



DREXEL UNIVERSITY
College of
Engineering

UNDERGRADUATE PROGRAMS

As we strive 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, you will gain experience that will shape your vision of the future and launch your career as an innovator and solution-driven engineer.

You will be inspired by your faculty mentors and the opportunities to participate in research and design in modern labs, like our 20,000 square foot Innovation Studio, 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 co-op employment, that will shape your lifelong journey as an engineer.

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

OUTCOMES

Average annual
starting salary

\$72K

98%

Employed or enrolled in grad school

13% undergraduates earn
MS degrees in 5 years

Graduates receive
job offer from
co-op employer

56%

44%

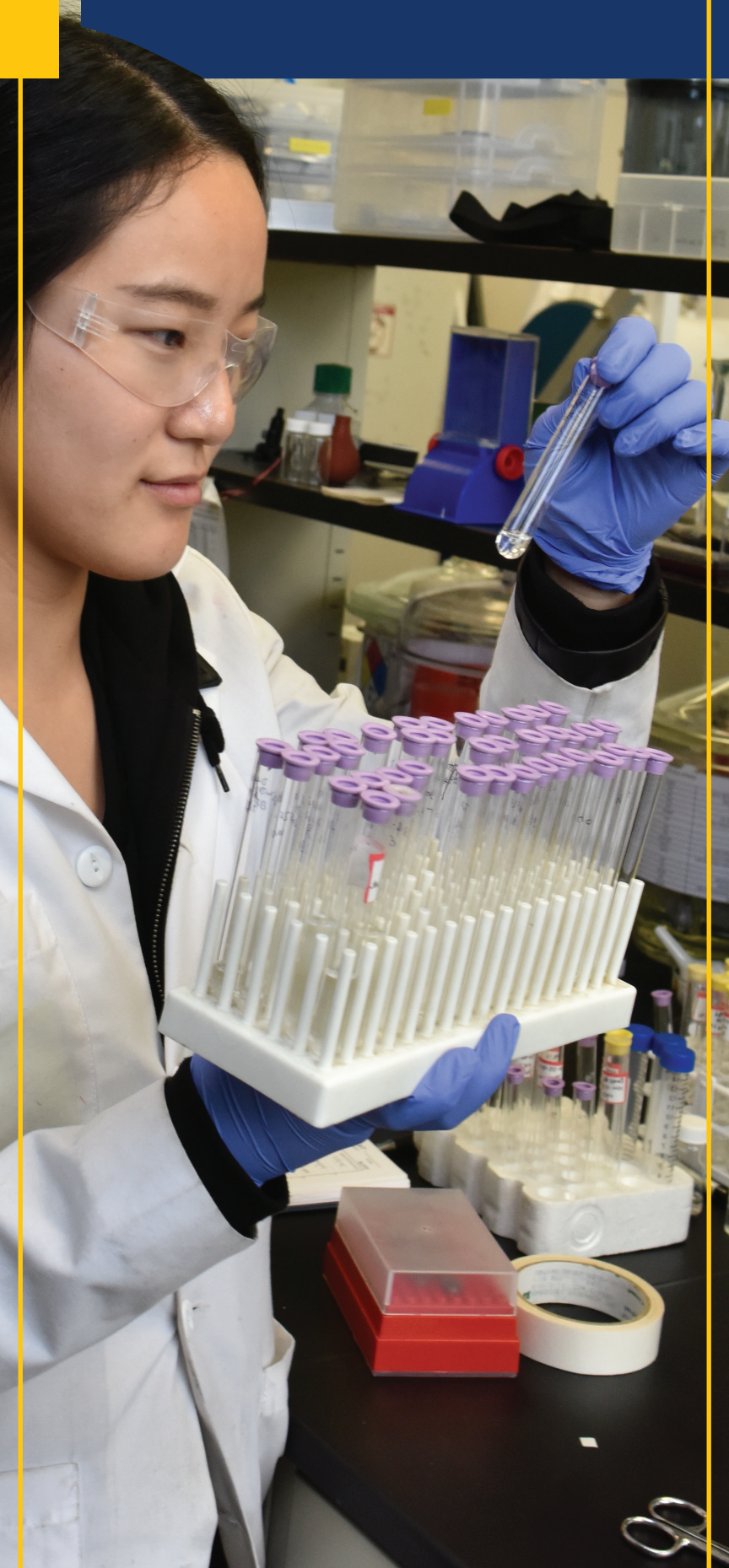
Take positions
with former
co-op employer

Overall job
satisfaction

91%

* 2020 graduate one-year-out survey outcomes

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 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

