students file their intent to graduate, they are prompted to complete the Graduating Student Survey—the perfect opportunity for students to provide feedback about the program, the college, and university. In all cases, be constructive and solution-oriented with your comments, and we will strive to do the same.

# Curriculum Section

## Degree Requirements

To ensure that all students have a base level of skill and knowledge within these three bands, there are five core required courses:

- IDS 6147—Perspectives on Modeling and Simulation
- COT 6571—Mathematical Foundations of Modeling and Simulation
- IDS 6267—Understanding Humans for Modeling and Simulation
- IDS 6145—Simulation Techniques
  - Prerequisite: minimum grade of B- in COT6571 or equivalent
- IDS 6262—Research Design for Modeling and Simulation

Though different students will likely have different trajectories through the program, the Modeling and Simulation curriculum committee has drafted a prototypical sequence for students to consider (Figure 2).

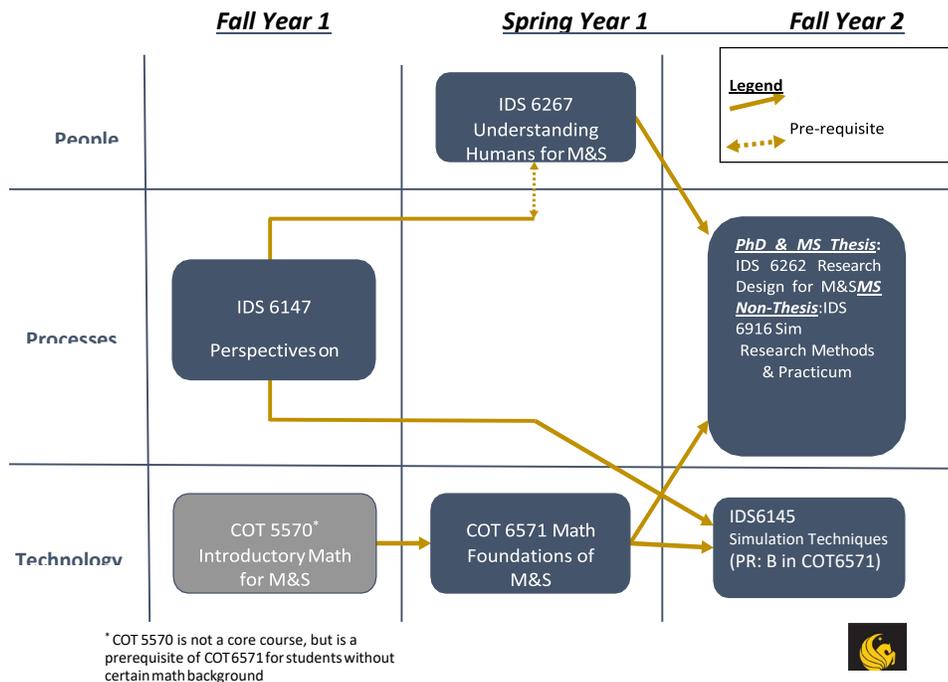


Figure 2. Diagram illustrating the relationship of core courses to one another as well as typical timelines for how you might take them.

## Modeling and Simulation Restricted Electives

Students are required to take three credits (one class) of electives sponsored by SMST. These are any graduate-level classes that SMST schedules and teaches that are not core classes, including special topics courses.

### **Modeling and Simulation Unrestricted Electives**

The remaining electives required for the degree are considered “unrestrictive electives”. These courses must reflect at least two disciplines that support the student’s area of graduate study; however, the Modeling and Simulation program does not restrict which programs the student chooses.

A student must select a set of courses to design an appropriate plan of coursework. The purpose of the courses is to ensure that students have depth in a specialized research area as well as have breadth in the interdisciplinary area of modeling and simulation. The set of courses should also support a student’s area of graduate study and meet the specific educational needs, goals and objectives of that student.

Unrestricted electives must consist of at least 9 credit hours of formal courses taken at UCF or from another graduate program if approved by the Program Director. Formal courses do not include independent study, directed research, nor dissertation. The remaining credits may consist of additional coursework, directed research, independent study, and additional dissertation as advised appropriately by faculty advisor and/or program director.

### **Applying Previously Earned Graduate Coursework**

Students may opt to apply UP TO 30 credits from a previously earned graduate degree or certificate to their plan of study. The university has specific regulations about which credits can be attributed to the student’s degree program. Some of these requirements include grade earned, topic, type of term (whether semester, quarter, etc.), and whether or not the course was used towards another academic plan. Each course must be evaluated individually to determine the rigor of the course is equivalent to or greater than the standard set forth by UCF. Credits earned through individualized instruction (e.g., independent study, directed research, thesis, etc.) cannot be used to the student’s program as they cannot be evaluated for equivalency to UCF work. Students who wish to apply previously earned graduate coursework to their degree program are encouraged to collect syllabi for all of their courses (or from a representative term) as well as consult with the Modeling and Simulation graduate program director regarding eligibility. Detailed information about the university’s transfer policy can be found in the graduate catalog: [graduatecatalog.ucf.edu](http://graduatecatalog.ucf.edu) Students are advised to reference the transfer policy set forth in the graduate catalog of their admission term.

## **Master’s Degree En Route**

Students can choose to apply up to 30 credits from an earned graduate degree to their doctoral plan of study, OR they can earn a Master’s degree en route. In some cases,

students in the UCF Modeling and Simulation doctoral program who do not already have a master's degree in Modeling and Simulation may be able to earn a "Masters-Along-the-Way." That is, students may count courses from their doctoral plan of study toward one other degree. Since the course requirements for the UCF Modeling and Simulation doctoral program within the first 30 hours and the Modeling and Simulation master's program heavily overlap, meeting all requirements for the master's degree can, in some cases, require little to no extra coursework. Talk to our program coordinator to see whether this is feasible for you.

Please note that UCF students cannot count a course toward more than two different degree programs—that is, there is "no triple dipping". Specifically, if you transferred credits from another MS degree or graduate certificate into your Ph.D. program, these cannot be used for a Master's-along-the-way.

