



College of Information
Science and Technology

Ph.D. in Information Technology

HANDBOOK FOR DOCTORAL PROGRAM IN INFORMATION TECHNOLOGY

Last Revised January 2013

The purpose of this Handbook is to provide a summary of the essential points of the doctoral program. The Handbook does not replace official documents and requirements, but instead helps to interpret and supplement them.

The Website of the doctoral program for Ph.D. in Information Technology is <http://phd.ist.unomaha.edu/>. All forms required in the Ph.D. program are available on the Ph.D. program Website.

Students are subject to the requirements of the Office of Graduate Studies and the College of Information Science and Technology as detailed in the Graduate Catalog available through the Office of Graduate Studies Website at <http://www.unomaha.edu/graduate/>.

Students should pay especially close attention to the paperwork and deadlines required by the Graduate Office, e.g., filing for candidacy and degree completion. It is the student's responsibility to file the appropriate forms within the deadlines specified by the Graduate Office.

This handbook is maintained by the chair of the Doctoral Program Committee on behalf of the Doctoral Program Committee and the College of IS&T. Suggestions for enhancements are welcome.

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1. Course Requirements

The Ph.D. in IT program requires 90 credit hours of graduate courses. The coursework consists of foundation courses, doctoral seminars and colloquia, a major field of study, an optional minor field of study, and the dissertation.

Important Note: Undergraduate courses, either taken at UNO or at other universities are NOT allowed to be counted as credits towards the Ph.D. degree. Courses at UNO numbered 8**5 are NOT allowed to be counted as credit towards the Ph.D. degree.

Transfer of credits: A maximum of 36 credit hours of graduate coursework can be transferred from courses that were taken in a graduate program before being admitted into the Ph.D. in IT program at UNO. All such credit transfers must be approved by the doctoral program committee as part of the student's plan of study.

The different categories of credit hour requirements for the program are outlined below:

1. Foundation courses (minimum of 24 hours)
The foundation courses are divided into three tracks. The list of acceptable foundation courses is displayed in Figure 1. Each course is 3 credit hours.
2. Research Foundations/Seminars (minimum of 6 hours)
 - o CIST 9080 Research Directions in IT (3 credit hours) – This is a required course for all Ph.D. in IT students
3. Colloquia (minimum of 3 hours) – CIST 9040, 9050, and 9060 (1 credit each): These courses are required for all students. They are offered simultaneously during one semester.
4. Major field of study (minimum of 18 hours)
Coursework in the major field of study provides students the advanced study needed to develop an in-depth knowledge of their chosen field of research. At least 3 courses (9 credit hours) must be in 9000-level courses. The remaining courses should be mainly graduate only, 8000-level courses (as opposed to dual-listed 8**6 courses)
5. Minor field of study (optional)
In consultation with his/her supervisory committee, the student may choose an appropriate minor area of study related to the major field of study.
6. Dissertation (minimum of 24 hours)

Policy on Transferring Graduate Course Credits

Students are allowed to transfer a maximum of 36 credit hours of graduate coursework taken at another program to their Ph.D. in IT program at UNO, subject to the following guidelines:

- a) The student must provide the syllabus of every course that is being transferred from another program.
- b) The student must map every course transferred from another program to a corresponding CIST course at UNO. In case the mapping is not clearly evident, the student should consult with the faculty member responsible for offering the corresponding CIST course at UNO.
- c) Courses on topics not covered in any existing CIST course, which are requested to be transferred from another program, can be counted only under the major field of study portion of the student's plan of study. For every such course, the student's supervisory

committee chair must provide a statement explaining the requirement of that course in the student's major field of study.

- d) Credit hours taken as part of a capstone course, thesis and/or project in a graduate program cannot be counted towards the plan of study in the doctoral program.

