

Ph.D. Program in Information Systems and Operations Management

The key features of the Ph.D. Program in Information Systems and Operations Management (ISOM) at the Warrington College of Business Administration, University of Florida are described in this document.

1. Mission Statement

The mission of the ISOM Ph.D. Program is to educate scholars who will make substantial contributions in their field of research.

2. Focus of the Program

Based on this mission, our primary goal is to train graduate students to make original research contributions in their chosen field and subsequently, place them in academic research environments. The major areas of study within the department are: Information Systems/Information Technology (IS/IT) and Operations Management (OM).

3. Support

Students need three types of support to be successful in a Ph.D. program. The first type of support is structural. Students are provided with a work area, a personal computer, limited teaching responsibilities, and sufficient *financial support*.

The second type of support is research skill development. Depending upon student interest and background in the area of specialization, each student will be required to complete coursework to demonstrate research skill proficiency in the selected area. To gain experience in the application of these skills, students are expected to work closely with faculty members on research projects throughout the duration of the program. Every student graduating from our program is expected to co-author at least one research article with a ISOM faculty member. As noted earlier, our department has a strong emphasis on research productivity.

The third type of support is social. The most important people in a Ph.D. program are your colleagues in the program. Our Ph.D. students are supportive. All students emphasize the collective success of the group. All of our students make a conscientious effort to help students from different cultures acclimatize to life in U.S.

4. Prerequisites

Applicants for the Ph.D. in ISOM must have, at a minimum, an undergraduate degree prior to entering the program. It is also expected that applicants will have a history of academic excellence and adequate scores on standardized tests. The *minimum* requirements are (a) a score of 650 on the Graduate Management Admissions Test (GMAT) or 1350 (verbal + quantitative) on the Graduate Record Examination (GRE), and (b) a TOEFL score of 600 (for international students). Finally, it is extremely critical that the applicant be able to communicate clearly in written and spoken English.

5. Curriculum

Although the exact schedule of courses/milestones is personalized based on a students' prior background, a typical program of study for students entering the program in Fall semester is as follows. This program is developed based on the assumption that the student has the required background in Business, Calculus, and Programming.

Year 1 and 2 (2 Fall semesters, 2 Spring semesters, and 1 Summer semester)

Methodological Coursework

- MAS 4105 – Linear Algebra (4) – This course could be waived provided students pass a written exam in the course material.
- All of (IS students) or One of (OM students)
 - ISM 6257 - Intermediate Business Programming (2)
 - ISM 6258 - Advanced Business Programming (2)
 - ISM 6259 – Business Programming (2)
- One of
 - STA 6166 - Statistical Methods in Research I (4)
 - STA 6167 -Statistical Methods in Research II (4)
 - An equivalent research methods course (4)
- MAA 5228 - Modern Analysis I (3)
- ECO 7408 - Mathematical Methods and Applications to Economics (2)
- ECO 7404 - Game Theory (1)
- ECO 7115 – Microeconomic Theory (3)
- ESI 6417 - Linear Programming and Network Optimization (3)
- STA 6326- Introduction to Theoretical Statistics I (3)
- ESI 6546 – Stochastic Systems Analysis (3)
- COT 5405 – Analysis of Algorithms (3)

Substantive Coursework: IS/IT Students

- 4 Doctoral Seminars (one in each regular semester – must be taken for credit).

The following courses must be taken as audited, not-for-credit courses. Faculty teaching these courses will specify the exact requirements for each doctoral student.

- ISM 6222/23 – Telecom (4)
- ISM 6215/16 – Data Base (4)
- ISM 6128/29 – Systems Analysis and Design (4)

Substantive Coursework: OM Students

- 2 Doctoral Seminars (one in each of the Fall semesters – must be taken for credit).
- ESI 6912 – Models for Supply Chain Management (3)

The following courses must be taken as audited, not-for-credit courses. Faculty teaching these courses will specify the exact requirements for each doctoral student.

- MAN 6528 – Logistics/Transportation (2)
- MAN 6573 – Purchasing (2)
- MAN 6511 – Production Management Problems (2)
- MAN 6581 – Project Management (2)

Research Paper

By the end of the Spring semester of the second year, students will be required to submit a first draft of a research paper for evaluation by a faculty committee (selected by the student in consultation with the Ph.D. Coordinator). After evaluating this paper, the committee will make specific suggestions for improvement.

Year 2 (end of Summer semester): Written Qualifying Exams

IS/IT Students

These exams will consist of open-ended research questions based on the IS/IT seminars, and the areas of Database Management Systems, and Systems Analysis and Design.

OM Students

These exams will consist of open-ended research questions based on the OM seminars, and additional readings prescribed by faculty members in Operations Management.

Year 3: Supplementary Methodological Coursework

- MAR 7626 - Multivariate Statistics (3)
- One of
 - ESI 6418 – Extensions to Linear Programming (3)
 - ESI 6429 -- Introduction to Nonlinear Programming (3)

Year 3 (end of Fall semester): Submit and Present Final Research Paper to Faculty Committee

Year 3 (end of Spring semester): Defend dissertation proposal.

All required coursework must be completed before the proposal defense can be scheduled.