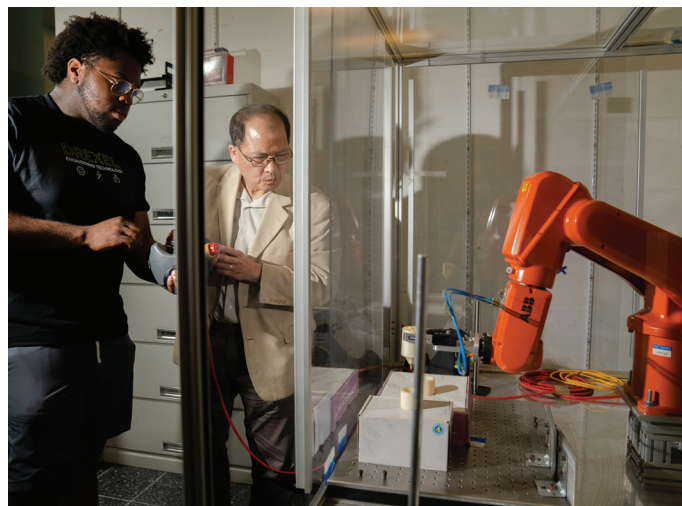
Design, process and characterize materials with performance and sustainability for many uses, including renewable energy and conversion, computing, communications or medical technology.

MECHANICAL ENGINEERING AND MECHANICS

Use the principles of energy, materials and mechanics to design, manufacture and control machines and devices 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 Leadership
- Engineering Management
- Engineering Policy Analysis
- Environmental Engineering
- Global Engineering
- Green Energy & Sustainability
- Materials Science and Engineering
- Mechanical Engineering
- Robotics & 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 in 6-month full-time jobs 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. In 2020-2021, 93% of engineering co-op employment were paid positions.

FIRST-YEAR DESIGN

Hands-on exploration of engineering begins immediately. The three-term sequence of first-year engineering design has you learn more about the various disciplines so you can feel confident in your selected field of study. You will be inspired by the innovation inherent in engineering design thinking. By the end of your first year you will 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 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 your bachelor's degree and master's degree in five years. You will enter the workforce with a competitive advantage having added deeper learning in your major or through skills 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

Dedicated Drexel Engineering advisors are committed to your success. In the advisor taught "Drexel Experience" course learn practical skills for navigating college, like how to register for class or add a minor. Advisors will help 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 special programs aimed at supporting you throughout your time at Drexel.

RESEARCH

As an R1 university, a 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 are research in programs such as the Drexel Students Tackling Advanced Research (STAR) scholars program for first-year students 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 your department allows for plenty of interaction with research active faculty, opening doors to participation in labs throughout your student experience.



CO-OP

Drexel Engineering's commitment to experiential learning comes in many forms. Most notable is cooperative education. The college's co-op program at Drexel began with just 152 engineering students in 1919. Today, over 1,500 students participate in this transformational experience each year, and is one of the highlights our alumni talk about years after they graduate.

Through alternating work and studies, and by trying a variety of work experiences, you will gain invaluable insights about how to apply classroom theory to work in the field. You will understand 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 better understanding and a confidence about your chosen field.

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

98%

73

Number of national and
international co-ops

Paid co-op
positions

93%

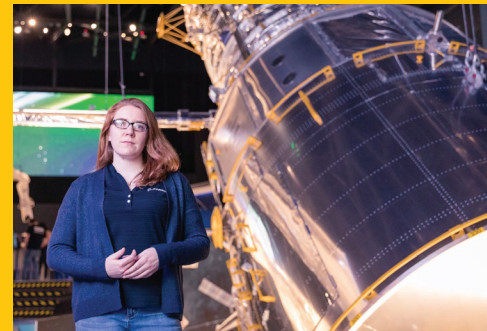
\$20K

Median co-op Salary
for a 6 month
engineering co-op

**Drexel Engineering 2020 – 2021 co-op employment data*

SAMPLE OF RECENT CO-OP EMPLOYERS

ADT, AECOM, Agilent Technology, Advance Testing Company, Allan Myers, Amazon, American Water, Amtrak, Apple, Argonne National Laboratory, Astra Zenica, Ates Wind Power, BASF Corporation, Bloomberg LP, Bristol Myers Squibb, Central Intelligence Agency, 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, KPMG, LF Driscoll, L3 Harris Technologies, Langan Engineering & Environmental Services, Leonardo Helicopters, Lockheed Martin, Merck, Microsoft, NASA, NAVSEA, Pennoni Associates, Pfizer, Philadelphia Water Department, PJM Interconnection, Rhoads Industries, Sanofi, Sartomer Company, SEPTA, Siemens, Tesla, Thermo Systems, Turner Construction, US Army Corps of Engineers, US Air Force, VAC Motorsports, XYNTK Inc.



Amanda Ireland '17, Boeing Starline Systems Engineer

"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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