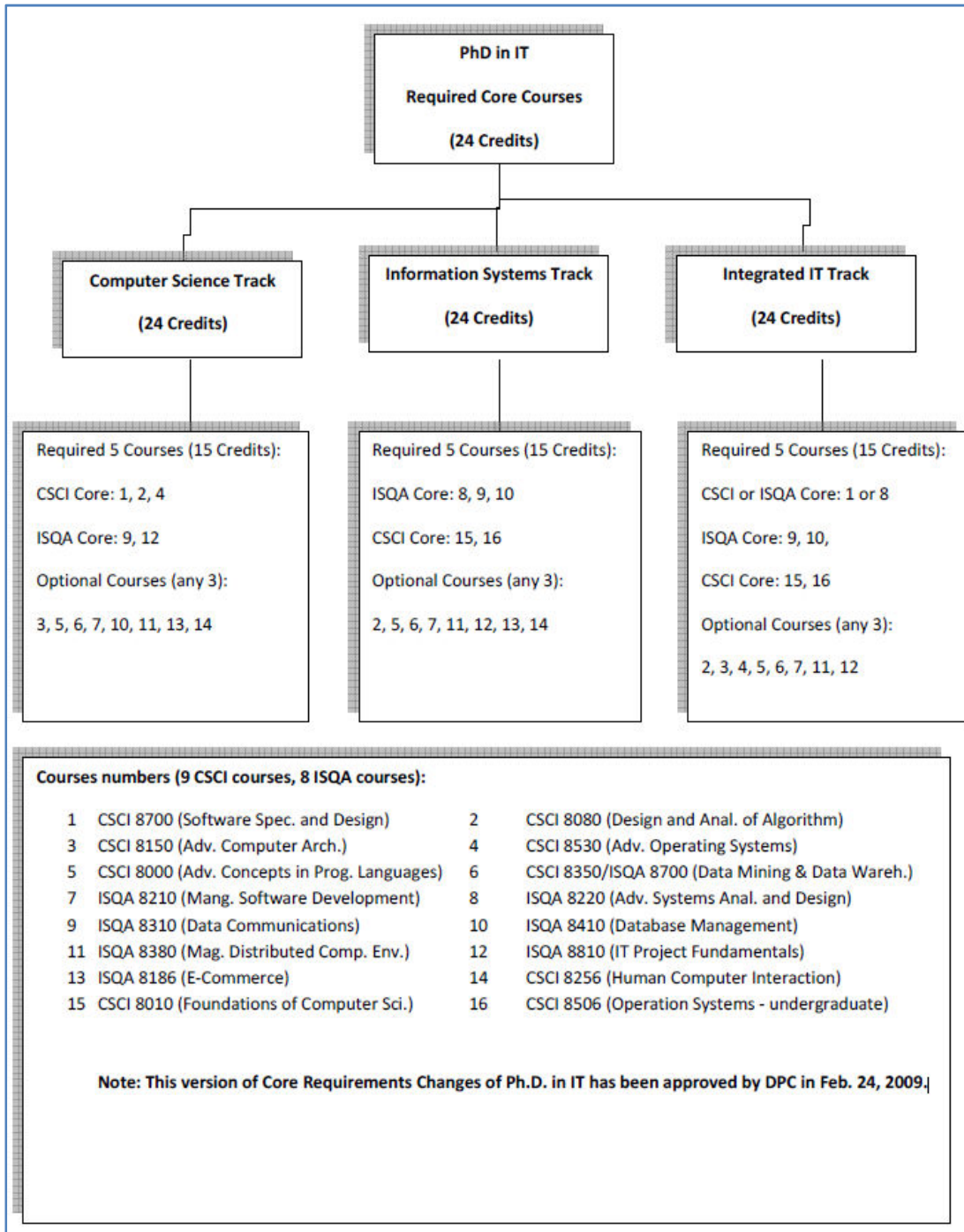


Figure 1: Foundation Courses and Tracks for the Ph.D. in Information Technology Program

1.1. Independent Study Courses

Doctoral students can take the independent study course CIST 9980 Independent Study in IT for 1-3 credit hours to gain specific knowledge in an area not covered by a regular graduate course. All such independent study courses must be supervised by a UNO faculty member. Independent study courses usually do not have regular meeting times or lectures like conventional courses. They are primarily self-study, research-oriented courses facilitated by meetings between the student and the supervising faculty member.

1.1.1. Independent Study Course Approval

In the semester preceding the one during which the independent study course will be taken, the student and the supervising faculty member must submit an independent study proposal form to the doctoral program committee chair for review by the doctoral program committee. After the doctoral committee approves the independent study proposal, the student can register for the independent study course.

Some general guidelines for independent study courses are given below:

1. An independent study course cannot be used to replace a regularly offered graduate course. The topic of an independent study should be significantly distinct from the contents of a regularly offered graduate course.
2. A student should not register for two or more different independent study courses under the same faculty member during the same semester.

