

Student Life

Situated in “University City,” Drexel University shares the best of two worlds. The local neighborhood, which contains both Drexel and the University of Pennsylvania, is filled with students, great places to eat, and affordable places to live. Only a few blocks away is the vibrant downtown district, including four star restaurants, theaters (including the spectacular new Kimmel Center for the Performing Arts), and museums (such as the Philadelphia Museum of Art and the Franklin Institute Science Museum).

The Liberty Bell, Independence Hall, and the Franklin Mint top a list of historic sites. Philadelphia is both a small-town walking city (though the public transit is excellent) and a bustling metropolis. The Mann Music Center, the Tweeter Center, and the Electric Factory host larger concerts, while the “Old City District” has dozens of small venues for live music. There are also a number of dance clubs and bars for those who want to break the physicist stereotypes.

For the more contemplative, Philadelphia has an extensive arthouse cinema scene. Penn’s Landing and South Street have excellent restaurants and clubs, and an assortment of independent music, CD, and book stores.

The Phillies, Eagles, 76ers, and Flyers all call Philadelphia home. And, for those not content to stay in one place for long, New York, Atlantic City, and Washington DC are only a short train ride away.



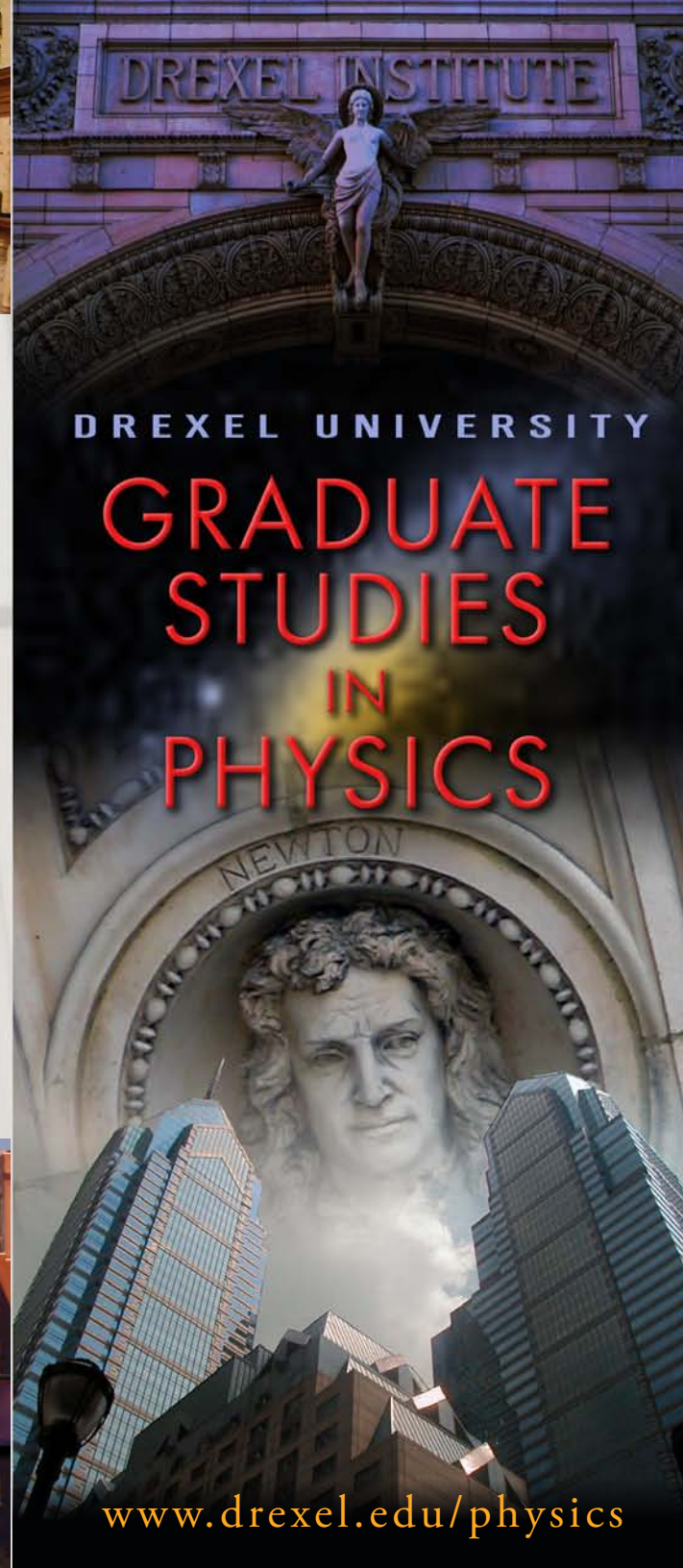
About Drexel

Drexel University ranks as one of the nation’s best doctoral universities. Drexel is a recognized leader in curricular and technological innovation: first to require all students to have personal computers and rated one of the “most wired” colleges. Drexel was founded in 1891 as Philadelphia’s technological, cooperative education university and now offers 73 bachelor’s programs, 78 master’s programs, and 32 doctoral programs. The diverse student body of 14,000 undergraduates and 9,600 graduate students represents 48 states and 103 nations.

