Information Science and Technology, M.S.

COLLEGE OF SCIENCE AND TECHNOLOGY

Learn more about the Master of Science in Information Science and Technology.

About the Program

The M.S. in Information Science and Technology (IS&T) program is designed for students without a background in programming and/or computer science to gain the skills to be prepared for careers in computing and information technology. This program allows students with undergraduate degrees from non-computing fields to add technical expertise in order to pursue the interdisciplinary career paths of the future. Students learn skills applicable to computer networking, database management, information security, mobile app development, software engineering, software testing and quality assurance, and web development. As preparation for studying these advanced topics, fast-paced, rigorous, introductory classes with a strong foundation in algorithms, data structures, and programming are offered to M.S. in IS&T students.

The M.S. in IS&T program is designed for applicants with limited or no past experience in computer science. Candidates with some preparation and/or an undergraduate major in Computer Science or a closely related field should apply to the M.S. in Computer Science or M.S. in Computational Data Science programs.

This degree program is offered in two modalities: a traditional, on-campus learning environment or through online courses.

Time Limit for Degree Completion: 5 years

Campus Location: Main and online

Full-Time/Part-Time Status: 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 in computer networking, database management, information security, mobile app development, software engineering, software testing and quality assurance, and web development. 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, and non-profit agencies, as well as information technology organizations, computer centers, or computer manufacturers in industry.

**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**

_The MS IS&T track is offered as a collection of courses in a traditional on-campus learning environment, while the Online MS IS&T track is offered as a collection of online courses. Prospective students should indicate the selected track in their application to the program._

**MS IS&T Application Deadline:**

- **Fall:** January 15 (international students), January 15 (domestic students)
- **Spring:** August 1 (international students), November 1 (domestic students)

**Online MS IS&T Application Deadline:**

- **Fall:** April 1
- **Spring:** November 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: 2

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

**Coursework Required for Admission Consideration:** Applicants are expected to have some interest in and exposure to programming (e.g., through free online coding tutorials in C/C++, Java, and/or Python).

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

**Statement of Goals:** Approximately 500 to 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:**

Applicants who earned their baccalaureate degree from an institution where the language of instruction was other than English, with the exception of those who subsequently earned a master’s degree at a U.S. institution, must report scores for a standardized test of English that meet these minimums:

- TOEFL iBT: 85
- IELTS Academic: 6.5
PTE Academic: 58

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>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tr>
<td></td>
<td><strong>Core Courses</strong></td>
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<td>Select a minimum of three of the following courses:</td>
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<tr>
<td>CIS 5002</td>
<td>Database Design &amp; Programming</td>
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<td>CIS 5016</td>
<td>Data Structures and Objects</td>
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<td>CIS 5017</td>
<td>Operating Systems and Architecture</td>
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<td>CIS 5107</td>
<td>Comp Systems Security &amp; Privacy</td>
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<td><strong>Electives</strong></td>
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<td>Select from the following CIS courses, take courses listed above not completed for the core course requirement, or take other graduate-level CIS courses or courses outside the department with the approval of the M.S. in IS&amp;T Program Director: ¹</td>
<td>21</td>
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<tr>
<td>CIS 5208</td>
<td>Knowledge Management</td>
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<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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<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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<tr>
<td></td>
<td>Total Credit Hours</td>
<td>30</td>
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¹ Six electives are typically selected from graduate CIS courses, which are not limited to the courses listed above. Courses not included in the above list do, however, require the approval of the M.S. in IS&T Program Director. Note that a maximum of three courses may be taken from other departments with 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.

Deleted: CIS 6990  1
Deleted: CIS 18

Deleted: Capstone Course
Deleted: CIS 9991  2

Deleted: Culminating Events:
Students are required to complete three credits of CIS 9991
Master's Research Projects.
Contacts

Program Web Address:
https://cis.temple.edu/programs/msist

Department Information:
Dept. of Computer and Information Sciences
Science and Education Research Center, Office 304
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https://apply.temple.edu/CST/

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