



College of Information  
Science and Technology

Ph.D. in Information Technology

## HANDBOOK FOR DOCTORAL STUDENTS IN IT

The doctoral program in Information Technology was approved as a new program at the University of Nebraska at Omaha in 2003. The first class of students joined in the Fall of 2003.

Details of the program are available at <http://phd.ist.unomaha.edu/>.

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, <http://www.unomaha.edu/graduate/catalog/2005-2006/> . See Appendix A for current catalog copy for the IT doctoral program.

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.

The purpose of this Handbook is to provide a helpful view of your life as a doctoral student from a process perspective. The Handbook does not replace official documents and requirements, but instead helps to interpret and supplement them.

**The Handbook is maintained by the Director of the Doctoral Program on behalf of the Doctoral Program Committee and the College of IS&T. Suggestions for enhancements are welcome.**

**Last updated January 2006**

## PROGRESS IN THE PROGRAM

Each student's path through the program will be unique, but here is a working version of what a reasonable path might look like. The table is designed to give you the big picture of all the things that you need to work on in parallel. **This table does NOT show the paperwork required at various points in the program - see the official Graduate Catalog for those requirements.**

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.
3. If you have teaching experience already, you may have met the teaching requirement.

	<b>Coursework</b>	<b>Examinations</b>	<b>Dissertation</b>	<b>Teaching</b>	<b>Miscellaneous</b>
<b>Year 1</b>	9 credits each Fall and Spring semester		Explore dissertation topics through your coursework to the extent possible	In the second semester, prepare for teaching next year's course, e.g., sit in, teach labs, guest lecture, do grading	Submit plan of study for approval by the end of the first semester, Attend IS&T workshops.
<b>Year 2</b>	9 credits each Fall and Spring semester		Focus your exploration or topics and begin to zero in on the dissertation research. Begin to write a topic analysis, leading to dissertation proposal	Teach a course	Begin to attend conferences as appropriate and familiarize yourself with people in the field. Attend IS&T workshops.
<b>Year 3</b>	Supplemental course if needed for specific research or analysis techniques. Register for diss. credits.	Pass comprehensive exam early in the year	Defend dissertation proposal early in the year, and begin to work on the dissertation. Start to work on paper.	Teaching will vary depending on which track you are on.	Plan strategy for job market. Apply to relevant doctoral consortia. Attend IS&T workshops.
<b>Year 4</b>	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 depending on which track you are on.	Carry out job-seeking strategy. Volunteer for appropriate activities. Attend IS&T workshops.

At the end of each semester, you must complete the Progress Report Form (Appendix B) and submit it to the Director and Associate Director. If you have a doctoral assistantship, your supervising faculty will also be reporting on your progress each semester (Appendix C).

## OVERVIEW OF PROGRAM REQUIREMENTS

The 2003-2004 catalog copy (plus updates) in Appendix A specifies the official program requirements. The following diagram provides an overview of the different categories of degree requirements.

### **Foundation Course Requirements**

Typically transferred in from your master's degree, though we also evaluate for specific IT foundation areas. Missing foundation areas have to be filled with courses taken in this category. Even if you end up with more than 36 hours in foundational master's courses, only 36 hours can count toward the doctoral degree.

Maximum  
of 36 hours  
counted

### **Doctoral Requirements**

#### **Research requirements (6 to 12 hours)**

CIST 9080 is required of everyone; other courses will vary depending on your research tool needs

#### **Major field of study (18 hours)**

Designed to develop expertise in your intended research area; consists primarily of doctoral seminars

#### **Colloquia (3 hours)**

CIST 9040, CIST 9050, and CIST 9060 are required of everyone

#### **Electives (as needed; no minimum required)**

Minimum of  
30 hours;  
may be more  
depending  
on expertise  
to be  
developed  
for your  
research

Foundation  
plus doctoral  
requirements  
must total a  
minimum of  
90 hours

### **Dissertation hours**

Credit hours taken while you are working on your dissertation; these hours are not actual coursework, but simply credits that you register for to indicate you are working on your dissertation

Maximum  
of 24 hours  
counted

One of the requirements for completing the Ph.D. program is to gain teaching experience. Typically you are expected to teach at the freshman or sophomore level. If you hold a doctoral assistant position, the teaching requirement will typically be met by assisting with a course in one semester and independently teaching one full course (3 credit hours) the next semester. If you do not hold an assistantship position, the fulfillment of that requirement will be determined in consultation with the Doctoral Director and supervisory committee chair. You will work with a faculty mentor to prepare for the teaching assignment.

