

## UNIVERSITY OF CENTRAL FLORIDA

# **Graduate Program Handbook - 2023/24**

Ph.D. Computer Science

Reference this handbook to learn about the unique policies, requirements, procedures, resources, and norms for graduate students in the *Computer Science Ph.D. Program*.

[Sumanta N Pattanaik • 6/4/2023 • Department of Computer Science]



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# Letter of Welcome from Dr. Damla Turgut, Chair of the Department of Computer Science

Welcome, on behalf of Dr. Mark Heinrich, our associate chair, Dr. Wei Zhang, our graduate coordinator, and our faculty, to the department of Computer Science at UCF.

Computer Science is the engine that drives many of the achievements of our current world. It gave us the internet, smartphones, efficient manufacturing, and creative finance. It allows us to approach and sometimes exceed the capabilities of the human vision system, drive AR/VR experiences, answer queries in natural language, and generate workmanlike artwork. Soon, it will help drive cars and assist the disabled and the elderly. Some researchers argue that the whole universe is computational!

Computer Science presents new challenges for humanity, both when it falls short of its promises and when its unchecked powers can lead to unintended consequences. There are legitimate concerns that computational devices might replace jobs faster than new jobs are created for humans. Another danger is the inadvertent extension of our biases and prejudices into the computational world, whether through design mistakes, biased training data, or Al objectives that are not aligned with societal interests. Additionally, the cyber world created by computational agents is vulnerable to the activities of cybercriminals and serves as a battleground for competition between powers, state actors, and economic interests.

The Computer Science department at UCF is at the forefront of many current challenges. Our department offers undergraduate degrees in Computer Science and Information Technology, providing our students with an excellent education that enables them to compete with the top universities in the nation. For instance, our programming team had advanced to the World Finals of the International Collegiate Programming Contest almost every year since its first start in 1982. Notably, we have achieved as high as second place at the international level and compete well each year against the best teams worldwide. Another remarkable accomplishment is our Collegiate Cyber Defense Championship team, which has secured first and second place in the competition nearly every year since 2014, while also achieving success in various other cyber competitions.

Our department offers master's degrees in Computer Science and, for students who aim to specialize their graduate education to a specific area and career path, we are

also offering master's degrees in Computer Vision, Cyber Security and Privacy, and Digital Forensics. Our department is also involved in interdisciplinary master's programs in Data Analytics and FinTech.

Finally, the faculty and students of our department perform research in many areas of computer science, ranging from theoretical advances to translational research. Our Ph.D. program is the oldest Computer Science Ph.D. program in Florida, as well as the first Ph.D. program at UCF. Our faculty comprises members of the National Academy of Sciences, as well as Fellows of IEEE and ACM. Our students consistently publish their work in the top venues of their respective fields, and they are sought after by research institutes, universities, and industry research labs.

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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.



#### How to Use This Handbook

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

#### Who to Contact for Questions

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

#### **Graduate Program Staff**

Each graduate program will have at least one department staff person typically called a Graduate Program Coordinator who serves as a point person for program policy and procedures. Graduate Program Coordinators are well versed in most elements of graduate education that extend beyond academic instruction in your program and will likely be your first stop for questions related to anything in this handbook.

#### **Director of Graduate Studies**

Each graduate program has one faculty member designated to direct its educational vision and structure.

Names and contact information of your Graduate Program Coordinator and Director of Graduate Studies can be found on your program's page in the <u>Graduate Catalog</u>. Simply navigate to the Programs tab in the catalog and then navigate to the program name.

#### **Graduate School Services**

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

## Onboarding

CS-PhD program does not have any specific onboarding requirements.

UCF graduate program conduct new student orientations every year before Fall semester starts. Visit <a href="https://graduate.ucf.edu/orientation/">https://graduate.ucf.edu/orientation/</a> for the details. College of Engineering and Computer Science conducts online new student orientation. See <a href="https://grad.cecs.ucf.edu/prospective-students/new-student-orientation/">https://grad.cecs.ucf.edu/prospective-students/new-student-orientation/</a> for the orientation schedule. All new students are encouraged to attend these orientations.

All international students are required to complete an online international student orientation prior to their arrival to the USA. Visit <a href="https://global.ucf.edu/international-students-scholars-and-professionals/prospective/">https://global.ucf.edu/international-students-scholars-and-professionals/prospective/</a> for the details.

#### Introduction/Overview Section

| Complete Name of Degree                     |
|---|
| CS-PhD                                      |
| College                                     |
| College of Engineering and Computer Science |
| Department                                  |
| Computer Science                            |

**Program Type** 

**Doctoral** 

**Program Website** 

https://www.cs.ucf.edu/

Year of Program Inception

1980

## **Program Overview Narrative**

The Computer Science Ph.D. program prepares its students in the highest level of theory and practice of Computer Science, aiding with the development of research and instruction skills for positions in academia, industry, and government sectors. The Computer Science Ph.D. program produces professionals trained at the highest possible academic level in the theory and practice of Computer Science to meet current and projected market demands for Computer Science experts. CS Ph.D. students from the Department of CS at UCF graduate with proven abilities in research and instruction and have expertise suitable for positions in industry, academia, and government.

Students in the program receive a broad background in the areas of programming systems and languages, computer architecture and computer science theory while specializing in a research area. Research interests of the computer science faculty include bioinformatics and system biology, computer architecture, computer graphics, computer security and digital forensics, computer vision, database, image and video processing, machine learning and AI, networking and mobile computing, parallel computation, software engineering and systems, theory of computing, algorithms and quantum computing, virtual reality and HCI.

#### Mission

The mission of the Department of Computer Science is to advance human understanding of Computing through education and research. In education, our goal is

to educate students to become effective team members and leaders, to have excellent communications and technical skills, and to prepare them for successful professional careers or advanced research, as appropriate. In research, our goal is to perform high-impact research that advances human understanding and benefits the economy and society.

The mission of the Computer Science Ph.D. Program is to produce Computer Scientists, who can teach at the university level and to conduct original research for academia, research laboratories, and industry.

#### The objectives of the CS Program at UCF are that:

- 1. CS graduates participate as effective and productive team members or leaders in the development of computer and software systems covering a broad range of fields including engineering, scientific, and enterprise applications.
- 2. CS graduates demonstrate the knowledge and skills to do advanced studies and research in computer science and related engineering and scientific disciplines.

## Program Accreditation/Certification

[Here the program will provide relevant details associated with any accreditations/ certifications the program holds. Leave this section as is if none.]

## Student Learning Outcomes/Competencies

- 1. To produce Ph.D. students with a high level of both theoretical and practical competency in analyzing and designing algorithms, software systems, and hardware systems.
- 2. To teach Ph.D. students fundamental skills that will enable them to solve challenging real-world problems in their future careers.
- To produce Ph.D. students who have acquired skills and knowledge to conduct high-quality research in their area of specialization and publish their research findings in prestigious peer-reviewed journals and conferences.
- 4. To produce Ph.D. students who create a Dissertation Manuscript that contributes to the state of the art of the student's research area and who effectively present

- and communicate their research findings to experts in their area and also scientists in related fields.
- To produce Ph.D. students who have the potential of becoming successful in industry and also in academia as faculty members.

