

UNDERGRADUATE PROGRAMS

As society strives to address humanity's most pressing issues, engineers continue to be vitally important to reaching for answers.

As Drexel University's flagship for over 100 years, the College of Engineering continues its strong tradition of engineering education. From exploring the theoretical to an emphasis on real-world application, our students learn fundamentals and explore the possibilities. As a student, your experiences launch your career as an innovator and solution-driven engineer.

You will be inspired by your faculty mentors and the insights earned from participation in research and from engineering classes in modern labs, like our 20,000 square foot Innovation Studio — with the dynamic city of Philadelphia as your backdrop. An education at Drexel Engineering will shape your vision of the future through the impact of applied learning in academics and your co-op employment.

As a Drexel Engineer, you become part of a community of ambitious learners and a network of successful alumni around the world that aim to engineer change.

OUTCOMES

Average annual starting salary

\$77K

98%

Employed or enrolled in grad school

14% undergraduates earn MS degrees in 5 years

Graduates that receive job offer from co-op employer

62%

41%

Take positions with former co-op employer

Overall job satisfaction

92%

**2022 graduate average one-year-out survey outcomes*

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, systems, processors or networks used in modern life. 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 technology demands of the world with expertise that can be applied to fields like machine learning, robotics, automation and control, wireless networks and bioinformatics.

ENGINEERING TECHNOLOGY

Make an immediate impact with practical skills and multi-disciplinary training for a career as a leader in fields like robotics, smart manufacturing, electronics or renewable energy.

ENVIRONMENTAL ENGINEERING

Protect humans and improve quality of life and environments from the effects of industry or climate change through sustainability, air, water and waste treatment, pollution control and more.

MATERIALS SCIENCE AND ENGINEERING

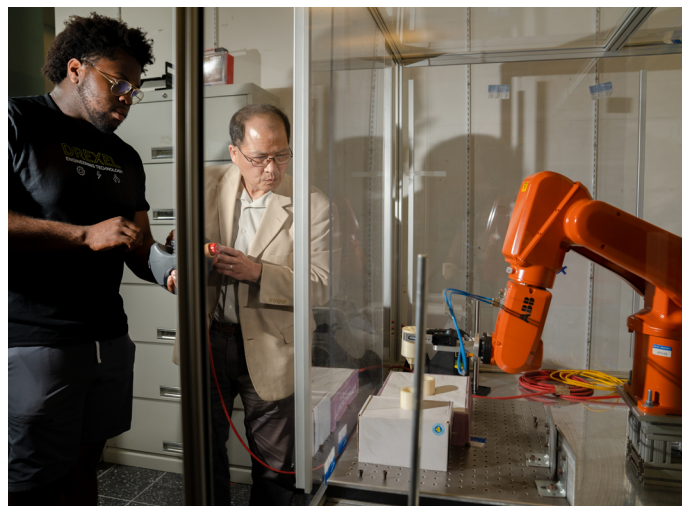
Design, process and characterize materials with performance and sustainability for many uses, including renewable energy and conversion, computing, communications or medical technology.

MECHANICAL ENGINEERING AND MECHANICS

Use the principles of energy, materials and mechanics to design, manufacture and control machines and devices. Areas such as advanced manufacturing, biomechanics, 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 Leadership
- Engineering Management
- Engineering Policy Analysis
- Environmental Engineering
- Global Engineering
- Green Energy & Sustainability
- Materials Science and Engineering
- Mechanical Engineering and Mechanics
- Robotics and Automation
- Systems Engineering

LEARNING IN PHILADELPHIA

Our accessible campus is the city of Philadelphia — a dynamic urban environment with endless social and cultural learning opportunities. It is also a real-world learning laboratory infused into coursework, where students inspect bridges and test wireless networks. The energy of the city is part of the experience.

ENGINEERING CO-OP

Get a head start and resume with 18-months of full-time job experience in your chosen major. Learn about where your passions lie — take an opportunity for a deeper dive into research, or test the waters of a specialization.

FIRST-YEAR DESIGN

Hands-on exploration of engineering begins immediately. The three-term sequence of first-year engineering design course has you learn more about the engineering disciplines so you can feel confident in your selected field of study. You will be inspired by the innovation inherent in engineering design thinking, and take on a design project, where your team of fellow engineering students will tackle an engineering challenge. These have ranged from building robotic hands to chemically engineering a perfect cup of coffee.

SENIOR DESIGN

In your final year of study, you will embark on a three-term course sequence that simulates the professional work environment with a response to an open-ended challenge. Your team collaborates, builds and makes a formal presentation of your solution. Many projects are inspired by co-op experiences or are supported by industrial or governmental institution partners. The final project is the culmination of your studies and work experiences, and demonstrates that you are prepared for the next step in a fulfilling engineering career.

