University of Central Florida

College of Engineering and Computer Science

School of Electrical Engineering and Computer Science
Computer Science Graduate Programs

GRADUATE STUDENT HANDBOOK

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INTRODUCTION

The heart and soul of any academic program resides in its students and in their accomplishments. Promoting student success is a primary goal of the Computer Science (CS) Program of the School of Electrical Engineering and Computer Science (EECS). This Graduate Handbook serves as a guide for Master's and Doctoral students (as well as faculty and staff) of the CS program. In this handbook, we explain many of the details of the graduate student policies and procedures at UCF, as well as specific rules observed by CS. The objective of the Graduate Handbook is to provide effective direction and guidance to graduate students that will lead to each individual's success at UCF. Since the Graduate Catalog serves as a source for general polices, it does not explain in great detail the policies and procedures of specific programs; that is the role of this document in the context of CS.

Computer Science is a discipline that evolved in the latter half of the 20th century, with a great deal of nurturing by and influence from Engineering and Mathematics, and significant interactions with almost every other academic discipline. UCF's program has a history that is relatively common among CS programs, having moved from the College of Arts and Science into the renamed College of Engineering and Computer Science, and subsequently having combined with Electrical and Computer Engineering into a School of Electrical Engineering and Computer Science. Independent of its college affiliation, CS continues to be a discipline that influences and is influenced by nearly every other academic discipline. This means that rapid changes in CS's technology and science lead to rapid changes in other disciplines, and society as a whole, while changes in these other disciplines similarly drive CS forward. For instance, the understanding geneticists now have of the human genome would not have been possible without computer science, but similarly computer science might never have developed the subfield of evolutionary computation were it not for the models of evolution developed in Biology.

For the reasons stated above, any description of the areas studied in CS will be transitory, except that CS will always have a foundation supported by the four legs of algorithms, software, hardware and theory. Consequently, to be successful, prospective students must have fundamental undergraduate-level knowledge in algorithm design and analysis, programming systems and languages, computer architecture and the theory of computation prior to entering the program. Completion of either graduate degree (MS or Ph.D.) requires additional courses in these areas, combined with courses and research based on areas of active CS research being carried out at UCF. These research emphases currently include applied perception, bioinformatics, computational biology, computational geometry, computational imaging, computer and network security, computer architecture, computer forensics, computer graphics, computer networks, computer vision, cryptography, data compression, database management systems, data mining, design and analysis of algorithms, evolutionary computation, genetic algorithms, graph theory, hardware/software co-design, image processing, machine learning, mixed and virtual

reality, mobile computing, modeling and simulation, multimedia systems, natural language processing, neural networks and neuro-evolution, parallel and distributed processing, performance evaluation, programming languages, quantum computing, semantic web, software agents, software engineering, and VLSI systems.

The CS graduate programs are not prescriptive in that, beyond three required courses and some mandated distribution of course levels, the actual make up of a student's plan of study is determined by the student in consultation with a faculty advisor. Such an approach gives students flexibility but also places added responsibilities on them and their advisors to develop a plan that prepares each student for a world in which the common practices of the next decade may not even exist in the most esoteric research of the current decade.

The primary objectives of this Handbook are to help students understand the process of completing a CS graduate program at UCF, provide information on resources that will help them develop academically and professionally, and define all expectations required to complete the degree programs by making the implicit explicit. The handbook serves as a reference tool to guide graduate students through their graduate programs and help students stay on track for degree completion. It should also help faculty and staff to better guide these students.

The Graduate Catalog is the university's official record of graduate policies, and this Graduate Handbook must be consistent with university policy. In any case where the two documents appear to disagree, the Graduate Catalog is the final authority. In this handbook we sometimes will directly reference the Graduate Catalog on policies that are comprehensive and intricate in detail, providing only a short description of the policy, and then giving the direct website link to the section of that particular policy.

If anyone has any questions about the content of this handbook, please do not hesitate to contact the CS Graduate Coordinator at 407-823-2779 or via e-mail at gradprog@cs.ucf.edu.

