



Welcome to Columbia University's Department of Civil Engineering & Engineering Mechanics

Study Civil Engineering at Columbia University - where the subway was born and the future of New York City and beyond is engineered.

Our Department

Our Department is a small but powerful nucleus of innovation and impact.

Drawn from across the globe, our faculty bring rich, interdisciplinary expertise that shapes every facet of our department and degree programs. Their groundbreaking research spans the full spectrum of civil engineering — from pioneering robotic construction techniques and developing sustainable 3D-printed concrete to deploying drones for advanced climate modeling.

Together, their research and teaching is helping to build a safer, more resilient, and sustainable future for communities everywhere.

Why Study MS Civil Engineering & Engineering Mechanics at Columbia University?

- **A future-ready curriculum:** Prepare to shape the next generation of civil and environmental infrastructure. Our MS program blends core engineering fundamentals with emerging areas such as smart and sustainable cities, urban-resilient infrastructure, AI, data analytics, and robotics.
- **A customizable structure:** With 13 specialized concentrations, flexible part-time pathways, and evening course options, you can tailor your studies to match your interests, professional goals, and personal schedule.
- **New York City as your classroom:** Study at the heart of one of the world's greatest engineering hubs. From pioneering infrastructure projects to global design firms, NYC offers unparalleled opportunities to conduct hands-on research, engage with real-world challenges, and collaborate with leading experts and innovators.
- **Unrivaled industry access:** Learn directly from faculty who consult with and lead major firms such as AECOM, Skanska, Turner, and Parsons. Through applied research, site visits, and guest lectures, gain invaluable exposure and connections that open doors to top global opportunities.
- **Dedicated career services:** Our Department Placement Director works closely with industry partners to source graduate jobs and internships directly for our MS students. Dedicated civil engineering career events and one-to-one guidance sessions will also ensure you can reach your career aspirations.



Concentrations

- **Advanced Infrastructure Materials**
- **Computational and Data-Driven Engineering Mechanics**
- **Construction Engineering and Management**
- **Engineering Mechanics**
- **Environmental Engineering and Water Resources**
- **Forensic Structural Engineering**
- **Geotechnical Engineering**
- **Infrastructure Engineering**
- **Real Estate Development, Construction, and Project Finance**
- **Smart and Sustainable Cities**
- **Strategic Management, Entrepreneurship, and Leadership for Engineering and Construction Organizations**
- **Structural Engineering**
- **Transportation Engineering**

Career Outcomes

Our MS graduates are prepared with the technical knowledge and professional insight to join top engineering, construction, and consulting firms, pursue advanced degrees in civil engineering or related fields, and help solve the critical challenges of the 21st century.

Key Dates

Start dates:

January & September

Length:

2 - 3 semesters

January application deadline:

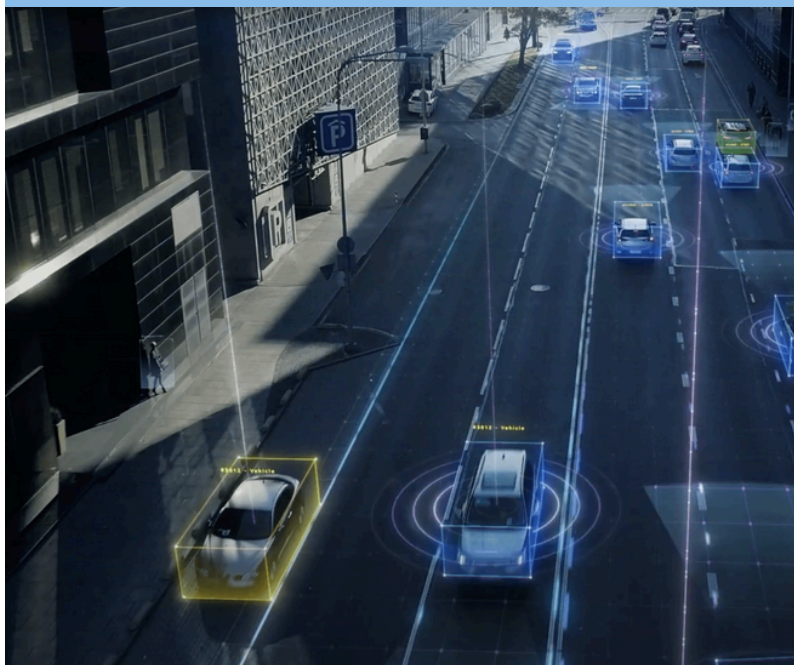
October 15

September priority deadline:

February 1

September regular deadline:

February 15



Graduate Spotlight: Yu “Sabrina” Xiao

Project Controls Manager at AECOM

MS Civil Engineering & Engineering Mechanics – Construction Engineering & Management graduate (2019)



“I chose Columbia’s Civil Engineering & Engineering Mechanics Department due to its prestigious reputation and NYC location. Their MS program offers so much flexibility. As well as core courses and specialized concentrations, you can take classes in other schools across Columbia, allowing you to craft a really well-rounded academic and professional education. The industry exposure, research initiatives, and career events are also exceptional and really help you to identify and shape your career.”