#### Student Expectations

Students in the Ph.D. program must work responsibly toward completion of the degree curriculum requirements. The PhD degree requirements are listed on page <a href="https://www.cs.ucf.edu/graduate/computer-science-phd/#cs-phd-program-curriculum">https://www.cs.ucf.edu/graduate/computer-science-phd/#cs-phd-program-curriculum</a> and are outlined later in this document. Students are expected to take 3 courses (9 credit hours) every semester. This is the full-time course load for the PhD program (for students in candidacy status 1 course is considered as the full-time status).

## **Professional Development**

In this section, we identify university resources available to students for professional development. A graduate student's professional development goes beyond completing course work, passing exams, conducting research for a thesis or dissertation, and meeting degree requirements. Professional development also involves developing the academic and non-academic skills needed to become successful in the field of choice.

- UCF has an active professional development program for graduate students, including the Professoriate Program, sponsored by Faculty Center for Teaching and Learning, the GTA Certificate Program, sponsored by FCTL, the Pathways to Success program, the Graduate Research forum, sponsored by the Division of Graduate Studies, and special award recognitions such as the Award for Excellence by a Graduate Teaching Assistant, the Award for Excellence in Graduate Student Teaching, the Award for the Outstanding Master's Thesis, and the Award for the Outstanding Dissertation (see below for details).
- The university has active student chapters of the ACM and the IEEE. The cost for student membership in the national organizations is subsidized by professional memberships. This is a "bargain" that no student should pass up. Computer Science sponsors regular colloquia talks by leading researchers in the discipline. All students are strongly encouraged to attend as many as feasible within the constraints of their courses and other academic obligations. In fact the Department of EECS sets a minimum number of attendances for PhD students supported by the Department or its faculty

- members all PhD students will be apprised of how to sign up for colloquia (a zero-credit course) and how to report attendance.
- Various research groups hold their own seminars in which students present their research in front of other members of their research group.
- Doctoral students have the opportunity to develop grant-proposal writing skills by working closely with faculty mentors.
- Students are expected to publish the results of their research. In fact, the CS PhD requires publication to enter candidacy.
- Graduate students in CS are encouraged to present papers at conferences.
   Often their faculty mentor will be able to fund one or more such opportunities.
   The Department of EECS and the Student Government Association are other sources of such support.
- Graduate students in CS are also encouraged to participate in summer research internships when this is compatible with their research agendas – see your research advisor for more information and guidelines.

#### Instructional Strategies and Resources

The Faculty Center for Teaching and Learning provides classes and programs designed to assist graduate students with the educational issues they face in the classroom as teaching assistant or as instructors. These resources include assistance in course design and syllabi development, learning theories, and the use of different technologies in the classroom or on the internet.

Further information on these resources is available at <a href="https://fctl.ucf.edu/teaching-resources/">https://fctl.ucf.edu/teaching-resources/</a>.

#### Instructor Training and Development

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

- GTA Training (mandatory for employment as a GTA): This training provides information and resources for students who will be instructors in a two-day workshop. The seminars cover a variety of topics, including course development, learning theories, lecturing, and academic freedom. Those interested in additional training can also attend an optional training session that normally follows the mandatory training.
- Preparing Tomorrow's Faculty Program: This certificate program (12-weeks) consists of group and individualized instruction by Faculty Center staff and experienced UCF professors. Textbooks and materials are provided.

For more information on these events visit <a href="https://fctl.ucf.edu/programs/gta-programs/">https://fctl.ucf.edu/programs/gta-programs/</a>.

#### Pathways to Success Workshops

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

#### Graduate Research Forum

The Research Forum will feature poster displays representing UCF's diverse colleges and disciplines.

The <u>Graduate Research Forum</u> is an opportunity for students to showcase their research and creative projects and to receive valuable feedback from faculty judges. Awards for best poster presentation in each category will be given and all participants will receive recognition.

The College of Graduate Studies and the Graduate Student Association invite all UCF students, community, and employers to attend the Graduate Research Forum. For more information, contact <a href="mailto:researchweek@ucf.edu">researchweek@ucf.edu</a>.

#### **Graduate Excellence Awards**

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

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

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

**Award for the Outstanding Dissertation** – It recognizes doctoral students for excellence in the dissertation. The focus of this award is on the quality and contribution

of the student's dissertation. Excellence of the dissertation may be demonstrated by evidence such as, but not limited to: publications in refereed journals, awards and recognitions from professional organizations, and praise from faculty members and other colleagues in the field.

For the nomination process and eligibility criteria, see <a href="https://graduate.ucf.edu/awards-and-recognition/">https://graduate.ucf.edu/awards-and-recognition/</a>.

#### Other

For information about the Council of Southern Graduate Schools (CSGS) thesis and dissertation awards, see their website: <a href="http://www.csgs.org/awards/">http://www.csgs.org/awards/</a>.

For grant-proposal writing resources: <a href="https://uwc.cah.ucf.edu/">https://uwc.cah.ucf.edu/</a>.

## Advising/Mentoring

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

Your advisor has two main roles: 1) To assist you in acquiring the highest possible level of knowledge and competence in the field, and 2) to chair the committee that will determine whether you have performed at an acceptable level in each of your degree milestones. Other roles of your advisor may include tracking your progress in completing your degree, assisting with course selection and planning your academic path, and helping you identify possible research mentors, committee members, and research opportunities.

Both the student and advisor are responsible for making their expectations clear to each other. Be sure to discuss this with your advisor.

## Finding & Selecting an Advisor

Your advisor should be a faculty member in the program whose expertise and project/research interests match closely with those that you intend to acquire. To learn more about the faculty in your program, consider consulting the following sources:

- Courses and seminars you attend
- Our program website (https://www.cs.ucf.edu/people/all-faculty/)
- Faculty publications
- Students currently in a prospective advisor's group/lab

Additionally, you may wish to have a discussion with a prospective advisor. Below are some questions to consider asking in this discussion, though it is not a complete list. You should spend some time identifying what is most important to you in your graduate training and ask questions accordingly.

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

- What thesis projects would be available to me if I were to join your group?
- Would these projects expose me to a variety of different approaches?
- In general, how available will you be to answer questions I might have?
- What is your philosophy regarding the amount of guidance the advisor should provide to a student during preparation of the thesis proposal, literature seminars, thesis writing, etc.?
- What are your expectations for the amount of time I should spend each day/week in your group/lab?
- What regularly scheduled activities (e.g., group meetings, joint group meetings, research clubs) does your group participate in that provide an opportunity to get outside input on my research project and to hear about the work of other students and postdocs?
- Do you encourage your students to attend seminars and journal clubs, including those that may be outside of their narrow field of interest/research?
- Do students in your group/lab have the opportunity to attend professional meetings where they can interact with colleagues/researchers from other institutions?
- Do you include your graduate students in professional activities that will familiarize them with their field of interest/research, such as reviewing manuscripts and meeting with visiting speakers?
- How long do you think it should take me to get my degree?
- What are your former graduate students (if any) doing now?
- What is your general philosophy of graduate training and what goals do you have for your graduate students?