1. MISSION STATEMENT

The mission of the M.S. degree program is to provide students with an in-depth education geared toward meeting the needs of business and industry in Florida and throughout the U.S. Our goal is to produce graduates with a high level of competency in understanding, applying, and enunciating the modern concepts, principles, methods, and theories necessary for the design and implementation of computing systems. Such graduates will be prepared to continue studies towards a Ph.D. or directly enter industry or government positions.

The mission of the Ph.D. program is to produce professionals trained at the highest possible academic level in the theory and practice of computer science to meet current and projected market demand for computer science experts. Our Ph.D. students graduate with proven abilities in research and instruction, suitable to make immediate contributions in academia, industry and government, conducting original research in the area of computer science and its allied disciplines, and educating others in the discipline.

2. ORGANIZATION

Graduate programs and their students at UCF are supported at the university-level by a Division of Graduate Studies, administratively located within UCF's Office of Academic Affairs. The Division operates under the leadership and authority of the Provost, to whom the Vice Provost and Dean of Graduate Studies reports. It works collegially with the Faculty Senate, various committees of the Senate, the deans of the colleges, and other campus entities that serve graduate students. In essence, the Division works as a convening authority within the university, providing leadership among campus stakeholders to set a vision and take action on major issues affecting graduate education at UCF.

The UCF International Services Center (ISC) helps international students assisting with admission to the university, obtaining immigration documents, and adapting to a new academic environment and culture. It is important that all international students keep ISC informed of any potential changes in status. This office provides the guidance needed to understand and abide by regulations for international students.

The College has an Associate Dean for Graduate Studies with a staff dedicated to helping students at every stage from admission through graduation. Of course, your primary contacts as a CS graduate student lie within the faculty and staff of the department. The day-to-day operations are overseen by the Graduate Program Coordinator and a Graduate Admissions Specialist. The longer term goals and procedures are established by the Graduate Program Committee, with approval from the faculty as a whole. However, from an individual graduate student's perspective, the most important person in his or her academic life is the faculty advisor, a person who will guide students by helping in the selection of courses and, in the cases of a Ph.D. student or thesis option MS student, in the choice of a research topic.

GRADUATE PROGRAM COORDINATOR AND COMMITTEE

The Graduate Program Coordinator checks and approves all plans of study before they are advanced to the college and university offices for final approval. The graduate coordinator is also the primary academic advisor for all non-thesis option Master's students.

With guidance from the Graduate Program Committee and many individual faculty members, the coordinator makes decisions concerning graduate teaching assistantship offers and recommendations for university fellowships. Appeals are usually initiated through the coordinator, but the actual decision-making on all appeals, especially those arising from students who have failed the qualifying exams, is done by the graduate committee.

Together with his or her faculty advisor the graduate student plans courses and research topics. Furthermore, the faculty advisor is typically the one who commits funding to support a student on a research grant. However, many others within the department and the college play an important role in a graduate student's experience while at UCF.

The Graduate Program Committee makes all recommendations to the faculty body concerning changes in the academic program and the procedures associated with qualifying exams, candidacy, etc. This body gives guidelines to the coordinator concerning graduate teaching assistantship selection, fellowship selection and recruiting goals. The committee administers the qualifying exams, gathering questions, assembling and proctoring exams, and making the final determinations on who passes and who fails.

The organization of the school and the college, as regards graduate studies (showing key personnel in EECS and CECS), is summarized in an organizational chart (see Appendix A). From this chart, students can see who the people are that they might need to interact with, and the capacity in which they serve. Hopefully, the chart will assist students in determining the route to take to address questions or other matters pertaining to their graduate career. Of course, in all cases, graduate students with assigned faculty advisors should start with their advisor if they have any questions or problems.

3. ADVISING/MENTORING

Advising and mentoring are two very important elements in a graduate student's career. Upon acceptance into the CS program, graduate students are assigned an academic advisor. This person advises the student on course selections during the early stages of the student's graduate career. For thesis-option MS students and Ph.D. students, the academic advisor needs to be rapidly replaced by a research advisor who serves as course advisor and research mentor. The research advisor may or may not

be the person initially assigned as academic advisor, depending primarily on the research path the student chooses.