1.1.2. Independent Study Grades

The grade received by the student in the independent study course should be submitted by email to the doctoral committee chair before the end of the semester by the faculty member supervising the independent study. Independent study courses extending beyond one semester can be given an IP (in progress) grade by the supervising faculty member. The Office of Graduate Studies requires that all IP grades must be converted to a letter grade by the semester following the one during which the independent study course was taken. Otherwise, the IP grade is converted automatically to an F(fail) grade.

1.2. Special Topics Courses

Special topics courses are offered under the course number CIST 9900 Special Topics in IT or as a CSCI or ISQA 9000-level research topics course. A special topics course is designed to acquaint students with issues which are current to the field or emerging trends. Special topics courses are like conventional courses with regular, weekly meeting times. Special topics courses need to be approved by the doctoral program committee before they are put on the schedule of a semester by the faculty member offering the special topics course.

1.3. New Ph.D. level Course Proposal

New Ph.D. level courses can be proposed by CIST faculty. Before proposing a new regular (non-special topics) Ph.D. level course to the doctoral program committee, CIST faculty should share the syllabus with the respective department or unit faculty and get the department/unit's approval of the proposed syllabus. The inputs from the department/unit faculty should be

forwarded to the doctoral program committee along with the syllabus of the proposed course for reviewing. For special topics courses, the proposed syllabus can be forwarded directly to the doctoral program committee.

1.4. College Round Tables

The College of IS&T hosts regular research presentations by faculty, researchers and industry professionals. These sessions give students an opportunity to network with researchers, to become familiar with a variety of topics and research methods, and to expose their own ideas in discussion with presenters. Student attendance will be taken at these round table meetings. Students are expected to attend these round table meetings.

Round table presenters often have separate meetings with students. Doctoral students should plan to attend these meetings.

2. Program of Study

A program of study consists of a list of courses that a Ph.D. student will be taking at UNO or transferring from another program. After being admitted into the program a Ph.D. student will prepare a preliminary plan of study in consultation with the director of the doctoral program committee using the Program of Study Form. Each student's preliminary plan of study will be periodically reviewed by the student and the director of the doctoral program committee, and modified if necessary, to ensure that reasonable progress is being made toward completing the program. A preliminary program of study must be approved by the doctoral program committee by the end of the first year of studies of a Ph.D. student.

Once the supervisory committee is formed, the preliminary program of study and the supervisory committee form must be filed with the Office of Graduate Studies. The program of study must be approved within three weeks of the appointment of the supervisory committee. The program of study can be revised after it has been approved using the plan of study change request form.

2.1. Supervisory Committee

Each student will have a supervisory committee that is responsible for planning and supervising the student's research, including approval of the dissertation proposal, the completed dissertation, and the final oral defense. The supervisory committee is usually formed at the end of the first year or beginning of the second year of the student's studies in the program. It usually consists of 4-5 members. The following rules apply for constituting the supervisory committee:

- The supervisory committee is chaired or co-chaired by the student's dissertation advisor(s).
- All members of the supervisory committee must be full-time, Graduate Faculty.
- The supervisory committee must have at least four members.
- The advisor or co-advisors must be from the College of Information Science and Technology.
- At least three supervisory committee members must be from the College of Information Science and Technology.
- At least one member of the supervisory committee, referred to as the 'Outside Representative', must be from a unit within UNO, but from outside the College of Information Science and Technology.
- One or more supervisory committee members can be from a different university. This member will serve as an *ex-officio* member of the supervisory committee.

The supervisory committee is appointed by the student by completing an Appointment of Supervisory Committee form. This form should be submitted along with the approved Program of Study form to the doctoral program committee chair for approval and forwarding to the Office of Graduate Studies.

2.2. Changes to the Supervisory Committee

The supervisory committee can be changed after it has been formed by submitting a new Appointment of Supervisory Committee form. All members of the former supervisory committee must be informed of the change in the membership of the committee.

3. Teaching Requirements

All Ph.D. students are required to teach at least ONE course while studying in the program. Students who are assigned to teach a course will be designated as the instructor for a section of the course, and will be trained and evaluated by a mentor before teaching the course.