BS/MS PROGRAM

Get a head start on advanced learning to earn a bachelor's degree and master's degree in five years. These ambitious students enter the workforce with the competitive advantage having added deeper learning in their major or through knowledge developed in an complementary subject area.

ENGINEERING LEARNING COMMUNITY (ELC)

Enjoy the unique experience of living and learning with other engineering majors in your first-year. Through participation and access to special academic programs, service projects, and social events in and around Philadelphia, the ELC builds friendships that also supports academic success.

STUDENT ORGANIZATIONS

The numerous social and professional organizations at Drexel provide great opportunities for learning, leadership and networking. The College's student groups cover a range of interests, like the Theme Park Engineering and Design group or Formula SAE that build race cars, to professional organizations like the Society for Women Engineers (SWE) or the Institute of Electrical and Electronics Engineers (IEEE).

ADVISING & SUPPORT

Dedicated Drexel Engineering advisors are committed to your success. In the advisor taught *Drexel Experience* course, learn practical skills for navigating college. Advisors will help you add a minor, make plans to study abroad and achieve your post-graduation goals. They are here to direct you to resources such as peer tutoring at the Academic Center for Engineers and other exciting opportunities and special programs aimed at enhancing your experience and supporting you throughout your journey.

RESEARCH

As an R1 university, the designation from the Carnegie Foundation as the highest level of activity at a University, the College of Engineering is the second-largest research enterprise behind only the College of Medicine. Students are encouraged to get involved in all levels of research, in programs such as the first-year Drexel Students Tackling Advanced Research (STAR) scholars program or the Vertically Integrated Projects (VIP) program that embeds undergrads into long-term research efforts of faculty and their graduate students. The community feel in each college department allows for plenty of interaction with research active faculty, opening doors to participation in labs for any interest.



CO-OP

Drexel Engineering's commitment to experiential learning comes in many forms — most notably, through cooperative education. In 1919, the co-op program at Drexel began with just 152 engineering students. Now, over 1,300 students participate in this transformational experience each year, and is one of the highlights alumni talk about as most impactful to their career after they graduate.

Through alternating work and studies, and by trying a variety of work experiences, you will gain invaluable understanding about how to apply classroom theory to work in the field. You will have insights into the options for your career path and the type of company you'd like to work for. It provides the opportunity to come out with a confidence about your chosen discipline and a satisfaction in your job after graduation.

Drexel Engineers are in high demand for co-op employment and work at over 500 of different companies and labs in the region and around the world.

Average co-op
employment rate

99%

90

Number of international
and national (outside Philly)
positions

Co-op paid
positions

98%

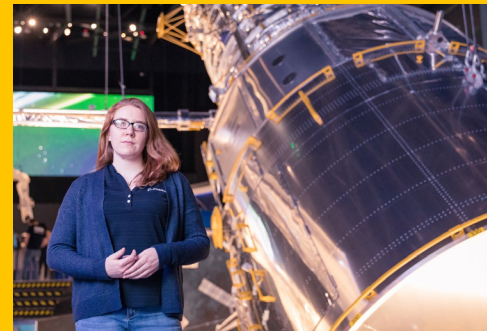
\$21/HR

Median wage
for engineering co-op

**Drexel Engineering 2021-2022 co-op employment data*

SAMPLE OF RECENT CO-OP EMPLOYERS

ADT, AECOM, Agilent Technology, Allan Myers, Amazon, American Water, Amtrak, **Apple**, Argonne National Laboratory, Astra Zenica, Ates Wind Power, BASF Corporation, Bloomberg LP, **Boeing**, Bristol Myers Squibb, Central Intelligence Agency, **CERTAINTED Corp**, City of Philadelphia, Comcast, Crayola, Dow Chemicals, Drummond Scientific Company, **Estee Lauder**, **Exelon**, Ewing Cole, Facebook, Federal Reserve Bank, GE Renewable Energy & Power, GlaxoSmithKline, Hargrove Life Sciences, **Johnson & Johnson**, JPMorgan Chase, **Kulicke & Soffa**, KPMG, LF Driscoll, L3 Harris Technologies, Langan Engineering & Environmental Services, Leonardo Helicopters, **Lockheed Martin**, **Merck**, Microsoft, NASA, **NAVSEA**, Opex Corporation, **Pennoni Associates**, Pfizer, **Philadelphia Water Department**, PJM Interconnection, Rhoads Industries, Sanofi, Sartomer Company, SEPTA, Siemens, Solvay USA, Tesla, Thermo Systems, Turner Construction, US Army Corps of Engineers, US Air Force, VAC Motorsports, Vanguard Group, **XYNTEK Inc.**



Amanda Ireland '17, Boeing Starline Systems Engineer






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

Gregory M. Patschke
Lockheed Martin



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College of
Engineering

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