In most cases, those students entering the Ph.D. program will have indicated an area of interest in their application, and the graduate coordinator will attempt to assign an advisor who is an active researcher in that area. In any case, students seeking a Ph.D. need to select a willing advisor in their chosen research area by the end of the first semester. Such a selection is not irrevocable for either the student or the faculty member. The most common reason for change is compatibility of research agendas between the advisor and the student. While changes are natural and acceptable, we highly discourage students from jumping from one advisor to another. Moreover, when a student starts a research project with an advisor, that student has a professional obligation to complete the agreed-upon research tasks to the best of his or her capabilities, leaving everything in a state that makes it easy for another student to continue the work. Additionally, the student has a moral obligation to not use the unpublished research results of one advisor's group when moving to another group, unless that is agreed upon by the first advisor. Of course, this does not preclude use of published results or of general knowledge gained in the research area and its accepted practices, results and tools.

For Ph.D. students, it is highly recommended that they contact potential advisors in advance of their first arrival at UCF to determine mutual research interests. New students should meet with the graduate coordinator upon arrival at UCF, especially if they cannot meet with their selected research advisor. The graduate coordinator will provide initial guidance on overall academic requirements, program and university policies and procedures, while the research advisor serves more as a mentor providing direction on research, advice on program of study, and guidance on other areas of academic life.

Roles and Responsibilities:

- Faculty Advisor
    - The advisor helps the student select which courses to take.
    - The advisor (in consultation with the student) develops the student's program of study
    - The advisor directs the student's research
    - For MS thesis-option and Ph.D. students, the advisor reviews and approves the student's thesis or dissertation
    - The advisor often provides financial support for the student (based upon a research grant)
- Student
    - The student takes coursework as required, maintaining a minimum 3.0 GPA
    - The student maintains a full course load and works diligently to complete all requirements in a timely manner
    - The student (in consultation with the faculty advisor) develops a program of study prior to completing the first 9 hours of coursework

- The student identifies (in consultation with the faculty advisor) a suitable research topic
- The student works in the lab or field or other venue as needed to complete his or her research
- The student is responsible for knowing and meeting all university deadlines, rules, and regulations – see the section titled Student's Responsibility in the Graduate Catalog, located under General Policies – see http://www.graduate.ucf.edu/CurrentGradCatalog/content/Policies/GenPolicies.cfm
- In those cases when a student wants to change faculty advisors, the student should first discuss the situation with his or her current faculty advisor, and then request the change through the graduate coordinator. The change must be approved by the current faculty advisor, the new faculty advisor, and the graduate coordinator.

4. DEGREE REQUIREMENTS

This section describes the process for degree completion. Students must follow a prescribed, yet flexible path, achieving milestones along the way. Although there is no guarantee that each student will be able to complete all the requirements, if a student is hard working and diligent, and is a full-time graduate student, he or she should be able to complete a Master's program within 1 to 2 years and a Ph.D. program within 4 years (typically 2 to 3 years beyond the MS). For non-thesis Master's students who are working full-time and going to school part-time, it may take 4 to 6 years to earn the degree.

General Description of Degree Programs

The Computer Science program offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Computer Science. The program has a long and respected history, having conferred M.S. degrees since 1968 and Ph.D. degrees since 1980. In 2001 our Ph.D. program was ranked nationally in the top 10 by the National Association of Graduate and Professional Studies. In calendar year 2005, we graduated 16 Ph.D. students and 51 MS students, 27 of whom were on the Ph.D. track).

Degrees Offered

Master of Science in Computer Science
Doctor of Philosophy in Computer Science

General Admission Information

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the Admissions and Registration section of the

Graduate Catalog. The College of Engineering and Computer Science (CECS) requires that you fill out a pre-application form (www.graduate.cecs.ucf.edu) before you complete the application for graduate admission. The deadlines for the pre-application form can be found on the Prospective Student Page on the CECS website. Applicants are directed to visit the college's site as well as to apply online. Please be sure to submit all requested material by the established deadline(s).

