**SCHOOL OF INFORMATICS
AND COMPUTING**

INDIANA UNIVERSITY
Bloomington

Computer Science Ph.D. Student Handbook

2016 - 2017

Computer Science Graduate Studies Office
Lindley Hall, 225
soiccsiu@indiana.edu

Welcome Students

On behalf of the faculty, staff, and students at the School of Informatics and Computing, I am delighted to welcome you to our PhD program.

We are living through exciting times for Computer Science as we have been witnessing the impact of computers on every aspect of our lives; so obvious that I don't even need to give you any examples.

You are here because you are interested in leaving your mark in this field, and have shown during your undergraduate studies and elsewhere that you are capable of achieving this. We as the CS division are happy to offer you a top-tier, diverse faculty, excellent resources, dedicated staff, and our confidence that you will be a success at the end of your studies.

The road ahead is not easy, but it is extremely rewarding. We all look forward to seeing you progress and succeed. If you hit any rough spots, please feel free to ask us for help. In the meantime, have fun doing something that you are good at, and make a difference.

Welcome once again, and good luck.

Dr. Funda Ergun
Professor
Director of Computer Science Ph.D. Studies

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About this Handbook

The purpose of this handbook is to provide students pursuing the Ph.D. in Computer Science (CS) with an overview of the rules governing the program. The policies and procedures contained within this handbook are subject to change or revision at any time. In any case where current university policy differs from the following statements, university policy takes precedence. Please contact the Computer Science Graduate Studies Office (CSGSO) for all student service needs.

Computer Science Graduate Studies Office
Lindley Hall, 225
soiccsiu@indiana.edu

Computer Science Chair
Dr. Amr Sabry

Director of Ph.D. Studies
Dr. Funda Ergun

Director of Graduate Administration
Patricia (Patty) Reyes-Cooksey

Associate Director of Graduate Student Services
Regina Helton

Graduate Records and Admission Coordinator
Rachael Keith

Graduate Admissions Services Coordinator
Shawn Linn Davenport

Graduate Records and Admissions Assistant
Sherrie Lynn Denney

Degree Programs Overview

Computer Science offers the Ph.D. (Doctor of Philosophy) and the M.S. (Master of Science) in Bioinformatics, Computer Science and Security Informatics. This handbook will cover the curriculum of the CS Ph.D. program.

Ph.D. in Computer Science

The Ph.D. program in Computer Science offers the opportunity to conduct theoretical and practical research in a broad range of subfields of Computer Science or in the intersection of Computer Science and other disciplines (e.g. Biology, Cognitive Science, and Statistics).

Ph.D. Computer Science Program

A total of 90 credit hours of graduate-level (500+) coursework is required. These courses are defined as any course listed in the Computer Science program in the [Indiana University Graduate School Bulletin](#) that carries graduate credit.

PhD Core Requirements

Ph.D. students must complete 24 credit hours of courses in Computer Science at or above the 500 level, except for the A500-A599 courses. Six courses (24 credits), from the four core areas below, must be completed each with a minimum grade of B (3.0). This is in addition to the University's Graduate School (UGS) requirement of a B (3.0) average for *all* courses taken. At least one course must be taken from each of the areas of Foundations, Computer Systems, and one from either Programming Languages or Intelligent Systems.

Core Areas

Foundations of Computing: CSCI-B501 Theory of Computing, CSCI-B502 Computational Complexity, CSCI-B503 Algorithms Design and Analysis

Computer Systems: CSCI-B534 Distributed Systems, CSCI-P536 Advanced Operating Systems, CSCI-P538 Computer Networks

Programming Languages: CSCI-B521 Programming Language Principles, CSCI-B522 Programming Language Foundations, CSCI-P523 Programming Language Implementation

Intelligent Systems: CSCI-B551 Elements of Artificial Intelligence, BSCI-B555 Machine Learning, CSCI-B561 Advanced Database Concepts, CSCI-B565 Data Mining

Minor Area Requirement

Three minor options are available in the CS PhD program:

External Minor

An external minor awarded by another Indiana University department or graduate program that is approved by the Computer Science Program. The credit hours required vary depending on the graduate program offering the minor.

Internal Minor

An internal minor in Computer Science consists of at least 9 Computer Science credits, in courses other than reading and research, and in an area other than the student's specialization. The area and the courses must be approved by the student's advisory committee.

