Dear Graduate Student,

Congratulations on your recent 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 admission process and facilitate your transition to our program. This information mostly pertains to MS students. PhD students admitted to the Civil Engineering or Interdisciplinary programs may find additional information here.

COVID-19

The CEE department would be remiss if we did not acknowledge the COVID-19 pandemic and the extensive disruptions this has brought to you and to our services. However, our department is resilient and committed to the safety of our students. We are committed to delivering a world-class educational experience despite our circumstances.

Assignment of Academic Advisor

If your admission letter does not specify an academic advisor, you will be assigned an initial academic advisor during Orientation based on your concentration area. Your initial advisor will assist you in entering the program, choosing courses, and more. The academic 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 Mishac Yegian
- *Structures:* Professor Luca Caracoglia
- *Transportation:* Professor Peter Furth
- *Water, Environmental, and Coastal Systems:* Professor Jim Chen

MS in Environmental Engineering: Professor Ameet Pinto

MS in Engineering & Public Policy: Professor Auroop Ganguly

MS in Sustainable Building Systems: Professor David Fannon
The above also serve as Graduate Advisors for the corresponding areas of study in the CEE Ph.D program.

CEE Professor Jim Chen is the Graduate Advisor for the Interdisciplinary Ph.D. program.

Curriculum and Class Registration

Please remember to confirm your enrollment at Northeastern. You will not be able to register for classes (information below) until you confirm enrollment. You can confirm your enrollment by logging into your application account and paying the enrollment deposit.

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 2020 courses, please visit the “Banner Dynamic Class Schedule”, maintained online by the Office of the Registrar: https://wl11gp.neu.edu/udcprod8/NEUCLSS.pDisp_dyn_sched, select Fall 2020 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 Manager, Kyle Skene, at k.skene@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 faculty advisor regarding the core and elective course requirements.
Sample Course Selections for Fall 2020

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 faculty 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
- EMGT 6305 – Financial Management for Engineers
- IE 6200 – Engineering Probability and Statistics

Restricted and Other Electives
- ACCT 6200 – Financial Reporting and Managerial Decision Making 1
- ACCT 6201 – Financial Reporting and Managerial Decision Making 2
- EMGT 5300 – Engineering-Organizational Psychology
- GE 5010 – Customer-Driven Technical Innovation for Engineers
- GE 5100 – Product Development for Engineers
- IE 5617 – Lean Concepts and Applications
- IE 5640 or IE 7275 – Data Mining for Engineering Applications
- IE 7215 – Simulation Analysis
- INFO 6210 – Data Management and Database Design
- 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
- ENVR 6500 – Biostatistics
  - Or IE 6200 – Engineering Probability and Statistics
Or IE 7280 – Statistical Methods in Engineering
Or INSH 5301 – Introduction to Computational Statistics
Or MATH 7343 – Applied Statistics
ENVR 5260 – Geographical Information Systems
IE 5640 – Data Mining for Engineering Applications
Or IE 7275 – Data Mining in Engineering
INFO 6210 – Data Management and Database Design

**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 7230 – Probabilistic Operation Research
OR 7245 – Network Analysis and Advanced Optimization
PHYS 5116 – Complex Networks and Applications
PPUA 6502 – Economic Analysis for Policy and Planning

**Civil and Environmental Systems**

CIVE 5281 – Coastal Dynamics and Design
CIVE 5536 – Hydrologic and Hydraulic Design
CIVE 7110 – Critical Infrastructure Resilience
IE 7200 – Supply Chain Engineering
OR 7310 – Logistics, Warehousing, and Scheduling
SBSY 5100 – Sustainable Design and Technologies in Construction

**Electives**

CIVE 7220 – Construction Management
CIVE 7250 – Environmental Chemistry
CIVE 7260 – Hydrologic Modeling
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 Engineering Concentration**

**Required Core Courses**
None are available for the Fall 2020 semester

**Electives**
- CIVE 5300 and 5301 – Environmental Sampling and Analysis with Lab
- CIVE 5536 – Hydrologic and Hydraulic Design
- CIVE 7230 – Legal Aspects of Civil Engineering
- CIVE 7250 – Environmental Chemistry
- CIVE 7260 – Hydrologic Modeling
- CIVE 7311 – Soil and Foundation Dynamics
- CIVE 7313 – Ground Improvement
- CIVE 7330 – Advanced Structural Analysis
- CIVE 7331 – Structural Dynamics
- IE 6200 – Engineering Probability and Statistics

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 7342 – System Identification
- CIVE 7351 – Behavior of Steel Structures

