Why Columbia Engineering?
You’re an engineer if...

...you want to make a difference in the world.

...you open your family’s old television (or car engine, microwave, or doorbell) just to see how it works.

...you created towers and bridges with blocks as a kid — and now dream about building them in the real world.

...you look at a computer, a cellphone, a skyscraper, and think: why was it made this way? How could it be made better?

...you love to get your hands on a good problem — the tricky, impossible-seeming kind.

...you like thinking of ways to make life easier, happier, better.

This is an invitation to people like you.

It’s an invitation to explore a field for curious, creative problem-solvers — a field called engineering.
So, what exactly do engineers do?

They use science and math to conceive of, design, and develop better, stronger, taller, faster, smarter solutions in fields as diverse as medicine, finance, and entertainment. Engineering is cures for disease; clean water; cyber security; investment banking; renewable energy; animation; the next great computer game or smart phone.

“...When I was younger, I didn’t know what an engineer was. But it was obvious that I enjoyed being creative and working with puzzles. And one day my dad told me that an engineer is a problem-solver. The description just fit me.”

LAUREN MINCHES, Cherry Hill, NJ
Operations Research
What kind of engineer might you want to be?
If you’ve always wanted to know...

...how genes express themselves or machines learn? Applied Mathematics

...how to design the next generation of digital technology? Computer Engineering

...whether we can create computers that actually think? Computer Science

...how to design more efficient power plants? Earth and Environmental Engineering

...how to make digital cameras smaller yet more powerful? Electrical Engineering

...how to design sneakers that can make people jump higher? Materials Science and Engineering

...how to build a robot that can conduct major surgery from 3,000 miles away? Mechanical Engineering

...how to start and run a business as productively, profitably, and humanely as possible? Operations Research

...how to make supply chains get products from around the world into buyers’ hands? Engineering Management Systems

...how to use mathematical methods to make sound investment decisions? Financial Engineering

...how to make 1,000 cellphones in the same time it used to take to make 10? Industrial Engineering

...how to construct an artificial knee, heart, and perhaps one day a brain that works like a real one? Biomedical Engineering

...how to construct buildings that can better withstand earthquakes? Civil Engineering

...how to build faster airplanes? Engineering Mechanics

...how to design systems that can better withstand earthquakes? Civil Engineering

...how to make 1,000 cellphones in the same time it used to take to make 10? Industrial Engineering

...how to design sneakers that can make people jump higher? Materials Science and Engineering

...how to build a robot that can conduct major surgery from 3,000 miles away? Mechanical Engineering

...how to start and run a business as productively, profitably, and humanely as possible? Operations Research

...how to make supply chains get products from around the world into buyers’ hands? Engineering Management Systems

...how to use mathematical methods to make sound investment decisions? Financial Engineering

...how to make 1,000 cellphones in the same time it used to take to make 10? Industrial Engineering

...how to design sneakers that can make people jump higher? Materials Science and Engineering

...how to build a robot that can conduct major surgery from 3,000 miles away? Mechanical Engineering

...how to start and run a business as productively, profitably, and humanely as possible? Operations Research

...how to make supply chains get products from around the world into buyers’ hands? Engineering Management Systems

...how to use mathematical methods to make sound investment decisions? Financial Engineering

...how to make 1,000 cellphones in the same time it used to take to make 10? Industrial Engineering

...how to design sneakers that can make people jump higher? Materials Science and Engineering

...how to build a robot that can conduct major surgery from 3,000 miles away? Mechanical Engineering

...how to start and run a business as productively, profitably, and humanely as possible? Operations Research

...how to make supply chains get products from around the world into buyers’ hands? Engineering Management Systems

...how to use mathematical methods to make sound investment decisions? Financial Engineering

...how to make 1,000 cellphones in the same time it used to take to make 10? Industrial Engineering

...how to design sneakers that can make people jump higher? Materials Science and Engineering

...how to build a robot that can conduct major surgery from 3,000 miles away? Mechanical Engineering

...how to start and run a business as productively, profitably, and humanely as possible? Operations Research

...how to make supply chains get products from around the world into buyers’ hands? Engineering Management Systems

But don’t just be an engineer. Be a Columbia Engineer.

Columbia is...

**Faculty**

The top university in the country for revenue produced by patents held by faculty.

Biomedical Engineering Professor Helen Lu's research has the potential to engineer a paradigm shift in orthopedic surgery from traditional mechanical fixes to biological fixes.

**Alumni**

Chase Hensel ’10 is part of Google’s Associate Product Management Program.

Home to more Nobel Prize winners than any other university in the Ivy League.

Vikram S. Pandit ’76 is Citi CEO.

**Students**

Earth and Environmental Engineering major Judy Kim’s research led to an internship with the New York City Mayor’s Office of Environmental Coordination.

Home to the nation’s third oldest engineering school.

Mechanical Engineering major Jonathan Biscetti is also a Psychology minor and an Urban Promotions intern at Atlanta Records.
Columbia is Engineering Plus…

New York City.

36
acres of a beautiful, traditional campus on New York City’s Upper West Side.

31
Ivy League varsity sports.

Campus Living

4 years of guaranteed housing — on-campus in traditional, suite, and apartment-style residence halls.

100
areas of study, including engineering fields — from creative writing to economics to sustainable development.

Almost
200
study abroad programs.

500
student clubs, from Engineers Without Borders to Rugby to the Varsity Show to the CU Orchestra.

400+
research positions working with prize-winning faculty reserved just for engineering undergraduates.

Internships

at companies and organizations like Microsoft, Goldman Sachs, Major League Baseball, NASA, and Sony Music.

“Engineering teaches you how to solve problems. It teaches you to look at a problem, decide what’s important, and break it down into something you can engage.”

Michael J. Massimino ’84, NASA astronaut
From the vantage point of Butler Library, the heart of the Columbia campus including the brick-paved College Walk, a mosaic of green lawns, Low Steps, the famed statue of Alma Mater, and the domed Low Library.
If you want to be part of solving the world’s greatest challenges in energy, economics, technology, medicine, media, and more, then use your curiosity, creativity, and problem-solving talents to improve our world.

Be a Columbia Engineer.