Individualized Minor

An individualized minor, is at least 12 credits spanning at least two Indiana University departments/degree programs. Requests for Individualized Minors are to be submitted *prior* to completion of the coursework. The minor is listed as "*individualized minor*" on the transcript. The CSGSO will assist you with the Individualized Minor request process.

In order to approve an IM, the following information should be submitted by the faculty advisor to the CSGSO:

- The student's name, IU ID #, and major program
- The title of the minor
- The purpose of the Individualized Minor such as how it will add depth/breadth to the student's major in a way that other, formal minors may not
- A list of coursework to be used to satisfy the minor
- How/if the minor will be examined in the Qualifying Exam process

Recommended Pre-Requisites

The courses listed below are recommended for students that have not completed an undergraduate degree in Computer Science. The student must at least take or know the material covered in C241, A592 (C212), and A594 (C343). It is desirable to have taken or be familiar with the material in the basic five core undergraduate courses: C241 (Discrete Structures for CSCI), A591 (C211: Intro to Computer Science), A592 (C212: Intro to Software Systems), A593 (C335: Computer Structures), and A594 (C343: Data Structures); the sixth core course, A596 (C311: Programming Languages), is also highly recommended if you do not plan to take the graduate course, B521 (Programming Language Principles), instead.

Advisors

Upon entering the Ph.D. program, the Director of Computer Science Ph.D. Studies (DPS) and the Director of Graduate Administration (DGA) will provide Academic Advising during the program's orientation. The DPS will serve as the student's temporary Advisor until the formation of the Advisory Committee. Throughout the students' academic career, the DPS and DGA will provide ongoing assistance to the student throughout their academic career.

Milestones and Timeline

The progress of the student in the Ph.D. program is specified on the CS Ph.D. Milestones Checklist. Please review the CS Ph.D. Milestone Checklist for the expected timeline for each milestone.

All students will be evaluated annually in November, during the Graduate Evaluation Day (GED) for their progress in the program in terms of the milestones, course grades, and Student Academic Appointment (SAA) performance.

Students whose progress in the program is less than satisfactory, will be required to provide an action plan to the Director of Graduate Administration addressing the problems that have caused the delay in their progress and/or unsatisfactory performance.

Form the Advisory Committee

Each doctoral student is responsible for forming an Advisory Committee (AC) by the end of their first year. This committee will administer the Qualifying Examination and consists of three faculty members:

Advisory Committee Checklist

- Identify three faculty members to serve on AC
- Identify a faculty member from CS that will serve as chair of the AC
- Contact each member and request to serve on committee
- Submit completed Advisory Committee Form to the CSGSO

Sometimes an AC member needs to be replaced. A committee change can be requested by submitting a new AC form to the CSGSO. It is important that the faculty member leaving the committee first agree to be replaced.

Qualifying Examination

Written and Oral Qualifying Examinations are required in the major area for all doctoral students. The Qualifying Examination is given by the first semester of the student's third year in the program. This examination is administered by the Advisory Committee and is expected to have a written and an oral component. If failed, the exam may be retaken once, by the end of the third year.

A student must have completed the 24 credit hours of courses in Computer Science as specified in the Computer Science Course Requirements before taking the Qualifying Exam.

When the written exam is given, the student and the chair of the Advisory Committee is required to submit the Qualifying Exam Schedule form, clearly indicating the date on which the student received the exam questions and the date before which the student is scheduled to submit the written answers. This form must be signed by the chair of the Advisory Committee and submitted to the CSGSO.

The oral exam should be scheduled within two weeks of the scheduled date of submission. If the exact date of the oral exam cannot be determined at the time when the written exam is given, please leave the "Scheduled Date of Oral Exam" field blank. The student is responsible for emailing CSGSO the date of the oral exam.

On the day of the Oral Qualifying Exam, the student should bring the Qualifying Examination form to the exam for the committee to fill out based on the outcome of the exam. The form should indicate the exam outcome with "pass" or "fail," signed by the Advisory Committee, and submitted to the CSGSO immediately after the oral exam.

Transfer Students: Candidacy nor a qualifying examination are transferable. All PhD students must complete a qualifying exam at IU to be eligible for candidacy.

Nomination to Candidacy

Following the passing of the Qualifying Examination and the completion of all course work required by the CS program (except CSCI-Y790, CSCI-Y890 and CSCI-G 901), the student may submit the Nomination of Candidacy e-doc via the One.IU webpage.