Admission Requirements for Master's Degree Program

In addition to the general admission requirements, applicants to this program should note:

- Official scores on the Graduate Record Examination (GRE), which must have been taken within the last five years, must be provided.
- Admittance to the program generally requires a combined verbal and quantitative score of 1200 on the GRE and a GPA of 3.25 or greater.
- For applicants from countries where English is not the official language, or for an applicant whose bachelor's degree is not from an accredited U.S. institution, an official score of at least 220 (computer-based test; or equivalent score on the paper-based test) on the Test of English as a Foreign Language (TOEFL) is required. Typically, however, higher scores are expected and those students scoring below 250 need to offset this result with other evidence of English language communication skills.

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 the following upper division undergraduate courses:

- CDA 4150 Computer Architecture
- COP 4020 Programming Languages I
- COP 4600 Operating Systems
- COT 4210 Discrete Computational Structures

The student may choose to demonstrate his/her knowledge of these courses by scoring well on the Subject (Advanced) GRE in Computer Science. It is estimated that more than 85 percent of this GRE deals directly with the material covered in these courses.

Admission Requirements for Doctoral Degree Program

Outstanding students with a bachelor's degree are encouraged to apply directly into the doctoral program. Admission to the Ph.D. program is formalized by the university upon the recommendation of the Computer Science Graduate Committee.

In addition to the general admission requirements, applicants to this program must:

- Submit a resume, goals statement, and three letters of recommendation.
- Provide official scores on the Graduate Record Examination (GRE), which must have been taken within the last five years.
- Admittance to the program generally requires a combined verbal and quantitative score of 1250 on the GRE and a GPA of 3.25 or greater.
- For applicants from countries where English is not the official language, or for an applicant whose bachelor's degree is not from an accredited U.S. institution, an official score of at least 220 (computer-based test; or equivalent score on the paper-based test) on the Test of English as a Foreign Language (TOEFL) is required. Typically, however, higher scores are expected and those students scoring below 250 need to offset this result with other evidence of English language communication skills.

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The student may choose to demonstrate his/her knowledge of these courses by scoring well on the Subject (Advanced) GRE in Computer Science. It is estimated that more than 85 percent of this GRE deals directly with the material covered in these courses.

Application Due Dates

All students applying for fellowships must apply by the Fall Priority pre-application and application deadline dates. Note that dates are the same for Ph.D. and MS Programs.

U.S. Applicants

	Fall '06 Priority	Fall '06	Spring '07	Summer '07
Pre-Application	Dec 14	Jul 1	Nov 15	Apr 1
Ph.D. or MS in Computer Science	Jan 15	Jul 15	Dec 1	Apr 15

International Applicants

	Fall ‘06 Priority	Fall ‘06	Spring ‘07	Summer ‘07
Pre-Application	Dec 1	Dec 1	May 15	Sep 15
Ph.D. or MS in Computer Science	Jan 15	Jan 15	Jul 1	Nov 1

International Transfer Applicants

	Fall ’06 Priority	Fall ‘06	Spring ‘07	Summer ‘07
Pre-Application	Dec 1	Feb 15	Aug 15	Dec 1
Ph.D. or MS in Computer Science	Jan 15	Mar 1	Sep 1	Dec 15

Program Requirements for the Master of Science

General College Requirements

Minimum Hours Required for M.S.—30-36 Credit Hours

Required Courses—9 Credit Hours
(Students must receive a "B" (3.0) or above grade in each of these courses.)

- CDA 5106 Advanced Computer Architecture I (3 credit hours)
- COT 5405 Design and Analysis of Algorithms (3 credit hours)

and one of these courses:

- COP 5611 Operating Systems Design Principles (3 credit hours)
- COP 5021 Program Analysis (3 credit hours)
- COT 5310 Formal Languages and Automata Theory (3 credit hours)

Restricted Electives—21-27 Credit Hours

Restricted electives must include two 6000-level Computer Science courses (CAP, CDA, CEN, COP, COT) taught by Computer Science faculty, exclusive of independent study; these 6000-level electives may not include any courses for which the grade received is below a "B" (3.0). Additional credits will normally be taken from 5000- and 6000-level Computer Science courses. Approval may be granted for at most 6 semester hours to be taken from graduate courses outside Computer Science. Such approval needs to occur prior to taking these outside courses.