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

## Changing Your Advisor

As the advisor-student relationship is one of mutual agreement, it may be terminated by either party. If you decide that you would prefer working with a different advisor, discuss this with your prospective advisor to seek the change.

## Giving & Receiving Feedback

The students are encouraged to get in touch with the graduate advising office any time they consider it necessary. They should expect prompt responses for their electronic communications. Appointments for face-to-face meetings may be necessary.

## **Program Costs and Fees**

[Programs describe here all relevant costs associated with being in the program. This can include discussion around professional membership fees, lab coats, relevant equipment fees, and other associated costs for that program. If there are not additional fees/costs, leave this section as is.]

Students in the Computer Science PhD program pay a \$34 equipment fee each semester that they are enrolled. Part-time students pay \$17 per semester.

## **Organizational Chart**

[If desired, programs can provide students with an organizational chart of the program, department, and/or college. If not, leave this section as is.]

## **Program Assessment**

[The program may be involved in regular/annual assessment practices. It could be for such things as annual reports, reporting to certification or accrediting bodies regarding compliance, or for continuous improvement. Some of these assessment efforts may require involvement or data from students in the program. These details would be provided in this section. If not relevant, please leave this section as is.]

#### How to Get Involved

As a graduate student at UCF, you have a multitude of opportunities to become involved on campus and in your academic discipline. This involvement often enhances your academic, professional, and personal growth through developing advanced leadership, communication, and collaboration skills. It also provides opportunity for professional networking. Visit Office of Student Involvement for related information.

#### **Curriculum Section**

#### Admission Requirements

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the <u>Admissions</u> section of the Graduate Catalog. Applicants must <u>apply online</u>. All requested materials must be submitted by the established deadline.

#### **Prerequisites**

It is expected that students with an MS degree will apply to the PhD program. Outstanding students with an undergraduate degree are also encouraged to apply directly into the doctoral program. An undergraduate degree in Computer Science is desirable but not required. Applicants without a strong undergraduate background in Computer Science must demonstrate an understanding of the material covered in upper-division undergraduate courses listed under the Articulation Section of the Curriculum Information. Applicants may choose to demonstrate their knowledge of these courses by taking these courses as non-degree seeking and scoring "B" or better in all of them.

- CDA 3103C: Computer Logic and Organization
- COP 3502C: Computer Science I
- COP 3503C: Computer Science II

#### Application Requirements

In addition to the general <u>UCF graduate application</u> requirements, applicants to this program must provide:

- One official transcript (in a sealed envelope) from each college/university attended.
- Official, competitive GRE score taken within the last five years.
- Résumé.
- Statement of educational, research, and professional career objectives.
- Three letters of recommendation.

#### Degree Requirements

Students must follow a prescribed, yet flexible path, achieving milestones along the way. If a student is hard working and diligent, and is a full-time graduate student, he or she should be able to complete the PhD program within 4–5 years (or typically 2 to 3 years beyond the MS).

Please visit PhD in Computer Science for a more detailed description. A current list of CS course can be found at Graduate CS Courses. Typically, students can begin registering for Summer, Fall, and Spring of the following year in mid-late March. See UCF Registration Practices to get an idea of how to do this.

In all programs, students must maintain a 3.0 GPA or better in all coursework taken since admission into the program. Furthermore, a 3.0 GPA must be maintained on just the courses on the POS. In addition, there are specific GPA requirements on certain individual courses or sets of courses as detailed below. No course can be on the POS with a grade below a C (2.0) and at most two below a B (3.0). These and the stipulations outlined below cannot be waived.

- A total of at least 72 credit hours (CDA 5106, COT 5405, and COT 6410, all with a grade of B (3.0) or better) at the 5–7000 level. At least one half of these must be 6–7000 level. At most 30 credit hours can be waived from a completed MS program. Otherwise, at most 9 external credits can be transferred. (Refer to <a href="UCF Graduate transfer policy page">UCF Graduate transfer policy page</a> for details).
- No courses below the 5000-level, with no 5000-level CGS prefix course work.
- A total of at least 36 credit hours of CS coursework (Prefixes CAP, CDA, CEN, CIS, CNT, COP, and COT,) and courses the research advisor approves as required for the progress of student's research, and excludes Independent Study/Doctoral Research/Dissertation credits.
- No more than 12 credit hours of independent study (CXX 6908).
- Five 6000- or 7000-level courses (15 credits) with grades of "B" (3.0) or better taught by CS faculty. None of these may be independent study or dissertation and two of these courses may be directed research courses for which letter grades (not S/U) are assigned.
- At least 15 credit hours and at most 24 credit hours of PhD dissertation (CXX 7980).

## Master's Degree Enroute

Students can request for an MS on the way once they have met the MS requirements, and got a PhD candidacy status (i.e. passed the PhD candidacy exam). Students can

also request for an MS degree if they have met the MS requirements but have failed the qualifying review (QR) and are asked to leave. In either case, the student must have the approval of the advisor or the department graduate committee to be eligible to apply for the MS degree.

## Internship/Practicum/Clinical Experience

[None required.]

## Independent Study

Independent Study is designed to provide an opportunity for the student to complete academic work independently under the general guidance and direction of a faculty member. Such a course allows students to create their own study on a topic of choice. Student can use no more than 12 credit hours of independent study towards their degree requirements.

## Culminating/Capstone Experience

[none required.]

## Certificate Program Linkages

[Programs can describe the application process for graduate certificate programs and how certificate programs relate to a students' major program of study. Relevant information on what certificate programs might link with their degree program can be described so students are aware of how different certificates can be combined with their degree to add a component of specialization to their degree.]

## Other Program Requirements

[There are programs that may have Degree requirements that are outside the spectrum of the sections provided on this program handbook template. This field is for a description of those requirements. If not, this section can be left as is.]

## Sample Plan of Study/Course Sequence/Completion Timeline

[Each program has degree requirements that describes WHAT courses or academic responsibilities are needed to complete the degree or program. This section is for telling your students HOW they can complete the degree. Programs can provide information in this section that describes either specified paths for completing the degree or an example plan of study for completing the degree. This can include a description of:

- The order that classes are taken including relevant milestones and when they
  occur.
- A semester-by-semester view of courses taken including relevant milestones to degree completion.
- A part-time view of how to complete the degree.
- A full-time view of how to complete the degree.
- Recommended timeline for completing the degree with relevant courses and milestones provided.]