3.1. Method of Allocation

The steps for a student being allocated as a teaching assistant for a course are outlined below:

- The student will inform the DPC chair about the plan to teach a course along with a list of preferred courses.
 - If the student is teaching a course for the first time, this information should be sent TWO semesters before the semester in which the planned course is intended to be offered.
 - If the student has taught the course in the past, this information should be sent ONE semester before the semester in which the planned course is intended to be offered.
- The DPC chair will consult with the unit chairs responsible for course scheduling to determine the need of instructors for different courses to make a suitable allocation
- The student will undergo mentorship under the faculty member responsible for teaching the course by attending the lectures and doing additional duties as determined by the mentor, ONE semester BEFORE the semester in which the planned course is going to be offered.
- The student will be assigned as an instructor for the planned course, if, after undergoing the mentorship, the mentor determines the student is suitable for teaching the course

3.2. Timing of Teaching Activities

Teaching a course is an intense activity and can usually consume considerable time and effort. To avoid interference with his/her research work, a student should plan to teach a course, especially if the student is teaching it for the first time, towards the beginning or mid-point of their Ph.D. studies. Students should plan to teach a course usually in the second or third year of studies.

3.3. Teaching Related Financial Assistantship

Students who work as teaching assistants will receive a financial assistantship for their teaching duties.

3.4. Courses for Teaching by Ph.D. Students

A list of courses that are usually available for Ph.D. students to teach is given below:

Computer Science Courses

CIST 1300: Introduction to Web Development

This course will provide students with a practical introduction to web development. By learning the basic skills needed to develop an interactive website, students will develop an understanding of the web development task and an appreciation of the importance of the Internet in both business and academic environments. Specific technical topics to be covered include XHTML, CSS, the Unix/Linux operating system, web server software, and a programming language. As part of the class, each student will develop a working website.

Credits: 3

Prereq: MATH 1310 (or equivalent) Not open to nondegree students.

CIST 1400: Introduction to Computer Programming

An introduction to programming within the context of a high level modern programming language. Coverage of fundamental programming concepts and program design; including arrays, user defined types, and objects. This course has an optional laboratory component in CIST 1404.

CSCI 1620: Introduction to Computer Science II

Continuation of CIST 1400. Advanced topics in programming; topics in data representation and manipulation, data structures, problem solving and algorithm design.

Credits: 3

Prereq: CSCI 1610 or CIST 1400, and MATH 1930 or MATH 1950. Not open to nondegree students.

CSCI 1840: INTRODUCTION TO C PROGRAMMING

Programming in 'C' in a UNIX operating system environment; algorithm and program development and file manipulation using 'C'; UNIX-like utility development.

Credits: 3

Prereq: CSCI 1620 1.2.1 Facility with a high-level programming language like Pascal, Modula, Java, or C++. 1.2.2 Ability to design and implement solutions to modest problems using assignment and flow control, procedures/subroutines/functions, scalars, arrays, records/structures, and simple input/output. Not open to nondegree students.

Information Systems and Quantitative Analysis courses

CIST 2100: Organizations, Applications and Technology (3) This survey course provides an introduction to organizations and the role information and information systems play in supporting operations, decision-making, processes, quality management, and strategic activities of an organization. In addition, the course covers management of the IS function, strategic and regulatory issues of telecommunications, and ethical and legal issues. **Prereq:** Prerequisite of ENGL 1150 and ENGL 1160 prior to or concurrent with enrollment

CIST 2500 Introduction to Applied Statistics for IS&T. (3) The course emphasizes the function of statistics in information science and technology including topics such as descriptive statistical measures, probability discrete probability, sampling, estimation analysis, hypothesis testing,

regression, and analysis of variance. A well-known computer package will be used to support the problem-solving process. *Prereq: Math 2040 or Math 2030.*

ISQA 3310 Managing the Data Base Environment (3) Introduction to business database design and management functions. The focus is on the use of current database management systems (DBMS) to support the data management function of an organization. Topics include data modeling, database design, SQL, data management and database administration. Hands-on experience in database design, creation, and use is provided. *Prereq: ISQA 3210 (prerequisite or co-requisite), CIST 1100, CIST 3100 or equivalent.*

ISQA 3400 Business Data Communications (3) Data Communications principles and service operations with computers and telecommunication systems for operational analysis and decision making. This course will focus on breath, not depth -- concepts rather than specific technologies because concepts remain constant over time, while technologies change from year to year. Students are expected to master the basic terminologies and concepts, not necessarily to become experts in computer networking, nor to know the engineering details of any technology. *Prereq: CIST 3100.*

4. Comprehensive Examination and Admission to Candidacy

The requirement for comprehensive exams is detailed in the Graduate Catalog, both in the general section for Graduate Office requirements and in the specific requirements of the Ph.D. in IT (Appendix A). The major points are summarized here:

4.1. Eligibility

In order to be eligible to take the comprehensive exam:

- The major field of study must be completed or near completion, i.e., the student must have completed at least 15 of the 18 required hours for the major field of study;
- The student must be making satisfactory progress in all other respects; and
- The student's supervisory committee must approve readiness for the exam.