Two options are available. The non-thesis option is a 36-credit-hour program with at most 6 hours of independent study. The thesis option is a 30-credit-hour program and

allows no independent study. 6 credits of thesis (CAP, CDA, CEN, COP or COT 6971) are intended to span two semesters. Beyond these two semesters, students are required to be enrolled in at least one credit hour of thesis until the thesis requirement is satisfied. Students are required to prepare and defend a formal thesis in accordance with university requirements.

The plan of study for each student should be filed no later than in the first two weeks of the student's second semester in the program. This plan must satisfy the following:

- 30-36 credit hours depending on the option selected.
- The grade in each course must be a "C" (2.0) or better with at most 6 credit hours having grades below "B" (3.0) and an overall grade point average of 3.0 or better. (Note that there is no grade forgiveness in graduate school, so all grades attained on each course are used to compute a student's grade point average.)
- No courses below the 5000-level, and no 5000-level CGS prefix course work, except for CGS5132.
- No more than 6 credit hours of independent study in the Non-Thesis option and none in the Thesis option.
- Three required courses with grades of "B" (3.0) or above attained in each.
- No more than 6 credits taken outside computer science, with these courses having been approved by his or her adviser prior to the student enrolling in them.
- Two 6000-level courses, with grades of "B" (3.0) or better, taught by Computer Science faculty.
- 6 credits of thesis (CAP, CDA, CEN, COP or COT 6971) for those in the thesis option.

Program Requirements for the Doctor of Philosophy

General College Requirements

The Ph.D. plan of study will consist of a minimum of 15 credit hours of Ph.D. dissertation (CAP, CDA, CEN, COP, or COT 7980) credits and at least 57 additional hours of graduate (5000-level or above) credits. The latter must include CDA 5106, COT 5310, COT 5405, at least 15 credit hours of advanced (6000 or 7000-level) computer science courses, at least 6 additional graduate computer science credits (exclusive of dissertation and independent study), and 6 graduate credit hours from approved courses taken outside computer science. No more than 12 credits of Independent Study can be used.

The plan of study for each student should be filed no later than in the first two weeks of the student's second semester in the program. This plan must satisfy the following:

- A minimum of 72 credit hours.
- The grade earned in each course must be a "C" (2.0) or better with at most 6 credit hours having grades below "B" (3.0) and an overall grade point average of 3.0 or

better (Note that there is no grade forgiveness in graduate school, so all grades attained on each course are used to compute a student's grade point average.)
- No courses below the 5000-level, and no 5000-level CGS prefix course work except for CGS5132.
- No more than 12 credit hours of independent study.
- Five 6000 or 7000-level courses (15 credits), with grades of "B" (3.0) or better, taught by Computer Science faculty. None of these may be independent study or dissertation, and at most two of these may be directed research courses for which letter grades (not S/U) are assigned. The CS policy is that S/U should be used when a student is doing background literature research that does not lead to an artifact that can reasonably be assessed for a grade. Letter grades are used when such an artifact can reasonably be expected. Typical artifacts include a conference paper, a software or hardware prototype, a comprehensive design document, etc. The type of artifact and the degree of completeness is determined by the faculty member overseeing the research.
- The three required courses with grades of "B" (3.0) or above attained in each.
- Two courses (6 credits) taken outside computer science, with these courses having been approved by his or her adviser prior to the student's enrolling for them.
- Six additional computer science graduate credits to make the total of all non-independent study/non-dissertation/non-directed research courses total at least 36 credits.
- 15 credits of Ph.D. dissertation (CAP, CDA, CEN, COP or COT 7980).