## PLAN OF STUDY AND SUPERVISORY COMMITTEE

The Graduate Office requires that a doctoral student complete 45 hours of the doctoral coursework *after* the filing of the Plan of Study form. If you work backwards from that requirement, it means that a full-time student should file the forms before the end of the first semester in the program. There are two forms that have to be submitted (downloadable from <http://www.unomaha.edu/graduate/gforms.html>):

- (1) Appointment of Supervisory Committee for the Doctoral Degree, and
- (2) Information Technology Doctoral Program of Study

Start by meeting with the Director or Associate Director 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. If you are not sure of your research area and do not know the faculty well, then you can designate the Director and Associate Director as co-chairs of your supervisory committee. 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 Director, Associate Director, 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 Director. 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 Director 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.

## COURSE SCHEDULING

Although we cannot guarantee what courses will be offered from one semester to the next, we do try to adhere to the following plan to the extent possible:

- CIST 9040, 9050, and 9060, Colloquia - offered each Fall semester (required of all students).  
Doctoral Director and Associate Director rotate in teaching the colloquia.
- CIST 9080, Research Directions in IT - offered each Spring semester (required of all students admitted as of Fall 2004). Co-coordinated by Doctoral Director and Associate Director, with guest lectures from IS&T and related faculty. (This course was initially listed as CIST 9900; the permanent course designation is CIST 9080.)

## COMPREHENSIVE EXAM

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).

Confer with the Director and your supervisory committee chair to plan for the timing of the exam. Do not approach the exam lightly - this is a major milestone in your program and should be faced only when you are ready. Remember that the comprehensive exam is a *research readiness* examination - that means that you should take it only when you are confident that you have a mature understanding of research, both broadly and in the specifics of your own area.

Plan ahead for the semester in which you are eligible to take the comprehensive exam, and let the Director know of those plans. You must formally notify the Director no later than eight weeks before the end of the semester prior to the semester in which you intend to take the exam. (You are not required to file a form in the Graduate Office to declare intent to take the exam. That is handled strictly within the College. The Graduate Office does require forms for Admission to Candidacy, once you have passed all parts of the comprehensive exams, including the oral. See the Graduate Catalog for details.) Comprehensive exams will typically be scheduled in the third week of the fall and spring semester, as needed.

The written part of the exam is in two parts, over two days. Part 1 (day 1) is 2 hours, and Part 2 (day 2) is 4 hours.

Questions for Part 1 are written by the Doctoral Director and Associate Director, who serve as co-coordinators of the CIST 9080 course, Research Directions in IT. Part 1 questions are based on CIST 9080 material. A readings list will be provided, consisting of approximately two key articles from each of the research areas covered in CIST 9080. The questions will address these research areas as they relate to the grand research challenges presented in 9080. Part 1 is graded by the Director, Associate Director, and at least one other graduate faculty member who is familiar with the topics.

Questions for Part 2 are written by your supervisory committee chair in consultation with the rest of the supervisory committee and a graduate faculty member external to the committee. Part 2 questions are graded by the supervisory committee chair, at least one other supervisory committee member, and at least one graduate faculty member external to the supervisory committee.

In order to pass either Part 1 or Part 2, you must receive a passing grade from at least two of the three graders for that part. You must pass both Part 1 *and* Part 2 in order to be able to proceed to the oral component.

The oral component of the comprehensive exam is the defense of your dissertation proposal. As noted in the catalog requirements, your supervisory committee arranges for the oral exam and determines whether or not you pass. Appendix D shows the form that your committee members need to sign at the end of your oral exam.

Start working on your dissertation ideas early, even from the first day of your arrival, at least with respect to seeing how you can arrange your coursework in a way that will help you explore potential topics. Think of each course as a way to investigate a potential topic, or research method, or analytical technique. Work with faculty to explore different paths. Ultimately, your supervisory committee will work with you most closely to help narrow the topic and mentor you in the development of the proposal. But make good use of all the faculty and resources available to you.