The e-doc will be routed to faculty committee members and the CSGSO for processing. It will then be reviewed by the University Graduate School (UGS) for final approval. Students are required to monitor the status of the e-doc until final approval from UGS.

Please note that the date of passing the Oral Qualifying Examination is a critical date. Courses taken more than 7 years *prior* to this date must be revalidated, and the 7 years allowed for dissertation work are counted forward from this date. Students can find a reference guide on the NoC by visiting the UGS website.

Nomination of Research Committee

After the Nomination to Candidacy Committee e-doc is approved, and no later than six months before the Defense of the Dissertation, the student should form the Research Committee, which consists of at least four members: The Committee Chair, and two or more additional faculty members from the major department, and a representative of each minor. All four must be members of the University Graduate School faculty. The chair/director and at least half of the committee members must be endorsed members of the Graduate School faculty.

The Nomination of Research Committee (NoR) e-doc is submitted online via the One.IU webpage. Students are required to monitor the status of the e-doc until final approval from UGS.

Thesis Proposal

The thesis proposal is submitted and defended *after* the completion of the Qualifying Examination. It consists of an oral presentation covering a submitted written research plan for the Dissertation. This examination is given by the Research Committee. Upon finishing the Thesis Proposal, the completed Dissertation Proposal form, with "pass" or "fail" clearly marked and signed by the Research Committee must be submitted to the CSGSO.

Announcement of Final Dissertation Defense

At least 30 days before the Dissertation Defense, the student should announce the Defense by submitting the Ph.D. Announcement form via One.IU webpage.

Dissertation Defense

A written elaboration of significant original research must be successfully presented to the Research Committee in a Defense of Dissertation as described in the Graduate School Bulletin. An Oral Defense meeting, open to the public, is required.

Please note that the Defense cannot be scheduled less than six months after the date of the Research Committee's approval of the Thesis Proposal, and cannot be scheduled less than 30 days after the Dissertation Defense is announced.

Upon finishing the Oral Defense, the Final Defense Approval form, with "pass" or "fail" clearly marked, and signed by the Research Committee, must be submitted to the CSGSO.

Submit Dissertation

Following acceptance by the Research Committee, the student should revise the Dissertation following the instructions of the Research Committee and receive the approval from the committee before submitting the Thesis to the UGS. Please note the complete Dissertation must be submitted within 7 years of the date of passing the Oral Qualifying Examination. For more information, please review the UGS website.

Application for Graduation

The Ph.D. degree is conferred by the University Graduate School (UGS). The Dissertation in its final form and the Abstract must be submitted to UGS at least 30 days *before* the expected date of degree conferral. Students who intend to participate in the Commencement are required to fill out a graduation application e-doc which is available at the University Graduate School webpage. Diplomas are mailed by the Office of the Registrar two to three months *after* the degree is conferred. It is the student's responsibility to verify that the Office of the Registrar has the proper mailing address on file. For more information, please review the UGS website.

Double Majoring

Students may pursue two majors in two departments simultaneously, if so recommended by each department and approved by the Dean. Two general requirements pertain to double majors: (1) there must be a substantive relationship between the two major fields, particularly with respect to the topic of the student's Dissertation; and (2) all degree requirements for each major must be fulfilled, including the passing of two sets of Qualifying Examinations. In some instances, it may be possible to count the same work toward requirements in both departments (e.g., a specific foreign language acceptable in both programs). The exact courses of study and examinations required are to be determined by members of the Research Committee from each of the majors. Any area of substantial overlap in the two courses of study or in the examinations is to be negotiated by the committee as a whole and approved by the Dean.

There must be at least four faculty members on both the Advisory and Research Committees for a double major, with two from each of the majors. If other minor fields are involved, a representative must also be present from each of these areas. A total of 90 credit hours is required for the Ph.D. degree with a double major. While judicious program planning may permit completion of some double majors within the 90 credit hours, other students may accrue additional hours due to the program of study required for each major. In recognition of such a possibility, students in the program will be allowed one additional year before they must take the Qualifying Examinations. For a complete set of rules relating to Double Majors, students should consult the CSGSO.

CS PhD Program Conduct

Academic Performance

It is important for all CS Ph.D. students to maintain good academic standing. Failure to maintain satisfactory progress may jeopardize a student's academic and/or funding status.

Satisfactory progress for CS Ph.D. students involves
- Taking and successfully completing at least 9 credits of CS courses for credit towards their degree requirements each Fall and Spring semester, with an overall GPA of least 3.0.
- Maintaining a 3.0 GPA for the 24 credit hours of required Computer Science courses.
- Finishing Ph.D. Milestones in a timely manner.

