

Welcome to our graduate program!

Congratulations on your acceptance to Northeastern University's Department of Civil and Environmental Engineering (CEE). We are delighted you have decided to join our program.

Please find below some important information to help you with the admissions process and facilitate your transition to our program. This information mostly pertains to MS students. PhD students admitted to the Civil and Environmental Engineering or Interdisciplinary programs may find additional information [here](#).

Assignment of Faculty Advisor

If your admission letter does not specify a faculty advisor, you will be assigned an initial faculty advisor during Orientation based on your concentration area. Your initial advisor will assist you in entering the program, choosing courses, and more. The faculty advisors for the different areas and programs are listed below.

Associate Chair for Graduate Studies: [Professor Andrew Myers](#)

MS in Civil Engineering

Construction Management: [Professor Ryan Wang](#)

Data and Systems: [Professor Amy Mueller](#)

Geotechnical/Geoenvironmental Engineering: [Professor Craig Shillaber](#)

Structures: [Professor Mike Kane](#)

Transportation: [Professor Peter Furth](#)

Water, Environmental, and Coastal Systems: [Professor Phil Larese-Casanova](#)

The above also serve as Graduate Advisors for the corresponding areas of study in the CEE Ph.D. program. Professor [Jim Chen](#) is the Graduate Advisor for the Interdisciplinary Ph.D. program.

Curriculum and Class Registration

To be able to register for classes, admitted students need to first confirm their enrollment and pay their enrollment deposit. Students may do so by logging into their [application portal](#).

All students are strongly urged to register for courses at this time to enable us to ascertain the likely enrollments in each course. Once you arrive on campus and consult with your academic advisor, you can change your course selections as needed, including adding and dropping courses until the end of the second week of the term.

For a detailed list of graduate courses (core, electives, etc.), please refer to the CEE Graduate Catalog, available on-line [here](#). For course descriptions, please check [here](#).

For the complete and updated calendar of Fall 2025 courses, please visit the “[Banner Dynamic Class Schedule](#)”, maintained online by the Office of the Registrar. Please select Fall 2025 for the term, then “Civil and Environmental Engineering” for Subject and “Graduate” for Course Level. For courses offered by other departments, please refer to the corresponding webpage or email CEE Program Coordinator, Rebecca Ricard, at r.ricard@northeastern.edu.

For completion of the MS program, please read the degree course requirements described in the CEE Graduate Catalog as listed above. There are different MS degree options. Consult with your academic advisor regarding the degree options and course requirements. Typical recommendations for initial courses for MS students by discipline concentrations are provided later in this letter.

For completion of the PhD program, please read the degree course requirements described in the CEE Graduate Catalog. Consult with your advisor regarding the core and elective course requirements.

Sample Course Selections

The following section provides examples of typical course selections for each concentration area. It is recommended to take two to four courses in a semester, with two to three courses being common for first semester students. Note that this is for

your reference only; we recommend you consult with your advisor and look at the course catalog for more in-depth information, particularly to ensure you have the appropriate prerequisites.

MASTER'S IN CIVIL ENGINEERING

Construction Management Concentration

Required Core Courses

CIVE 7220 – Construction Management
CIVE 7230 – Legal Aspects of Civil Engineering

Electives

CIVE 7151 – Urban Informatics and Processing
CIVE 7301 – Advanced Soil Mechanics
ACCT 6200 – Financial Reporting and Managerial Decision Making 1
ACCT 6201 – Financial Reporting and Managerial Decision Making 2
DAMG 6210 -- Data Management and Database Design
EMGT 5300 - Engineering/Organizational Psychology
EMGT 6305 – Financial Management for Engineers
GE 5010 - Customer-Driven Technical Innovation for Engineers
GE 5100 - Product Development for Engineers
IE 5617 - Lean Concepts and Applications
IE 5640 - Data Mining for Engineering Applications
 or IE 7275 Data Mining in Engineering
IE 6200 – Engineering Probability and Statistics
IE 7215 - Simulation Analysis
IE 7290 - Reliability Analysis and Risk Assessment
INFO 6215- Business Analysis and Information Engineering
INFO 6245 - Planning and Managing Information Systems Development
OR 6205 - Deterministic Operations Research
SBSY 5250 – Building Performance Simulation

The full list of Required and Restrictive Electives for Construction Management is found [here](#).