## Individualized Instruction

Modeling and Simulation Ph.D. students may participate in a multitude of individualized instructional opportunities:

- **Directed Research (IDS6918):** Considered masters-level, and intended for Master's degree-seeking students. However, some faculty advisors require their doctoral students to enroll at this level until they complete their qualifying examination. This is for students who are performing a research project from beginning to end; from beginning to a logical stopping point; or continuing a research project to the next logical stopping point. Graded Satisfactory/Unsatisfactory, a student and their instructor complete the enrollment form together and determine the research goals for the term.
- **Doctoral Research (IDS7919):** This is doctoral-level directed research, for students who are performing a research project from beginning to end; from beginning to a logical stopping point; or continuing a research project to the next logical stopping point. Graded Satisfactory/Unsatisfactory, a student and their instructor complete the enrollment form together and determine the research goals for the term. Some faculty advisors require their students to fulfill their qualifying examination milestone before enrolling at this level. Consult with your advisor, as well as the program, to determine the appropriate research course to take.
- **Independent Study (IDS6908):** This is a graduate-level customized course for one or a small group of students, to teach a topic that is not in the curriculum at UCF. Independent studies require a syllabus be submitted with the enrollment form, constructed by the student and faculty member, outlining learning objectives, reading list, assignments, grading standards, and evaluation measures. Independent studies can be issued a title that will print on the transcript, and are graded A-F.

- **Internship (IDS6946):** Students are eligible to complete up to six credits (the equivalent of two graduate courses) of internship, applying their academic experience in a professional setting. Traditionally, the hours-in-the-workplace ratio per credit hour is (at a minimum) 48 to one, and comprises half of the academic requirements for the enrollment. The remainder of the requirements comprise applying research/coursework to assignments and projects at the worksite. For example, a 3-credit internship could consist of 9 hours of work per week at the site, and include assignments like an in-depth interview and position evaluation of someone who holds a desired work position; a paper comparing the practical application of a research theory to its theoretical application; and a final project that could be included in the student's professional portfolio. Students who acquire an internship should consult the Modeling and Simulation graduate program coordinator with their faculty advisor to discuss appropriate requirements to meet the student's goals. Internships are graded as Satisfactory/Unsatisfactory.

## Certificate Program Linkages

Students are eligible to credit a completed graduate certificate to their plan of study, as long as these credits and any transferred credits remain under 36 total. Though there are many graduate certificates across campus students may select, the SMST is proud to offer the Modeling and Simulation of Behavioral Cybersecurity graduate certificate. This is a 15-credit program that provides students with specialized training and knowledge in Modeling and Simulation (M&S) fundamentals, techniques, and applications toward the behavioral aspects of cybersecurity, with special emphasis on proactive planning as well as reactive strategies to minimize damage. More specifically, we designed this certificate to prepare students from a variety of disciplinary backgrounds to explore the interface and interdependence of M&S and cybersecurity.

Even though it is not a degree, this is a separate graduate program and requires its own application. Students may apply for the certificate via [applynow.graduate.ucf.edu](http://applynow.graduate.ucf.edu). Because it is not a degree, students who are enrolled in the Modeling and Simulation of Behavioral Cybersecurity program (or any other graduate certificate program) only are ineligible for any federal or university-granted financial aid. However, students may pursue this certificate while degree-seeking in Modeling and Simulation or another graduate program at UCF. Due to federal regulation, international students are ineligible to pursue a graduate certificate unless they are already degree-seeking. Anyone interested in pursuing the graduate certificate and applying the coursework to their plan of study are encouraged to consult the Modeling and Simulation program coordinator.

## Other Program Requirements

Only courses that meet the following criteria will be eligible to fulfill degree requirements:

- Completed courses are less than seven years old
- No more than two courses (6 credits) hold unsatisfactory grades—B-, C+, C, or U
- Program of study GPA must be a minimum 3.0
- 50% of completed coursework falls at the 6000-7000 level
- At least 50% of coursework is completed at UCF under current degree program (in other words, no more than 50% of coursework can be transferred into the plan of study)
- 27 credits of coursework can be classified as “formal coursework.”, which is considered curriculum that is reviewed and approved by the State of Florida, have a syllabus with specified learning objectives, are graded A-F, and is published in the UCF Graduate Catalog.

In addition to successful completion of coursework and meeting all dissertation milestones, students are required to fulfill the following milestones:

- Submitted and approved Graduate Plan of Study
- Completion of Responsible Conduct of Research (RCR) workshops through the College of Graduate Studies. More information is here: [graduate.ucf.edu/pathways-to-success](https://graduate.ucf.edu/pathways-to-success). Two core and two elective workshops, for a total of four, are required.
- Completion of Collaborative Institutional Training Initiative (CITI) training program. CITI Training Guidelines: [https://www.research.ucf.edu/documents/PDF/2020/Guidance-IRB\\_G4-CITI\\_Training\\_4-15-2020.pdf](https://www.research.ucf.edu/documents/PDF/2020/Guidance-IRB_G4-CITI_Training_4-15-2020.pdf)
- Successful completion of a Qualifying Examination
- Successful completion of a Candidacy Examination

Finally, all Modeling and Simulation Ph.D. students are expected to develop a publication record by developing their research into articles and submitting them to peer-reviewed scholarly journals for publication or conference proceedings. By the time of graduation, students are expected to hold a minimum of two publications. Students should consult with their faculty advisor for guidance on submitting research for presentation and/or publication at the professional or academic level. We support our faculty members in their mentoring efforts and experience regarding publication standards for the discipline, so please consult your faculty advisor for their expectations and standards.

## Sample Course and Milestone Completion Sequence

All Modeling and Simulation Ph.D. degrees require 72 credits: 15 credits core coursework (five classes), 42 credits of electives (14 classes), and 15 credits of dissertation enrollment (5 semesters at 3 credits apiece). Additionally, students are required to meet the requirements listed earlier.

