INFORMATION TECHNOLOGY PROGRAM

Master of Science in Information Technology (M.S.I.T.) Degree

DEGREE INFORMATION

Program Admission Deadlines:
Domestic Applications:
Fall Semester: February 15
Spring Semester: October 15
Summer: No admit

International Applications
Fall: February 15
Spring: September 15
Summer: No admit

Minimum Total Hours: 30 (non-thesis)
Program Level: Masters
CIP Code: 11.0103
Dept Code: EIT
Program (Major/College): ITC / EN
Approved: Spring 2014

CONTACT INFORMATION

College: Engineering
Department: Computer Science and Engineering
Contact Information: www.grad.usf.edu

PROGRAM INFORMATION

Program Description

The Department of Computer Science and Engineering offers a non-thesis option for the degree of Master of Science in Information Technology (M.S.I.T). The MSIT graduate will demonstrate strong information technology skills as well as problem solving skills needed for the deployment of technology solutions to achieve business and organizational goals. The degree is available in an hybrid mode (online and face to face), and provides students with a broad and integrative understanding of both technology and operational and strategic business and organizational applications. There is considerable freedom in the choice of the courses.

The breadth of subjects which are part of information technology together with the immense diversity of its applications, make it imperative that students in the Master's program maintain close contact with the Graduate Program Director, in order to achieve a coherent plan of study directed towards a specific goal. In particular, election of courses should only be made with prior consultation and approval of the Major Professor or the Graduate Program Director.

Accreditation: Accredited by the Commission on Colleges of the Southern Association of College and Schools.
ADMISSIONS INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- The GRE is required for all MSIT applicants. For GRE tests taken after August 1, 2011, we require a minimum of 161 on the Quantitative portion (81 percentile) and a minimum of 150 (44 percentile) on the Verbal. The GRE will be waived for M.S. degree applicants with an undergraduate degree from an ABET-accredited United States university or for those applicants who show a minimum of 3 years of relevant and recent full-time professional experience in the U.S.
- Minimum grade point average (GPA) of "B" (or equivalent) for all coursework completed during the last two years of undergraduate program.
- Submission of TOEFL scores with an Internet-based score of 79 or higher for applicants from non-English speaking countries. If consideration of an assistantship is desired, the speaking score component of the TOEFL must be 26 or above. The TOEFL requirements for admission may be waived if the applicant meets one of the following conditions:
  - Has scored 500 or higher on the GRE Verbal Test, (Old Scores) or 153 with the New GRE scoring.
  - Has earned a college degree at a U.S. institution of higher learning.
  - Has earned a college degree from an institution whose language of instruction is English, (must be noted on the transcript).
  - Has scored 6.5 on International English Language Testing System, (IELTS).
- Three letters of recommendation.
- Statement of purpose.
- Bachelor’s Degree in Information Technology, Computer Science, or a closely related field; or a bachelor’s degree in another field, plus satisfactory completion of the courses listed below under “Undergraduate Prerequisites.”
- Evidence of completion of a defined subset of the required core courses found in the University of South Florida’s Bachelor of Science in Information Technology degree program or their equivalent (see “Undergraduate Prerequisites” below).

Undergraduate Prerequisites
To be successful in this program, an applicant should have certain base knowledge in the discipline demonstrated from undergraduate-level pre-requisite courses including:

- COP2513 Object-Oriented Programming for Information Technology
- COP2512 Programming Fundamentals for Information Technology
- COP 3515 Programming Design for Information Technology
- CEN 4031 Software Engineering Concepts for Information Technology
- COP 4703 Database Systems for Information Technology
- EEL 4935 Selected Topics: IT Data Structures & Algorithms for Information Technology

The student should have taken these courses or their equivalent prior to beginning graduate coursework. All prerequisite courses are available online.

Professional experience in information technology is typically focused on specific projects or systems, and is not as broad as the treatment of a topic one receives in a course. Therefore, except in unusual circumstances, professional experience cannot substitute for any of the above prerequisite courses.
DEGREE PROGRAM REQUIREMENTS

Total Minimum Hours: 30 hours

Core Requirements – 9 hours
CIS 6930 3 Selected Topics: Ethical Hacking for IT
ISM 6218 3 Advanced Database Administration
CEN 6084 3 Advances in Object Oriented Programming for Information Technology

Elective Courses – 21 hours
Select six of the following courses, or other graduate course as approved by the Graduate Program Director:
CIS 6930 3 Selected Topics: Human Computer Interaction
CTS 6716 3 Network Programming for Information Technology
CIS 6930 3 Selected Topics: Cloud Computing for Information Technology
CIS 6930 3 Selected Topics: Practical Cybersecurity
CIS 6930 3 Selected Topics: Networks II
CIS 6930 3 Selected Topics: Introduction to Hadoop and Big Data
CIS 6930 3 Selected Topics: Software Development for Mobile Devices
ISM 6136 3 Data Mining
ISM 6137 3 Statistical Data Mining
ISM 6145 3 Seminar on Software Testing
ISM 6155 3 Enterprise Information Systems Management
ISM 6266 3 Software Architecture
CAP 6663 3 IT Robotics Applications
CGS 6842 3 IT & Systems for E-Business
CIS 6900 1-19 Independent Study
CIS 6946 0-3 Internships/Practicums/Clinical Practice

With prior permission from the Graduate Director, students can take a maximum of 3 hours of Independent Study or Internship and up to twelve credit hours outside of the major, as follows: three credit hours from the MSCS/MSCE majors; three credit hours outside of the department (e.g. EE, IE, Math); three credit hours on business practice, project management, leadership, entrepreneurship, or similar; three credit hours on big data, data analytics, data mining or similar.

Note: ISM prefix courses are offered by the Department of Information Systems / Decision Sciences (College of Business).

Comprehensive Exam
The requirement for a comprehensive exam is satisfied by the successful completion of a graduate portfolio prior to graduation. The portfolio is to be submitted along with the graduation checklist that is submitted to the department. The form and portfolio are submitted the semester prior to the semester in which the student intends to graduate.

The portfolio must address the following outcomes of the master's program:

1. Graduates will demonstrate an advanced level of knowledge in each of the core courses.
2. Graduates will demonstrate an advanced level of knowledge in two other elective subjects taken as part of the program.

For each outcome, the portfolio should contain a one page essay explaining specifically how the outcome was obtained (i.e., what advanced level of knowledge in the core courses and the two elective courses was demonstrated), supported by an example of the student's course or project work that supports the claim of achievement. The example of course or project work should be appended to the page containing the essay. The report should be very specific and concise. Long reports are NOT to be included in the portfolio.

The portfolio will be reviewed by three members of the CSE faculty, and evaluated according to the overall quality of the writing, the clarity of the explanation of how the outcomes were achieved, and the quality of the examples that are included. Portfolios will receive a Satisfactory or Unsatisfactory grade.
Thesis / Non-Thesis
This is a non-thesis program.

Graduation Requirements
In order to graduate, students must obtain a letter "B" or better in the core graduate courses, have a GPA of 3.00 or better, and pass the comprehensive exam.

COURSE DESCRIPTIONS

See http://ugs.usf.edu/course-inventory