#### **General Timeline**

- File an initial Plan of Study (By the 9th credit hour)
- Obtain a research advisor
- Qualifying Review (Between 19th and 37th credit hour)
- Form a Dissertation Advisory Committee
- Candidacy (Paper acceptance)
- Dissertation Proposal
- Dissertation Defense

#### PhD Milestones

Most new students will already have an advisor who has recruited and agreed to at least partially support them in their research. Others must seek out and align themselves with a research advisor as quickly as possible. The choice of an advisor is not irrevocable, but it should not be taken lightly either. Often, an advisor has committed resources and made plans that were dependent upon your participation. Changes can only occur with the approval of the graduate coordinator. As noted above, a research advisor must be in place substantially prior to entering the Qualifying Review process.

## A sample course sequence

(**Note**: 6 hours of Independent Study and 3 hrs of Dissertation in Summers are not shown)

#### 1st Year

| Fall  | Spring  |
|---|---|
| CDA 5106: Advanced Computer Architecture        | <ul> <li>COT 6410: Complexity Theory</li> </ul> |
| COT 5405: Algorithm Analysis                    | <ul> <li>COP 5611: Operating Systems</li> </ul> |
| <ul> <li>COP 7919: Doctoral Research</li> </ul> | <ul> <li>COP 7919: Doctoral Research</li> </ul> |
| Semester Total: 9 credit hours                  | Semester Total: 9 credit hours                  |

#### 2nd Year

| Fall  | Spring   |
|---|--|
| COT 6415: Complexity/Parallel Computation       | CAP 6637: Intelligent Systems                          |
| COP 5021: Program Analysis                      | <ul> <li>COP 6615: Operating Systems Theory</li> </ul> |
| <ul> <li>COP 7919: Doctoral Research</li> </ul> | <ul> <li>COP 7919: Doctoral Research</li> </ul>        |
| Semester Total: 9 credit hours                  | Semester Total: 9 credit hours                         |

#### 3rd Year

| Fall  | Spring  |
|---|---|
| <ul> <li>COT 6600: Quantum Computing</li> </ul>     | COT 6602: Quantum Information Theory                        |
| <ul> <li>COP 6621: Compiler Construction</li> </ul> | <ul> <li>COT 6300: Theory of Parsing/Translation</li> </ul> |
| <ul> <li>COP 7919: Doctoral Research</li> </ul>     | <ul> <li>COP 7919: Doctoral Research</li> </ul>             |
| Semester Total: 9 credit hours                      | Semester Total: 9 credit hours                              |

#### 4th Year of Graduate Training

| Fall                           | Spring                         |
|--------------------------------|--------------------------------|
| COP 7980: Dissertation (3)     | COP 7980: Dissertation (3)     |
|                                |                                |
| Semester Total: 3 credit hours | Semester Total: 3 credit hours |
| Summer                         |                                |
| COP 7980: Dissertation (3)     |                                |
|                                |                                |
| Semester Total: 3 credit hours |                                |

#### 5th Year of Graduate Training

| Fall                           | l Spring                       |  |
|--------------------------------|--------------------------------|--|
| COP 7980: Dissertation (3)     | • COP 7980: Dissertation (3)   |  |
| Semester Total: 3 credit hours | Semester Total: 3 credit hours |  |

For specific course selection, the student must consult with the research advisor to develop the required Plan of Study (prior to completion of 9th credit hour).

#### Statement of Graduate Research

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

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

UCF's Patent and Invention Policy: In most cases, UCF owns the intellectual property developed using university resources. The graduate student as inventor will according to this policy share in the proceeds of the invention. Please see the current <a href="UCF Graduate Catalog">UCF Graduate Catalog</a> for details.

#### Department Research

Research interests of the computer science faculty include bioinformatics, computational biology, computer and network security, computer architecture, computer forensics, computer graphics, computer networks, image and video processing/analysis, computer vision, cryptography, data compression, database management systems, data mining, data analytics, design and analysis of algorithms, evolutionary computation, genetic algorithms, graph theory, hardware/software co-design, machine learning, mixed and virtual reality, mobile computing, modeling and simulation,

multimedia systems, artificial intelligence, natural language processing, neural networks, parallel and distributed processing, performance evaluation, programming languages, quantum computing, semantic web, software agents, robotics, software engineering, and VLSI systems. Visit the "Research" and the "Industry" sections, as well as individual faculty member's web sites under "People" in the <a href="Computer Science">Computer Science</a>
<a href="Department">Department</a>'s website for additional information.S

#### **Examination Section**

#### **Exam Introduction**

After a student has been admitted into the PhD program and has a research advisor, there are several points in their academic career that require special attention. We cover these in more detail in the following.

## Scheduling of Exams

[Programs provide details regarding the protocols for scheduling the various examinations that students are required to complete as part of your degree. It also addresses the timing for when exams take place and to make sure students know how much in advance the exams need to be scheduled.]

## Capstone Narrative

[If your program has a capstone project, you will provide all relevant details associated with requirements associated with a capstone experience in this section. If you don't have a capstone, then leave this section as is.]

## Qualifying Review and Candidacy

#### Qualifying Review (QR)

To better ensure that PhD students have acquired the requisite background and are prepared to make a successful transition into the research phase of their academic career, the graduate committee requires the students to pass through a Qualifying Review (QR) process.

The QR will be offered twice a year in the Fall (sometime in October) and the Spring (sometime in March) semester. The Graduate Committee will meet twice a year to evaluate the results. Each student must apply for the qualifier before completing their 37th credit hour in the PhD program, excluding credits hours taken during summer

semesters, doctoral research credit hours taken under a previous advisor, and transfer credit hours. Hence, most students must apply for the qualifier before completing their fifth semester of the PhD program. To pass the qualifier, the student must demonstrate satisfactory progress in their coursework, must secure an advisor, and must show acceptable progress on a mutually agreed-upon research topic with the advisor.

Specifically, all students applying for the qualifier must submit to the <u>online QR system</u> a portfolio containing the complete record of coursework (a SASS Degree Audit highlighting the core courses) and a manuscript endorsed by the advisor summarizing the student's research progress made since the student started in the PhD program OR a citation of an accepted or published work with the advisor, along with the advisor's endorsement. In the case that student would fail the Qualifying Review because they lack the advisor's endorsement, but have a published work with them, the student may appeal to the Graduate Committee, which will then render a final decision.

If applying for the qualifier before completing their 19th credit hour in the PhD program (i.e., before completing their third semester of the PhD program), excluding the aforementioned types of credits hours, the student must demonstrate at minimum a passing grade (B or above) in one core course, and proof of registration in the current semester in another core course. If applying later, the student must demonstrate passing grades in all core courses.

A student who passes the Qualifying Review will assemble an advisory committee and will continue with the completion of the rest of the PhD program's milestones (i.e., Candidacy Examination, Dissertation Proposal Examination, and Dissertation Defense). The advisory committee must consist of at least four members. The chair (the student's advisor) and at least two others must be CS faculty. A fourth member must be from outside the Department.