Based on recommendations from the SMST Curriculum Committee, students should consider completing their core classes according to the schematic in Figure 2 presented earlier. Students should use the following SAMPLE sequence to structure their degree completion sequence:

*This is based on full-time enrollment of 9 credit hours each fall and spring, 6 credits for summer (prior to dissertation enrollment), fall term admission, and no transfer of previously completed graduate coursework. Those who can transfer graduate coursework, plan to enroll as a part-time student, or those who are admitted for the spring term should consult with the Modeling and Simulation graduate program for guidance in structuring a completion sequence.*

Fall, Year One:

- IDS6147 (Perspectives of Modeling and Simulation)—fall only, core
- COT5570 (Introduction to Mathematics in Modeling and Simulation)—fall only, elective, expected for students who do not have a strong programming and mathematics background
  - OR, Elective One (3 credits)
- Elective Two (3 credits)
- Graduate Plan of Study should be completed and submitted to Modeling and Simulation program for review and approval by the end of the student's first term.

Spring, Year One:

- IDS6267 (Understanding Humans in Modeling and Simulation)—spring only, core
- COT6571 (Mathematics in Modeling and Simulation)—spring only, core
  - This course must be completed with a minimum B- grade in order to be allowed enrollment into IDS6145 (Simulation Techniques)
- Elective Three (3 credits)
- Graduate Plan of Study should be reviewed, approved, and authorized by College of Graduate Studies by the end of the student's second term. Any kind of petition for transferring coursework or policy exception should be submitted for review before this point.

Summer, Year One:

- Elective Four (3 credits)

- Elective Five (3 credits)
- Two required and two elective, for a total of four, Responsible Conduct of Research (RCR) workshops through the College of Graduate Studies should be completed by the end of the student's first year of doctoral study.
- Collaborative Institutional Training Initiative (CITI) training program should be completed by the end of the student's first year of doctoral study.

#### Fall, Year Two:

- IDS6262 (Research Methods for Modeling and Simulation)—fall only, core
- IDS6145 (Simulation Techniques)—fall only, core
  - Pre-req: B- or better in COT6571
- Elective Six (3 credits)
- Students are eligible to complete Qualifying Examination as early as the end of this term

#### Spring, Year Two:

- Elective Seven (3 credits)
- Elective Eight (3 credits)
- Elective Nine (3 credits)

#### Summer, Year Two:

- Elective Ten (3 credits)
- Elective Eleven (3 credits)

#### Fall, Year Three:

- Elective Twelve (3 credits)
- Elective Thirteen (3 credits)
- Elective Fourteen (3 credits)
- Students are eligible to complete Candidacy Examination as early as this term (must be completed by Graduate Studies posted deadline)

#### Spring, Year Three:

- IDS7980 (Dissertation), 3 credits
  - Three credits of dissertation enrollment is considered full-time for financial and assistantship purposes when it is the only enrollment

#### Summer, Year Three

- IDS7980 (Dissertation), 3 credits

#### Fall, Year Four

- IDS7980 (Dissertation), 3 credits

#### Spring, Year Four

- IDS7980 (Dissertation), 3 credits

#### Summer, Year Four

- IDS7980 (Dissertation), 3 credits
- Student is eligible to be considered for graduation (i.e., file an intent to graduate) at the end of this term.
- In order to graduate this term, students must:
  - meet posted Format Review deadline.
  - submit defense announcement two weeks prior to dissertation defense date.
  - defend their final dissertation before the posted Final Defense deadline.
  - submit their final dissertation before the posted Submission deadline.

# Examination Section

## Introduction

All Modeling and Simulation doctoral students are required to complete a Qualifying Examination and a Candidacy Examination as they work through their plan of study. Both examinations are meant to evaluate a student's capacity and ability to perform professional-level academic research, as well as their grasp of the program's core learning objectives.

Each examination is an oral defense of a research project. More information is detailed in the appropriate section below. Students are allowed three opportunities to pass each examination. If the student fails to pass the examination in question a second time, the Modeling and Simulation graduate program director, faculty advisor, and student will meet and consult to determine if any remedial work or activities should be completed before the student makes their third and final attempt with said examination.

## Scheduling of Exams

Students will work with their faculty advisor and committee to schedule their examinations. The examinations can be held remotely, via Zoom or Microsoft Teams, face-to-face, or in a hybrid format. If a physical meeting space is required, please consult the SMST room scheduler (407-882-1300; based at the front desk in Partnership II) to secure a space. If a campus location is required, students are advised to consult with their faculty advisor and/or the Modeling and Simulation program coordinator for guidance to acquire a space.

The Modeling and Simulation Graduate Program requires notice of the examination at least two weeks in advance. This allows the administration to ensure the student has met all of the eligibility requirements and their academic is accurate and up-to-date with the College of Graduate Studies. Any announcement is held within the Modeling and Simulation program offices and not sent out as an invitation to any party, at the university, private sector, or otherwise. The choice to invite attendees and/or open the examination to the public is a decision made by the student and their faculty advisor. The Modeling and Simulation Graduate Program Director does reserve the right to attend any examination session, but only to observe and not participate nor influence any outcome.

## Qualifying Exam

Students are eligible to fulfill the Qualifying Examination as early as the end of the term in which their final core classes are completed, if their plan of study, the university's RCR workshops are finished, and the CITI Training requirement is fulfilled.

The objective of the qualifying exam is to assess the ability of the student to pose a cogent high-level research question, motivate the need for that research topic, and provide a discussion of the literature needed to contextualize and motivate that topic. The committee is responsible for evaluating whether the student passes the exam. The overall goal is for Modeling and Simulation doctoral students who pass the qualifying exam be ready to begin preparing their doctoral proposal (i.e., candidacy examination). This involves a Qualifying Exam assessment form that indicates whether the student passes. The student will have to form a committee, provide that committee with a document meeting the points described above, and defend that document to the committee. Modeling and Simulation program administration leaves the choice of opening the examination to the public to the student and their faculty advisor. Some faculty advisors choose to allow other Modeling and Simulation doctoral students to attend to allow a better understanding of the process.

The Modeling and Simulation Graduate Programs website has a Qualifying Examination Protocol Packet that students can use in their preparation and execution of the exam.

