



GRAINGER
ENGINEERING

Discover
**YOUR
BRIGHTEST
FUTURE**

UNIVERSITY OF ILLINOIS





We Solve Problems First

Become a Grainger Engineer

PayPal. YouTube. Yelp. Affirm. Cast 21. All of these companies came from ideas cultivated in Grainger Engineers. At the University of Illinois Urbana-Champaign's Grainger College of Engineering you'll follow a curriculum that educates you to be one of the best engineers in the world: innovative, interdisciplinary, hardworking, and someone who makes a difference.

You'll be enabled to craft your own experience with interesting and challenging electives and compelling student organizations. As a Grainger Engineer you'll start making your mark from day one.

Reputation

Grainger Engineering is unmatched in its size and resources to provide an elite education to every student. We are consistently ranked among the top engineering programs in the world, with a reputation for excellence in education and research.

Our world-class and passionate faculty, paired with our state-of-the-art facilities and innovative programs will help you grow from a new engineering student into a highly respected and recruited engineer.

What Sets us Apart

- An elite engineering education with unique learning experiences in a Big Ten environment.
- Dedicated resources that provides customized support for your success.
- Personalized support from faculty, advisors, and staff in your department and the college.
- Vibrant student communities to engage with peers both nationally and internationally for a strong peer network.
- A global, highly-respected community of 97,000+ alumni.
- Interdisciplinary curriculum that prepares you to be a highly-recruited engineer.

Academic Programs

- Aerospace Engineering
- Agricultural and Biological Engineering
- Bioengineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Computer Science + X
- Electrical Engineering
- Engineering Mechanics
- Engineering Undeclared
- Industrial Engineering
- Materials Science and Engineering
- Mechanical Engineering
- Neural Engineering
- Nuclear, Plasma, and Radiological Engineering
- Physics
- Systems Engineering and Design





Support

Discover Your Path to Success

Grainger Engineering is committed to helping you succeed. Personalized assistance for academic, personal, and professional questions that are unique to your field is what we do best.

What This Looks Like

- Individualized advising available from the college, your department, and faculty mentors
- Professional development from **Engineering Career Services (ECS)**, which helps connect you with internships, co-ops, and full-time jobs through workshops and career fairs that attract 700+ companies to land your dream job
- Tutoring and academic support from the **Center for Academic Resources in Engineering (CARE)**, a program in Grainger Engineering Library where you can get help from other engineering students and collaborate on class work in an environment rich with resources

- Immersive experiences with **The Grainger Engineering First-Year Experience (GFX)**, a program that guides you through your transition to Illinois and allows you to work alongside your peers in interactive hands-on electives
- **Access to an engineering-specific embedded clinical counselor** for resources and assistance focused on mental health
- Guidance using our state-of-the-art facilities

Scholarships

Paying for college can be overwhelming and we do offer scholarships. The number of available scholarships continues to grow. We offer approximately 800+ scholarships to newly admitted students. Plus, each year another 300+ scholarships are awarded to continuing students that apply for our college-level scholarships. Many departments offer their own scholarships for continuing students as well.

Additionally, we provide resources on finding external scholarship opportunities available to engineering students. Learn more at: go.grainger.illinois.edu/Prospective-Scholarships

Community

The Place to Find Your People

Our people are the heart of Grainger Engineering. It's easy to build your community by getting involved in a few of our 100+ engineering-specific student organizations or through connections created within our college offices, such as **Women in Engineering (WIE)**, **Transfer Programs**, and **Morrill Engineering Program (MEP)**. They give you the chance to explore your passions and make lifelong friends while preparing for the future.

Engineering Student Organizations

- Be a student leader and cultivate your skills through contributing to popular programs like Engineering Open House, Career Fair, Grainger Engineering Days just to name a few.
- Meet friends and participate in projects like CubeSAT, Hyperloop, Formula SAE, or Alma's Talking Dogs where you partner with entities like NASA, Tesla, and Space X to improve current technology and build models for future use.
- Get involved with Engineering Council (EC). You'll grow professionally and personally through leadership opportunities and interdisciplinary relationships.