Ph.D. Qualifying Examination

Phase I of the qualifying examination, normally taken within the first two semesters of graduate work, determines whether a student will be allowed to continue in the Ph.D.

Phase I consists of a written examination in which students must successfully pass questions covering four areas from a list of areas supplied by the Computer Science Graduate Program Committee. Students must clearly convey a strong undergraduate knowledge of each area. Phase I examinations will be offered in the Fall and Spring terms. Students are allowed two attempts to pass the Phase I examination.

Phase II of the qualifying examination consists of the acceptance of a professional paper, normally under the supervision of the student's adviser, by a peer-reviewed conference or journal. It is expected that the Phase II goal will be satisfied within the first eighteen months of graduate work.

Dissertation Committee

- 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 student's department (or college, if a college-wide program) at UCF, one of

whom must serve as the chair of the committee. One member must be from either outside the SEECS (or college, if a college-wide program) or outside the university.

- Committee chairs must be members of the School of EECS's graduate faculty. Joint CS faculty members may serve as either CS or outside of CS faculty committee members. A member of the adjunct faculty or an off-campus expert may serve as the outside CS member. The Computer Science Graduate Committee may specify additional membership. The Division of Graduate Studies reserves the right to review appointments to advisory committees, place a representative on any advisory committee, or appoint a co-adviser.
- With approval from the School Director, two professors may co-chair the committee. Joint faculty members may serve as committee chairs, but off-campus experts and adjunct faculty may not, although they may serve as co-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.

Candidacy Examination

The candidacy examination consists of a written doctoral research prospectus followed by an oral presentation of the proposal. Students cannot register for dissertation credit (XXX 7980) until the term following successful passing of the candidacy examination.

Residency Requirement

Students in the Ph.D. program (post candidacy) are normally expected to be registered for a minimum of 9 credit hours for at least two consecutive semesters.

Time Limitation

Students have seven years from the beginning of regular graduate status in the Ph.D. program to complete all requirements for the degree.

Dissertation and Oral Defense

Students must write a dissertation on their research that describes a significant original contribution to the field of computer science. The oral defense of the dissertation is administered by the research committee, which makes a critical inquiry into the work reported in the dissertation and into the areas of knowledge that are immediately relevant to the research. All members vote on acceptance or rejection of the dissertation. The dissertation must be approved by the dissertation adviser and committee, the school director or designee, and the dean of the college or designee. Format approval from the Thesis and Dissertation Editor, and final approval of satisfaction of degree requirements by UCF Graduate Studies is required.

Financial Support

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see Financing Grad School, which describes the types of financial assistance available at UCF and provides general guidance in planning your graduate finances. The Financial Information section of the Graduate Catalog is another key resource.

Key points about financial support:

- Students interested in financial assistance are 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.
- Students must be admitted to a graduate program before the university can consider awarding financial assistance to them.
- To be considered for loans and other need-based financial assistance, review the UCF Student Financial Assistance website at http://finaid.ucf.edu and complete the FAFSA (Free Application for Federal Student Aid) form, which is available online at http://www.fafsa.ed.gov. 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, students 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 Financing Grad School.

Contact Information

Charles Hughes, Ph.D., Professor
Phone Number: 407-823-2779
gradprog@cs.ucf.edu

5. DEGREE PROGRAM (or PLAN) OF STUDY (POS)

The Program of Study (POS) serves as an agreement between the student and the program, listing course and other requirements for completing the degree. Each

student must have an approved Program of Study (POS). The POS is developed by the student and his/her advisor, and lists the specific courses to be taken as part of the degree requirements. The student must maintain a minimum GPA of 3.0 in his or her POS.

For all Master's students, the POS must be signed and submitted during the first semester that the student is at UCF, or no later than upon completion of 3 graduate courses. The POS can be revised later to reflect necessary changes in the courses, but it is crucial that a POS be on file, signed by the student and the faculty advisor, and approved by the Graduate Program Coordinator. For each Master's program, certain courses are required and others are elective (as was discussed previously). Any substitutions must be approved by the Graduate Program Coordinator.