## Candidacy Exam

A student must demonstrate their readiness for the Ph.D. program by successfully completing the candidacy examination before enrollment into dissertation hours. The Candidacy Examination should be taken when the student is nearing the end of coursework. The exam is administered by the members of the student's dissertation advisory committee. 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 (XXX 7980). Effective beginning Summer 2019, students must have passed candidacy and have the candidacy and dissertation advisory committee documentation received and processed by the College of Graduate Studies by the date listed in the academic calendar in order to enroll in dissertation hours for that term.

## Admission to Candidacy

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 coursework (XXX 7980) each semester (including summer) until the dissertation is completed.

Students are eligible to complete the candidacy examination requirement during the semester in which they are completing their last two classes (6 credits) of coursework. Additionally, they are required to have successfully completed their qualifying examination (and any requirements building to the QE fulfilled) and have an approved candidacy/dissertation committee on file with the university.

In order to enroll for dissertation hours in the following semester, students must complete their candidacy examination by the university's posted deadline during the previous semester (for example, for spring enrollment, candidacy must be completed during the fall).

Within the Modeling and Simulation doctoral program, our candidacy exam and doctoral proposal processes are the same. To pass the candidacy exam, students must form a committee, provide a doctoral dissertation proposal to that committee, then defend the proposal orally to the committee, receiving an assessment of "PASS." Students are also required meet all candidacy requirements set forth by the university, college, and the program. The committee is responsible for evaluating whether the student passes the exam, meaning they meet the competency level and expectations necessary to pursue their dissertation project. There is also a Candidacy Examination assessment form that indicates whether the student passes.

The student's candidacy/dissertation committee must comprise a minimum of four members: a chair (the faculty advisor, also an internal member), two internal members, and an external member. Three of the four members must be classified as graduate faculty members through the College of Graduate Studies. One member can be a Graduate Faculty Scholar, if desired. The College of Graduate Studies defines "internal membership" as a faculty member from the student's program department, and "external membership" as a faculty member from another department at UCF, another university, or a professional from the private sector.

However, given that Modeling and Simulation is transdisciplinary, SMST and the College of Graduate Studies have negotiated a broader operational definition for internal membership. Internal members for a Modeling and Simulation doctoral dissertation committee can be faculty members from the School of Modeling, Simulation, and Training, and/or the student's designated college (either College of Sciences or College of Engineering and Computer Science). Students are encouraged to consult with the Modeling and Simulation graduate program coordinator regarding their committee composition to ensure they are compliant with the university's regulations. In short, the majority of the committee members must be Graduate Faculty from SMST, and/or the student's designated college (College of Sciences or College of Engineering and Computer Science).

The proposal should meet the disciplinary standards of the field being studied as

determined by the candidacy/dissertation committee chair. However, generally high-quality dissertation proposals will provide a novel doctoral-level research topic, motivate that topic, give relevant and timely literature context, describe a sound methodology for pursuing the research, and demonstrate some preliminary work. The student's committee sets standards related to publication requirements, where appropriate. In general, the Modeling and Simulation Graduate Program encourages a student to acquire at least two scholarly, peer-reviewed publications.

The Modeling and Simulation program leaves the choice of opening the candidacy examination to the public to the student and their faculty advisor (candidacy/dissertation committee chair) major advisor for the student. Some faculty advisors choose to allow other Modeling and Simulation doctoral students to attend to increase academic rigor and to allow a better understanding of the process.

The Modeling and Simulation Graduate Programs website has a Candidacy Examination Protocol Packet ([msgrad.ist.ucf.edu/forms](http://msgrad.ist.ucf.edu/forms)) that students can use in their preparation and execution of the exam.

## Dissertation Section

Dissertation content and organization vary from one student to another depending on the topic, advisor, and dissertation committee. In a dissertation, it is typical to have an introduction, problem statement, literature review, research design, methodology, results and conclusions. However, students are strongly encouraged to work closely with their advisors while writing their dissertations and to follow their guidance. Regarding the dissertation format, UCF has a guideline that must be followed by all students, and the College of Graduate Studies has a webcourse dedicated for this purpose (please visit <https://graduate.ucf.edu/thesis-and-dissertation/>)

### University Dissertation Requirements

Students wishing to take dissertation credit hours must have successfully entered candidacy. That is, they have completed all course work, taken and passed all qualifying exams, completed all university mandated workshops, and have all associated documents submitted and approved prior to the first day of classes. Students will work with their graduate advisor to enroll in the relevant dissertation course. Doctoral candidates must be enrolled continuously (including summers). Exceptions to the continuous enrollment policy may be appealed to Graduate Studies. Students may not enroll in more than nine credits in any given semester and must enroll in at least three credits; full time is three credits each semester. Candidates that have met the 15 required dissertation hours but not yet defended must remain continuously enrolled. Graduate policy states students have seven years from beginning the program to complete the degree.

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](#). Consult with graduate director or advisor for potential earlier 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](#).

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](mailto:editor@ucf.edu).

## Dissertation – Timeline and Deadlines

There are a lot of deadlines to monitor during your dissertation's final semester. Since finishing the dissertation can be all-consuming, make a calendar for yourself ahead of time. Then consult the current UCF Academic Calendar ([calendar.ucf.edu](http://calendar.ucf.edu)) for the specific dates of things that are due for your graduating semester. Do the math here! Final forms AND the dissertation are due a month before the end of term, so the defense should be at least a week before that, and the announcement and submission to your committee should be two weeks prior to that. Consequently, you need to be finished with your dissertation about halfway through the semester. Consider the following general timeline:

1. **Before the semester starts:** Consult the Modeling and Simulation Program Coordinator to go over all the steps needed to complete the dissertation process, to make sure nothing is forgotten.
2. **Before the semester starts:** File an Intent to Graduate via MyUCF
3. **Approximately 25% through the term (fourth week):** A draft of the dissertation must be submitted for format review to UCF's Thesis and Dissertation Services. It will be evaluated to ensure the project meets the formatting standards set forth by the university.
4. **Approximately 50% through the term (eighth week):** The student must submit a dissertation defense announcement to their designated college, per the college's protocol. Doctoral dissertation defenses are public, and an announcement inviting the public to attend is required. There is a standard template for this announcement, and your version of the announcement must

be submitted to the college so that it can be announced publicly. The announcement must be submitted AT LEAST two weeks before the defense.