Year 4 : Work on dissertation

Year 5: Defend dissertation

Notes:

1. Students will be required to attend all ISOM Workshops and the Department Seminar Series (regardless of area of specialization) held at the University of Florida.
2. During the program, there is an opportunity for students to take elective courses depending upon their chosen specialization, research methodology, or supplementary fields of research/teaching interest. Typically, these courses will be graduate courses in Computer Sciences, Mathematics, Statistics, and/or Systems and Industrial Engineering. Before taking any of these courses, students need to obtain the approval of the Chair(s) of the Dissertation Committee and/or the Ph.D. Program Coordinator.
3. Any student signing up for Research credits in a semester must obtain the approval of the Chair(s) of their Dissertation Committee and/or the Ph.D. Program Coordinator.
4. Students are required to obtain a minimum grade of B+ in ISM 6257, ISM 6258, ISM6259 and ESI 6546/ESI 6912. If they fail to do so, questions based on ISM 6257, ISM 6258 and ISM6259 will be included in the written qualifying exam while a separate exam may be required for ESI 6546/ESI 6912 at a later point in time.
5. For all other methodological courses students must obtain a minimum grade of B. If they fail to do so, questions based on one or more of these courses might be included in the written qualifying exam or they may have to take a separate exam on these courses at a later point in time.
6. In general, we anticipate that students taking the written qualifying exams will perform satisfactorily in which case they can focus on completing the research paper. However, in the unlikely event that:
 - A student's overall performance on the written qualifying exam is evaluated as being "Below Average," the student will be asked to leave the doctoral program but can continue taking courses to obtain an MS-ISOM degree;
 - If a student passes over 50% of the written qualifying exam satisfactorily and the performance in the remaining parts of the exam is evaluated as being "Below Average," he/she will be given an opportunity to either repeat the exam in these latter parts or continue taking courses to obtain an MS-ISOM degree. A student choosing to retake the exam must do so after one complete semester has elapsed from the time of the first exam. In case of unsatisfactory performance on any portion of the partial exam on this second round, the student will be asked to leave the doctoral program but can continue taking courses to obtain an MS-ISOM degree.
7. For the research paper, students are encouraged to identify a faculty committee (of three faculty) by the end of the Fall semester of their second year. The department faculty view the research paper as a springboard for the student in developing and defending the dissertation proposal. Consequently in evaluating this paper and the presentation, the faculty committee will focus primarily on the originality of the research and/or research plan, potential for current or future publication, ability to think creatively, and communicate and carry out research independently. A student will have satisfactorily completed this requirement when all faculty members on the committee agree that the research paper satisfies these requirements. A student who does not satisfy this requirement will be given one additional semester to revise the paper based on the faculty

committee recommendations. Subsequently, he/she will be asked to resubmit the paper and make a presentation to the committee. If this revised paper/presentation is evaluated as being unsatisfactory by one or more faculty on the committee, the student will be asked to leave the doctoral program but can continue taking courses to obtain an MS-ISOM degree.

8. In general, the students should provide hard copies of their research papers to the committee two weeks before the presentation date. This includes the second year paper, proposal defense and the final dissertation defense.

Mathematical Foundation	Optimization	Stochastic Analysis	Economics	Research Methods and Statistics	Computing
MAS 4105 - Linear Algebra (4)	ESI 6417 - Linear Programming and Network Optimization (3)	ESI 6546 – Stochastic Systems Analysis (3)	ECO 7408 - Mathematical Methods and Applications to Economics (2)	STA 6166 -Statistical Methods in Research I (4) or STA 6167 -Statistical Methods in Research II (4)	Programming courses (6)
MAA 5228 - Modern Analysis I (3)	ESI 6418 - Extensions to Linear Programming (3) or ESI 6429 ¹ - Introduction to Nonlinear Programming (3)		ECO 7404 - Game Theory (1)	MAR 7626 - Multivariate Statistics (3)	COT 5405 - Analysis of Algorithms (3)
STA 6326 -Introduction to Theoretical Statistics I (3)			ECO 7115 – Microeconomic Theory (3)		
10	6	3	6	7	9

Table 1-- Required coursework

41 credits total.

¹ To be offered in Spring 2007 (tentative)

6. Application

If you are interested in applying to our program, we strongly encourage you to use the web-based application process at the *College of Business Ph.D.* web-site. Please complete your application no later than **February 15 (January 15 for international applicants)** for Fall admission in order to receive full consideration for financial aid.

7. Current Students

Student	E-mail address	Current Year	Area of Specialization
Chao Ding	chao.ding@ufl.edu	1 st Year	IS
Shengli Li	lsl1217@ufl.edu	2 nd Year	IS/IT
Zhi Li	zhili@ufl.edu	2 nd Year	IS/IT
Nazli Turken	nazli.turken@cba.ufl.edu	1 st Year	OM
Lan Wang	lan.wang@cba.ufl.edu	1 st Year	OM
Rouxuan Wang	rxwang@ufl.edu	2 nd Year	OM
Sean Marston	marston@ufl.edu	4 th Year	IS/IT
Yu-Chen Yang	ycyang@ufl.edu	2 nd Year	IS/IT
Yan Qin	did_qin@yahoo.com.cn	4 th Year	OM
Zuheng Zhang	juheng@gmail.com	4 th Year	IS/IT
Arda Yenipazarli	ayenipazarli@ufl.edu	3 rd Year	OM

8. Contact Information

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