Dedicated Community-Focused Offices

- From navigating the admission process to succeeding once on campus, **Transfer Programs** provides a welcoming environment and support to students at all stages of their transfer journey. As a transfer student in Grainger Engineering, join us for our annual Open House; form peer networks, explore campus, and build community through orientations, workshops, and events.
- Build a community of support by engaging with fellow students, alumni, and corporate partners through programming provided by **Women in Engineering (WIE)**. WIE provides a welcoming and supportive environment for students in the college and helped increase the number of Grainger Engineering women by 67% since its establishment in 1993.
- Find personal empowerment and professional expansion through initiatives provided by the **Morrill Engineering Program (MEP)**. To aid in your success as a scholar. MEP focuses on providing a welcoming environment for national and international engineering students of African, Hispanic, and American Native descent. Since 1970, MEP has helped close the representation gap of these descents in engineering by increasing the number of engineering students at Illinois by 88% overall and by 30% since 2017.



We Have the Numbers

Your hard work will make you successful in The Grainger College of Engineering. But we like to think our size and resources for an elite, well-rounded education play a part as well. Our excellence is as broad as it is deep. You will be among ambitious yet helpful peers, esteemed faculty, and knowledgeable advisors. And you'll be rewarded for your studies upon graduation.

#7 Overall ranking among undergraduate programs in the U.S.

#10 Overall ranking among graduate programs in the U.S.

15 Top-ranked undergraduate degree programs

400+ World-class faculty

100+ Engineering-based student organizations

48% Undergraduates participate in research

12 Engineering Departments

45 Multidisciplinary research centers, institutes and laboratories

2,000+ Research projects each semester

94% Secure preferred first-destination upon graduation

\$85,367 Average BS starting salary

\$14,412 Average signing bonus

97,000+ Alumni worldwide





Experience

Connect Your Passion with Unlimited Opportunity

We believe some of the best learning happens outside the traditional classroom. So we've dedicated ourselves to giving you access to experiences to use your engineering skills out in the real world, well before graduation.

Possible Opportunities

- Study abroad through **International Programs in Engineering (IPENG)** to live and learn in locations around the world while enhancing your engineering education.
- Research as early as your first semester in groundbreaking labs like those supported by the NASA Space Grant at Illinois. The Grainger **Engineering Undergraduate Research (EUR)** office can help you find these opportunities.
- Get hands-on experiences with modern fabrication techniques and services in cutting edge classrooms and educational labs like the Engineering Student Projects Laboratory and the Innovation Studio.

- Spend a semester in Chicago through our **City Scholars Program** to intern for a tech company and take classes with our faculty.
- Access our leadership and business training workshops, trips, and competitions to propel you forward as an engineering entrepreneur.
- Experience unique learning through senior design projects completed for real clients and courses.
- Share your passion and knowledge of engineering with younger students through the **Engineering Ambassadors** and **Worldwide Youth in Science and Engineering (WYSE)** Programs

Entrepreneurship

The **Technology Entrepreneur Center (TEC)** and many other campus resources are here to help foster your ideas and ambitions.

Once in Grainger Engineering, you can also pursue a dual-degree in **Innovation, Leadership and Engineering Entrepreneurship (ILEE)**. ILEE adds to your primary degree by helping you develop an entrepreneurial and leadership mindset. ILEE helps you learn innovative processes to use in your startup, while working in industry, or wherever your career takes you.

What You'll Study

Aerospace Engineering

Aerospace Engineering major may interest you if you enjoy working in teams to create systems that include mechanical, electrical, computer, material, and aerospace engineering applications. You will learn about aerodynamics, design, and performance of air and spacecraft and their propulsion systems.

Agricultural & Biological Engineering¹

Agricultural & Biological Engineering applies science and engineering to agriculture, food, environment, and energy production systems. This major may be for you if you're interested in sustainability or renewable fuel sources.

