With more than 4,000 students, the College of Science and Technology (CST) is one of Temple University’s fastest growing schools. Students work side-by-side with experienced faculty researchers in the laboratory, field, and classroom. Since 2007, external funding for advanced research has more than doubled, creating new opportunities for CST’s more than 200 world-class faculty members. Excellence begins with faculty members who inspire and challenge every student.

A cornerstone of CST’s graduate programs is research with a focus on advancing knowledge and finding solutions to today’s toughest challenges. This real-world, hands-on approach is ideal for preparing students for careers in academia and industry — or as entrepreneurs in the computer, science, and technological fields. Students work closely with world-class researchers to understand the science, hone their investigation skills, and ask pertinent and important questions. Professors create an environment that encourages inquiry and rewards hard work.

CST’s efforts to advance the quality of research, education, and engagement with the world are greatly enhanced by its state-of-the-art Science Education and Research Center (SERC). As of Fall 2014, SERC is home to advanced laboratories and classrooms designed to attract talented students and scholars and foster interdisciplinary research. It is one of the most advanced facilities of its kind on the East Coast.

### Programs

#### Degree Programs and Certificates

- Bioinformatics, P.S.M.
- Bioinformatics, Ph.D.
- Bioinnovation, P.S.M.
- Biology, M.A.
- Biology, M.S.
- Biology, Ph.D.
- Biotechnology, P.S.M.
- Chemistry, M.S.
- Chemistry, Ph.D.
- Computational Data Science, M.S.
- Computer and Information Science, Ph.D.
- Computer Science, M.S.
- Cyber Defense and Information Assurance, P.S.M.
- Forensic Chemistry, P.S.M.
- Geology, M.S.
- Geoscience, Ph.D.
- High-Performance Computing for Scientific Applications, P.S.M.
- Information Science and Technology, M.S.
- Mathematics, M.S.
- Mathematics, Ph.D.
- Physics, M.S.
- Physics, Ph.D.
- Scientific Writing, P.S.M.
- Graduate Certificate: Bioinformatics
- Graduate Certificate: Bioinnovation
- Graduate Certificate: Biotechnology
- Graduate Certificate: Computer Science
- Graduate Certificate: Computer Science Instruction
- Graduate Certificate: Cyber Defense and Information Assurance
- Graduate Certificate: Forensic Chemistry
- Graduate Certificate: High-Performance Computing for Scientific Applications
- Graduate Certificate: Information Science and Technology
- Graduate Certificate: Mathematics for Teaching
- Graduate Certificate: Scientific Writing
Graduate Faculty

Shohreh Amini, Professor, Department of Biology, College of Science and Technology; Ph.D., University of Pennsylvania.

Darius Balcunas, Associate Professor, Department of Biology, College of Science and Technology; Ph.D., Uppsala University.

Jocelyn Behm, Assistant Professor, Department of Biology, College of Science and Technology; Ph.D., University of Wisconsin-Madison.

Richard Beigel, Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., Stanford University.

Shiferaw S. Berhanu, Professor, Department of Mathematics, College of Science and Technology; Ph.D., Rutgers University.

Eric U. Borguet, Professor, Department of Chemistry, College of Science and Technology; Ph.D., University of Pennsylvania.

Ilya V. Buynevich, Associate Professor, Department of Earth and Environmental Science, College of Science and Technology; Ph.D., Boston University.

Steven M. Chemtob, Assistant Professor, Department of Earth and Environmental Science, College of Science and Technology; Ph.D., California Institute of Technology.

Ke Chen, Associate Professor (Research), Department of Physics, College of Science and Technology; Ph.D., Chinese Academy of Sciences.

Martha Constantinou, Assistant Professor, Department of Physics, College of Science and Technology; Ph.D., University of Cyprus.

Erik Cordes, Professor, Department of Biology, College of Science and Technology; Ph.D., The Pennsylvania State University.

Hai-Lung Dai, Professor, Department of Chemistry, College of Science and Technology; Ph.D., University of California Berkeley.

Boris A. Datskovsky, Professor, Department of Mathematics, College of Science and Technology; Ph.D., Harvard University.