The student must first pass the written component before being eligible to take the oral component. The student must pass all parts of the exam in order to pass the exam. If the student fails any part of the exam, then only the failed part needs to be retaken.

4.2. Scheduling

Comprehensive exams will typically be scheduled around the middle of the fall and spring semester, as needed. The student should inform the DPC chair about the intent to appear in the examination at least one semester before the semester during which they plan to take the exam. The comprehensive exam is a *research readiness* examination – that means that students should take it only when they are confident that they have a mature understanding of research, both broadly and in the specifics of their major field of study.

4.3. Comprehensive Exam Format

The comprehensive exam consists of a written part and an oral part. The written part of the exam is divided into two sub-parts that will be scheduled over two consecutive days.

4.3.1. Written Part I Examination Format and Procedures

Students will provide a list of topics covered in the CIST 9080 – Research Directions in IT course. This list should be provided along with the email expressing intent to take the comprehensive exam sent by the student to the DPC chair.

Students will select a set of 4-5 topics from the list.

The selected topics should not have significant overlap with the major or minor area of study given in the student's plan of study. The major and minor areas of study are tested in the second part of the comprehensive exam.

The topics should be selected so that they express a breadth in the areas in the core disciplines of the College of IS&T - computer science, information systems and quantitative analysis, and inter-disciplinary informatics.

The DPC will select 2 topics from the set of 4-5 topics selected and inform the student in advance of the exam. The material related to the topic for preparing for the comprehensive exam (e.g., paper reading list) will already have been provided to the student when the student took the CIST 9080 course.

Questions on the selected topic will be set by the faculty presenter(s) of the topic in CIST 9080. The answers will also be evaluated by the topic's presenter(s) - either individually, or, by a group of faculty members selected by the topic's presenter(s).

4.3.2. Written Part II Examination Procedure

The questions for the second part of the written comprehensive exam are set and evaluated by the members of the supervisory committee of the student. The chair of the supervisory committee should send the question paper electronically to the DPC chair one week before the date of the examination.

The grades for the two written parts of the comprehensive examination should be communicated to the DPC chair. The DPC chair will collate the grades of the two parts and inform the student and the chair of his/her supervisory committee about the outcome of the exam.

4.3.3. Oral Examination Procedure

The oral component of the comprehensive exam is the defense of the student's dissertation proposal. The student's supervisory committee arranges for the oral exam and determines the outcome of the examination. The form that must be signed by committee members at the end of the oral examination is available on the Ph.D. Website under the "Current Students/Forms" link.

The oral component is a defense of the dissertation proposal. The supervisory committee arranges for the proposal defense and determines whether or not the student has passed.

4.4. Admission to Candidacy

To be admitted to candidacy, a student must satisfy three requirements:

1. Pass the written comprehensive exam
2. Successfully complete all coursework with satisfactory grades
3. Pass an oral defense of the dissertation proposal before the supervisory committee.

After the student passes both the oral and written parts of the comprehensive exam, he/she should complete the comprehensive oral exam form and submit it to the chair doctoral program committee.

5. Dissertation

5.1. Dissertation Credits

The dissertation of a Ph.D. candidate is supervised by the chair or co-chairs of the student's supervisory committee in consultation with other members of the supervisory committee. While doing his/her dissertation, the Ph.D. candidate should take credit hours for the course CIST 9990 Dissertation in IT. A minimum of 24 credit hours of this course is required for graduation. Dissertation course credits should be taken only after the Ph.D. student advances to candidacy. Under special circumstances, Ph.D. students can take dissertation credits during the semester they apply for candidacy, but the dissertation credits taken under these circumstances should be kept to a minimum. Dissertation credits cannot be taken if the student does not pass the written part of the comprehensive exam.

IMPORTANT NOTE: The graduate catalog mentions that a minimum of 7 months must elapse between the date of the Ph.D. student's advancement to candidacy and the date of his/her dissertation defense.