Bioengineering

Bioengineering will help you understand how human biological systems function and how to develop technology-based solutions to societal needs in human development and disease diagnosis, treatment, and prevention.

Chemical Engineering²

Chemical Engineering focuses on the chemical transformation of substances to products and energy for society. You'll learn about momentum transfer, separations, and reactor design; as well as how to apply this knowledge to real-world projects in lab and design classes.

Civil Engineering

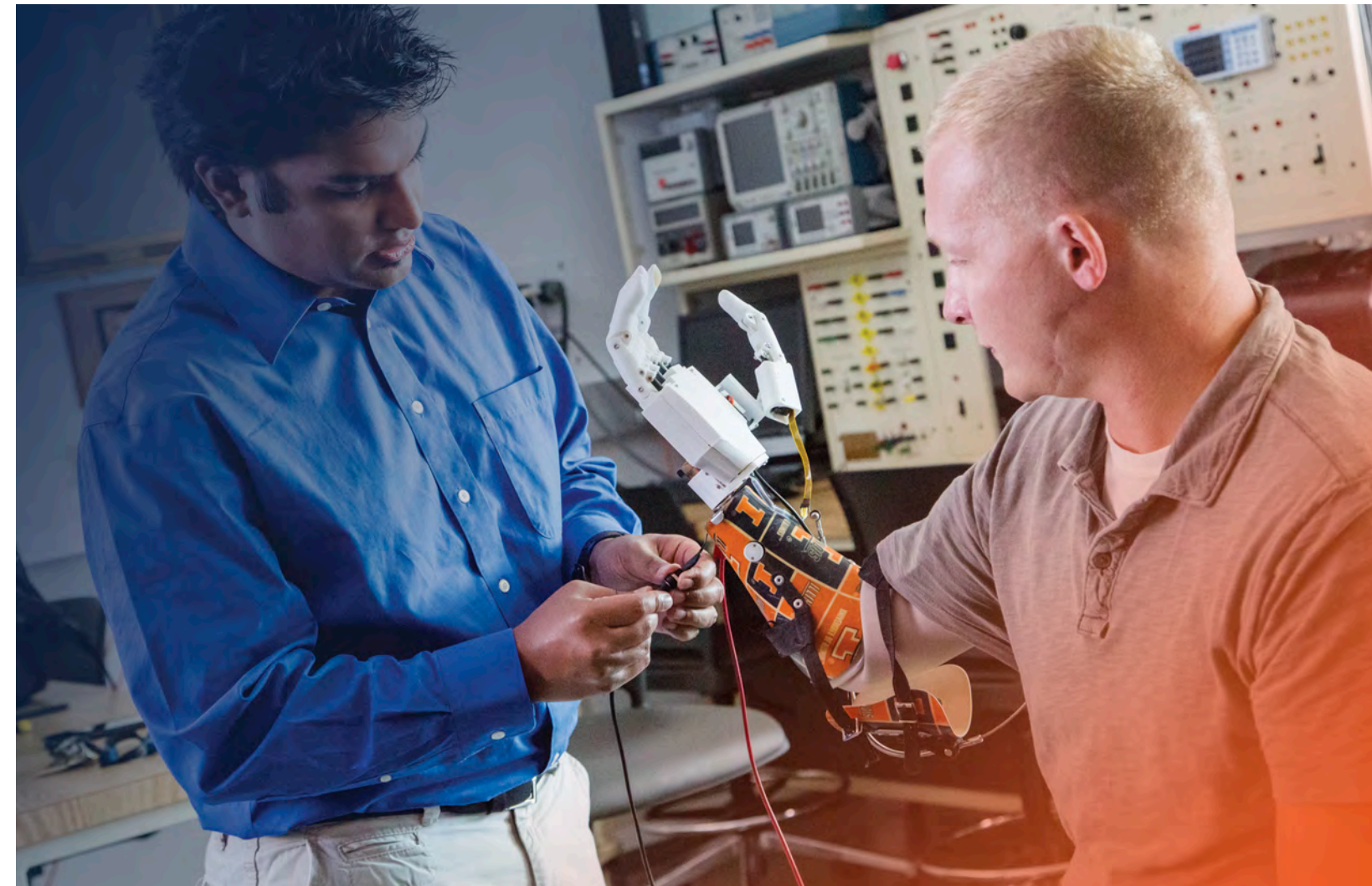
Civil Engineers focus on matters such as clean air, safe drinking water, sanitation, addressing our changing environment, protection from natural and man-made hazards, designing a sustainable infrastructure that serves everyone, and more.