Data and Systems Concentration

Data and Computing

CIVE 7151 – Urban Informatics and Processing
or PPUA 5262 – Big Data for Cities
ENVR - 6500 – Biostatistics
or IE 6200 – Engineering Probability and Statistics
or IE 7280 – Statistical Methods in Engineering
or INSH 5301 – Introduction to Computational Statistics
DAMG 6105 - Data Science Engineering with Python
DAMG 6210 - Data Management and Database Design
ENVR 5260 - Geographical Information Systems
IE 5640 - Data Mining for Engineering Applications
or IE 7275 - Data Mining in Engineering

Systems and Sensors

CIVE 5275 – Life Cycle Assessment of Materials, Products, and Infrastructure
EECE 5155 - Wireless Sensor Networks and the Internet of Things
OR 6205 – Deterministic Operations Research
OR 7245 – Network Analysis and Advanced Optimization
PHYS 5116 – Network Science 1
PPUA 6502 – Economic Analysis for Policy and Planning

Civil and Environmental Systems

CIVE 5363 – Climate Science, Engineering Adaptation, and Policy
CIVE 5373 – Transportation Systems: Analysis and Planning
CIVE 5522 – Structural Systems Modeling
or CIVE 7330 – Advanced Structural Analysis
CIVE 7110 – Critical Infrastructure Resilience
CIVE 7341 – Structural Reliability
CIVE 7381 – Transportation Demand Forecasting and Model Estimation
IE 7200 – Supply Chain Engineering
OR 7310 – Logistics, Warehousing, and Scheduling
SBSY 5100 – Sustainable Design and Technologies in Construction
SBSY 5250 – Building Performance Simulation

Electives

CIVE 7220 – Construction Management
CIVE 7250 – Environmental Chemistry
CIVE 7251 – Environmental Biological Processes

CIVE 7382 – Advanced Traffic Control and Simulation
EECE 5644 - Introduction to Machine Learning and Pattern Recognition
EECE 7204 - Applied Probability and Stochastic Processes
IE 5617 - Lean Concepts and Applications
IE 7215 - Simulation Analysis

The full list of Required and Restrictive Electives for Data and Systems can be found [here](#).

Geotechnical/Geoenvironmental Concentration

Required Core Requirements

CIVE 7301 – Advanced Soil Mechanics

Electives

CIVE 7230 – Legal Aspects of Civil Engineering
CIVE 7250 – Environmental Chemistry
CIVE 7251 – Environmental Biological Processes
CIVE 7330 – Advanced Structural Analysis
CIVE 7331 – Structural Dynamics
IE 6200 - Engineering Probability and Statistics
IE 7290 - Reliability Analysis and Risk Assessment
ME 5657 – Finite Element Method

The full list of Required and Restrictive Electives for Geotechnical Engineering is found [here](#).

Structures Concentration

Required Core Courses

CIVE 7330 – Advanced Structural Analysis
CIVE 7331 - Structural Dynamics

Restricted Electives

CIVE 5522 – Structural Systems Modeling
CIVE 7341 – Structural Reliability
CIVE 7351 – Behavior of Steel Structures

Other Electives

CIVE 5275 – Life Cycle Assessment of Materials, Products, and Infrastructure
CIVE 5525 – Prestressed Concrete Design
CIVE 7151 – Urban Informatics and Processing
CIVE 7301 – Advanced Soil Mechanics
ME 5240 – Computer Aided Design and Manufacturing
ME 5655 – Dynamics and Mechanical Vibration
SBSY 5100 – Sustainable Design and Technologies in Construction

The full list of Required and Restrictive Electives for Structures is found [here](#).