5. **Approximately 50% through the term (eighth week):** The dissertation document should be submitted to the committee for review. The professional standard is to allow a minimum of two weeks prior to the defense for each committee member to review the document. Consult your advisor and committee for their specific expectations.
6. **Approximately 65% through the term (10<sup>th</sup> week):** The dissertation defense (degree final examination) must be presented. This presentation should be sufficiently in advance of any UCF and program deadlines, so the student has enough time to deal with unforeseen circumstances.
7. **Approximately 75% through the term (12<sup>th</sup> week):** The final dissertation and any supporting documentation must be submitted to the university for approval.

There is a “Final Semester Checklist” that will walk the student through each administrative task required, found at [msgrad.ist.ucf.edu/forms](https://msgrad.ist.ucf.edu/forms)

## Dissertation – IRB

Modeling and Simulation doctoral students are required to secure Institutional Review Board (IRB) clearance of their dissertation research. The student will submit their research proposal to the IRB, and will either receive an exemption (no human subjects involved) or approval (if human subjects are involved). For those research projects that receive approval from IRB, the student is required to follow up once the research is completed to “close out” the project. Students are required to submit documentation of IRB exemption or approval/closure before the final defense of their dissertation. This information will be uploaded to the student’s record, indicating compliance with the university’s protocol involving human subjects research. For more information about the IRB process, please refer to <https://www.research.ucf.edu/compliance/IRB/About/index.html>

## Dissertation – Defense

The dissertation defense is the last major presentation a doctoral student makes in their program. Once they pass it, their Ph.D. is eligible to be conferred (pending compliance with all university regulations). Prior to their defense presentation, students must provide their committee with a written doctoral dissertation document, well ahead of time before the oral defense of their work. The professional standard is a minimum of two weeks in advance of the presentation. Doctoral defense presentations must be open to the public and an invitation is announced at least two weeks ahead of time according to university policy. The student submits an announcement appropriately,

based on their designated college, which will be reviewed and then disseminated to the campus and professional community. Ph.D. defense presentations (also called a final examination) may take up to two hours. During this time, the student presents their project, research conducted, data collection and analysis methodology, and the results. The committee and the general public can ask questions. The student is expected to be fully prepared to answer and defend their work and decisions. After this, the committee will excuse the student and other attendees in order to privately debate the student's contribution and ability to defend the research findings. If the committee believes the student performed satisfactorily, they will grade this final examination with "pass," then sign the Dissertation Approval Form. Otherwise, the committee will make recommendations for the student's next steps.

## Dissertation – Submission Procedures

After students have successfully defended their dissertation, they are expected to make the necessary changes required by the advisor and dissertation committee and prepare the final copy for submission according to the guidelines required by College of Graduate Studies.

## Dissertation – Additional Relevant Information

Once a student passes their candidacy examination and enters the dissertation phase of their plan of study, they **will not be permitted** to change their college designation.

Once a student enters the dissertation-only portion of their program, then full-time enrollment is classified as three credits of dissertation enrollment ONLY. This is applicable for fall, spring, and summer enrollment. However, for those students who do not need to be full-time, they may choose to enroll for fewer than three credits as long as their faculty advisor approves the request.

There is a ETD final semester checklist at [msgrad.ist.ucf.edu/forms](https://msgrad.ist.ucf.edu/forms), designed to help the student navigate the administrative requirements in the final semester of the dissertation phase.

# Program and Institutional Policies

## Absences

Students are required to enroll at least once every three semesters. Failure to enroll once per three semesters (i.e., every year) will result in the student being dismissed from their program and the university for inactivity. Dismissed students will be required to reapply for their graduate program. If readmitted, any coursework completed prior to the most recent admission will be considered transfer credits and subject to the university's transfer policy.

Students who anticipate that they may not be able to enroll continuously due to external circumstances should apply for [Special Leave of Absence](#). Specifically, students who are taking courses should apply for a Special Leave of Absence when they cannot enroll in more than two consecutive semesters. Students who are in thesis/dissertation hours should apply for a Special Leave of Absence when they cannot enroll in every semester (including summer).

To qualify for a Special Leave of Absence, the student must demonstrate good cause (e.g., illness, family issues, financial difficulties, personal circumstances, recent maternity/paternity, employment issues). The specific reason for the Leave of Absence request must be indicated by the student on the [Leave of Absence Form](#). Due to current U.S. government regulations, international students must be enrolled every fall and spring semester. For students in this category, a Special Leave of Absence is only available for documented medical reasons.

## Academic Standards/Conduct/Integrity

Students should familiarize themselves with [UCF's Rules of Conduct](#). According to Section 1, "Academic Misconduct," students are prohibited from engaging in

1. Unauthorized assistance: Using or attempting to use unauthorized materials, information or study aids in any academic exercise unless specifically authorized by the instructor of record. The unauthorized possession of examination or course-related material also constitutes cheating.
2. Communication to another [student] through written, visual, electronic, or oral means: The presentation of material which has not been studied or learned, but rather was obtained through someone else's efforts and used as part of an examination, course assignment, or project.

3. Commercial Use of Academic Material: Selling of course material to another person, student, and/or uploading course material to a third-party vendor without authorization or without the express written permission of the university and the instructor. Course materials include but are not limited to class notes, Instructor's PowerPoints, course syllabi, tests, quizzes, labs, instruction sheets, homework, study guides, handouts, etc.
4. Falsifying or misrepresenting the student's own academic work.
5. Plagiarism: Using or appropriating another's work without any indication of the source, thereby attempting to convey the impression that such work is the student's own.
6. Multiple Submissions: Submitting the same academic work for credit more than once without the express written permission of the instructor.
7. Helping another [student] violate academic behavior standards.
8. Soliciting assistance with academic coursework and/or degree requirements.