## Candidacy

After passing qualifiers, students are required to successfully complete the candidacy examination to demonstrate readiness for preliminary research in a chosen field of study. This exam requires the acceptance of a professional paper by a peer-reviewed conference or journal that is deemed acceptable to the student's advisory committee as a major contribution to student's area of research. A student must demonstrate his or her readiness for the PhD program in Computer Science by authoring accepted journal articles or high-quality conference papers. This should occur by the time the student is nearing the end of their coursework. The appropriateness of the work and venue for passing candidacy will be judged by the student's dissertation advisory committee and, if deemed satisfactory, will result in a recommendation that the student be given Candidacy status. Admission to candidacy requires the approval of the program director

and the college coordinator and is forwarded to the UCF College of Graduate Studies for status change. Only after admission to candidacy may a student register for doctoral dissertation hours (CXX 7980). Please note that the <u>Candidacy Status Change form</u> and any associated paperwork must be submitted for processing by the last day of classes of the semester prior to enrolling in dissertations credits.

External members of dissertation advisory committee are not appointed until after the student has entered candidacy. By general University guidelines, a student and his or her dissertation advisory committee must formally convene for the committee to appraise the student's progress at least once per calendar year.

All transfer of credits, grade changes, and incomplete grades must be resolved prior to entering candidacy status.

Upon entering candidacy status, students must be registered continuously (including Summer) as full-time students until graduation. Students in candidacy status are considered "full-time" when enrolled in 3 credits of CXX 7980, Dissertation.

#### **Dissertation Section**

#### **Doctoral Dissertation - Overview**

The following can be found in the <u>UCF Thesis and Dissertation</u> and is worthy of repeating here.

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

#### Dissertation – Form and Content

The College of Graduate Studies coordinates the format review and final submission process for ETDs (<u>Electronic Theses and Dissertations</u>), establishes the university's thesis and dissertation deadlines, and administers thesis and dissertation related policies.

## 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 academic integrity (responsible conduct of research) training, 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 <a href="editor@ucf.edu">editor@ucf.edu</a>.

#### **Doctoral Candidate**

[Provide students with all relevant information related to the transition from candidacy to doctoral candidate. When can you start taking dissertation classes?]

All transfer of credits, grade changes, and incomplete grades must be resolved prior to entering candidacy status.

Upon entering candidacy status, students must be registered continuously (including Summer) as full-time students until graduation. Students in candidacy status are considered "full-time" when enrolled in 3 credits of CXX 7980, Dissertation.

#### Dissertation - Deadlines

Every semester deadlines related to Graduate Doctoral Dissertation Initial Format Review, Graduate Thesis/Dissertation Defense Deadline, Graduate Thesis/Dissertation Final Submission Deadline are published in <a href="UCF Calendar">UCF Calendar</a>. Students must adhere to those deadlines.

#### Dissertation - Committee Details

Doctoral students must have a Dissertation Advisory Committee prior to the Candidacy Examination. The Committee will consist of a minimum of four members. At least three members must be qualified regular faculty members from the department, one of whom must serve as the chair of the committee. One member must be from either outside the School of EECS or outside the university.

The committee chair must be a member of the department graduate faculty approved to direct dissertations. Joint faculty members serve as department-faculty committee members. Adjunct faculty and off-campus experts may serve as the external person in the committee as long as they are approved graduate faculty scholars. Program areas may further specify additional committee membership. The College of Graduate Studies reserves the right to review appointments to advisory committees, place a representative on any advisory committee or appoint a co-adviser.

Joint faculty members may serve as committee chairs, but graduate faculty scholars may not serve as committee chairs. All members vote on acceptance or rejection of the dissertation proposal and the final dissertation. The dissertation proposal and final dissertation must be approved by a majority of the advisory committee.

#### Dissertation – Proposal

All PhD students must write a dissertation. This must be preceded by an oral presentation of a written dissertation proposal, which, in turn, cannot occur until a term after admission into candidacy status. The purpose of the written proposal, given to members of the research committee at least two weeks prior to the presentation, is to show the student has sufficiently explored the literature of a significant research problem in computer science to be able to embark upon solving that problem. The written proposal should detail a proposed methodology and plan for undertaking the research work, and its completion. Rules governing the proposal announcements, scheduling and committee attendance can be found in the UCF Graduate Catalog.

The oral presentation of the proposal is open to the public and must be announced at least two weeks prior to its occurrence. The presentation should last approximately 45 minutes to an hour, and it should show the student is aware of the background, has a good idea of the problem being attacked, and has a reasonable plan for carrying out the research. The committee's role is to assess the significance of the proposed problem, the feasibility of the proposed solution, and to offer advice.

The proposal is not "cast in stone." It is a proposal. The research may change direction as new information is uncovered. That is perfectly acceptable and expected. Of course, if the direction of the research becomes too "off target" a new proposal should be considered. This is at the discretion of your advisor, committee, and the graduate coordinator.

#### Dissertation - IRB

Graduate work (thesis or dissertation) which involves research on human subjects requires IRB review and approval prior to the start of research. For IRB procedure and policy visit this page. For instruction on getting started visit this page.

#### Dissertation - Defense

The dissertation defense is an oral presentation and defense of the written dissertation describing the student's research. The advisory committee will evaluate and judge the dissertation defense. Successful students must demonstrate that they are able to conduct and report original independent research that contributes substantially to the discipline in which they study. The defense is a formal academic requirement and

should be accorded respect and dignity, and thus, no refreshments or other distractions should be served during the defense.

Dissertations will be approved by a majority vote of the dissertation advisory committee. Further approval is required from the Dean or Dean designee and the UCF College of Graduate Studies before final acceptance of the dissertation in fulfilling degree requirements.

#### Dissertation – Submission Procedures

Students are responsible for being completely aware of the rules and regulations from the pages of <u>Electronic Thesis and Dissertation</u>.

All thesis and dissertation students should access the <u>Thesis and Dissertation</u> <u>Webcourse</u> early in the process. This free, non-credit webcourse contains:

- UCF's required formatting instructions
- Procedures for declaring your advisory committee
- Resources on IRB, copyright, publishing, and dissemination
- Review for Original Work (iThenticate) instructions
- Information on the final defense process
- Instructions for the final submission process

The <u>Thesis and Dissertation Services</u> is your primary resource for all things ETD. In particular, the Office:

- Publishes the Thesis and Dissertation Manual and other resources
- Updates the thesis and dissertation web information
- Manages the Thesis and Dissertation webcourse and the Thesis and Dissertation Services site
- Performs Format Reviews / Approvals
- Processes thesis and dissertation paperwork and final submissions
- Conducts thesis and dissertation workshops
- Answers general process and format questions

#### Dissertation – Additional Relevant Information

As with the proposal, the defense is announced and open to the public. Furthermore, the defense cannot be scheduled in the same term as the proposal. Please see <a href="UCF">UCF</a> <a href="Thesis and Dissertation">Thesis and Dissertation</a>.

## **Program and Institutional Policies**

#### **Absences**

Students who anticipate that they may not be able to enroll continuously due to external circumstances should apply for <u>Special Leave of Absence</u>. 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 <u>Leave of Absence Form</u>. 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

[It is essential that students are aware of appropriate standards of conduct and integrity while a graduate student in your program and at UCF. This section is a statement of your program's stance. Reference to the Golden Rule can be included.]