- Acquire Candidacy and form the Research Committee by the end of 3rd year.
- Finish 90 credits by the end of 5th year.
- Maintaining Academic Integrity

Students should be aware that the University Graduate School Bulletin stipulates that courses completed with grades below B (3.0) do not count towards degree requirements; however, these grades (e.g., C-, D+, D, D-, F) are counted in calculating the GPA, which must be a B (3.0) or above to continue in graduate study.

Academic Probation

A CS Ph.D. student may be placed on Academic Probation for the following reasons:

- The GPA falls below 3.0.
- The GPA for the required CS courses falls below 3.0.
- Satisfactory progress is not being made towards the degree as determined by area faculty in the evaluation of the student's work.
- Failure to fulfill requirements which were stipulated at the time of admission, including English exams or required language training for international students.

When a student is put on Academic Probation, a recommendation will be given to the student to improve his/her academic standing with deadlines set. The student's performance is evaluated again at those deadlines to determine if improvements have been made and goals have been met. If performance does not improve, the student may not be allowed to continue in the program.

Graduate Evaluation Day (GED)

The status of all Ph.D. students are reviewed and evaluated by the faculty annually in the fall term. In preparation, the DGA and CSGSO evaluates the academic records of all students in the CS PhD program.

As part of the evaluation process, students are required to complete and submit an online student evaluation. The form will ask students to indicate academic milestones completed and the following:

- Research progress, including results, writing, thesis proposal, independent study courses, conference papers and presentations, journal papers, etc. List cited articles or other bibliographic information separately at the bottom.
- Progress on program requirements: courses taken, performance in courses, screening/qualifiers taken, oral area qualifier taken, thesis proposal oral completed, minor, etc.
- Teaching: course responsibilities, performance, student evaluations, course development, independent teaching of courses, etc.
- Public service: help in organizing events, activity in student organizations, help in departmental administration, admissions, etc.

During the GED, the faculty review and discuss the progress of each Ph.D. After review, students will receive an email from the CSGSO with faculty assessment and recommendations.

Academic Policies & Procedures

Email

At Indiana University, each student is expected to set up a University email account for use during the time in which a student is admitted and enrolled at the University.

Student Services

The CSGSO is the point of contact for graduate student services. Please email soiccsiu@indiana.edu for assistance. Make sure to include your full name, program, and admit year in the body of the email.

Course Permissions

Some courses require course permission prior to enrollment. Please follow the instructions listed on the Indiana University Schedule of Classes for permission.

If the course is listed as requiring permission from the instructor, please contact the instructor that is listed for the course via email to obtain permission.

Some courses require department permission for enrollment. Please contact the CSGSO for department permission via email at: soiccsiu@indiana.edu (Note: The course should be approved as part of your approved Plan of Study *prior* to requesting CSGSO permission).

Course Permission Examples

Independent Study and Research Courses

CS Program offers three Independent Study and Research courses:

- CSCI-Y790's are taken before formal approval of Candidacy.
- CSCI-Y890's are only allowed after Candidacy has been approved, and are for Dissertation Research.
- CSCI-G901 is only allowed after Candidacy **and** completion of the required 90 credits.

CSCI-Y790

For CSCI-Y790 you can locate the faculty member through the Indiana University Course Browser and register up to the allowed amount of credits per the outlined program requirements. If you require assistance with enrollment please contact the CSGSO at soiccsiu@indiana.edu.

It is important to note that students are required to register via One.IU for all classes during the registration period. Please refer to the Office of the Registrar website for all registration timelines. If you have difficulties registering for CSCI-Y790, email the CSGSO: soiccsiu@indiana.edu.

Independent Study Student Checklist

- Outline Independent Study plans
- Identify and contact the faculty member with whom you would like to work
- Discuss your Independent Study with faculty
- Obtain approval from faculty to register for CSCI-Y790 under their supervision
- Register for CSCI-Y790 via One.IU
- Successfully complete CSCI-Y790

Y790's with Supervision Outside CS

If the Independent Study supervisor is outside of the CS faculty, you will need to find a CS faculty member to co-supervise the project. The faculty member must assess the student's work at the end of the semester and submit the grade for the course. Please be sure that all needed information is provided to the faculty at the

end of the semester, in time for the grade submission deadline. You will need to contact the CSGSO for assistance with department registration if the co-supervisor is not listed in the [Indiana University Schedule of Classes](#).