## NORMS AND EXPECTATIONS IN THE PROGRAM

A doctoral program is different from any other kind of experience. Requirements do exist and must be followed, but just as important is the development of a culture. Cultures include norms and expectations that go beyond formal requirements. Here are some of those expectations.

**Attendance at Research Workshops.** The College and its departments host regular research presentations by local faculty and visitors from around the world. We expect you to attend all these sessions and participate in the discussion of research. These sessions give you an opportunity to network with researchers, to become familiar with a variety of topics and research methods in IT, and to expose your own ideas in discussion with presenters. If you hold a doctoral assistantship, your attendance is *required*.

**Recruiting.** You should also participate in recruiting efforts by each of the departments. Campus visits by candidates for faculty positions will typically include a presentation and a separate meeting of the candidate with all doctoral students. You should plan to attend these meetings.

## FUNDING FOR DOCTORAL STUDENTS

Full-time students can apply for funding through doctoral assistantships. We cannot guarantee how many assistantships will be available each year. The general expectation is that a student who has been awarded a doctoral assistantship will be assigned to a mentoring relationship with a faculty member for each of the first two years, which also includes the teaching requirement. The assignment will not necessarily be with the same faculty member each year. There should be mutual interest and value from the relationship, for both the student and the faculty. An assistantship is a paid position that requires 20 hours of work per week, and that work should assist the faculty supervisor's research at the same time that it helps to develop the student.

A doctoral research assistantship is *not* a continuation of a master's-level graduate assistantship, just as a doctoral program is not a continuation of a master's program. The doctoral GA is an interesting combination of a paid job, an opportunity, an honor, and an obligation. You should show initiative, learn new things (not just be paid to do "your" research), and experience a variety of activities and people. The first assignment is not necessarily your last assignment, nor is it your dissertation

After the first two years, we work with you on placement in one of three tracks: (1) research, (2) teaching, or (3) industry. This three-track program is designed to help students identify and acquire continuing funding. The **Industry** track means that the student will be funded by a company in the Omaha area to work on a specific project, which ideally would be related to the student's general area of interest while being of clear benefit to the company. A student on the **Research** track would be funded specifically by research grant funds that a faculty member has obtained. The **Teaching** track is for those students who are especially interested in and have the ability for teaching. The specific assignment and salary would be negotiated with the dean and appropriate department chair.

The Doctoral Director and Associate Director will work with faculty, administrators, business contacts, and eligible students to match students with the best option for support after the first two years. Regardless of which track the student pursues, the experience should be a useful and relevant part of the learning process for the degree.

## **OFFICE SPACE, MAILBOX, AND OTHER ESSENTIALS**

Please see Ms. Sue Fienhold in PKI 177A to get set up for office space, a mailbox, keys, photocopying, parking, and other essentials.

## **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.

## **GUIDELINES FOR WRITING A DISSERTATION PROPOSAL**

The dissertation proposal constitutes an agreement between you and your supervisory committee that sets the scope of your dissertation research. The proposal should be detailed enough so that it is clear when you will finish, i.e., once you complete what you promised to do in the proposal, you will graduate.

Dissertation proposals can range anywhere from 50 to 75 pages, or more. See the Director or Associate Director for examples. The Davis and Parker book that you read in CIST 9040 is a good reference for developing a proposal, as are other resources that were provided in that course.

Our program does not require a specific format for a dissertation proposal. Be guided by the resources and examples available.

## Appendix A 2003-2004 Catalog Copy for Doctoral Program in IT

**Note: Modifications to the catalog copy since 2003-2004 include the following**

- CIST 9080, Research Directions in IT, is a required course for all students entering the program as of Fall 2004.
- Graduate faculty updates occur as faculty leave and/or are added to the list. Please check with the Graduate Office for the most current information on graduate faculty members.

### **INFORMATION TECHNOLOGY**

#### **PROFESSORS:**

Ali, Azadmanesh, Chen, de Vreede, Farhat, Hinton, Khazanchi, Shi, Specht, Wileman,  
Zand, Zhu, Zigurs

#### **ASSOCIATE PROFESSORS:**

Davis, Dufner, Haworth, Pietron, Qureshi, van Vliet, Wolcott

#### **ASSISTANT PROFESSORS:**

Chundi, Dasgupta, Subramaniam, Winter, Youn

#### **SENIOR RESEARCH FELLOWS:**

Dick

### **Doctor of Philosophy**

The doctoral program in Information Technology (IT) is a multidisciplinary program that integrates the theory and practice of applied computing, information systems, Internet technologies, and the advances in telecommunications and management of information technology. The program addresses the urgent and growing need for a new kind of specialist who understands the unique intersection of these fields. The vision of the doctoral program in IT is to develop technology specialists who are uniquely positioned to advance research and practice in contemporary technologies. The program is geared towards motivated traditional students and technology specialists who are ready to expand their knowledge of contemporary technologies and become research specialists in academic and organizational settings.