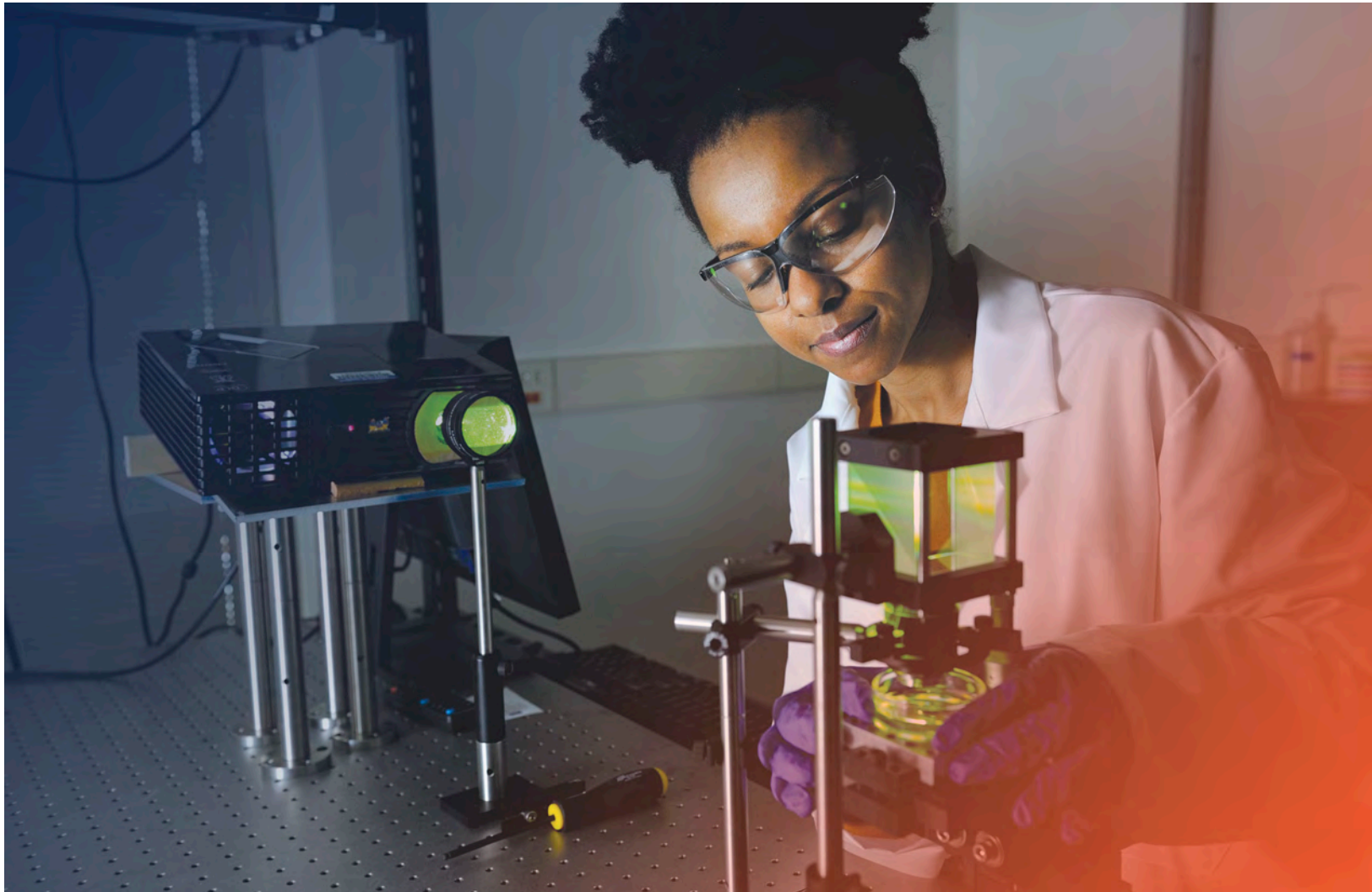
Computer Engineering

Computer Engineering is the design and use of computing systems at all levels. This major may interest you if you enjoy understanding, designing, programming and working with computers.

Computer Science³

Computer Science is the study of theory, design, and applications of digital computers. You will also learn software design and informational processing techniques. If you're creative, logical, and a good problem solver, this major may be for you.





Electrical Engineering

Electrical Engineering is a major that involves technology in all aspects of life, whether it's wires, devices, space, the human body, or other mediums. It has applications in electrical power, communications, information technology, nanotechnology, and biotechnology. This major may be for you if you enjoy tinkering and dream of making something new.

Engineering Mechanics

Engineering Mechanics major focuses on solving mechanics problems and learning the physical principles necessary to modern engineering design. You will learn the building blocks of statics, dynamics, strength of materials, and fluid dynamics. This may be the major for you if you're interested in a program that emphasizes analysis and research preparedness.

Industrial Engineering

Industrial Engineering major may be for you if you're interested in streamlining processes, evaluating and reducing strain on workers and the environment, saving companies money, and eliminating waste of time, money, materials, energy, and other commodities. This major creates leaders who often serve as a link between engineering and management.

Materials Science & Engineering

As a Materials Science & Engineering major you'll learn how to tailor the structure, properties, and performance of existing materials. You will also develop and synthesize new materials with unique properties. If you want to make things smaller, faster, stronger, and smarter, this major might be for you.

Mechanical Engineering

Mechanical Engineering applies mathematical, scientific, and engineering principles to design and control machines and systems. Students study forces acting on bodies of solids or fluids as well as the resulting dynamic motion of those bodies. If you're interested in how the world around you moves and changes, this major might be for you.

Neural Engineering

