DREXEL UNIVERSITY
College of
Engineering

UNDERGRADUATE PROGRAMS

At its essence, engineering strives to find answers to humanity's most pressing issues. Since these challenges are constantly evolving, the engineer's role is more important than ever.

As Drexel University's flagship for over 100 years, the College of Engineering continues its strong tradition of engineering education spanning from the theoretical to the translation of technology for real-world application. The tools of the trade you learn and the experiences you gain at Drexel Engineering will shape your vision of the future and launch your career as an innovator and solution-driven engineer.

While you learn the fundamentals, you will discover your interests with the guidance of world-renowned faculty who also serve as your mentors and advisors. You will be inspired by the many opportunities to participate in research, and design in modern labs like our 20,000-square foot Innovation Studio — all with the dynamic city of Philadelphia as your backdrop. This is the start of setting yourself on a path, with the newfound context of your learning, research experience and co-op employment, that you will carry with you throughout your journey as an engineer.

When you become a Drexel Engineer, you will immediately be contributing to striving for better outcomes. You join a community of learners and a network of successful graduates around the world that that aim to engineer change.

DREXEL.EDU/ENGINEERING

BACHELOR OF SCIENCE MAJORS

ARCHITECTURAL ENGINEERING
Envision, construct and operate the systems essential to the design of safe, economic and environmentally sound buildings and their operations.

CHEMICAL ENGINEERING
Convert raw materials into the products and outcomes necessary for much of modern day life. Work is possible in a wide array of industries, from food production or biotechnology to electronics and advanced materials.

CIVIL ENGINEERING
Oversee projects and design solutions that are most often encountered in the public sphere or in critical infrastructure, including water reclamation systems, bridges, dams, roads, structural systems, green buildings, pollution mitigation and public transit.

COMPUTER ENGINEERING
Design smaller, faster and more reliable computers and systems, processors or networks for nearly any application in modern life. A flexible curriculum allows for focus on embedded systems, internet of things, computer architecture, cybersecurity or other applications.

CONSTRUCTION MANAGEMENT
Ensure that construction projects meet design specifications and are delivered on schedule and on budget. Work end-to-end with architects, builders, contractors and materials vendors to tackle complex projects from inception through completion.

ELECTRICAL ENGINEERING
Take on the technical demands of the global competitive economy with electronics expertise that can be applied to diverse fields, including but not limited to communications, machine learning, robotics, automation and control, wireless networks and bioinformatics.

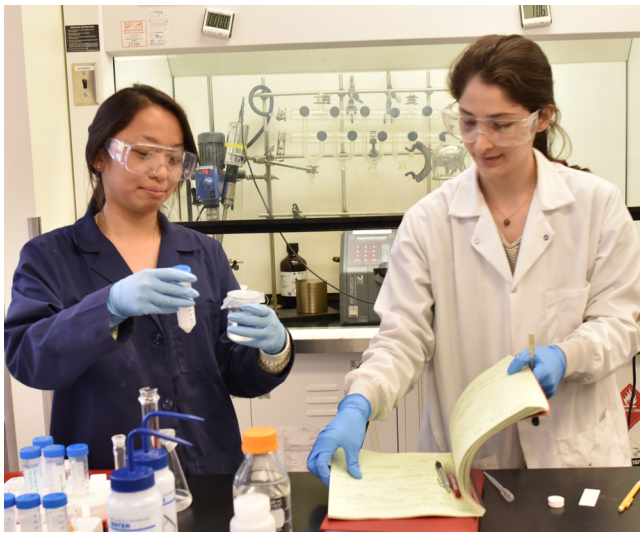
ENGINEERING TECHNOLOGY
Apply engineering and analytic skills to real world problems for a career as a technology and industry leader. Make an immediate impact with practical skills and multi-disciplinary training that can be applied in fields from robotics to smart manufacturing, and electronics to renewable energy.

ENVIRONMENTAL ENGINEERING
Protect humans and environments from the effects of damage from industry or climate change and improve quality of life, co-existence and sustainability through water, wastewater and air quality treatment, pollution control and other environmental systems.

MATERIALS SCIENCE AND ENGINEERING
Design, process, and characterize materials with improved performance and sustainability for wide-ranging uses, including renewable energy storage and conversion, health and medical technology, computing and communications

MECHANICAL ENGINEERING AND MECHANICS
Use the principles of energy, materials and mechanics to design, manufacture and control machines and devices of all types. Areas such as biomechanics, infrastructure systems, high-performance computing and human-machine interfaces are at the forefront of future careers.

UNDECLARED
Explore your options and make a decision on your major after two academic quarters.