Alexandra Krull Davatzes, Associate Professor, Department of Earth and Environmental Science, College of Science and Technology; Ph.D., Stanford University.

Nicholas Davatzes, Associate Professor, Department of Earth and Environmental Science, College of Science and Technology; Ph.D., Stanford University.

Graham Dobereiner, Associate Professor, Department of Chemistry, College of Science and Technology; Ph.D., Yale University.

Vasily Dolgushev, Professor, Department of Mathematics, College of Science and Technology; Ph.D., Massachusetts Institute of Technology.

Eduard Dragut, Associate Professor (Research), Department of Computer and Information Sciences, College of Science and Technology; Ph.D., University of Illinois at Chicago.

Ananias A. Escalante, Professor, Department of Biology, College of Science and Technology; Ph.D., University of California Irvine.

Mark A. Feitelson, Professor, Department of Biology, College of Science and Technology; Ph.D., University of California Los Angeles.

Amy Freestone, Associate Professor, Department of Biology, College of Science and Technology; Ph.D., University of California Davis.

David Futer, Professor, Department of Mathematics, College of Science and Technology; Ph.D., Stanford University.

Hongchang Gao, Assistant Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., University of Pittsburgh.

Antonio Giordano, Professor, Department of Biology, College of Science and Technology; Ph.D., University of Trieste.

Yury Grabovsky, Professor, Department of Mathematics, College of Science and Technology; Ph.D., New York University.

David E. Grandstaff, Professor, Department of Earth and Environmental Science, College of Science and Technology; Ph.D., Princeton University.

Alexander Gray, Associate Professor, Department of Physics, College of Science and Technology; Ph.D., Lawrence Berkeley National Laboratory and University of California, Davis.

Cristian E. Gutiérrez, Professor, Department of Mathematics, College of Science and Technology; Ph.D., University of Buenos Aires.

Raymond Habas, Professor, Department of Biology, College of Science and Technology; Ph.D., State University of New York Stony Brook.

Xubin He, Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., University of Rhode Island.

Stephen Blair Hedges, Professor, Department of Biology, College of Science and Technology; Ph.D., University of Maryland.
Matthew Richard Helmus, Assistant Professor, Department of Biology, College of Science and Technology; Ph.D., University of Wisconsin-Madison.

Emanuel B. Hey, Professor, Department of Biology, College of Science and Technology; Ph.D., State University of New York Stony Brook.

S. Tonia Hsieh, Associate Professor, Department of Biology, College of Science and Technology; Ph.D., Harvard University.

Maria Iavarone, Professor, Department of Physics, College of Science and Technology; Ph.D., University of Napoli Federico II.

Mihaela Ignatova, Assistant Professor, Department of Mathematics, College of Science and Technology; Ph.D., University of Southern California.

Susan A. Jansen-Varnum, Professor, Department of Chemistry, College of Science and Technology; Ph.D., University of Missouri-St. Louis.

Krishna Kant, Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., University of Texas at Dallas.

Bojeong Kim, Assistant Professor, Department of Earth and Environmental Science, College of Science and Technology; Ph.D., Cornell University.

Daniel Kim, Assistant Professor, Department of Chemistry, College of Science and Technology; Ph.D., University of California.

Isaac Klapper, Professor, Department of Mathematics, College of Science and Technology; Ph.D., New York University Courant Institute of Mathematical Sciences.

Michael L. Klein, Professor, Department of Chemistry, College of Science and Technology; Ph.D., University of Bristol.

James F. Korsh, Professor Emeritus, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., University of Pennsylvania.

Rob J. Kulathinal, Assistant Professor, Department of Biology, College of Science and Technology; Ph.D., McMaster University.

Sudhir Kumar, Professor, Department of Biology, College of Science and Technology; Ph.D., The Pennsylvania State University.

Eugene Kwatny, Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., Drexel University.

Paul S. LaFollette Jr., Associate Professor, Department of Computer and Information Sciences, College of Science and Technology; M.D., Temple University.

Longin Jan Latecki, Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., University of Hamburg.

Edward S. Letzter, Professor, Department of Mathematics, College of Science and Technology; Ph.D., University of Washington.

Robert J. Levis, Professor, Department of Chemistry, College of Science and Technology; Ph.D., The Pennsylvania State University.