Transportation Concentration

Required Core Courses

CIVE 5373 – Transportation System: Analysis and Planning
IE 6200 – Engineering Probability and Statistics

Restricted Electives

CIVE 7151 – Urban Informatics and Processing
CIVE 7381 – Transportation Demand Forecasting and Model Estimation
CIVE 7382 Advanced Traffic Control and Simulation

The full list of Required and Restrictive Electives for Transportation is found [here](#).

Water, Environmental, and Coastal Systems Concentration

Course suggestions for Water, Environmental, and Coastal Systems Concentration Students:

Required Core Courses

CIVE 7250 – Environmental Chemistry

CIVE 7251 – Environmental Biological Processes

Restricted Electives

CIVE 5363 – Climate Science, Engineering Adaptation, and Policy

CIVE 5366 – Air Quality Engineering and Science

CIVE 7110 – Critical Infrastructure Resilience

CIVE 7279 – Advanced Air Quality

ME 6200 - Mathematical Methods for Mechanical Engineers 1

Other Electives

CIVE 5150 – Climate and Atmospheric Change

CIVE 7151 – Urban Informatics and Processing

EECE 7204 - Applied Probability and Stochastic Processes

ENVR 5260 - Geographical Information Systems

IE 6200 - Engineering Probability and Statistics

IE 7280 - Statistical Methods in Engineering

IE 7290 - Reliability Analysis and Risk Assessment

MATH 7344 - Regression, ANOVA, and Design

The full list of Required and Restrictive Electives for Water, Environmental, and Coastal Systems is found [here](#).

How do I register for classes?

Please review the following links for instructions on how to register using your Student Hub account:

- Course Search Article: <https://registrar.northeastern.edu/article/new-registration-experience/>
- Course Add/Drop Article: <https://registrar.northeastern.edu/article/drop-class/>

What if my course is full?

Although rare, if a course is full, you may contact the course instructor and ask if an additional seat can be accommodated in the classroom. If a seat isn't available in your preferred classes right away you can also join the waitlist. Enrollments are always shifting as students get co-ops or change their course registrations. To join a waitlist enter the class CRN (the 5 numbers in parentheses next to the course number above) directly into your registration sheet and hit submit. You will then have an option to select "waitlist" from a drop down menu. The waitlist system will automatically inform you when a seat opens up- just log into your account and accept it within the 24 hour time limit!

What if I am a part time student?

We recommend starting with one core course for your concentration.

Will I get a bill after registering for a course?

Yes. Typically, your first e-bill is generated when you register for your courses. You will receive an e-bill from the University with instructions on how to pay the e-bill. If you have questions about payment, please contact the [Student Financial Services office directly by completing their inquiry form](#).

PhD students: Once you register for courses, you will receive a tuition bill for \$15,525, the NU Student Health Plan (NUSHP), and other mandatory student fees once you register for courses. If you are receiving funding from the University there is no action required from you for the tuition and NUSHP.

Your award will cover the tuition and NUSHP fees, as detailed in your offer letters (note this may not appear on your billing statement until several weeks into the semester). You will be responsible for all other fees incurred (not tuition and NUSHP) and you should pay for these as soon as possible. You will still get billing notices as these are automatically generated, but you do not need to respond to these.

How do I get a MyNortheastern account?

After you confirm your enrollment, you will be able to access your StudentHub using this link, [myNortheastern account](#). If you have not set up your myNortheastern account, log into your [Slate account](#) to find the instructions to do so. Refer to [How do I claim my student account](#) if you have any problems.

Do you have another question about enrollment, your visa status or housing?

Please take a moment to review the [New Student Information](#) page.

For more information about beginning your graduate studies at Northeastern University, please read your acceptance letter in full.

We look forward to welcoming you to the Department of Civil and Environmental Engineering and the Graduate School of Engineering.

Regards,

Jerome F. Hajjar CDM Smith Professor and Chair,
Civil and Environmental Engineering College of
Engineering Northeastern University

Andrew Myers Associate Professor and Associate
Chair for Graduate Studies, Civil and Environmental
Engineering College of Engineering Northeastern
University