Neural Engineering is a major where you'll apply engineering principles to the design of technologies to understand, repair, and enhance the function of the nervous system. Students will be uniquely trained in both neurosciences and quantitative sciences which is not available together in any other degree program in the nation. This major may interest you if you are interested in improving human health.

Nuclear, Plasma & Radiological Engineering

Nuclear, Plasma & Radiological Engineering focuses on how sources of nuclear energy and radiation are developed and used in energy production, materials processing, and science. This major is a good fit for students interested in fission and fusion technology, and how to make computers, cell phones, and game consoles better, cheaper, and faster.

Physics

In Physics you'll study, measure, and manipulate the fundamental interactions of matter, energy, space, and time. This will give you the tools to solve scientific mysteries and reveal the workings of nature. Physics has produced the science behind many technologies like superconducting magnets for MRI machines, cell phones, supermarket scanners, fiber-optic communications, and more.

Systems Engineering & Design

Systems Engineering & Design major may interest you if you like multiple engineering disciplines, to lead others, and make decisions. The curriculum integrates principles of business, new technology, and entrepreneurship.

Engineering Undeclared

The Grainger College of Engineering's Engineering Undeclared program provides a select group of students with the opportunity to explore major options during undergraduate study. Students within this program are eligible to pick any of our top-ranked engineering majors, except Computer Science. As a first-year student you may apply to Engineering Undeclared to spend up to 4 semesters exploring which major fits you best.

1 The College of Agricultural, Consumer, and Environmental Sciences admits students to the Agricultural and Biological Engineering major but the degree is granted from The Grainger College of Engineering. **2** The College of Liberal Arts & Sciences administers the Chemical and Biomolecular Engineering major. **3** Students that complete CS, CS+X, or CS minor at IL with GPA 3.0+ in last 2 years and GPA 3.2+ in CS classes are guaranteed admission to our Online MCS or MCS in Data Science programs.

