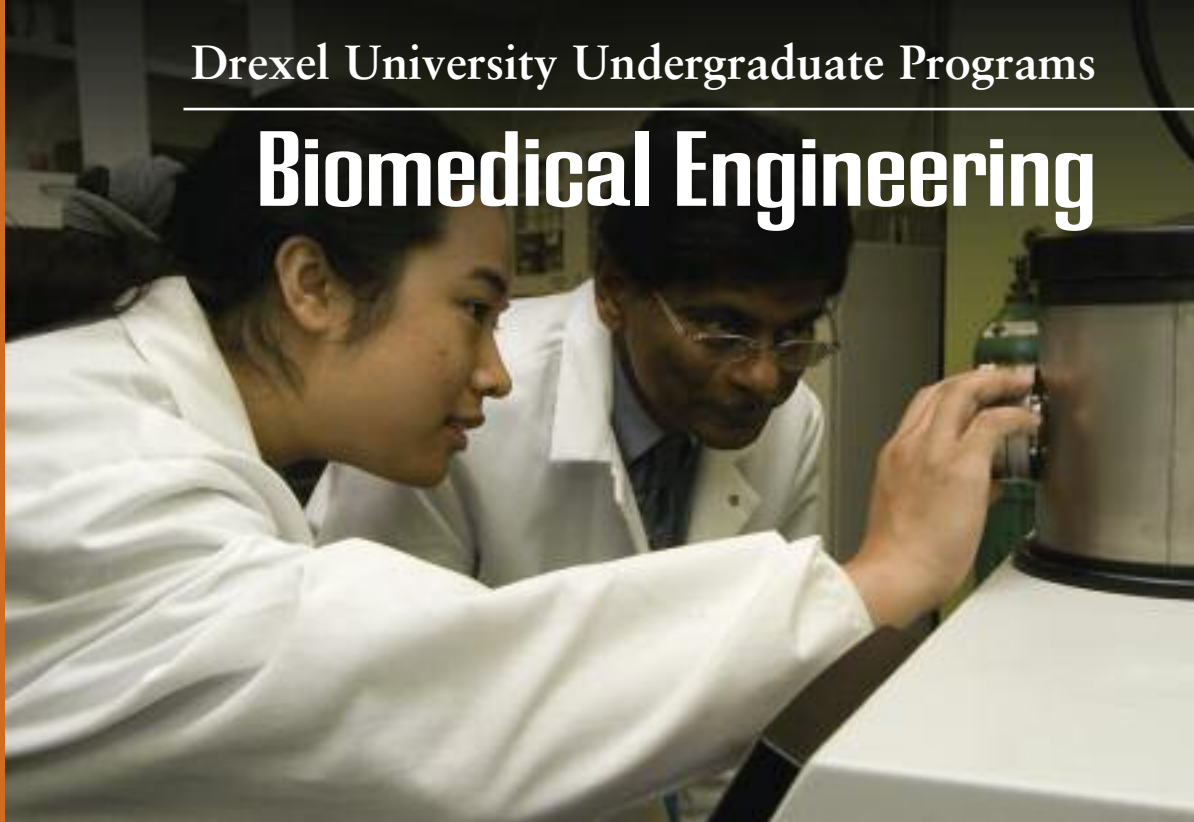


Biomedical Engineering



Biomedical Engineering at Drexel

Biomedical engineering is a discipline you can take in many directions. Whether your interest is in design, research and development, production, law, or medicine, a biomedical engineering degree provides both versatility and superb employment potential. Growth in this industry is encouraged by the demand for better medical devices and health care solutions, more sophisticated equipment and procedures, and an increased concern for cost-effectiveness. The Bureau of Labor Statistics predicts that this field will grow “much faster than the average” through 2014.

Drexel Co-op: Knowledge at Work

Classroom learning, research, projects, papers, and exams are all critical to academic pursuits. But it will take experience in your field to set you apart from other graduates. With Drexel Co-op, you can gain up to 18 months of résumé-enhancing experience by the time you receive your degree. Drexel’s biomedical engineering students have completed co-ops with:

- Boston Scientific Corporation
- Exponent, Inc.
- Johnson & Johnson
- Medtronic, Inc.
- Wyeth Pharmaceuticals

Biomedical Engineering Major

The Biomedical Engineering major is offered by the School of Biomedical Engineering, Science, and Health Systems; to learn more about the school, faculty, and current research initiatives, visit www.biomed.drexel.edu.