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

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

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

#### **Accommodations**

UCF admits a diverse graduate student population. Some of those students may need an (or a variety) of accommodations to help them be successful in the program. UCF strives to be a fully accessible campus for those in need of accommodations.

Students are referred to <a href="https://sas.sdes.ucf.edu/accommodations/">https://sas.sdes.ucf.edu/accommodations/</a> for the details.

# Admission to Candidacy

A student must demonstrate their readiness for the PhD program by successfully completing the candidacy examination before admission to full doctoral status and enrollment into dissertation hours. The Candidacy Examination should be taken when the student is nearing the end of coursework. The exam is administered by the members of the student's dissertation advisory committee or another appropriate committee appointed by the program. Admission to candidacy will be approved by the program director and the college coordinator and forwarded to the UCF College of Graduate Studies for status change. Only after admission to candidacy may a student register for doctoral dissertation hours (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.

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.

#### **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 tracking correctly as it relates to programmatic course work, and milestones. The other element of the annual review is to assess how doctoral students are progressing academically, how they displaying the type of academic and research competencies set down by their advisor that are needed to successfully complete the degree?

The students are required to complete yearly academic reviews at the end of their academic year, provide a 12 month plan for the next year and their plan for the completion of their degree program. The review report is completed by the student using a <u>dynamic form</u>. It is then reviewed by the research advisor and finally by the graduate coordinator. The advisor verifies the correctness of the student's report and makes suggestions to address deficiencies if any. The graduate coordinator passes his/her comments to the student.

### Appeals/Grievances

There will be instances where students will not agree with an assessment related to their development or progress in a program. The student has options to appeal against the assessments. For appeals related to graduate requirement procedures see the <a href="Academic Grievance">Academic Grievance</a> section under General Graduate Policies for handling student appeals and grievances. For general complaints and appeals visit the <a href="Student">Student</a> <a href="Complains and Appeals">Complains and Appeals</a> page of UCF Student Development and Enrollment Services.

#### Communication

It is expected that the student is in regular contact with his/her research advisor. Students are also encouraged to seek advisements from the program director to get clarifications on policy and for graduate matters that are not directly related to the student's research. Unless advised otherwise, electronic communications are preferable.

#### **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 students Knights Email address to ensure that there is one repository for that information. Every student must register for, and maintain a Knights Email account at <a href="https://extranet.cst.ucf.edu/kmailselfsvc">https://extranet.cst.ucf.edu/kmailselfsvc</a> 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 <u>UCF</u> Computer Services Service Desk so that a student receives all important messages.

Additionally, each student must have an up-to-date emergency e-mail address and cell 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 Knights Email account for official announcements and notifications. Communications sent to the Knights Email address on record will be deemed adequate notice for all university communication, include 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 Knights Email account. Please ensure that this information is current and that any changes in contact information are made online through the myUCF portal at <a href="https://my.ucf.edu/">https://my.ucf.edu/</a>.

### 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 3 consecutive terms results in dismissal from the program. After candidacy exam is passed for doctoral students, they are required to enroll in dissertation hours every semester until graduation. The institutional policy from the graduate catalog around continuous enrollment could be provided in this section.

Continuous Enrollment and Continuous Enrollment and Active Students.

### **Disability Statement**

#### **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**

One way to promote a safe and caring classroom community is to encourage each student's unique voice, perspective, and presence. The following diversity statement gives professors language for explaining how students' contributions will be valued:

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 contribute to an inclusive and respectful culture for all in its 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 <a href="https://letsbeclear.ucf.edu/">https://letsbeclear.ucf.edu/</a>. and <a href="https://letsbeclear.ucf.edu/">https://letsbeclear.ucf.edu/</a>.

If there are aspects of the design, instruction, and/or experiences within this course that result in barriers to your inclusion or accurate assessment of achievement, please notify the instructor as soon as possible and/or contact <u>Student Accessibility Services</u>.

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
- Disability Accommodation Student Accessibility Services <a href="http://sas.sdes.ucf.edu/">http://sas.sdes.ucf.edu/</a> & <a href="mailto:sas@ucf.edu/">sas@ucf.edu</a>
- Diversity and Inclusion Training and Events <u>www.diversity.ucf.edu</u>
- Student Bias Grievances Just Knights response team http://jkrt.sdes.ucf.edu/
- UCF Compliance and Ethics Office <a href="http://compliance.ucf.edu/">http://compliance.ucf.edu/</a> & complianceandethics@ucf.edu
- Ombuds Office http://www.ombuds.ucf.edu

#### Dress Code

[Certain programs have requirements for how their students are to dress while in program or during certain components of the degree. This field can be used to describe those requirements and the relevant expectations. If not, leave this section as is.]

### Eligibility for Certification and Licensure

[There are both online and campus-based programs that have professional certification and/or licensure associated with degree completion. Programs can provide details related to this element of their program. The following link from Academic Program Quality can be provided: <a href="https://apq.ucf.edu/licensure-programs/">https://apq.ucf.edu/licensure-programs/</a>]

#### **Enrollment in Dissertation Hours**

The university requires all doctoral students to take a minimum of 15 credit hours of doctoral dissertation hours; however, specific programs may require more than this minimum. Dissertation research is considered to be a full-time effort, and post-candidacy enrollment in at least three doctoral 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

[Certain programs have prescribed requirements around being a full-time or part-time student. This can impact curricular choices or funding that is available to students. Programs will describe these details as relevant.]

#### Golden Rule

The Golden Rule is the university's policy regarding non-academic discipline of students and limited academic grievance procedures for graduate (grade appeals in individual courses, not including thesis and dissertation courses) and undergraduate students. Information concerning The Golden Rule can be found at <a href="www.goldenrule.sdes.ucf.edu/">www.goldenrule.sdes.ucf.edu/</a>. Section 11, Student Academic Behavior, addresses appeals of graduate program actions or decisions.

# **Grading and Grading Procedures**

For grading and grading policies students are referred to the <u>Grade System</u> section within General Graduate Policies of the UCF graduate catalog.

A grade of "I" (incomplete) may be assigned at the discretion of the course instructor under the following conditions:

- The course must be substantially complete, and the student must be passing the class.
- The student must be unable to complete the course due to extenuating circumstances beyond the student's control.
- The student must provide the appropriate documentation. The instructor will determine a reasonable amount of time for the student to complete the remaining course requirements.
- The incomplete grade agreement must signed both by the student and the instructor.

University requires that incompletes be completed within one year at which time a "F" is assigned. The policy does not require that students be given a year to complete the course requirements. Given the justification for the incomplete grade, course requirements should be completed as soon as reasonably possible the following semester.

For withdrawing from courses refer to Withdrawal policy page of the Student Handbook.

#### 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, veterans 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 <a href="http://www.eeo.ucf.edu">http://www.eeo.ucf.edu</a>.

