Graduate Certificate: Computer Science Instruction

COLLEGE OF SCIENCE AND TECHNOLOGY

Learn more about the graduate certificate in Computer Science Instruction.

About the Certificate

The graduate certificate in Computer Science Instruction is intended to provide a pathway for in-service mathematics and science teachers to quickly develop the necessary skill set to teach computer science at the secondary level. This certificate consists of four courses that can be completed in four continuous academic terms. The content covered in the courses aligns with the Program Design and Development and the Programming Language sections of the *Praxis*® Computer Science (5652) Subject Test.

Upon successful completion of the certificate, students are able to demonstrate knowledge of the foundational ideas of computer science as part of a creative and/or problem-solving process. In addition, teachers are equipped with knowledge of pedagogical strategies for broadening participation of underrepresented groups in computer science and have developed a portfolio of instructional materials that can be used to teach computer science concepts in secondary education classrooms. Teachers who are already certified to teach in secondary education are prepared to take the *Praxis*® Computer Science (5652) Subject Test required by the Pennsylvania Department of Education for certification to teach Computer Science in Pennsylvania public schools.

No course in the certificate program can be taken for credit toward any graduate program offered by the Department of Computer and Information Sciences.

Campus Location: Main

Full-Time/Part-Time Status: The graduate certificate is completed on a part-time basis. NOTE: International students may not be eligible to apply for a student visa based on admission to the certificate program. Please contact the graduate administrative coordinator for more information.

Non-Matriculated Student Policy: Students can take up to 9 credits on a non-matriculated basis. When they complete 9 credits, they must declare their intention to complete the graduate certificate in Computer Science Instruction by completing and submitting the "Non-Degree Seeking Student Request to Exceed 9 Credits of Graduate Coursework for Certificate Program," found in TUportal under the Tools tab within "University Forms."

Admission Requirements and Deadlines

Bachelor's Degree in Discipline/Related Discipline: All applicants must present credentials that are the equivalent of the appropriate baccalaureate degree at Temple University. The certificate program is not open, however, to applicants who have completed a bachelor's degree in computer science, information science and technology, or related majors.

Other Requirement: Applicants must be certified by the Commonwealth of Pennsylvania in secondary education or must obtain the permission of the program director to enroll.

Certificate Requirements

Number of Credits Required to Complete the Certificate: 12

Required Courses:

Code	Title	Credit Hours
CIS 5701	Introduction to Teaching Computer Science Principles	3
CIS 5702	Teaching Advanced Computer Science Principles	3
CIS 5703	Teaching Networked Computing Systems	3
CIS 5704	Teaching the Use of Data, Algorithms, and Creativity for Problem Solving	3
Total Credit Hours		**12**

GPA Required to be Awarded the Certificate: 3.0 minimum

Contacts

Certificate Program Web Address:

https://www.temple.edu/academics/degree-programs/computer-science-instruction-certificate-graduate-st-cosi-grad

Department Information:

Dept. of Computer and Information Sciences
313 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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