### **Responses to Academic Dishonesty, Plagiarism, or Cheating**

Students should also familiarize themselves with the procedures for academic misconduct in UCF's student handbook, [The Golden Rule](#). UCF faculty members have a responsibility for students' education and the value of a UCF degree, and so seek to prevent unethical behavior and respond to academic misconduct when necessary. Penalties for violating rules, policies, and instructions within this course can range from a zero on the exercise to an "F" letter grade in the course. In addition, an Academic Misconduct report could be filed with the Office of Student Conduct, which could lead to disciplinary warning, disciplinary probation, or deferred suspension or separation from the University through suspension, dismissal, or expulsion with the addition of a "Z" designation on one's transcript.

Being found in violation of academic conduct standards could result in a student having to disclose such behavior on a graduate school application, being removed from a leadership position within a student organization, the recipient of scholarships, participation in university activities such as study abroad, internships, etc.

Let's avoid all of this by demonstrating values of honesty, trust, and integrity. No grade is worth compromising your integrity and moving your moral compass. Stay true to doing the right thing: take the zero, not a shortcut.

## **Annual Review**

All doctoral students are required to conduct an annual review of their progress in the program. The effort of this requirement is to make sure students are progressing appropriately as it relates to programmatic coursework and milestones. The other element of the annual review is to assess how doctoral students in our program are performing academically. Our faculty committee will evaluate whether the student is displaying the type of academic competencies needed to successfully complete the degree. This provides the faculty committee opportunity to identify any possible

deficiencies exist and to address these as early as possible so appropriate remedies can be provided.

## Appeals/Grievances

In some instances, students may not agree with an assessment related to their development or progress in the program. In such instances, students can appeal by submitting an email to the program director who then presents it to SMST's Appeals committee to make a recommendation and get back to the student in a reasonable time. Also, Graduate Studies have [Academic Grievance](#) section under General Graduate Policies in the graduate catalog.

## Laboratory Use

SMST has many research labs run by the faculty. Usually these labs are opened only to the students who work on projects managed by the faculty who oversees the lab. For students in the M&S program who are not affiliated with a specific research lab, they can contact the program management to access M&S graduate student lab located in Partnership 3 building, Room 229

## Communication

### **Student Responsibility for University Communication**

UCF uses email as the official means of notifying students of important university business and academic information concerning registration, deadlines, financial assistance, scholarships, student accounts (including tuition and fees), academic progress and problems, and many other critical items for satisfactory completion of a UCF degree program. The university sends all business-related and academic messages to a student's UCF email address to ensure that there is one repository for that information. Every student must register for and maintain a UCF email account and check it regularly to avoid missing important and critical information from the university. Any difficulty with establishing an account or with accessing an established account must be resolved through the [UCF Computer Services Service Desk](#) so that a student receives all important messages.

Additionally, each student must have an up-to-date emergency email address and phone number by which to be reached in case of a crisis on campus. This emergency contact information will be used only for emergency purposes. Also, both permanent

and local mailing addresses must be on the record, so that any physical documents that must be mailed can be delivered.

It is critical that students maintain and regularly check their UCF email account for official announcements and notifications. Communications sent to the UCF email address on record will be deemed adequate notice for all university communication, including issues related to academics, finances, registration, parking, and all other matters. The University does not accept responsibility if official communication fails to reach a student who has not registered for, or maintained and checked on a regular basis, their UCF email account. Please ensure that this information is current and that any changes in contact information are made online through the myUCF portal at <https://my.ucf.edu/>.

## Continuous Enrollment

All graduate students are required to enroll in at least one class over the span of the academic year. Failure to enroll in three consecutive terms results in dismissal from the program. After doctoral students pass their candidacy exam, they are required to enroll in dissertation hours every semester (including summer) until graduation. The [Continuous Enrollment](#) institutional policy and [Continuous Enrollment and Active Students](#) are available in the graduate catalog for more detail.

## Disability Statement

The University of Central Florida is committed to providing access and inclusion for all persons with disabilities. Students with disabilities who need access to program content and/or resources should contact the program coordinator as soon as possible. Students should also connect with [Student Accessibility Services \(SAS\)](#) (Ferrell Commons 185, [sas@ucf.edu](mailto:sas@ucf.edu), phone 407-823-2371). For students connected with SAS, a Course Accessibility Letter may be created and sent to professors, which informs faculty of potential course access and accommodations that might be necessary and reasonable. Determining reasonable access and accommodations requires consideration of the program's learning objectives and the individual academic and learning barriers experienced by the student. Further conversation with SAS, faculty, the program and the student may be warranted to ensure an accessible graduate experience.

### **ACCESS matters.**

**Purpose:** We envision UCF to be a fully accessible campus and inclusive environment for people with disabilities. We do this by:

- **Acknowledging disability as an aspect of human diversity;**

- Cultivating awareness of the environment's disabling barriers;
- Collaborating on and proactively facilitating accessible environments and experiences;
- Educating faculty and staff to create and maintain access in their spheres of influence;
- Shifting to an inclusive-minded attitude;
- Supplementing with reasonable accommodations as a last resort measure to ensure access.

## Dismissal/Discipline

[It is a reality that some students will not be able to remain in good academic standing or will not be able to meet the standards of internships, clinical, or practicum experiences. Some students may also not be able to meet program level professional/behavior standards. This could result in the necessary avenue to either formally discipline students or dismiss students from the program. Explaining these details is essential for students in graduate programs at UCF. This section provides the opportunity for each program to explain this process to their students.]

## Diversity Statement

The University of Central Florida considers the diversity of its students, faculty, and staff to be a strength and critical to its educational mission. UCF expects every member of the university community to be respectful in classrooms, work environments, and at campus events. Dimensions of diversity can include sex, race, age, national origin, ethnicity, gender identity and expression, intellectual and physical ability, sexual orientation, income, faith and non-faith perspectives, socio-economic class, political ideology, education, primary language, family status, military experience, cognitive style, and communication style. The individual intersection of these experiences and characteristics must be valued in our community.