UNDERGRADUATE MINORS

Students may choose minors from any offered across the University. Some of the minors offered in the College of Engineering include:

- Architectural Engineering
- Chemical Engineering
- Computer Engineering
- Construction Management
- Electrical Engineering
- Engineering Management
- Entertainment Engineering
- Environmental Engineering
- Global Engineering
- Materials Science and Engineering
- Mechanical Engineering
- Nuclear Engineering
- Systems Engineering

LEARNING IN PHILADELPHIA

The city of Philadelphia is our campus — a rich urban environment with a variety of social, cultural and learning opportunities that will be infused into your college experience. Philadelphia is also a draw for talented instructors and researchers, meaning you will engage with some of the best minds in engineering and other disciplines.

FIRST-YEAR DESIGN

Right from your start as a Drexel Engineer, you will undertake hands-on exploration in the three-term sequence of first-year engineering design. You will understand more about the various fields of engineering so you may confirm or switch your field of study. You'll gain perspective into what it means to be an engineer, learn some fundamentals and be excited by the innovation inherent in the design process. It all leads to a design project, where your team of fellow engineering students will tackle a design project. These have ranged from robotic hands to light therapy devices to rainwater catchment systems for local farms.

SENIOR DESIGN

At the other end of your studies, you will embark on a three-term course sequence that simulates the professional work environment necessary to respond to an open-ended challenge. You will be collaborating, building and making a formal presentation of your solution. Many projects are inspired by co-op experiences or designed and supported by industrial or governmental institution partners. The final project is the culmination of your studies and work experiences that have prepared you for that moment and your next step in a fulfilling engineering career.

BS/MS PROGRAM

Get a head start on advanced learning to earn your bachelor's degree and master's degree in five years. You will enter the workforce with a competitive advantage having added expertise in your major or through skills developed in an additional subject area.

ENGINEERING LEARNING COMMUNITY (ELC)

First-year students can enjoy the unique experience of living and learning together. Through the vibrant community's participation and access to special academic programs, service projects and social events in and around Philadelphia, the ELC fosters friendships that also support academic success.

STUDENT ORGANIZATIONS

Our many student social and professional organizations provide great opportunities for learning, leadership and socializing. Drexel Engineering student groups supplement your educational experience and cover a range of interests, like the Theme Park Engineering and Design Group or Formula SAE, who build race cars, to professional organizations like the Society for Women Engineers (SWE) or the Institute of Electrical and Electronics Engineers (IEEE).

ADVISING

Dedicated advisors are committed to your success. Whether it is in the advisor taught "Drexel Experience" course for practical skills like registering for courses, or helping with transition to college, adding a minor, making plans to study abroad or achieving your post-graduation goals, advisors assist with all aspects of navigating your studies. They will direct you to resources such as peer tutoring at the Academic Center for Engineers and other special programs aimed at supporting you throughout your time at Drexel.

RESEARCH

Drexel is designated as an R1 university by the Carnegie Foundation, meaning that the highest level of research activity takes place here. As the second-largest research enterprise behind only the College of Medicine, Drexel Engineering encourages students to be involved. The Drexel Students Tackling Advanced Research (STAR) scholars program is a research opportunity during your first summer, while the Vertically Integrated Projects (VIP) program embeds undergraduate students into large-scale, long-term research efforts of faculty and their graduate students. Also, many student choose to explore one of the many research opportunities in the college for their co-op. The smaller classroom environment in many courses allows for plenty of interaction with research active faculty, opening doors to participation in labs.

CO-OP

Our commitment to your experiential learning is second to none and comes in many forms, most notably co-op. The college's co-op program began with just 152 engineering students in 1919. Today, over 1,800 students participate in this transformational experience that alumni talk about years after they graduate.

Drexel Engineers are in high demand for co-op and work at hundreds of different companies in the region and around the world. By trying new work experiences, you will gain invaluable insights into what it means to be an engineer, and come out with a better understanding of your chosen field of study.

CO-OP GIVES YOU A HEAD START AND A FULL RESUME

Each year, about 95 percent of Drexel Engineering co-op jobs are paid and many use their co-op for a deeper dive into research. In 2018-2019, more than half of our graduates received full-time offers from their co-op employer.

Co-op Employment Rate
98%

41
International Co-ops in 2018–19

Salary Range
$26-36K
for a paid 6 month engineering co-op position

RECENT CO-OP EMPLOYERS

Air Products & Chemicals, Inc., Army Research Laboratory, Boeing, Bristol Myers Squibb, Clarivate Analytics, Comcast Corporation, Eaton, EwingCole, Exelon, GlaxoSmithKline, Google, Intel Corporation, Johnson & Johnson, Lockheed Martin, Merck Corporation, NAVSEA National Security Agency, PJM Interconnection, Philadelphia Streets Department, Philadelphia Water Department, Siemens, Unisys Corporation

OUTCOMES

$70,000
Median annual starting salary

Students employed or enrolled in grad school within one year
95%

55%
of graduates receive job offers from a previous co-op employer

*Data are 2018-2020 survey outcomes.

"Our program was a success because of our co-op…We treated our co-op the same way we treated our full-time engineers who had received their degree several years ago."

Gregory M. Patschke
Lockheed Martin

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AMBITION CAN'T WAIT

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