#### International Students

[Many programs welcome International students. There are certain realities associated with having them in graduate programs at UCF. This section is used for programs to describe specific policies and/or requirements related to international students. Specific policies regarding employment can be provided.]

# Plagiarism

Understanding plagiarism is essential to the academic integrity of both programs and the institution. Students are directed to the College of Graduate Studies website on this topic: <a href="https://graduate.ucf.edu/plagiarism/">https://graduate.ucf.edu/plagiarism/</a>. College of Graduate Studies offers webcourse: "Pressures to Plagiarize" through the Pathways to Success program.

### **Privacy**

[There are some programs where students may have access to protected or confidential information or data. This field can be used to provide details regarding requirements of handling confidential or protected information. This could include a Privacy Agreement Form that the student completes.]

#### **Probation**

To earn a PhD degree, students must maintain a good academic standing. A student who does not maintain this requirement is placed on Academic Probationary Status. Students are referred to <u>Academic Progress and Performance</u> section from the Graduate Catalog for the details related to probation.

## Satisfactory Progress

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

The university requires that students must maintain a graduate status GPA of at least 3.0 or higher to maintain graduate student status, and qualify for graduation. The graduate status GPA is the cumulative GPA of graduate courses taken since admission into the degree program. A student in the PhD program also must register and complete a full course load, pass qualifiers, do acceptable research and complete the dissertation work.

## Time Limits to Degree Completion

The student has seven years from the date of admission to the master's program to complete the degree. Students may transfer in coursework according to the course transfer policy, however, courses older than seven years at the time of admission will not be transferred into the student's Program of Study. Students who anticipate being out for an extended period of three consecutive semesters or longer should apply for a Special Leave of Absence no later than the end of the add/drop period of the third semester of absence. Students who do not maintain continuous enrollment without a Special Leave of Absence (see Continuous Attendance and Special Leave of Absence in the General Graduate Policies) must file for readmission to the university, although seven years is measured from when the student was first admitted to the program.

Students are referred to <u>Time Limitation and Continuous Enrollme</u>nt of Graduate Catalog for further details.

#### **Transfer Credit**

Students, with the approval of their advisor and the graduate coordinator, can transfer up to 9 credit hours, of B grade (3.0) or better, of graduate coursework (no Independent Study/Thesis credit) from another program at UCF or from an regionally accredited institution. This must appear on an initial plan of studies submitted within the first 9 credit hours in the CS graduate program. The mechanics of transferring coursework must begin early in the first semester in order that the process is completed by the 9th credit hour. See the Graduate Services Coordinator for details.

If a student has an earned MS degree in CS, or a related area, they may, with the approval of the advisor and graduate coordinator, transfer up to 30 credit hours of actual coursework hours into the POS (no Independent Study or Thesis credit). This can occur after the initial POS, but must be approved prior to entering candidacy status. In no case can courses with a grade below a B (3.0) be transferred, nor can undergraduate credit.

Students must refer to UCF policy for <u>Transfer of Credit</u> page for the details on the course transfer requirement.

#### **iThenticate**

The university requires all students submitting a thesis or 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 thesis or 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

[This section is used to provide a list of sources of funding that are available to students in your program. Although the <u>College of Graduate Studies Funding Website</u> provides this information in a larger and more broad sense, you may want to draw attention to specific funding, awards, and fellowships that are both internal and external that would be of interest to students in your program.]

Financial support is a major concern for graduate students, especially since many rely on financial support from the university to pursue graduate study.

In combination, the college, the university, and the school provide financial assistance to graduate students in several ways:

- Fellowships and Scholarships are available to academically outstanding students
- Graduate Teaching Assistantships GTAs (for grading, recitation instruction, or laboratory teaching) are available for most newly arriving PhD students
- Graduate Research Assistantships GRAs (for participating in sponsored faculty directed research) are available depending on the current funding levels of the faculty.

The department generally commits to some form of funding for at least the first year of a PhD student's academic career. Rapid progress by the student, especially in completing the qualifying review and publishing research results, aids in further commitment from the student's faculty mentor.

Students must maintain satisfactory academic progress (earning good course grades, registering and completing a full course load and passing qualifiers), and do acceptable research or grading or teaching work to maintain their financial support.

All students must maintain a 3.0 GPA in their Plan of Study, as well as overall
courses taken since entering the program. They must not receive more than
two grades below B (3.0), and those must be balanced to maintain the 3.0
overall. Students on assistantship agreements are expected to work 10 to 20
hours per week on their assigned tasks (whether it be grading, teaching, or

research), while they are maintaining satisfactory progress in completing their academic courses. Note that satisfactory progress for a supported student is not the same as maintaining the minimum grades, or of just barely performing at research. Support is a privilege, not a right.

- All GTAs who have any contact with undergraduate students must take all training required by Graduate Studies. This training includes:
  - UCF GTA Training for Graders, Assistants, and Associates
  - UCF Versant Exam (required for international students who will be Assistants or Associates)
- Students must meet their obligations to continue to receive their financial support. Students on assistantship agreements must maintain satisfactory work as defined by their supervisor. Also, being on agreement requires that the students register for the proper number of hours of classes in time to process tuition remission and so forth.
- The duration of financial support may vary from one semester at a time to up to a 4-year renewable fellowship.
- International students are expected to be here as full-time students, and may
  not work off campus except under very strict conditions. For information about
  the types of employment available to international students, and the
  requirements and restrictions based on visa type, see the International
  Services Center's website: global.ucf.edu/ > Students > Employment.
- Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see UCF Financial Information, which describes the types of financial assistance available at UCF and provides general guidance in planning your graduate finances. The UCF Student Financial Assistance section of the Graduate Catalog is another key resource.

#### Key points about financial support:

If you're interested in financial assistance, you're strongly encouraged to apply for admission early. A complete application for admission, including all supporting documents, must be received by the priority date listed for your program under "Admissions." However, no explicit application is needed for consideration for Graduate Teaching Assistantships, Graduate Research Assistantships or Fellowships. That is, all applicants accepted to the CS Ph.D. program are automatically considered for such forms of financial assistance. MS students are rarely considered for these types of support.

- You must be admitted to a graduate program before the university can consider awarding financial assistance to you.
- If you want to be considered for loans and other need-based financial
  assistance, review the UCF Student Financial Assistance website
  at <u>finaid.ucf.edu/</u> and complete the FAFSA (Free Application for Federal
  Student Aid) form, which is available online at <u>studentaid.ed.gov/sa/fafsa</u>.
  Apply early and allow up to six weeks for the FAFSA form to be processed.
- UCF Graduate Studies awards university graduate fellowships, with most
  decisions based on nominations from the colleges and programs. All admitted
  graduate students are automatically considered in this nomination process.
  To be eligible for a fellowship, a student must be accepted as a graduate
  student in a degree program and be enrolled full-time. University graduate
  fellowships are not affected by FAFSA determination of need.
- Please note that select fellowships do require students to fill out a fellowship application (either a university fellowship application, an external fellowship application, or a college or school fellowship application). For university fellowship applications, see <u>graduate.ucf.edu/funding/</u>.