Ronald M. Levy, Professor, Department of Chemistry, College of Science and Technology; Ph.D., Harvard University.

David A. Liberles, Associate Professor, Department of Biology, College of Science and Technology; Ph.D., California Institute of Technology.

Chyanlong Lin, Associate Professor, Department of Physics, College of Science and Technology; Ph.D., Temple University.

Martin W. Lorenz, Professor, Department of Mathematics, College of Science and Technology; Ph.D., Universität Giessen.

A. Marjatta Lyyra, Professor, Department of Physics, College of Science and Technology; Ph.D., University of Stockholm.

Carol M. Manhart, Assistant Professor, Department of Chemistry, College of Science and Technology; Ph.D., University of Colorado Boulder.

C. Jeffrey Martoff, Professor, Department of Physics, College of Science and Technology; Ph.D., University of California Berkeley.

Spiridoula Matsika, Professor, Department of Chemistry, College of Science and Technology; Ph.D., The Ohio State University.

Gerardo A. Mendoza, Professor, Department of Mathematics, College of Science and Technology; Ph.D., Massachusetts Institute of Technology.

Andreas Metz, Associate Professor, Department of Physics, College of Science and Technology; Ph.D., Institut Für Kernphysik Universität Mainz.

Irina Mitrea, Professor, Department of Mathematics, College of Science and Technology; Ph.D., University of Minnesota.

Anna Moore, Assistant Professor, Department of Biology, College of Science and Technology; Ph.D., University of Connecticut Health Center.

Atsuhiro Muto, Assistant Professor, Department of Earth and Environmental Science, College of Science and Technology; Ph.D., University of Colorado.

James Napolitano, Professor, Department of Physics, College of Science and Technology; Ph.D., Stanford University.

Allen W. Nicholson, Professor, Department of Biology, College of Science and Technology; Ph.D., University of Pennsylvania.
Jonathan Nyquist, Professor, Department of Earth and Environmental Science, College of Science and Technology; Ph.D., University of Wisconsin.

Zoran Obradovic, Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., The Pennsylvania State University.

Jamie Payton, Professor, Department of Computer and Information Sciences, College of Science and Technology; D.Sc., Washington University.

John P. Perdew, Professor, Department of Physics, College of Science and Technology; Ph.D., Cornell University.

Sergei L. Kosakovsky Pond, Professor, Department of Biology, College of Science and Technology; Ph.D., University of Arizona.

Sean Gillian Queisser, Associate Professor, Department of Mathematics, College of Science and Technology; Ph.D., Ruprecht-Karls University of Heidelberg.

Sujith Ravi, Associate Professor, Department of Earth and Environmental Science, College of Science and Technology; Ph.D., University of Virginia.

Brian Rider, Professor, Department of Mathematics, College of Science and Technology; Ph.D., New York University Courant Institute of Mathematical Sciences.

Peter S. Riseborough, Professor, Department of Physics, College of Science and Technology; Ph.D., Imperial College London.

Igor Rivin, Professor, Department of Mathematics, College of Science and Technology; Ph.D., Princeton University.

Adrienn Ruzsinszky Perdew, Associate Professor, Department of Physics, College of Science and Technology; Ph.D., Budapest University of Technology and Economics.

Robert W. Sanders, Professor, Department of Biology, College of Science and Technology; Ph.D., University of Georgia.

Christian E. Schafmeister, Professor, Department of Chemistry, College of Science and Technology; Ph.D., University of California San Francisco.

Benjamin Seibold, Associate Professor, Department of Mathematics, College of Science and Technology; Ph.D., University of Kaiserslautern.

Brent Sewall, Associate Professor, Department of Biology, College of Science and Technology; Ph.D., University of California Davis.

Xinghua Mindy Shi, Associate Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., University of Chicago.

Yuan Justin Shi, Associate Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., University of Pennsylvania.

Richard Souvenir, Professor, Department of Computer and Information Sciences, College of Science and Technology; D.Sc., Washington University.

Francis C. Spano, Professor, Department of Chemistry, College of Science and Technology; Ph.D., Princeton University.

Nikolaos Sparveris, Assistant Professor, Department of Physics, College of Science and Technology; Ph.D., University of Athens.