The doctoral program in IT provides students an opportunity to develop:

- ✦ An understanding of the theory, nature, and application of information technology;
- ✦ A knowledge of the science and engineering of current and future information technologies, including their analysis, design, development, implementation, and evaluation;
- ✦ An in-depth knowledge of a thematic area in information technology, for example, applied computing, telecommunications, information systems, or Internet technologies;
- ✦ Competence in conducting basic and applied research;



- ✦ A strong foundation in multidisciplinary areas at the cusp of the information technology area of interest, while ensuring an applied focus;
- ✦ A strong grounding in the fundamentals of conducting and managing high-quality research; and,
- ✦ Solid grounding in the fundamentals of academic teaching.

## Admission

Applicants must follow the formal procedures established for admission to the graduate program at the University of Nebraska at Omaha. Applicants must have:

- A successfully completed baccalaureate degree from an accredited institution; preference will be given to students with a master's degree from a related field.
- Demonstrated superior performance in mathematics, including calculus, discrete mathematics and statistics, and a sequence of courses in the theory and practice of one or more information technology areas.
- Documented test aptitude, interest and commitment to scholarly activities and research;
- Proficiency in English, sufficient to engage in advanced studies. (The minimum required score on the TOEFL is 575.)

Evaluation for admission will be based on:

- Class standing during the applicant's baccalaureate and master-level studies;
- Verbal, quantitative, and analytic scores on the aptitude tests of the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT) (minimum requirement to be considered for this program is 80th percentile or above);
- Grade point average in mathematics, computer engineering, computer science, information systems, quantitative analysis, information systems engineering, telecommunications, management, or a closely-related field;
- Letters of recommendation from references, who are able to give an in-depth evaluation of the applicant's strengths and weaknesses with respect to academic work, and who are competent to judge the applicant's probable success in graduate school;
- Other evidence of graduate potential, such as a portfolio of quality papers or publications, projects, etc., completed by the applicant either in an academic or industrial setting;
- Evidence of English language proficiency for international students demonstrated on standardized English tests;
- On-campus visit or telephone interviews.

## ***Application Checklist***

Each applicant must submit the following directly to the Office of Graduate Studies:

1. A completed Application for Graduate Admission.
2. A non-refundable application fee as required by the Office of Graduate Studies.
3. Two official transcripts from each college or university attended.
4. An official score report from either the GRE or GMAT.
5. Evidence of English language proficiency for international students, demonstrated by official scores on standardized English tests such as TOEFL.
6. A statement of intent (using the Statement of Intent Form that is downloadable from the program's website). If the application is for part-time status in the program, then the applicant must indicate so in the Statement of Intent *and* must include a roadmap or plan for completing the program in a timely fashion.
7. Three letters of recommendation from references who are able to give an in-depth evaluation of the applicant's strengths and weaknesses with respect to academic work, and who are competent to judge the applicant's probable success in graduate school. The letters of recommendation should be sent directly from the recommender to the Office of Graduate Studies and must be completed using the Recommendation Form that is downloadable from the program's website.
8. Other evidence of graduate potential, if available, in the form of papers, publications, or projects completed by the applicant either in an academic or industrial setting.
9. A current resume.

The Director of the Doctoral Program may contact the applicant in order to arrange a campus visit or telephone interviews.

## ***Application Deadlines***

Applications for admission for the fall semester are due by March 15, and for the spring semester by October 1.

## ***Graduate Assistantships***

Students who are interested in applying for a graduate assistantship must contact Professor Ilze Zigurs, Director of the Doctoral Program in IT. A separate form for applying for a graduate assistantship must be completed and sent directly to Professor Zigurs. See the program's website for details.