## **Graduate Assistantship Details**

[Many programs will have students that hold <u>Graduate Assistantships</u>. This section is use to describe details that will help students understand how this works. Details that can be provided include:

- GA/GTA responsibilities
- GTA training
- Versant Training for International GTA
- GA/GTA/GRA Performance Appraisals
- GA/GTA/GRA expectations
- Others as is program relevant]

The CS program follows <u>Graduate Assistantship</u> guidelines related to the responsibilities and expectations of GTA/GRAs of the College of Graduate Studies. <u>Graduate Teaching</u> details the GTA training requirements.

## **Professional Membership**

[Some programs either recommend or require their students to be members of professional associations related to their field of study. This section should describe what those associations are and what involvement is expected of students in the program.]

# **Graduation Requirements**

Steps to Graduation for Doctoral students listed on the <u>Commencement</u> page outlines the graduation requirements for PhD students.

In addition, the CS-PhD program requires the graduating students to fill in a Program assessment form as a part of their graduation requirement. Once they successfully defend their dissertation the program graduate office follows up with the student to fill in and submit the forms.

# Job Search and Career Pathways

The Computer Science department maintains a <u>website link</u> designed to help students who have graduated from the Department of CS to find jobs and help employers recruit students. Please visit the site to view current listings.

For additional employment resources, please see this job resource center.

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

### **Student Associations**

Student Organizations

- Association for Computing Machinery at UCF: The oldest and largest educational and scientific computing society dedicated to advancing the arts, sciences, and applications of information technology is the Association of Computing Machinery (ACM). With a world-wide membership, ACM is a leading resource for computing professionals and students working in various fields of Information Technology and for interpreting the impact of information technology on society. The local student chapter is open to all interested students. For more information on how to get involved visit <a href="UCF ACM Chapter">UCF ACM Chapter</a> website.
- **IEEE UCF Student Branch**: The Institute for Electrical and Electronic Engineers (IEEE) is a non-profit organization dedicated to the promotion of technical achievement, scholarly pursuit, and civic involvement. Currently, IEEE has over 350,000 members in 150 different countries. For more information on how to get involved visit the <u>IEEE UCF Chapter</u> website.
- UCF Programming Team: The UCF Programming Team competes in the Association for Computing Machinery's International Collegiate Programming Contest. As a student organization within UCF's School of Electrical Engineering and Computer Science, we compete regionally each fall and usually internationally each spring. For more information on how to get involved visit the UCF Programming Team website.
- **Graduate Student Association**: The Graduate Student Association (GSA) is UCF's graduate organization committed to enrich graduate students' personal, educational and professional experience. To learn more or get involved, visit <a href="https://www.facebook.com/groups/UCFgsa/">https://www.facebook.com/groups/UCFgsa/</a>.
- UPE Honor Society for Computer Science and Information Technology students

The office of Student Involvement may have additional information.

### **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 your lunch, and to meet other graduate students. For graduate center hours, facilities and events visit <a href="Graduate">Graduate</a> Student Center.

## Student Research Week/Student Scholar Symposium

The College of Graduate Studies hosts an annual <u>Student Research Week</u> to provide a conference setting for our own students to showcase their work either with poster presentations or a face-to-face presentation.

## 3 Minute Thesis (3MT)

The College of Graduate Studies also hosts a three minute thesis (<u>3MT</u>) competition for graduate students in both the Fall and Spring Semesters, in which Doctoral research is presented in a novel and exciting way at UCF's Three Minute Thesis (<u>3MT</u>) competition. Doctoral students communicate their research in just three short minutes and with only one PowerPoint slide to non-expert judges while competing to win scholarship awards.

#### **Forms**

There are many different forms associated with being in the CS program and a graduate student at UCF.

<u>College of Graduate Studies Forms and References</u>: A complete listing of general forms and references for graduate students, with direct links, may be found here.

<u>CECS Forms and Resources</u>: The forms specific to the College of Engineering and Computer Science may be found here. For convenience of the students the <u>commonly used forms</u> are organized in a separate page.

### Useful Links/Resources

The following is a list of useful links:

- Academic Calendar: https://calendar.ucf.edu/
- Bookstore: https://www.ucf.edu/services/s/ucf-bookstore/
- Campus Map: https://map.ucf.edu/
- College of Engineering and Computer Science: <a href="https://www.cecs.ucf.edu/">https://www.cecs.ucf.edu/</a>
- College of Graduate Studies: https://graduate.ucf.edu/
- Computer Science PhD: https://www.cs.ucf.edu/graduate/computer-science-phd/
- Counseling Center: <a href="https://caps.sdes.ucf.edu/">https://caps.sdes.ucf.edu/</a>
- Department of Computer Science: https://www.cs.ucf.edu
- Golden Rule Student: https://goldenrule.sdes.ucf.edu/

- Graduate Catalog: <a href="https://www.ucf.edu/catalog/graduate/">https://www.ucf.edu/catalog/graduate/</a>
- Graduate Student Association: https://www.facebook.com/groups/UCFgsa/
- Graduate Student Center: <a href="https://graduate.ucf.edu/graduate-student-center/">https://graduate.ucf.edu/graduate-student-center/</a>
- Housing and Residence Life: https://www.housing.ucf.edu/
- Housing, off campus: <a href="https://ucf.offcampuspartners.com/">https://ucf.offcampuspartners.com/</a>
- Knights Email: <a href="https://knightsemail.ucf.edu/">https://knightsemail.ucf.edu/</a>
- Library: https://library.ucf.edu/
- NID Help: https://www.ucf.edu/online/student-resources/ucf-it-support/
- Parking Services: https://parking.ucf.edu/
- Pathways to Success: <a href="https://graduate.ucf.edu/pathways-to-success/">https://graduate.ucf.edu/pathways-to-success/</a>
- Recreation and Wellness Center: https://rwc.sdes.ucf.edu/
- Shuttles: https://parking.ucf.edu/shuttles/
- Student Health Services: <a href="https://studenthealth.ucf.edu/">https://studenthealth.ucf.edu/</a>
- Thesis and Dissertation (ETD): https://graduate.ucf.edu/thesis-and-dissertation/
- UCF Global: https://global.ucf.edu/
- University Writing Center: <a href="https://uwc.cah.ucf.edu/">https://uwc.cah.ucf.edu/</a>

# **Graduate Faculty**

The current list of the graduate research faculty is available in <a href="https://www.cs.ucf.edu/people/faculty-by-research-area/">https://www.cs.ucf.edu/people/faculty-by-research-area/</a>.

# **Description of Core Courses**

[As relevant, programs can use this section to provide a listing and/or a brief description of the core courses that are available to students in your program.]

## **Appendices**

[Some programs will have contracts that students are to sign, or additional documentation regarding accreditations. Some programs might have specific documentation related to safety in labs. These details or forms can be provided in this section.]