Rachel Spigler, Associate Professor, Department of Biology, College of Science and Technology; Ph.D., University of Georgia.

Robert J. Stanley, Professor, Department of Chemistry, College of Science and Technology; Ph.D., The Pennsylvania State University.

Matthew Stover, Associate Professor, Department of Mathematics, College of Science and Technology; Ph.D., University of Texas at Austin.

Daniel R. Strongin, Professor, Department of Chemistry, College of Science and Technology; Ph.D., University of California Berkeley.

Yugang Sun, Associate Professor, Department of Chemistry, College of Science and Technology; Ph.D., University of Science and Technology of China.

Bernd Surrow, Professor, Department of Physics, College of Science and Technology; Ph.D., University of Hamburg.

Daniel B. Szyld, Professor, Department of Mathematics, College of Science and Technology; Ph.D., New York University.

Chiu Chiang Tan, Associate Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., College of William and Mary.

Rongjia Tao, Professor, Department of Physics, College of Science and Technology; Ph.D., Columbia University.

Samuel J. Taylor, Assistant Professor, Department of Mathematics, College of Science and Technology; Ph.D., University of Texas at Austin.
Dennis O. Terry Jr., Associate Professor, Department of Earth and Environmental Science, College of Science and Technology; Ph.D., University of Nebraska.

Laura Toran, Professor, Department of Earth and Environmental Science, College of Science and Technology; Ph.D., University of Wisconsin.

Darius H. Torchinsky, Assistant Professor, Department of Physics, College of Science and Technology; Ph.D., Massachusetts Institute of Technology.

Allison Tumarkin-Deratzian, Professor (Teaching/Instructional), Department of Earth and Environmental Science, College of Science and Technology; Ph.D., University of Pennsylvania.

Ann M. Valentine, Professor, Department of Chemistry, College of Science and Technology; Ph.D., Massachusetts Institute of Technology.

Vincent Voelz, Associate Professor, Department of Chemistry, College of Science and Technology; Ph.D., University of California San Francisco.

Slobodan Vucetic, Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., Washington State University.

Anduo Wang, Assistant Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., University of Pennsylvania.

Pei Wang, Associate Professor (Teaching/Instructional), Department of Computer and Information Sciences, College of Science and Technology; Ph.D., Indiana University.

Rongsheng Wang, Associate Professor, Department of Chemistry, College of Science and Technology; Ph.D., Washington University in St. Louis.

Yan Wang, Assistant Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., Stevens Institute of Technology.

Yu Wang, Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., Illinois Institute of Technology.

Richard B. Waring, Associate Professor, Department of Biology, College of Science and Technology; Ph.D., Essex University.

Sarah Elizabeth Wengryniuk, Assistant Professor, Department of Chemistry, College of Science and Technology; Ph.D., Duke University.

Katherine A. Willets, Professor, Department of Chemistry, College of Science and Technology; Ph.D., Stanford University.

Jie Wu, Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., Florida Atlantic University.

Xifan Wu, Professor, Department of Physics, College of Science and Technology; Ph.D., Rutgers University.

Stephanie L. Wunder, Professor, Department of Chemistry, College of Science and Technology; Ph.D., University of Massachusetts.

Xiaoxing Xi, Professor, Department of Physics, College of Science and Technology; Ph.D., Peking University and Institute of Physics.

Qimin Yan, Assistant Professor, Department of Physics, College of Science and Technology; Ph.D., University of California Santa Barbara.

Wei-Shih Yang, Professor, Department of Mathematics, College of Science and Technology; Ph.D., Cornell University.

Weidong Yang, Professor, Department of Biology, College of Science and Technology; Ph.D., Fudan University.

Atilla Yilmaz, Associate Professor, Department of Mathematics, College of Science and Technology; Ph.D., New York University.

Tan Yuen, Associate Professor, Department of Physics, College of Science and Technology; Ph.D., Temple University.

Michael J. Zdilla, Professor, Department of Chemistry, College of Science and Technology; Ph.D., Princeton University.

Kai Zhang, Associate Professor, Department of Computer and Information Sciences, College of Science and Technology; Ph.D., Hong Kong University of Science and Technology.