Title IX prohibits sex discrimination, including sexual misconduct, sexual violence, sexual harassment, and retaliation. If you or someone you know has been harassed or assaulted, you can find resources available to support the victim, including confidential resources and information concerning reporting options at <https://letsbeclear.ucf.edu> and <http://cares.sdes.ucf.edu/>.

If there are aspects of the design, instruction, and/or experiences within this program or any of its courses that result in barriers to your inclusion or accurate assessment of achievement, please notify the program as soon as possible and/or contact [Student Accessibility Services](#).

For more information on diversity and inclusion, Title IX, accessibility, or UCF's complaint processes contact:

- Title IX – OIE <http://oie.ucf.edu/> & [askanadvocate@ucf.edu](mailto:askanadvocate@ucf.edu)
- Disability Accommodation – Student Accessibility Services – <http://sas.sdes.ucf.edu/> & [sas@ucf.edu](mailto:sas@ucf.edu)
- Diversity and Inclusion Training and Events – [www.diversity.ucf.edu](http://www.diversity.ucf.edu)
- Student Bias Grievances – Just Knights response team – <http://jkrt.sdes.ucf.edu/>
- UCF Compliance and Ethics Office – <http://compliance.ucf.edu/> & [complianceandethics@ucf.edu](mailto:complianceandethics@ucf.edu)
- Ombuds Office – <http://www.ombuds.ucf.edu>

## Dress Code

For the most part, the SMST faculty and staff employ a business casual dress code for their regular research and teaching responsibilities. They upgrade to business professional when presenting at a professional conference, to administrators, and/or otherwise representing the university and the School of Modeling, Simulation, and Training. Students are not required to adhere to a dress code during their studies. They are expected to consult with their faculty advisor for guidance when they are presenting research at a seminar, workshop, or conference. Students are reminded that they are not only representing themselves in these settings, but also their faculty advisor, the School of Modeling, Simulation, and Training, as well as the University of Central Florida. For guidance on both business casual and business professional attire, please refer to <https://www.purduecco.com/single-post/2014/04/17/dress-to-impress-business-casual-vs-professional>

## Enrollment in Thesis/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 dissertations (XXX 7980) credit hours constitutes full-time graduate status. Doctoral students who have passed candidacy and have begun taking doctoral dissertation hours (XXX 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.

## Full-time and Part-time Requirements

The M&S programs welcome both full time and part time students. Students who receive research or teaching assistantships from UCF must be enrolled full time. Also international students must remain in full time status.

## Grading and Grading Procedures

For most students, maintaining a minimum 3.0 GPA in the Modeling and Simulation doctoral program requires allocating 9-12 hours per week per class engaging in course materials. Each student's background knowledge, experience, and other variables may alter (either increase or decrease) the amount of time necessary to master each class's learning objectives. Several factors influence student academic performance and long-term learning. Active engagement in all course activities (e.g., class participation, readings, homework, assignments, projects, studying, etc.) will contribute to our students' learning and to their success in our program. According to research, a [metacognitive](#) learning approach combined with [practice testing](#) and distribution of practice over time is [most effective](#).

With reference to individual course grades, students are advised to refer to the [Grade System](#) section within General Graduate Policies of the grad catalog. This provides information regarding policy and protocol with incomplete course grades and how they impact academic progress. In general, formal coursework is graded A-F, with +/- assigned at the discretion of each course instructor. Any individualized instruction, such as directed research, internship, practicum, thesis, or dissertation, is graded S/U (satisfactory/unsatisfactory).

Unsatisfactory grades are considered grades of B-, C+, C, or U (unsatisfactory). Students are eligible to apply up to six credits of unsatisfactory grades to their plan of study, with program approval. Any grades below C are substandard, will not credit to a student's plan of study, will be applied to the student's GPA, and could be considered grounds for dismissal.

## Harassment

The University of Central Florida values diversity in the campus community. Accordingly, discrimination on the basis of race, sex, national origin, religion, age,

disability, marital status, parental status, veteran status, sexual orientation, or genetic information is prohibited.

Sexual harassment, a form of sex discrimination, is defined as unwelcome sexual advances, requests for sexual favors, or verbal or physical conduct of a sexual nature including any of these three situations.

1. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or enrollment.
2. Submission to or rejection of such conduct by an individual is used as the basis for employment or enrollment decisions affecting such individual.
3. Such conduct has the purpose or effect of substantially interfering with an individual's work performance or enrollment, or creating an intimidating, hostile, or offensive working or academic environment.

Sexual harassment is strictly prohibited. Occurrences will be dealt with in accordance with the guidelines above and university rules. Employees, students, or applicants for employment or admission may obtain further information on this policy, including grievance procedures, from the OIE Coordinator. The Director of the Office of Institutional Equity Programs is the campus Equity Coordinator responsible for concerns in all areas of discrimination. The office is located on the main campus, in Barbara Ying CMMS Building 81, Suite 101. The phone number is (407) 823-1336. Policies and guidelines are available online at <http://www.eeo.ucf.edu>.

## International Students

The programs welcomes International students. The rules and policies outlined in this handbook apply to all students. However, international students may have to comply with additional requirements such as being enrolled as full time student in every semester, and a limited number of online courses that can be taken at any given semester. Resources and policies pertaining to international students can be found at <https://global.ucf.edu/resources/> and <https://guides.ucf.edu/internationalstudents>

## Probation and Satisfactory Progress

The M&S programs follow UCF's policy on [Academic Progress and Performance](#) detailed in the Graduate Catalog

## Time Limits to Degree Completion

Time limits are discussed in the curriculum section and our programs also follow UCF's [Time Limitation and Continuous Enrollment Policy](#) in the Graduate Catalog.

## Transfer Credit

There are a variety of students who come to UCF graduate programs with previous academic courses that they would like transferred in. There are also current UCF students who might be switching programs where transfer courses might be applicable. Students are advised to follow the transfer policy set forth in the graduate catalog of their admission term.

