Information Science and Technology MS

COLLEGE OF SCIENCE AND TECHNOLOGY

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

About the Program

The MS 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 MS in IS&T students.

Applicants to the MS in IS&T can choose between the on-campus and online programs, both of which follow the same curriculum and content. However, the delivery formats differ, as described below:

- The on-campus format is designed for students who prefer access to campus activities and live interaction with instructors and fellow students. Students can enroll full-time or part-time. While some courses may be offered online, most of the coursework is delivered in person over a full 16-week academic term during evening hours.
- The online format is designed for students who prefer the flexibility of online learning. Students can enroll full-time or part-time. Most courses are structured to include asynchronous assignments plus a once-a-week synchronous online class meeting.

The MS 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 MS in Computer Science or MS in Computational Data Science programs.

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 MS 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 nonprofit 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

Application Deadline:

Fall Priority Deadline: March 1; December 15 international
Spring Priority Deadline: October 30; August 1 international

Applications submitted after the priority deadline will be considered for admission on a rolling basis. Applications are reviewed as they are received.

APPLY ONLINE to this graduate program.

Letters of Reference:
Number Required: 2

From Whom: Letters of recommendation should be obtained from college/university faculty members familiar with academic competence. If out of school for an extended period of time, the applicant should request letters from supervising employers or professional colleagues who can speak to academic abilities, communication skills and/or professional competence.

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 in any field other than Computer Science or Information Science and Technology. This program is specifically designed for students who do not have a background in computer science.

Statement of Goals: In up to 500 words, explain your interest in this specific program and what career goals you have. Describe your work and academic experiences with specific mentions of internships, course projects, or research. Share any other relevant information that you feel should be taken into consideration.

Transcripts: Unofficial transcripts are considered at the time of applying. Official transcripts are required when accepting the offer at the time of deposit. Official transcripts can be sent to cst.gi@temple.edu

Standardized Test Scores:
GRE: Not required.

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: 79
- IELTS Academic: 6.5
- PTE Academic: 53
- Duolingo: 110

Resume: Current resume required.

Transfer Credit: Graduate-level IS&T coursework completed no more than five years prior to the student's matriculation in the graduate program may be transferred into the MS 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:

Code	Title	Credit Hours
Core Courses		
Select three from the following:		9
CIS 5002	Database Design & Programming	
CIS 5015	Scripting for Sciences and Business	
CIS 5016	Data Structures and Objects	
CIS 5017	Operating Systems and Architecture	
Electives		**21**
Select seven from the following: [1]		
CIS 5107	Computer Systems Security and Privacy	
CIS 5208	Knowledge Management	

CIS 5210	Seminar in Information Science and Technology	
CIS 5221	Introduction to Mobile Application Development	
CIS 5274	Software Quality Assurance and Testing	
CIS 5275	Software Project Management	
CIS 5301	Advanced Database Management Systems	
CIS 5303	Usability Engineering	
CIS 5304	Network Technologies	
CIS 5306	Software Engineering	
CIS 5405	Introduction to Digital Forensics	
CIS 5410	Advanced Seminar in Information Science and Technology	
CIS 5590	Topics in Computer Science	
Total Credit Hours		**30**

[1] Seven electives are typically selected from the identified CIS elective courses. Alternately, the core course not taken above may be completed or other graduate-level CIS courses or courses outside the department are taken with the approval of the MS in IS&T Program Director. Note that a maximum of three courses may be taken from other departments.

Culminating Event: Students satisfactorily complete coursework to earn the MS in IS&T degree.

Accelerated Programs

Undergraduate students may opt to pursue an accelerated +1 program, enabling them to complete both a bachelor's degree and master's degree in less time than the traditional route.

The accelerated pathway for the Information Science and Technology MS is available to students pursuing the Biology BA or BS.

Cohort Code: XMSIST

Minimum Cumulative GPA: 3.25

Graduate Courses Approved to Count for Both Undergraduate and Graduate Degrees

Code	Title	Credit Hours
Required Core Courses [1]		
CIS 5015	Scripting for Sciences and Business	3
CIS 5016	Data Structures and Objects	3
Core Courses and Electives [2]		
Select two of the following:		6
CIS 5002	Database Design & Programming	
CIS 5017	Operating Systems and Architecture	
CIS 5107	Computer Systems Security and Privacy	
CIS 5208	Knowledge Management	
CIS 5210	Seminar in Information Science and Technology	
CIS 5221	Introduction to Mobile Application Development	
CIS 5274	Software Quality Assurance and Testing	
CIS 5275	Software Project Management	
CIS 5301	Advanced Database Management Systems	
CIS 5303	Usability Engineering	
CIS 5304	Network Technologies	
CIS 5306	Software Engineering	
CIS 5405	Introduction to Digital Forensics	
CIS 5410	Advanced Seminar in Information Science and Technology	
CIS 5590	Topics in Computer Science	
Total Credit Hours		**12**

[1] CIS 5015 and CIS 5016 must be taken during the junior or senior year.

[2] CIS 5002 and CIS 5017 are the other two core courses for the MS in IS&T. Only one of these courses is required and may be taken during the undergraduate terms or the +1 year.

Suggested Academic Plan for Junior Year Spring Start [1]

Course	Title	Credit Hours
Year 3		
Spring		
Select one of the following:		3
CIS 5015	Scripting for Sciences and Business	
CIS 5016	Data Structures and Objects	
	Credit Hours	**3**
Year 4		
Fall		
Select one of the following not previously taken:		3
CIS 5015	Scripting for Sciences and Business	
CIS 5016	Data Structures and Objects	
	Credit Hours	**3**
Spring		
Select two of the following:		6
CIS 5002	Database Design & Programming	
CIS 5017	Operating Systems and Architecture	
CIS Approved Graduate Electives		
	Credit Hours	**6**
	Total Credit Hours	**12**

[1] It may be possible to begin the +1 program in Year 3 Fall or Year 4 Fall. Please see your academic advisor for suggested academic plans.

Admissions Criteria

Candidates for the +1 program must:

- if a junior status entrant, be able to complete their baccalaureate degree within two years of program entry; if a senior status entrant, be able to complete their degree within one year of program entry.
- have a 3.25 undergraduate GPA before approval.
- have two letters of support from full-time faculty who can vouch for the the student's readiness for graduate work.
- be able to complete the graduate degree in one additional year.

Application: https://cst.temple.edu/admissions/graduate-admissions

Contact Information

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Contacts

Program Web Address:

https://cst.temple.edu/istonline

Department Information:

Dept. of Computer and Information Sciences
304 Science and Education Research Center
1925 N. 12th Street
Philadelphia, PA 19122-1801
cisadmit@temple.edu
215-204-8450

Submission Address for Application Materials:

https://cst.temple.edu/academics/graduate-programs/apply-now

Department Contacts:

Admissions:
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