## **Requirements**

The doctoral program in IT requires 90 credit hours and consists of foundation courses (typically taken in a master's degree program), doctoral seminars and colloquia, a major field of study, an optional minor field of study, and the dissertation. As with most doctoral programs, the specific program plan pursued by a doctoral student will be highly personalized in terms of course work and research training, depending on interests and interactions with faculty advisors. After fulfilling all course requirements and successfully completing comprehensive examinations

in the major and minor field of study as needed, the student presents and defends the dissertation research.

The program consists of:

1. Foundation courses (minimum of 24 to 36 hours)  
The foundation courses are typically taken in a master's degree program and give students the broad skills to conduct independent research, including studies in such areas as statistics, computer languages, the theory and practice of computing, information systems, systems analysis and design, database concepts, networking and communications, telecommunications, and management of technology.
2. Research Foundations/Seminars (minimum of 6 to 12 hours)
3. 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. The student may choose from broad thematic categories such as applied computing, information systems, telecommunications, or Internet technologies.
4. Minor field of study, when included (minimum of 9 to 12 hours)  
Based on the advice of the supervisory committee, the student may choose an appropriate minor area of study. For example, a student specializing in the behavioral aspects of IT may be advised to take statistical methods as a minor, whereas a student interested in applied computing related to bioinformatics may be advised to take areas in the biological sciences or mathematics as a minor.
5. Colloquia (minimum of 3 hours) – CIST 9040, 9050, and 9060 (1 credit each) are required for all students.
6. Comprehensive exam
7. Dissertation proposal
8. Dissertation (minimum of 24 hours)

Students will be provided the opportunity to teach undergraduate courses as part of their training for teaching, while ensuring that the teaching does not interfere with the timely completion of their doctoral studies.

In addition, students must meet all other requirements as specified by the Graduate School.

### ***Course Work***

Courses at the 8000 and 9000 level may be counted toward the degree, with some restrictions. There is no limit on the number of 8000-level courses which may be counted in the foundation courses, since these are typically taken in a master's degree program. The majority of courses beyond the master's foundation and excluding the dissertation credits should be at the 9000 level. For the doctoral degree requirements beyond the foundation courses, the following restrictions apply:

1. No more than 9 hours of dual-level courses (4---/8--6) can be included in the doctoral requirements in the plan of study.
2. No dual-level courses (4---/8--6) can be included in the student's major field of study.

3. The major field of study must include a minimum of 9 hours of 9000-level courses.

### ***Program of Study***

After students are admitted into the program and with appropriate consultation, they will formulate a preliminary plan of study. Each student's plan will be periodically reviewed and modified, if necessary, to ensure that reasonable progress is being made toward completing the program.

Once the supervisory committee is formed, a program of study must be approved and filed with the Office of Graduate Studies. The program of study must be approved within three weeks of the appointment of the supervisory committee. As noted in the Graduate Catalog, at least 45 hours of the student's doctoral course work is to be completed after the approval of the program of study.

### ***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 chaired by the student's dissertation advisor. All members of the committee must be Graduate Faculty. The advisor should be a full-time faculty member in the College of Information Science and Technology. At least one member of the committee must be from an outside area.

### ***Comprehensive Exam***

The purpose of the comprehensive exam is to assess the student's readiness for research. The exam has a written component and an oral component. The student must pass both parts of the exam in order to be admitted to candidacy.

The written component is a sit-down, in-house exam, taken in two parts on two consecutive days.

- Part 1: The first day is common to all students taking the exam and covers key issues related to research in Information Technology. A readings list may be provided.
- Part 2: The second day covers the student's major field of study and may include in-depth questions on basic research methods and techniques, as appropriate to the student's major field of study and as determined by the supervisory committee.

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.

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 need be retaken.

### ***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.

### ***Admission to Candidacy***

To be admitted to candidacy, a student must: (1) pass the written comprehensive exam, (2) successfully complete all coursework with satisfactory grades, and (3) pass an oral defense of the dissertation proposal before the supervisory committee.

### ***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. Checkpoints are established to help guide students through the program and make sure they are meeting their goals. Students not making satisfactory progress will be counseled out of the program.

## **For more information about the Ph.D. in IT...**

Contact Professor Ilze Zigurs, Director, (402) 554-3182, [izigurs@mail.unomaha.edu](mailto:izigurs@mail.unomaha.edu); or Professor Mansour Zand, Associate Director, (402) 554-2847, [mzand@mail.unomaha.edu](mailto:mzand@mail.unomaha.edu).