CSCI-Y890

CSCI-Y890's are only allowed after candidacy has been approved, and are for Dissertation Research. Students should request department permission by emailing the CSGCO at soiccsiu@indiana.edu. Please provide your advisor for the course, full name, and admit year.

CSCI-G901

Students are allowed 6 semesters of CSCI-G901. If you have reached the 6 term limit you must register for CSCI-Y890. Please make sure you are eligible for CSCI-G901 registration before requesting permission from the CSGSO at soiccsiu@indiana.edu.

Enrollment Requirements and Policies

Full-time Status

To be considered a full-time student, the student must register for 8 credit hours, according to IU policy. The student should choose three courses (3 credit hours each totaling 9 credits) that count towards the intended degree. Students must enroll in three courses even if they are making up Incompletes from a previous semester. Students are expected to maintain fulltime enrollment as they make up incompletes.

Tip: "Add and drop" instead of "drop and add": When replacing courses, be sure to add the new course first and then drop the old, in order to always be above the minimum number of credits for status.

Waitlist: If a course which you desire is shown as full, be sure to add yourself to the waitlist, which serves as a place holder for you in line. When students who enrolled in the course drop, or when/if the enrollment cap is expanded, students on the waitlist will be admitted into the course in order.

Drop and Refunds

Be sure to finalize your schedule promptly. For course drops in the first week, IU refunds the full tuition for the course. In the second, third, and fourth weeks,

refunds are 75%, 50%, and 25%. Later drops receive no refunds. We strongly encourage you to become familiar with the Office of the Bursar policies and fee payment information. It is the student's responsibility to know the policy and deadlines governed by the IU, Office of the Bursar and Office of the Registrar.

Withdrawals from courses

During the automatic withdrawal period, students who withdraw will be assigned an automatic grade of W (see the Registrar's official calendar for exact dates). After that period, withdrawals are only possible with approval from the Dean, which is normally given only for urgent reasons such as illness. Note that CS students must successfully complete at least 9 credits of courses towards their degrees each semester to be considered making satisfactory progress. The amount of tuition refund (if any) for a dropped course depends on when the course is dropped.

Registration, Adding and Dropping Courses

Newly admitted students will receive information about course registration during orientation. The timetable for course registration, as well as for adding and dropping courses is set by the University as published in the Official Academic Calendar. All students are responsible for becoming familiar with the policies, procedures and deadlines set by the Office the Registrar and the Office of the Bursar.

The Office of the Registrar assists students with a variety of services relating to registration, immunization, residency and more. Students should become familiar with calendars, schedules, polices and all student related information.

Leave of Absence

To request a leave of Absence from the CS Ph.D. program, a student is required to discuss the nature and length of the leave with the DGA. The student will then need to complete a Leave of Absence Form signed by their Advisor and the DPS. Students should then submit the form to the CSGSO for review.

During Program of Studies: Students who do not enroll in classes for a period of two years must apply for Re-Admission to the program. They must meet current admission criteria, and if re-admitted, must fulfill current program requirements.

During Candidacy: During the Dissertation portion of the program (after the student has passed the Oral Qualifying Examination), students must enroll in at least 1 credit hour per term in order to maintain active student status. Students do

not need to register for Dissertation credit during the summers unless the student plans to graduate or defend the Dissertation in the summer. Students who fail to register each semester must back-enroll for all semesters missed in order to graduate. There is a charge per semester (plus tuition) for back-enrollment.

Transfer Credits

Some graduate coursework completed at other accredited universities may be transferred into the CS Ph.D. program. All coursework transferred must be from an accredited college or university and no transfer credit will be given for courses with a grade lower than a B. The student will need to receive approval from the faculty member associated with each course. Transferred courses must be relevant to the student's program of studies and must be submitted to the CSGSO using the Transfer of Graduate Credit form for final approval by the DGA.

A course may not be counted toward degree requirements if it has been completed more than (a) five years prior to the awarding of the degree for master's students or, (b) seven years prior to the passing of the Qualifying Examination for Ph.D. students. The Graduate Advisor, after consultation with the Advisory Committee, may, however, recommend to the DPS, that course work taken prior to the above deadlines be revalidated if it can be demonstrated that the knowledge contained in the course(s) remains current.

