Graduate Certificate: High-Performance Computing for Scientific Applications

COLLEGE OF SCIENCE AND TECHNOLOGY

Learn more about the graduate certificate in High-Performance Computing for Scientific Applications.

About the Certificate

The graduate certificate in High-Performance Computing for Scientific Applications is designed to serve working professionals who need academic credentials for career advancement. Students are introduced to a portfolio of knowledge and experience that enables them to tackle problems using high-performance computing by:

- obtaining a fundamental understanding of the mathematical foundations and structure of numerical methods and parallel computing;
- becoming proficient in using hardware, algorithms and programming;
- effectively applying high-performance computing to a variety of real-world problems, across multiple application fields; and
- gaining knowledge and skills applicable to academia, industry and government.

Campus Location: Main

Full-Time/Part-Time Status: The graduate certificate can be 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 chairperson 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 High-Performance Computing for Scientific Applications 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.

Certificate Requirements

Number of Credits Required to Complete the Certificate: 13-14[1]

Required Courses:

Code	Title	Credit Hours
MATH 5061	Fundamentals of Computer Programming for Scientists and Engineers	4
MATH 5062	High Performance Computer Programming for Scientific Modeling	3
MATH 5063	Introduction to High-Performance Computing Technology for Scientists	4
MATH 5066	Mathematical Methods for High Performance Computing	3
Total Credit Hours		**14**

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Students may replace any *one* course on the list with a graduate-level course approved by the advisor. If a 3-credit graduate course is substituted for a 4-credit core course, then the certificate may be completed in 13 credits.

GPA Required to be Awarded the Certificate: 3.0 minimum

Contacts

Certificate Program Web Address:

https://www.temple.edu/academics/degree-programs/high-performance-computing-for-scientific-applications-certificate-graduate-st-hpc-grad

Department Information:

Dept. of Mathematics
638 Wachman Hall

1805 N. Broad Street
Philadelphia, PA 19122-6094
cst.psm@temple.edu
215-204-7842

Submission Address for Application Materials:

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

Department Contacts:

Graduate Chairperson:
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