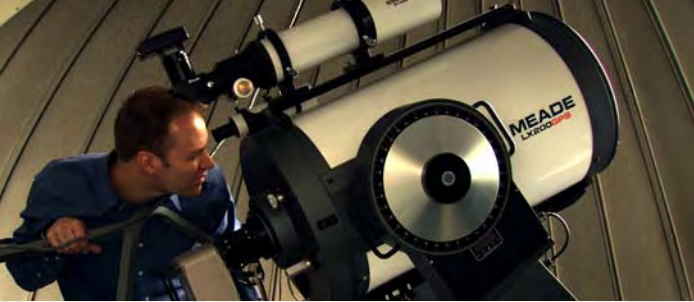


Department of Physics

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www.drexel.edu/physics



We have collaborations around the world in programs such as the Double Chooz and KamLAND neutrino oscillation experiments, the Enriched Xenon Observatory for neutrinoless double beta decay, the Sloan Digital Sky Survey, the Large Synoptic Survey Telescope, and the Hayden Planetarium (NYC).

We are a leader in computational physics. We currently have 3 distributed cluster systems (Beowulfs), 2 specialized GRAvity Pipeline Engines (GRAPEs), and a new 176 Teraflop GPU cluster.

Experimental facilities include laboratories for low temperature physics, protein assembly, protein dynamics, nano-biooptics, magnetic materials, particle physics detector development, and the Joseph R. Lynch Observatory.

Research Areas

Faculty at Drexel lead world-class research programs in a wide variety of disciplines including:

Astrophysics

David Goldberg, Ph.D., Princeton
Stephen McMillan, Ph.D., Harvard
Gordon Richards, Ph.D., U. Chicago
Michael Vogeley, Ph.D., Harvard
Kevin Olson, Ph.D., U. Massachusetts

Large-scale structure and cosmology, galaxy surveys, gravitational lensing, active galactic nuclei/quasars, black holes, dynamics of star clusters and galactic nuclei, numerical simulation of dense stellar systems, high-performance computing.

Biophysics

Luis Cruz Cruz, Ph.D., MIT
Frank Ferrone, Ph.D., Princeton
Hairong Ma, Ph.D., U. of Illinois, Urbana-Champaign
Brigita Urbanc, Ph.D., U. Ljubljana
Jian-Min Yuan, Ph.D., U. Chicago
Alexey Aprelev, Ph.D., St. Petersburg State

Phase transitions in biology, force transduction in muscle, dynamics of biomolecules, ultrafast laser spectroscopy, protein folding and self-assembly, neurodegenerative diseases, systems biology and bio-networks.