Knowledge of coursework may be demonstrated by: (a) passing an examination specifically on the material covered by the course; (b) passing a more advanced course in the same subject area; (c) passing a comprehensive examination in which the student demonstrates substantial knowledge of the content of the course; (d) teaching a comparable course; or (e) publishing scholarly research demonstrating substantial knowledge of the content and fundamental principles of the course.

Each course for which consideration for revalidation is being requested should be justified separately. If the Qualifying Examination is used for the purpose of revalidation, the number of courses to be revalidated by this method should be limited to two in order to avoid compromising the integrity of the Qualifying Examination process.

Transfer Credit Checklist

- Identify the course at IU that may be considered equivalent to the course to be transferred.
- Contact the faculty who teaches the equivalent course at IU.
- Provide the faculty member documents such as course description, course syllabus, sample homework assignments, projects and/or exams, as required by the instructor.
- Complete the Transfer Credit form for the faculty to sign if approved.
- Submit the completed form to the CSGSO for review and final approval.
- Allow 3- 5 business days for credit(s) to reflect on transcript.

Revalidation

All graduate-level coursework over seven years old must be revalidated (counting back from the date of passing the oral qualifying examination). Normally, a course may not be counted toward degree requirements if it has been completed more than (a) five years prior to the awarding of the degree for master's students or, (b) seven years prior to the passing of the Qualifying Examination for Ph.D. students. The Graduate Advisor, after consultation with the Advisory Committee, may, however, recommend to the Dean that course work taken prior to the above deadlines be revalidated if it can be demonstrated that the knowledge contained in the course(s) remains current. Currency of knowledge may be demonstrated by such things as:

- passing an examination specifically on the material covered by the course;
- passing a more advanced course in the same subject area;
- passing a comprehensive examination in which the student demonstrates substantial knowledge of the content of the course;
- teaching a comparable course; or
- published scholarly research demonstrating substantial knowledge of the content and fundamental principles of the course.

Each course for which consideration for revalidation is being requested should be justified separately.

Information for International Students

The Office of International Services (OIS)

OIS is your comprehensive resource for all matters related to international study. Students can find detailed information about OIS and their services by visiting their website.

Associate Instructorship

Students whose native language is not English who would like to compete for teaching positions are required to take the "Test of English Proficiency for AI Candidates." Students must pass this exam before they can be appointed to engage in the direct instruction of students at IU. If you have questions about the TEPAIC please check the website and/or contact the CSGSO.

Full-time Status

International students should note that SEVIS regulations are stringent about having a full course load, and that it's essential to check with International Services well in advance of any event that might affect visa status (e.g., dropping a course), to avoid the risk of deportation for being out of status. Check OIS for links to information on staying in status, to be sure that you are aware of the current policies.

Completion dates for Visa Purposes

International students are considered to have completed their degrees as soon as they have completed the degree requirements, regardless of whether they have filed for the degree. Consequently, it is essential to make sure that post-graduation visa arrangements are in place before completing the requirements. International Services is expert on these rules. Please refer to OIS for rules.

Optional Practical Training (OPT)

Optional Practical Training (OPT) is employment related to your major field of study prior to or shortly after graduating. The date of graduation is normally the end of the semester in which you take the last courses needed for the degree, regardless of whether you will receive an incomplete in one of these courses. Even if you have an incomplete that prevents receiving your degree, you should expect the OPT to be processed using the normal completion date for your last courses (the last day of finals). Refer to the OIS website for detailed information regarding OPT. Use the soiccsiu@indiana.edu email address for all OIS related

communication.

Please Note: It is common for domestic Ph.D. students to apply for an MS when, during their formal course work, they fulfill the MS requirements. In some cases, however, filing early for the MS can invalidate the practical training period for international students. The regulations regarding practical training state that students must apply within 30 days of the "completion of studies," which in effect means upon completion of all requirements for the last degree earned. This regulation may pose problems for Ph.D. students who, for whatever reason, decide to leave with an MS. International Ph.D. students should consult with an International Services advisor before filing for an MS degree.

Internship and Curricular Practical Training (CPT)

Curricular Practical Training (CPT) is a work authorization that allows students with an F- I visa to engage in an off-campus academic internship that is an integral part of their academic curriculum. CPT requirements can be found on the Office of International Services website.

All CSD Ph.D. students must have approval from their faculty advisor before accepting an internship offer.

What is CPT?
- Work authorization that allows F-1 international students to participate in paid off-campus academic internships during a student's degree program.

- The work must be integral to the degree program.