5.2. Scheduling Dissertation Defense

When the supervisory committee deems it appropriate for the Ph.D. candidate to defend his/her dissertation, the Ph.D. candidate should prepare a dissertation thesis and submit it to the supervisory committee members. While submitting the dissertation thesis to the supervisory committee, the Ph.D. candidates should also submit a final oral exam form to the Office of Graduate Studies. The final oral exam form requires the signatures of the supervisory committee members and the doctoral program committee chair and should be submitted at least four weeks before the desired date of the dissertation defense. Supervisory committee members should sign this form after receiving the final draft of the dissertation.

IMPORTANT NOTE: Before scheduling his/her dissertation defense, the student should refer to the Office of Graduate Studies Website and/or the current graduate catalog for the graduation checklist, the thesis filing deadlines and commencement dates for the semester they are planning to graduate.

5.3. Completing Graduation Requirements

After successfully defending his/her dissertation thesis, the student should complete a Report on Completion of Degree Form and contact the Office of Graduate Studies to apply for graduation.

6. Doctoral Assistantships and Scholarships

6.1. Doctoral Graduate Assistantships

Full-time students can apply for funding through doctoral graduate assistantships. Doctoral GAs usually provide tuition support for 9 credit hours per semester along with a monthly stipend. Doctoral GAs are usually awarded over the duration of the academic year (Fall and Spring semesters). A student who has been awarded a doctoral GA will be assigned to a faculty supervisor. The assignment will not necessarily be with the same faculty member each year. An assistantship is a paid position that requires 20 hours of work per week, and that work should assist the faculty supervisor's research and simultaneously help the student. Every student receiving a doctoral GA is required to sign a doctoral GA contract of work with the College of IS&T.

IMPORTANT NOTE: To receive a doctoral GA, a student must register for at least 6 credit hours during each semester of the assistantship.

6.2. Graduate Scholarships

Several scholarships providing financial support are available through the Office of Graduate studies. A list of these scholarships is available at <http://www.unomaha.edu/graduate/scholarships.php>. Additional scholarships announced by other units or agencies are communicated by email to the doctoral students by the chair of the doctoral program committee as and when they are announced.

7. Residency Requirements

All full-time doctoral students must complete 24 credit hours within 18 months in order to meet the residency requirement of the University. Part-time students must complete 18 credit hours during the same period. The residency requirement insures that progress toward the degree occurs within a reasonably compact time frame, enabling the doctoral student to integrate his or her course work with the dissertation.

8. Progress Report

At the end of each semester, every doctoral student (full-time or part-time) must complete the Progress Report Form and submit it to the Director of the Doctoral Committee. An electronic copy of this form is available on the PhD Website under the “Current Students/Forms” link.

9. Satisfactory Progress

A minimum of three years of full-time graduate study is normally required to complete a doctoral program. The maximum time allowed by the Graduate School is eight years from the filing of the student’s program of study in the Office of Graduate Studies. Students not making satisfactory progress will be counseled out of the program.

10. Leave of Absence

Under extraordinary circumstances, e.g., medical problems, a student may request a leave of absence from the program for a period of no more than one year. The request must be submitted to and approved by the student’s supervisory committee and/or Doctoral Program Committee. The request should include necessary modifications to the Plan of Study as a result of the leave.

The leave of absence stops the clock for the total time required for the program and the time required to meet the residency requirement. If a student withdraws in mid-semester and is approved for a leave of absence, the clock starts at the beginning of the following semester. A student does not have to have met the residency requirement in order to apply for a leave of absence.

If a student does not return to the program within the one year approved for the leave of absence, then the student must submit an application to re-apply to the program. Re-admission to the program is not guaranteed at that point. Please refer to the Graduate Catalog for the complete policy on a leave of absence.

11. Office Space, Mailbox, etc.

Ph.D. students are allocated office space, a mailbox, photocopying and parking facilities, and other essentials. (Contact: Janice Fink, Business Manager, College of IS&T, PKI 172 E, Phone: (402) 554-4901)

12. Sample Template for Progress in the Ph.D. in IT Program

The following table gives a template of the various activities that a full-time Ph.D. student would be performing during his/her Ph.D. studies:

Note:

1. This path assumes that you entered the program with all the foundation courses completed. If not, then more time in coursework would be needed.
2. This is a path for a full-time student. Part-timers should adjust accordingly.