Condensed Matter

Shyamalendu Bose, Ph.D., U. Maryland
Goran Karapetrov, Ph.D., Oregon State
Somdev Tyagi, Ph.D., Brigham Young

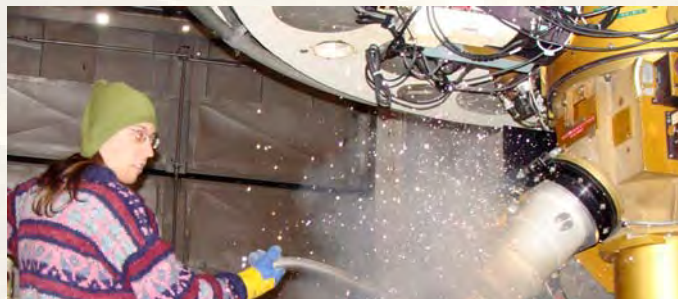
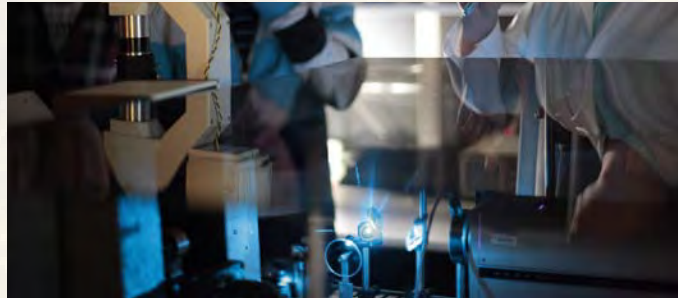
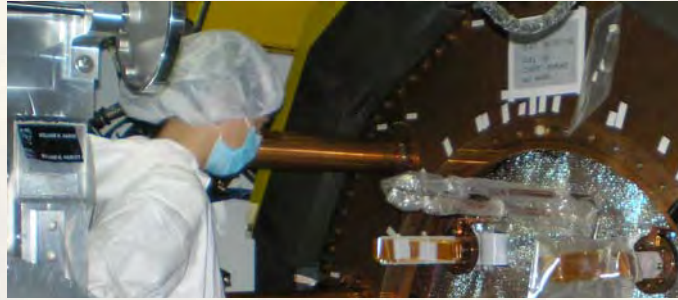
Theory of nanoshells and carbon nanotubes. Raman scattering, nanoparticles for biomedical applications. Scanning Probe Microscopy, Nanoscale Catalysis, Mesoscopic Superconductivity.

Nonlinear Dynamics

Robert Gilmore, Ph.D., MIT
 Group theory and its applications. Catastrophe theory, nonlinear dynamics, chaos, quantum mechanics.

Particle Physics

Michelle Dolinski, Ph.D., U. of California, Berkeley
Charles Lane, Ph.D., Caltech
 Experimental neutrino physics. Neutrino oscillations, double beta decay, cryogenic detector technologies, applications to nuclear non-proliferation.



Graduate Program Highlights

Our Graduate Program offers students a comprehensive graduate education in physics and the opportunity to engage in cutting-edge scientific research. We currently have 45 graduate students working in a wide range of areas of research.

- ◆ Begin research in the first year, with freedom to explore different areas of physics before choosing a thesis topic.
- ◆ Participation by students in major world-wide research collaborations, including EXO, KamLAND and the Sloan Digital Sky Survey.
- ◆ Topical courses in areas of current research, including Astrophysics, Biophysics, Nanoscience, Nonlinear Dynamics, Particle Physics, and Solid State.
- ◆ All coursework and exam requirements finished and M.S. in Physics awarded in June of the second year.
- ◆ An active tightly-knit community of graduate students that enjoys dinners and outings together.
- ◆ Physics Graduate Student Association run by our students and funded by the University.
- ◆ Graduate student-only research seminars (free lunch!).
- ◆ Interaction with world-renowned researchers who visit Drexel for our colloquium series and the annual Kaczmarczik Lecture, which has featured several Nobel laureates.
- ◆ Assistantships include 12-month stipend support, full-tuition remission, and free health insurance.

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