- Approval must be granted prior to completion of your academic program.

- CPT is approved or denied by the Office of International Services (OIS) and the Computer Science Graduate Studies Office (CSGSO).

- Employment must not begin until the date authorized in the I-20 issued by OIS.

- You must be a full-time, F-1 status student for at least one full academic year.

CPT Application Process

Accepting an Employers Offer

- Accept only *ONE* offer from *ONE* employer

- You must have a letter from your prospective employer for work in your major field of study

- Withdraw all pending applications

- Cancel all scheduled interviews

- Cease seeking employment/internships elsewhere

Offer Letter Requirements

- Name of Company

- Physical Address – No P.O. Box

- Contact Phone Number

- Email of Employer/Supervisor

- Your Job Title

- A Full Job Description - With Job Duties Listed

- Start Date and End Date of Employment

- Total Hours you will be Working

Notifying the CS GSO

You will need to notify the CSGSO when your employer provides you with an offer letter.

Please submit the following information to the soiccsiu@indiana.edu email address:

- Your Full Name

- Your Program

- Student ID Number

- A PDF version of the Offer Letter from your Employer

- A Description of the nature of the employment and how this employment directly relates to your course work and program.

The CSGSO Office will review your email, offer letter and required information. We will advise you on the appropriate course to enroll in. Keep in mind the course will vary and is unique to each student's situation. We will then ask you to complete the following OIS process:

Upload Offer Letter in iStart
Follow the instructions carefully and upload your offer letter into iStart for OIS Approval. When OIS approves the offer letter they will notify you by email with instructions for completing the Academic Advisor Form.

Complete the Academic Advisor Form
Indicate Regina Helton as the Academic Advisor (Regina is the point of contact for this process). Use the soiccsiu@indiana.edu email address on the Academic Advisor form (and on any OIS related communication).

CPT Points to Remember:
- The approval process cannot be rushed or completed out of order
- It is important that you use the soiccsiu@indiana.edu email address on all OIS related communication
- Employment must *not* begin until the date authorized in the I-20 issued by OIS

All students are required to review the guidelines from SoIC Career Services:
http://www.soic.indiana.edu/career/students/recruiting-guidelines.html

Upon completion of the Internship students are required to provide the CSGSO an Exit Letter - a formal letter from the employer stating the terms of employment or internship were satisfactorily completed. If an exit letter is not submitted an incomplete "I" grade will be posted. Incompletes will turn to an "F" on the transcript one year after registration in the course unless the Exit Letter is provided.

Financial Support

Indiana University and Computer Science offers a variety of types of financial aid to students in its Ph.D. program. These include: Graduate Fellowships, Associate Instructorships, and Research Assistantships, all of which include fee remission. Fee Remission is posted for 12 credits in the fall term, 12 credits in the spring, and 6 credits in the summer term. The Department attempts to provide financial aid to all continuing Ph.D. students in their second through fifth year who are making satisfactory progress toward the Ph.D. degree, whose overall performance in the program is strong, and who are able to serve as an Associate Instructor or Research Assistant.

Student Academic Appointments

Student Academic Appointments (SAA) can be in the form of an Associate Instructor (AI) or Research Assistantship (RA). All students with an SAA are required to sign the Application and Agreement for Student Academic Appointee form with the Computer Science Payroll / HR Associate. In addition, the student will need to supply documentation required for the hiring process.

Students offered a student academic appointment (SAA), as a Research Assistant (RA) or Associate Instructor (AI), have a workload that is a 50% FTE appointment (20 hours per week). Students with a SAA, are required to register for at least 6 credit hours to maintain full-time status.

Students with Research Assistantships must secure their RA supervisors' advance written permission to take any outside courses in addition to the required 9 credits of CS courses contributing towards their degrees. This approval must be provided to the CSGSO prior to registration. All students with an SAA are responsible for following all policies outlined in the Student Academic Handbook.

Associate Instructorship
The Associate Instructorship (AI) are the primary form of financial assistance for continuing students. AIs assist a faculty member in teaching introductory courses and are responsible for leading discussion sections and labs.

AI's are required to attend the Associate Instructor Orientation prior to the start of the fall term. In addition, it is highly recommended that students utilize campus resources from the Center for Innovative Teaching and Learning and attend various AI related workshops/meetings offered by Computer Science.

Note: Students whose native language is not English cannot be AIs until they pass the [Test of English Proficiency for Associate Instructor Candidates (TEPAIC).](#)

Students who have accumulated 90 hours or more and who have completed all course requirements are not eligible for fee remissions, but may enroll in CSCI-G901.

