Information Science and Technology, M.S.

About the Program
The M.S. in Information Science and Technology (IS&T) program provides students with knowledge about how to apply information sciences and technologies to solve practical problems. Students learn advanced software engineering methods, bioinformatics, computer vision, cryptology, database technologies, digital forensics, high-performance computing, information security and assurance, networks, project management, robotics, software development paradigms, and wireless sensor networks. Students also learn about process re-engineering and how to design and implement robust web and mobile applications to support these processes.

Time Limit for Degree Completion: 5 years

Campus Location: Main

Full-Time/Part-Time Status: Students complete the degree program through classes offered after 4:30 p.m. The degree program can be completed on a full- or part-time basis.

Interdisciplinary Study: Students may take up to three graduate IS&T-related courses in other departments. All such course clusters require prior approval of the M.S. in IS&T Program Director.

Areas of Specialization: Research interests of faculty include:
- Communication and networks
- Data warehousing, filtering, and mining
- Enterprise system development and resource management
- Ethics and social issues related to technology
- Knowledge management
- Management information and database systems
- Security and privacy
- Software engineering
- System development and process management
- Usability engineering

Job Prospects: Graduates often find employment as systems developers and managers for information technology organizations, computer centers, or computer manufacturers. Many become involved in the design and implementation of new applications software or the planning and evaluation of computer-based systems. Prospective employers include the government, universities and colleges, non-profit agencies, or industrial firms that utilize computers for production purposes.

Non-Matriculated Student Policy: Non-matriculated students are permitted to take a maximum of two graduate-level CIS courses.

Financing Opportunities: Assistantships provide a stipend and full-time tuition to qualified students, but are typically reserved for doctoral students.

Admission Requirements and Deadlines

Application Deadline:
- Fall: December 15
- Spring: August 1

Applications are reviewed as they are received. Late applications will be considered for admission.

APPLY ONLINE to this graduate program.

Letters of Reference:
Number Required: 3

From Whom: Letters of recommendation should be obtained from Computer Science faculty and professionals.

Coursework Required for Admission Consideration: Applicants are expected to have completed these prerequisites:
- Two consecutive programming courses in the same language (e.g., CIS 1068 Program Design and Abstraction and CIS 2168 Data Structures);
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- A database course that covers database design, SQL, and an understanding of the role that databases play in business applications (e.g., CIS 2109 Database and File Management Systems and/or CIS 4331 Principles of Database Systems);
- Two courses in computer operating systems and networking (such as CIS 2229 Architecture, Operating Systems and Networking and CIS 3329 Network Architectures); and
- A course in object-oriented web application development (e.g., CIS 2308 Web Application Programming or CIS 3515 Introduction to Mobile Application Development or CIS 3342 Networked Application Systems).

Applicants who did not complete the above coursework as part of their undergraduate degree – and who do not have equivalent practical experience – should undertake the prerequisite courses, whether at Temple University or another accredited institution, before applying to this program.

**Bachelor’s Degree in Discipline/Related Discipline:** A baccalaureate degree is required.

**Statement of Goals:** Approximately 500-1,000 words include your specific interest in Temple's program; your research goals; your future career goals; and your academic and research achievements.

**Standardized Test Scores:**
GRE: Required. Scores should be in the 75th percentile on the quantitative section and 25th percentile on the verbal section. Most students submit scores far above the minimums.

For applicants whose native language is not English, the TOEFL, IELTS, or PTE Academic exam is required:
TOEFL: 85 iBT or 563 PBT minimum
IELTS: 7.0 minimum
PTE Academic: 58 minimum

**Resume:** Current resume required.

**Transfer Credit:** Graduate-level IS&T coursework obtained no more than five years prior to the student's matriculation in the graduate program may be transferred into the M.S. in IS&T program. The student must have earned an "A" in the course, and must submit a rationale for applying the credits to the current graduate program. The maximum number of credits a student may transfer is 6.

**Program Requirements**

**General Program Requirements:**
*Number of Credits Required Beyond the Baccalaureate:* 30

**Required Courses:**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIS 5105</td>
<td>IT Process Management</td>
<td>3</td>
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<tr>
<td>CIS 5106</td>
<td>System Development Processes</td>
<td>3</td>
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<tr>
<td>CIS 5107</td>
<td>Comp Systems Security&amp;Privacy</td>
<td>3</td>
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<td>CIS 5108</td>
<td>Emerging Technologies</td>
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**Electives**

Select from the following CIS courses or take courses outside the department with the approval of the IS&T Program Director:

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CIS 5208</td>
<td>Knowledge Management</td>
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<tr>
<td>CIS 5210</td>
<td>Seminar in Information Science and Technology</td>
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<td>CIS 5274</td>
<td>Software Quality Assurance and Testing</td>
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<td>CIS 5275</td>
<td>Software Project Management</td>
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<td>CIS 5301</td>
<td>Advanced Database Management Systems</td>
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<td>CIS 5303</td>
<td>Usability Engineering</td>
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<td>CIS 5304</td>
<td>Network Technologies</td>
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<tr>
<td>CIS 5306</td>
<td>Software Engineering</td>
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<tr>
<td>CIS 5410</td>
<td>Advanced Seminar in Information Science and Technology</td>
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**Capstone Course**

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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>CIS 9991</td>
<td>Project in Computer Science</td>
<td>3</td>
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**Total Credit Hours** 30
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Five electives are typically selected from graduate CIS courses, which are limited to the courses listed above. Note, however, that a maximum of three courses may be taken from other departments upon approval of the M.S in IS&T Program Director. Further, at least 1 credit of coursework (or research experience) outside of the Department of Computer and Information Sciences is required. To fulfill this 1-credit minimum requirement, students enroll in CIS 9182 or CIS 9282, an Independent Study course. This requirement can be waived for students with adequate work experience.

Culminating Events:

Project:
Students are required to complete three credits of CIS 9991 Project in Computer Science.

Contacts

Program Web Address:
http://www.temple.edu/cis/graduate/

Department Information:
Dept. of Computer and Information Sciences
SERC, 3rd Floor
1925 N. 12th Street
Philadelphia, PA 19122-1801
cisadmit@temple.edu
215-204-8450

Mailing Address for Application Materials:
Dept. of Computer and Information Sciences
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1925 N. 12th Street
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Department Contacts:
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