Accelerated Degree Options

Accelerated degree programs provide qualified students the opportunity to earn both a bachelor’s and an advanced degree in less time than in traditional programs.

- BS/MS in Biomedical Engineering
- BS/MD (Medicine)
- BS/PhD in Biomedical Engineering
- BS/JD (Law)
- BS/MS in Education

Visit www.drexel.edu/em/ug/accelerated for more information about accelerated degree programs.



Karen Moxon

BS, Chemical Engineering, University of Michigan; MS and PhD, University of Colorado

Associate Professor of Biomedical Engineering, Science, and Health Systems and Associate Professor, Neurobiology and Anatomy

Academic achievements

- Co-wrote *Neural Prostheses for Restoration of Sensory and Motor Function*
- Multiple journal articles discussing neurons, electrodes, and neuro-engineering
- Neurorobotic research

Research interests

- Ceramic-based multi-site electrodes
- Development of tactile neuro-prosthetic devices
- Neural processing of somatosensory information
- Neuroplasticity

My advice for incoming students who are interested in my field

"Neuroengineering is in its greatest growth phase right now. Earning a PhD is very important for a career in this field."

Resources: The Classroom and Beyond

At Drexel education starts in the classroom, but it certainly doesn't end there. Extracurricular options available to biomedical engineering students include:

- **Fiber Optics and Photonics Manufacturing Engineering Center:** Develops educational programs and performs advanced research in fiber optics, with an emphasis on manufacturing technologies.
- **Global Engineering Education Exchange (Global E3):** Students receive academic credit for courses taken at an overseas institution, and practical training in a foreign setting for a summer, semester, or academic year. Countries include Australia, Austria, Denmark, Finland, France, Germany, Hong Kong, Hungary, Italy, Japan, Mexico, Singapore, South Korea, Spain, Sweden, Turkey, and the United Kingdom.
- **Research Projects:** Faculty members and students in the School of Biomedical Engineering, Science, and Health Systems conduct research in a variety of fields, including biomedical ultrasound, biomedical imaging, cardiovascular systems, biomechanics, biomaterials, and tissue and cellular engineering.

Student Activities: Draw from Your Experience

Student activities are a great way to meet new people and stay active on campus. You'll have a lot to choose from at Drexel, starting with:

- More than 180 cultural, media, social, service, and professional organizations
- Performing arts groups specializing in dance, music, and theater, which are open to any student regardless of major
- Varsity, club, and intramural sports teams

Through professional organizations you can form friendships with other students in your school, make professional contacts, and keep up-to-date on the advancements of your future career field. Some organizations that might interest biomedical engineering students include:

- Biomedical Engineering Society
- Society of Hispanic Professional Engineers
- Society of Women Engineers





Campus Living: Home Is Where Your Stuff Is

Drexel's residence halls are very popular stops on our campus tour — probably because prospective students know that a residence hall is more than just a place to sleep.

Calhoun, Kelly, Myers, Towers, and Van Rensselaer are our first-year residence halls, reserved exclusively for freshman and transfer students. To see details and stats about each hall, visit www.drexel.edu/rlo/halls.

In addition to serving as a home away from home, residence halls are also a place where students can create the academic and social environment they crave. Some residential options available to students include:

- **Race Street Hall:** Drexel's newest hall is the residence for students in the Pennoni Honors College. To learn more about the Honors College, visit www.drexel.edu/honors.
- **Learning Communities:** Learning communities group students with similar academic and social interests together in a single location, making it easy for them to form informal study groups and work on group projects.