The POS for Ph.D. students is flexible and unique to each Ph.D. student. However, it must meet university, college, and department rules for minimum number of hours, etc. (see Program Requirements, above). The doctoral candidate's POS must be completed, submitted, and approved before the student will be allowed to register for dissertation hours.

Please see also http://www.graduate.ucf.edu/pagegen/index.cfm?PageID=21.

6. GRADUATION

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

University requirements for courses, numbers of hours, etc. were presented earlier in Section 4 above. The student is responsible for keeping up with his or her course records and knowing where they are in the program. In the last semester (the semester in which the student plans to graduate), several further steps must be taken, as explained below.

1. File the intent to graduate form early in the semester.
2. Finish writing the thesis or dissertation early enough to allow time for committee to review well before the defense deadline.
3. Obtain format review and approval by the graduate studies thesis editor before giving copies to the committee.
4. Contact each member of the thesis or dissertation committee to schedule a date for the defense.
5. Coordinate with the CS graduate secretary and your advisor to ensure that your SASS audit is "clean."

6. Complete clean up of lab space (after you have passed the exam and have been told that no more work is needed), and check out with your advisor and the lab manager. Remember that all university property must be returned in good working order.

7. GENERAL POLICIES

In this section, we recap some program and university general policies that commonly affect the majority of graduate students. For the final word on policies, please see the Graduate Catalog.

For Master's Programs, see:
http://www.graduate.ucf.edu/CurrentGradCatalog/content/Policies/Master's.cfm

For Doctoral Programs,
see:http://www.graduate.ucf.edu/CurrentGradCatalog/content/Policies/Doctoral.cfm

- Satisfactory academic performance means that you must maintain a GPA of 3.0 in your graduate POS, with no more than 2 below "B" (3.0) grades (balanced by the required number of "A", "A-" and "B+" grades).
- Satisfactory academic progress toward degree completion means that you take a full course load each semester (typically 9 hours per Fall and Spring, and 6 hours in Summer) until you complete all courses.
- The department will accept no more than 9 hours of transfer credits for Master's students and up to 30 hours of Master's work for Ph.D. students. These include courses taken at UCF in non-degree seeking status. No courses with grades less than "B" (3.0) can be transferred into the program.
- Each research lab has a policy on laboratory safety and procedures. Please coordinate directly with the lab's manager on this if you work in a lab.
- Ph.D. students are required to have at least 2 semesters in a row in residency (meaning 9 credits in each semester).
- Before passing the candidacy exam, Ph.D. students may not enroll in dissertation hours, but hey may enroll in research hours. After passing the candidacy exam, Ph.D. students may be considered to be full-time if they enroll in 3 dissertation hours per semester until they graduate. However, nine credits in Fall/Spring and six in Summer are generally required to retain assistantship support.
- All graduate students are expected to abide by UCF's Golden Rule. See http://www.goldenrule.sdes.ucf.edu/index.html
- Students have available an Academic Grievance Procedure. See http://www.graduate.ucf.edu/CurrentGradCatalog/content/Policies/GenPolicies.cfm#Academic%20Grievance%20Procedure
- Students may withdraw from a class meeting all conditions stated in the Graduate Catalog. However, this may result in loss of tuition waiver, and, for international students, this may place them in jeopardy of being considered out of status. See http://www.graduate.ucf.edu/CurrentGradCatalog/content/Admissions/index.cfm

8. 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 Graduate Student Association Seminar Series, 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.
- 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.
- Computer Science holds a regular graduate seminar series in which graduate students may present their research in front of an audience of their peers. This is a great way to prepare before giving a conference talk or heading out to interview for a job.
- 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 Ph.D. 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 School of EECS and the Student Government Association are other sources of such support.