	Coursework	Examinations	Dissertation	Teaching	Miscellaneous
Year 1	9 credits each Fall and Spring semester		Identify potential dissertation topic	In the second semester, prepare for teaching next year's course, e.g., sit in, teach labs, guest lecture, do grading.	Start preparing plan of study for approval by the end of the first year,
Year 2	9 credits each Fall and Spring semester		Begin to refine ideas for dissertation research, e.g., begin to write a topic analysis that might lead to dissertation proposal	Teach a course	Begin to attend conferences as appropriate and familiarize yourself with people in the field.
Year 3	Supplemental course if needed for specific research requirements. Register for diss. credits.	Pass comprehensive exam early in the year	Defend dissertation proposal early in the year,	Teaching will vary.	Apply to relevant doctoral consortia.
Year 4	Supplemental course if needed for specific research or analysis techniques. Register for diss. credits.	By the end of the year, pass the final defense of your dissertation	Write papers and submit to conferences or journals to the extent feasible. Complete dissertation.	Teaching will vary.	Carry out job-seeking strategy.

Appendix

Frequently Asked Questions

1. How do I prepare my doctoral plan of study document?

Start by meeting with the DPC Chair to evaluate your foundation courses and develop some ideas for coursework. Talk to relevant faculty with whom you share a research interest. You may or may not have a clear idea of who you want to chair your supervisory committee. That is entirely reasonable at the beginning of your program. While you do have to start thinking about research early, you also might encounter new things as you go along. Filing the forms early is necessary to get your started and make sure you meet the requirements of the Graduate Office, but you can also change the plan as you evolve.

Once you have filled out the forms, in consultation with the DPC Chair and/or faculty as needed, you should obtain the signature of your proposed supervisory committee chair, write a statement of research direction to accompany the forms, and submit those three items to the DPC Chair. The statement of research direction should be no more than half a page long, and it should describe briefly your research area, directions, goals, and focus. We know that your research goals might change as you progress through the program, but the purpose of providing this statement now is so that the Doctoral Program Committee can see that your supervisory committee and plan of study are a good fit with your stated goals.

The DPC Chair takes the forms to the Doctoral Program Committee for their approval. The Director then forwards the approved forms to the Graduate Office. Once the Graduate Office approves them, they send you an email notifying you that the Plan of Study has been approved and the supervisory committee has been appointed.

2. What are some useful tips to prepare the dissertation?

The dissertation should treat in depth a subject from the candidate's major field of study/research area as approved by the supervisory committee. The dissertation must show technical mastery of the field and document original research that contributes to current knowledge. Students are encouraged to begin thinking about dissertation topics from the very beginning of their programs, and to use seminars and coursework to explore meaningful topics and build toward mastery in a specific area.

A formal defense of a dissertation proposal is required. The proposal is presented to the student's supervisory committee and other interested parties, and the committee decides whether the student is ready to proceed with the research. As noted above, the defense of the dissertation proposal constitutes the oral portion of the comprehensive exam.

The student is advised to consult informally and continuously with the supervisory committee until the committee accepts the dissertation. After the dissertation research is completed, the dissertation must be presented to all members of the supervisory committee in time to permit review and approval, and the manuscript must be turned in at least thirty days in advance of the final oral examination.

A final, oral defense of the dissertation is required. The oral defense is before the student's supervisory committee and other interested parties. The committee decides whether the student has successfully completed the research, as agreed and described in the approved proposal.

Change History

<i>Changes Made</i>	<i>Date</i>	<i>Person Responsible</i>
First update from 2006 edition, added information on tracks for foundation courses, and on new format of comprehensive exam.	August 31, 2011	Dasgupta
Added information on supervisory committee, information on teaching requirements	September 2, 2011	Dasgupta
Added information on independent study courses, special topics courses, dissertation requirements, doctoral GAs and scholarships; adjusted ordering of some sections; fixed minor typos	January 5, 2012	Dasgupta
Added sample courses for teaching	January 10, 2012	Dasgupta
Added information on approval of plan of study by DPC and subsequent changes to plan of study (suggested by Stacie Petter)	January 16, 2012	Dasgupta
Added policy on transfer of credits from courses taken in other programs in Section 1	January 25, 2013	Dasgupta
Added policy on new Ph.D. level course proposals in Section 1.3	January 25, 2013	Dasgupta