CS + X Degree Programs

Illinois has designed an innovative degree option, called CS + X, that allows students to pursue a flexible program of study incorporating a strong grounding in computer science with technical or professional training in the arts and sciences. All degrees are conferred through the college housing the +X major.

- CS + Advertising
- CS + Animal Sciences
- CS + Anthropology
- CS + Astronomy
- CS + Chemistry
- CS + Crop Sciences
- CS + Economics
- CS + Education: Learning Sciences
- CS + Education: Secondary Education
- CS + Geography and Geographic Information Science
- CS + Linguistics
- CS + Music
- CS + Philosophy
- Mathematics & Computer Science
- Statistics & Computer Science

Popular Engineering Minors

- Bioengineering
- Biomolecular Engineering
- Computational Science & Engineering
- Computer Science*
- Electrical and Computer Engineering
- International Engineering
- Materials Science and Engineering
- Physics
- Polymer Science and Engineering
- Hoeft Technology and Management

** Students that complete CS, CS+X, or CS minor at IL with GPA 3.0+ in last 2 years and GPA 3.2+ in CS classes are guaranteed admission to our Online MCS or MCS in Data Science programs.*

How to Apply

To start the application process visit:
apply.illinois.edu

First-year applicants can also apply through the Common App. Transfer applicants can only apply through a Myllini account.

First-Year Applicants

In Grainger Engineering, you apply directly to your major of interest. This enables you to begin immediately in your field and start building your network of peers from day one. When selecting your major, consider what you enjoy doing now and the difference you want to make in the future. We highly encourage you to select a first and second choice majors on your application.

We consider many factors when making an admission decision. Most applications receive at least two readings, and we double-check all preliminary decisions.

What's Considered

- Strength of your academic record
- Highest ACT or SAT scores (if provided)
- Achievements outside of the classroom, including exposure to major of interest, like self-exploration and attending camps
- Opportunities available to you, like high school curriculum, AP and honors courses, and extracurricular activities
- Writing Prompt Answers

Program Requirements

- **Physics**
- **Pre-Calculus or Beyond**
- **4 years of lab sciences & math highly recommended**

Dates & Deadlines

- **Application Opens: September 1**
- **Early Action Deadline: November 1**
- **Regular Decision Deadline: January 5**

Admission Notification

- **Early Action: January 27**
- **Regular Decision: March 3**

Transfer Applicants

Qualified students are invited to apply for transfer admission to The Grainger College of Engineering. For complete application requirements, review the Transfer Handbook at: **admissions.illinois.edu/apply/Transfer/handbook**

What's Considered

Each application is evaluated utilizing a holistic review process with consideration given to:

- Overall and technical GPA
- Technical coursework
- Academic rigor
- Essay(s)
- Activities and work experience
- High school and College transcripts and ACT/SAT scores, if applicable

Filing Period

December 15 – March 1

Admission Notification

Decisions will be made on a rolling basis starting February to mid-April

Engineering Pathways

Engineering Pathways offers students interested in beginning their college education at an Illinois community college a streamlined transfer experience and guaranteed admission to The Grainger College of Engineering upon successful completion of program requirements.

Program Requirements

- Follow the Engineering Pathways plan of study
- Earn a B or better in each required course
- Maintain 3.50 overall and technical GPAs
- Participate in mandatory advising and programming

Filing Period

January 5 – April 5

Admission Notifications

Decisions will be made on a rolling basis

Apply

For more information about the program and how to apply, visit **pathways.engineering.illinois.edu**

Which Major is Right for You?

Your path to Grainger Engineering starts with connecting your passion and interests with the opportunities available in one of our 15 top-ranked major programs. Take our majors quiz to discover which programs are a good fit for you; leave your email so we can keep you informed to take the next step and apply.

Take Our Majors Quiz

go.grainger.illinois.edu/majorsquiz





The Grainger College of Engineering

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Undergraduate Programs

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