The program's website is at <http://phd.ist.unomaha.edu/>.

## **Course Listing**

### **College of Information Science and Technology (CIST)**

9040 Colloquium on IT Research  
9050 Colloquium on IT Teaching  
9060 Colloquium on IT Profession and Ethics  
9900 Special Topics in IT  
9990 Dissertation

### **Computer Science (CSCI)**

9210 Type System Behind Programming Languages  
9220 Rewriting and Program Transformation  
9340 Computational Intelligence for Data Management  
9350 Mathematical and Logical Foundations of Data Mining  
9410 Advanced Topics in Logic Programming  
9420 Intelligent-Agent Systems  
9710 Foundations of Software Engineering Research  
*Also see 8000-level courses listed in Master of Science in Computer Science*

### **Information Systems and Quantitative Analysis (ISQA)**

9010 Foundations of Information Systems Research  
9020 Technical and Process Issues in Information Systems Research  
9030 Behavioral and Organizational Issues in Information Systems Research  
9120 Applied Experimental Design and Analysis  
9130 Applied Multivariate Analysis  
9900 Advanced Research in Information Systems  
*Also see 8000-level courses listed in Master of Science in Management Information Systems*

## Appendix B

### **Progress Report from Doctoral Students in IT College of Information Science and Technology**

#### **Report for: [semester and year]**

Instructions: So that we may help you complete the program in a timely fashion as well as identify potential problems early on, we are requiring a brief progress report each semester. Please fill out this form and email it back to the Director, with a copy to the Associate Director. All information should be for the semester shown above. You should share this information with your doctoral GA supervisor and/or supervisory committee chair, if you have one of the former and/or have already identified the latter.

Your name: \_\_\_\_\_

- 1. List courses completed in the semester(s) covered in this report (include the complete course # and title, and the grade earned, if you know it):**
  
  
  
  
  
  
  
  
  
  
- 2. List teaching accomplishments during this semester, e.g., course taught, TA work:**
  
  
  
  
  
  
  
  
  
  
- 3. List research accomplishments during this semester, e.g., literature review completed, data collected:**
  
  
  
  
  
  
  
  
  
  
- 4. List publications submitted, in revision, or accepted during this semester (include workshops, conferences, journals):**
  
  
  
  
  
  
  
  
  
  
- 5. Briefly summarize plans for the coming year. Include courses you plan to take next semester, research goals/plans, teaching goals/plans, and brief reflection on areas in which you hope to improve.**

## Appendix C

### Progress Report from Faculty for Doctoral GA College of Information Science and Technology

So that we may help doctoral students complete the program in a timely fashion as well as identify potential problems early on, the DPC asks your help in providing a brief progress report on the doctoral GA who is currently under your supervision. Please fill out this form and email it back to the Director, with a copy to the Associate Director. This information is intended to be shared with the student.

Name of your doctoral GA: \_\_\_\_\_

Your name: \_\_\_\_\_

Semester: \_\_\_\_\_

**1. Please evaluate your GA on each of these items, for the semester indicated above:**

	Excellent	Satisfactory	Unsatisfactory	Not Applicable
Research assignments				
Teaching assignments				
Service assignments				
Written communication skill				
Oral communication skill				
Presentation skill				
<b>Overall performance as a doctoral GA</b>				

**2. Please comment briefly on any areas of improvement needed, especially if you rated any items as unsatisfactory.**

**If you wish to provide confidential feedback that will NOT be shared with the student, please do so below.**



## Appendix D

### Comprehensive Oral Examination for the Doctoral Degree in Information Technology

Candidate's Name: \_\_\_\_\_

Dissertation Title: \_\_\_\_\_

\_\_\_\_\_

#### Comprehensive Oral Examination Schedule

Time: \_\_\_\_\_ Date: \_\_\_\_\_ Place: \_\_\_\_\_

#### Supervisory Committee

At the conclusion of the oral examination, please sign below and indicate whether you pass or fail the candidate.

	Typed Name	Signature	Pass or Fail
Chair			
Member			
Member			
Member			
Member			

Please return the completed and signed form to the Director of the IT Ph.D. program,  
along with a .pdf file copy of your dissertation proposal