It is our understanding that fee remissions and fee scholarships are not taxable. Summer fee remission and fee scholarship awards are restricted to a maximum of six hours. Fee remissions and fee scholarships are restricted to a maximum of 30 hours in any academic year (fall, spring and summer term.

Research Assistantships

Faculty members may have research grants that include stipend, tuition remission, and fees for graduate students hired to work on funded research project. The availability of research assistantships will vary each year among faculty. The awards are not made by Computer Science, but rather are arranged directly with the funding faculty.

Summer Appointments

A limited number of summer AI and RA appointments are available. These funds are allocated on the basis of scholarly, research and/or teaching performance.

University Graduate School Fellowships

It is encouraged that all students become familiar with the various funding opportunities at Indiana University. For an updated listing of awards and deadline, visit the [IU Grad Grants](#) Center website.

Stipends

The stipends attached to AI and RA appointments are considered graduate student financial support and compensation for the academic duties assigned, and as such are taxable income.

The following enrollment requirements apply: a) All graduate students on a SAA or above .375 full time equivalent (FTE) must enroll for at least 6 credit hours each semester on appointment. Students on summer appointments have the option of enrolling to be exempt from FICA payments. b) Students appointed at less than .375 FTE must enroll for at least 1 credit hour each semester on appointment.

Post 90-hour Assistantships:

Students with an SAA who have accumulated 90 hours or more and who have completed all course requirements are not eligible for fee remissions.

Students with an SAA at or above .375 FTE must enroll in 6 credit hours each semester, but may enroll in CSCI-G901 (Advanced Research) which carries a value of 6 credit hours, flat rate fee of $150 and no mandatory fees.

CS Ph.D. Time Table and Checklist

* The time table is designed to guide the students to finish their Ph.D. study in 5-6 years.

** Students will be evaluated every semester in the first two years, then annually, to determine whether satisfactory progress is made.

	Task	**Forms**
Year 1		
Semester 1	- Take courses towards fulfilling major and minor course requirements - Transfer credits if applicable - Identify research interests	Transfer of Credit Form
Semester 2	- Continue enrollment towards fulfilling major and minor course requirements - Start research involvement via Independent Study (Y790) or RAship - Identify faculty advisor - Identify minor area - Start discussing with faculty advisor about forming Advisory Committee	- Appointment of Advisory Committee Form - Permission to Register for Independent Research Courses From
Target Milestones	**Form Advisory Committee**	
Year 2		
Semester 1	- Continue enrollment towards fulfilling major and minor course requirements - Conduct research under the guidance of Advisory Committee	
Semester 2	- Final coursework to fulfill major course requirements - Schedule and take Qualifying Exam - You must finished all major course before you can take Qualifying Exam - Course seven year and older must be revalidated.	- Qualifying Exam Scheduling Form - Qualifying Exam Form
Target Milestones	**Fulfill major course requirements** **Pass Qualifying Exam** **Submit research papers**	

Year 3		
Semester 1	• Final coursework to fulfill minor course requirements • Apply for Ph.D. Candidacy	• Nomination of Candidacy Form
Semester 2	• Continue Enrollment (Y790) • From Research Committee	• Nomination of Research Committee Form (online)
Target Milestones	• **Acquire Ph.D. candidacy** • **Form Research Committee** • **Publish research papers**	
Year 4		
	• Continue Enrollment (Y890) o You can register for Y890 after you acquire Ph.D. Candidacy • Define research topic and start Ph.D. Research under the guidance of Research Committee • Continue Publishing Research Papers	
Target Milestones	• **Research publications**	
Year 5		

	• Continue Enrollment
	   o You can register for Y901 after you have completed 90 credits
	   o You can register for Y901 for up to six semesters before you need to return to Y890
	• Thesis proposal
		Dissertation Proposal Form

Target Milestones	• **Pass thesis proposal**	
Year 6		

	• Dissertation Defense
	    o At least six months after thesis proposal
	    o At least 30 days after Dissertation announcement
	    o If Dissertation Defense is held more than seven years after passing Qualifying Exam, the Qualifying Exam needs to be revalidated
	• Submission of the Dissertation
	• Apply for degree
		Dissertation Announce form (online)
		
		Thesis Defense form

Target Milestones	**Passing Dissertation Defense**	
Degree Conferral		