9. FINANCIAL SUPPORT

Financial support is a major concern for graduate students, especially since many rely on financial support from the university to pursue graduate study. In combination, the college, the university, and the school provide financial assistance to graduate students in several ways: (1) Fellowships and Scholarships are available to academically outstanding students, (2) Graduate Teaching Assistantships – GTA's (for grading or for lab teaching) are available for most newly arriving Ph.D. students,

(3) Graduate Research Assistantships – GRA's (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 two years of a Ph.D. student's academic career. Rapid progress by the student, especially in completing qualifiers 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 are expected to maintain a 3.0 GPA in their Program of Study. They must not make any more than two grades below "B" (3.0), and those must be balanced to maintain the 3.0 overall. Students on contract are expected to work 10 to 20 hours per week on their assigned tasks (whether it be grading, lab teaching, or research), while they are maintaining satisfactory progress in completing their academic courses. 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 GTA's (especially international students) who have any contact with undergraduate students must take all training required by Graduate Studies. For Fall of 2005, these training modules include
    1. Fall 2005 GTA Training
       http://www.graduate.ucf.edu/pagegen/index.cfm?PageID=154
    2. SPEAK Exam
       http://www.graduate.ucf.edu/pagegen/index.cfm?PageID=160
    3. GTA Legal Module (online beginning June 6, 2005)
       http://classroom.fctl.ucf.edu/moodle/index.php
- Students must meet their obligations to continue to receive their financial support. If the students are on time cards, the cards must be filled out properly and filed on time. If they are on contract, they must maintain satisfactory work as defined by their supervisor. Also, being on contract requires that the students register for the proper number of hours of classes in time to process tuition waiver 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. Please see http://www.graduate.ucf.edu/CurrentGradCatalog/content/Policies/GenPolicies.cfm#International%20Student%20Employment

10. MISCELLANEOUS

- Primary School Faculty and Staff Involved in Graduate Student Support
    - Dr. Issa Batarseh – Director
    - Dr. Mark Heinrich – Associate Director
    - Dr. Charles Hughes – Graduate Program Coordinator

    - Jenny Shen – graduate admissions specialist, contracts administrator, programs of study, thesis/dissertation announcements, SASS audits, graduation certifications
    - Nancy Barrett – tuition waivers, purchasing
    - TBD – travel
    - Theresa Rice – grants
    - Don Harper – lab space
    - Denise Tjong – computer accounts
    - Rob Traub – software licenses, purchasing
- Department and college resources.
    - CS provides office space, desks, etc
    - CS provides e-mail accounts, server space and software to all full-time graduate students
    - CS provides campus mailboxes to graduate students
    - CS provides use of telephones, and copy and fax machines (for university business) to graduate students.
- Most of the faculty members in the school are active in research. Their areas and current research projects can be found by starting on the school's home page www.eecs.ucf.edu and following the links under "Research" and "Faculty and Staff."
- The EECS activity calendar can be found at http://www.eecs.ucf.edu/calendar.html and http://www.eecs.ucf.edu/events.html
- UCF provides University resources for students. Some examples are:
    - Library
    - Computer facilities
    - Student Associations and Student Support Groups
    - Campus social life
    - University Writing Center
    - The Counseling Center
- The University Academic Calendar can be found at http://www.ucf.edu/info/acad_calendar.php

11. FORMS

During their career at UCF, graduate students will be required to complete forms to progress through their degree program. The most relevant forms are listed below, and a complete listing can be found at http://www.graduatestudies.ucf.edu/formsnfiles/

Program of Study – must be filed and signed within the first 9 hours of graduate coursework (may be amended later).
Change of Status – officially advances a Ph.D. student after passing a major milestone (such as passing the candidacy exam)
Contracted Graduate Assistant – Offer of Appointment – contract allowing a graduate student to be hired and paid for teaching assistance in the department or for working

as a research assistant for a professor. These must be signed prior to the beginning of the semester, and influence how much tuition waiver you will get.
Graduate Petition Form – required for petitioning old courses into your program, and for numerous other requests for waivers or extensions
Intent to Graduate Form – a most important form for students!
Transfer Request Form – used for transferring courses from other institutions into your program of study

Appendix A: College of Engineering and Computer Sciences – Graduate Programs in Computer Science (CS), 2005-2006

Organizational Chart: Graduate Programs in CS