

Computer Science, M.S.

COLLEGE OF SCIENCE AND TECHNOLOGY

Learn more about the Master of Science in Computer Science.

About the Program

The M.S. in Computer Science emphasizes a general approach to the study of computing, including courses in artificial intelligence, collaborative systems, computer architecture, database systems, graphics and image processing, networking and communications, operating systems, software engineering, and theoretical areas. The curriculum is not oriented toward any specific applications area of computing but emphasizes general graduate-level studies in computing, preparing students for careers in systems analysis, teaching, and research.

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.

Areas of Specialization: Research interests of faculty include:

- Analysis of algorithms
- Artificial intelligence
- Communication and networks
- Computer architecture
- Data analytics
- Digital forensics
- Expert systems
- Flexible and intelligent manufacturing systems
- Graphics
- High-performance computing
- Information security and assurance
- Intelligent CAI systems
- Management information and database systems
- Natural language processing
- Network security
- Parallel and distributive processing and operating systems
- Programming languages
- Sensory and image processing
- Software engineering
- Theory of automata and computation
- Wired and wireless networks

Job Prospects: Graduates often find employment as data analysis consultants, product designers, researchers, and software developers. Alternatively, 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 or industrial firms that utilize computers for research and/or 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: January 15

Spring: November 11; August 1 international

Applications are reviewed as they are received. Late applications may 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: A minimum of one year of programming and data structures using the C++ or Java programming language and one year of theoretical calculus are required. This includes coursework equivalent to CIS 1068 Program Design and Abstraction, CIS 2168 Data Structures, MATH 1041 Calculus I, and MATH 1042 Calculus II.

Bachelor's Degree in Discipline/Related Discipline: A baccalaureate degree in Computer Science is required. If the applicant has insufficient undergraduate coursework in Computer Science, s/he will need to take undergraduate courses to address any deficiencies. Students without a Computer Science degree are typically required to take the following courses, which cannot be counted for credit toward the M.S. degree:

Code	Title	Credit Hours
CIS 2107	Computer Systems and Low-Level Programming	4
CIS 2166	Mathematical Concepts in Computing II	4
CIS 2168	Data Structures	4
CIS 3207 or CIS 5012	Introduction to Systems Programming and Operating Systems System Software and Operating Systems	3-4
CIS 3223 or CIS 5011	Data Structures and Algorithms Programming and Data Structure	3

Statement of Goals: In approximately 500 to 1,000 words, describe your specific interest in Temple's program, research goals, future career goals, and 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.

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
- Duolingo: 110
- PTE Academic: 58

Resume: Current resume required.

Transfer Credit: Graduate-level Computer Science coursework obtained no more than five years prior to the student's matriculation in the graduate program may be transferred into the Computer Science M.S. 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		
CIS 5511	Programming Techniques	3
CIS 5512	Operating Systems	3
CIS 5515	Design and Analysis of Algorithms	3
Electives		18
Project Course		

CIS 9991	Master's Research Projects	3
Total Credit Hours		30

Culminating Event:*Master's Research Project:*

Students complete a master's research project as the culminating event. CIS 9991 Master's Research Projects is taken for 3 credits under the close supervision of CIS Graduate Faculty.

Contacts**Program Web Address:**

<https://www.temple.edu/academics/degree-programs/computer-science-ms-st-csci-ms>

Department Information:

Dept. of Computer and Information Sciences
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1925 N. 12th Street
Philadelphia, PA 19122-1801
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215-204-8450

Submission Address for Application Materials:

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

Department Contacts:*Admissions:*

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