Philadelphia: Life on the Grid

Philadelphia is a great place to live, work, and study. Co-op opportunities for biomedical engineering students abound in this city, known as a national center of medical institutions and pharmaceutical and biotechnology firms. Here are some advantages of living in Philadelphia:

- **GlaxoSmithKline:** One of the many research-based pharmaceutical companies based in Philadelphia. They employ 110,000 people in 80 countries, and their pharmaceutical operations headquarters is less than a mile from Drexel's University City Main Campus.
- **The Mütter Museum:** Dedicated to preserving the history of medicine in the United States (literally), this museum treats visitors to exhibits of early surgical equipment, anatomical models, fluid-preserved organs, and even a wall of skulls.
- **Reading Terminal Market:** Since its beginnings at the dawn of the 19th century, this market has constantly reinvented itself. Once simply a central location for butchers, fishmongers, and grocers, Reading Terminal Market now includes specialty and gourmet shops surrounding a food court packed with exotic offerings.



Idil Aktan

Biomedical Engineering
Bryn Mawr, Pennsylvania

Favorite class

- Tissue Engineering

Activities

- President of the Society of Women Engineers
- Volunteer at Drew Elementary School in West Philadelphia
- Working out at the Daskalakis Athletic Center

Why I love biomedical engineering

"It combines my love of biology and the human body, along with emerging technologies, especially in the areas of tissue engineering and biomaterials."

Co-op experience

"My last co-op was with Genentech, a biotechnology research company in San Francisco."

Best thing about Drexel

"Definitely the student-faculty interaction; the faculty are very knowledgeable and approachable. With any research interest I've had, I've been able to approach a professor and pursue it."

Enrollment*

Total undergraduate	13,197
Total graduate and professional	7,488
Total enrollment	20,685

Academic Profile*

Average GPA (on a 4.0 scale)	3.5
Average combined SAT score	1200
Average class rank (top percentile)	22.5

On average, Drexel freshmen graduated in the top 22% of their high school class.

Undergraduate Programs

73 full-time programs

Colleges and Schools

- Arts and Sciences
- Biomedical Engineering, Science, and Health Systems
- Business
- Education
- Engineering
- Information Science and Technology
- Law
- Media Arts & Design
- Medicine
- Nursing and Health Professions
- Pennoni Honors College
- Professional Studies
- Public Health

Admission Prerequisites

Students applying to Biomedical Engineering will need to complete the following courses:

- Four years of mathematics
 - Algebra I and II
 - Geometry/Trigonometry
 - Precalculus
- One year of chemistry (with lab)
- One year of physics (with lab)

*Numbers from previous year



Financial Aid and Scholarships

Your education is an important investment. At Drexel we are committed to providing you with information and resources you need. The first step toward receiving financial aid is to complete the Free Application for Federal Student Aid (FAFSA) available online at www.fafsa.ed.gov. Students starting college in the fall quarter should submit it by March 1 for maximum financial aid consideration. Drexel uses the information provided on the FAFSA to award need-based grants and scholarships.

For specific information about loan programs, grants, and scholarships, call 1-877-DREXEL-5 to speak with a representative from EdFinancial Services. EdFinancial Services provides a call center with trained staff to answer questions about paying for a college education. The staff are not Drexel employees but are employed by EdFinancial Services. They are required to give all students independent, expert advice about paying for a college education.

To learn more about financing options, visit www.drexel.edu/financialaid. To contact a representative from Drexel's Student Resource Center/Financial Aid office, visit <http://ask.drexel.edu>.

Visit Us

The best way to learn about Drexel is to visit. For a schedule of upcoming events, visit www.drexel.edu/em/ug/visit or call 1-800-2-DREXEL (1-215-895-2400 for international students).

- **Open Houses:** If you want to explore everything Drexel has to offer (all in one day), attend an Open House. Held on weekends in the fall and spring, Open Houses are large-scale campus events that offer information about academics, Drexel Co-op, student activities, and campus life.
- **Experience Drexel Days:** Offered throughout the year, Experience Drexel Days are ideal if you want a broad overview of Drexel's offerings. Experience Drexel Days are half-day programs to provide you with a glimpse of life at Drexel, with informative sessions, tours of campus, and an academic fair.
- **Campus Visit:** Consisting of an Information Session and a student-guided tour, Campus Visits are perfect if you want a more intimate introduction to Drexel. Campus Visits are offered on weekday mornings and afternoons and on Saturday mornings.

Apply

Apply to Drexel University online at www.drexel.edu/apply. The application fee is waived for students who apply online or during a campus visit.

Contact Us

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School of Biomedical Engineering,
Science, and Health Systems