## 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](#).

## Additional Program Details

### Financial Aid Funding

#### Graduate Research Assistantship

The Modeling and Simulation program has limited funding for a few one-year graduate research assistantships. Such assistantships pay a small stipend for Fall, Spring, and Summer, and typically provide a tuition waiver. They are intended for the first year only as a means of attracting particularly strong applicants, and they are competitively awarded to incoming doctoral students. When such students win such an assistantship, they are assigned to a faculty member and are expected to work with that faculty member on a research project. The expectation is that the student will work 20 hours per week, and that the student will disseminate the results of this work somehow, for example, by presenting a poster at the Spring SMST Day event or the Graduate Research Forum. Students who win such awards should consult their specific agreement for such details.

If that advisor/advisee relationship established by this first-year award proves fruitful for both parties, then the expectation is that the advisor will pick up the funding for that student for the remainder of the student's doctoral career. If the match is not a good one, the student is advised to start the process of finding a new advisor (and funding coverage) for the next year as early in that first year as possible.

The overwhelming majority of Modeling and Simulation students who receive an assistantship are funded by a faculty member who is the principal investigator (PI) on a funded grant. Though these are the most common, they also require the most legwork on the part of the student to find. Each lab and PI are different and have a unique process for recruiting and hiring students. Students are encouraged to look for faculty members who have similar research interests, then contact them to inquire about and apply for any research assistant openings.

The [College of Graduate Studies Funding Website](#) provides additional funding information in a larger and more broad sense. This includes:

#### Fellowships:

- There are a number of university fellowships to help doctoral students, including the Trustees Doctoral Fellowship and the Presidential Doctoral Fellowship. Programs must nominate eligible candidates for these awards.  
<https://graduate.ucf.edu/fellowships/>
- There are also external fellowships offered by organizations such as the National Science Foundation's Graduate Research Fellowship Program and the McKnight Doctoral Fellowship.

- <https://www.nsfgrfp.org/>
- <https://www.fefonline.org/mdf.html>

#### Assistantships:

- The College of Graduate Studies provides access to several assistantship opportunities.
  - <https://graduate.ucf.edu/assistantships/>

Outside of SMST, there is an online service at UCF that tries to connect students with prospective jobs (Handshake, <https://cse1.ucf.edu>); however, in our experience most faculty members do not post their GRA needs in that location.

#### Graduate Teaching Assistantships (GTAs)

The Modeling and Simulation program has limited funding for graduate teaching assistantships. These provide a stipend to the student for the semesters in which they serve, as well as a tuition support. Students must apply for these, and the application process is announced during late May-early June for the next academic year, and hiring decisions are typically made during July. To serve as a GTA for a class, the student must either have taken that class or the equivalent of it and performed well. GTAs must also complete the applicable UCF GTA training before the start of their contract.

The Faculty Center for Teaching and Learning (FCTL) offers an optional advanced course: Preparing Tomorrow's Faculty. More information about GTA training and this course are available through the FCTL website:

<https://www.fctl.ucf.edu>

#### Tuition Funding

Different assistantships have different expectations for student obligations, and they cover different things. All full-time graduate assistantships (contracted positions) will provide students with tuition support, and classify non-resident students as "residents for tuition purposes," with no non-resident fees. Some assistantships will cover the student's miscellaneous fees, as well. We encourage our students to ensure they understand what is covered by their contract and what their financial obligations will be. The following are some questions students are advised to ask before accepting an assistantship assignment:

- Is tuition covered? Are the fees also covered? Note that some awards cover tuition but not fees. Fees are usually very small amounts compared to tuition.
- Is my doctoral research considered part of the funded work, or is it separate to be done on my own time?
- What access to lab equipment, space, and/or resources will I have to conduct my doctoral work?
- If I publish a paper in a conference, will I be able to go and how will the trip be funded?

## Graduation Requirements

If you intend to graduate in a given semester, an Intent to Graduate must be filed via MyUCF, before the start of the student's graduating term. For specific deadlines, please consult the UCF Academic Calendar for the term of intended graduation. Be sure to meet the specified deadline since, if the deadline is missed, the student cannot graduate that semester. There is no risk nor penalty for filing an intent. If the student decides not to graduate, they can withdraw the intent and file again for a different semester. The Modeling and Simulation program also requires students have a brief review meeting with the Modeling and Simulation program coordinator before filing their intent. This is to go over all steps needed to complete the degree program. The interdisciplinary nature of Modeling and Simulation creates some significant differences from other programs. The Modeling and Simulation program coordinator must have an accurate plan of study on record in order to certify degrees properly.

This is an exciting time when students are ready to graduate with their doctorate. There is much to do here, but also much to celebrate. For information regarding the university's graduation ceremony, ordering regalia, acquiring tickets for the ceremony, etc., please refer to the [Commencement](#) website. Modeling and Simulation will honor all of its graduates in the spring, so remember to ask the program about this event, especially if graduating during the summer or fall.

## Job Search and Career Pathways

[Understanding the professional opportunities and benefits associated with completing a degree at UCF is very important for graduate students. In this section, programs can provide such information as:

- A description of potential careers related to your degree
- Data on employability in those fields
- Details on companies/industries that have hired graduates from your program
- For programs that have students who wish to become academics, information related to becoming a professor would be helpful
- Information on [UCF's Pathways to Success Program](#) can be provided
- Other career pathways information as relevant]

## Graduate Student Center

UCF is fortunate to have its own Graduate Student Center. It is a great place to relax, practice a presentation in one of our conference rooms, have lunch, and to meet and collaborate with other graduate students. For more information, please refer to their website: [Graduate Student Center](#)

## Forms

There are many different forms associated with being in your program and a graduate student at UCF. This is the administrative side of completing a degree. The Modeling and Simulation Program maintains necessary forms on its website. The College of Graduate Studies also maintains all [forms on their website](#).

## Useful Links/Resources

[There are a variety of events, resources, and field of study information you want your students to be aware of. This field can be used to provide that information. The following are a few examples:

- [Bookstore](#)
- [Campus Map](#)
- [Graduate Catalog](#)
- [Library](#)
- [Parking Services](#)
- [Shuttles](#)
- [Recreation Center](#)
- [Housing](#)
- [Counseling Center](#)
- [Writing Center](#)
- [Academic Calendar](#)]