**Other Electives**
- CIVE 5275 – Life Cycle Assessment of Materials, Products, and Infrastructure
- CIVE 7311 – Soil and Foundation Dynamics
- MATH 7241 – Probability 1
- MATH 7343 – Applied Statistics
- ME 5240 – Computer Aided Design and Manufacturing
- ME 5655 – Dynamics and Mechanical Vibration
- ME 6200 – Mathematical Methods for Mechanical Engineers 1
- ME 7210 – Elasticity and Plasticity
- ME 7238 – Advanced Finite Element Method
- 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 5376 – Traffic Engineering and Sustainable Street Design
IE 6200 – Engineering Probability and Statistics

**Restricted Electives**
- CIVE 7382 – Advanced Traffic Control and Simulation
- IE 7215 – Simulation Analysis
- IE 7280 – Statistical Methods in Engineering

**Other Electives**
- IE 7275 – Data Mining in Engineering
- INFO 6210 – Data Management and Database Design
- MATH 7343 – Applied Statistics
- OR 6205 – Deterministic Operations Research
- OR 7230 – Probabilistic Operation Research
- OR 7245 – Network Analysis and Advanced Optimization
- PPUA 5263 – Information Systems for Urban and Regional Policy

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

**Water, Environmental, and Coastal Systems Concentration**

**Required Core Courses**
- CIVE 5281 – Coastal Dynamics and Design
- CIVE 7250 – Environmental Chemistry
- CIVE 7260 – Hydrologic Modeling

**Restricted Electives**
- CIVE 5275 – Life Cycle Assessment of Materials, Products, and Infrastructure
- CIVE 5300 and 5301 – Environmental Sampling and Analysis with Lab
- CIVE 5536 – Hydrologic and Hydraulic Design
- CIVE 7110 – Critical Infrastructure Resilience
- ME 6200 – Mathematical Methods for Mechanical Engineers 1

**Other Electives**
- ECE 7204 – Applied Probability and Stochastic Processes
- ENV 5260 – Geographical Information Systems
- EMB 5516 – Oceanography
- IE 6200 – Engineering Probability and Statistics
- IE 7280 – Statistical Methods in Engineering
- MATH 7343 – Applied Statistics

The full list of Required and Restrictive Electives for Water, Environmental, and Coastal Systems is found [here](#).
MASTER’S IN ENVIRONMENTAL ENGINEERING

Required Core Courses
- CIVE 7250 – Environmental Chemistry
- CIVE 7260 – Hydrologic Modeling

Restricted Electives
- CIVE 5275 – Life Cycle Assessment of Materials, Products, and Infrastructure
- CIVE 5300 and 5301 – Environmental Engineering Laboratory with Lab
- CIVE 5536 – Hydrologic and Hydraulic Design

Other Electives
- EECE 7204 – Applied Probability and Stochastic Processes
- ENVR 5260 – Geographical Information Systems
- IE 6200 – Engineering Probability and Statistics
- IE 7280 – Statistical Methods in Engineering
- MATH 7241 – Probability 1
- MATH 7343 – Applied Statistics

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

MASTER’S IN ENGINEERING AND PUBLIC POLICY

Sustainable Engineering and Systems Modeling
- CIVE 5275 – Life Cycle Assessment of Materials, Products, and Infrastructure
- ENGR 5670 – Sustainable Energy: Materials, Conversion, Storage, and Usage
- IE 5640 – Data Mining for Engineering Applications
- IE 6200 – Engineering Probability and Statistics
- IE 7280 – Statistical Methods in Engineering

Public Policy and Analysis
- CIVE 5271 – Solid and Hazardous Waste Management
- INSH 5301 – Introduction to Computational Statistics
- INSH 6500 – Statistical Analysis
- LPSC 7311 – Strategizing Public Policy
- PPUA 6502 – Economic Analysis for Policy and Planning
- PPUA 6506 – Techniques of Policy Analysis
- PPUA 6509 – Techniques of Program Evaluation

Electives
- CIVE 5281 – Coastal Dynamics and Design
- CIVE 5300 and 5301 – Environmental Sampling and Analysis with Lab
- CIVE 7230 – Legal Aspects of Civil Engineering
- EMGT 6225 – Economic Decision Making
ENVR 5210 – Environmental Planning
ENVR 5260 – Geographical Information Systems
PHTH 5214 – Environmental Health
PPUA 5262 – Big Data for Cities
PPUA 5263 – Geographic Information Systems for Urban and Regional Policy
PPUA 5264 – Energy Democracy and Climate Resilience: Technology, Policy, and Social Change
PPUA 6101 – Environmental Science and Policy Seminar 1

The full list of Required and Restrictive Electives for Engineering and Public Policy is found here.

MASTER’S IN SUSTAINABLE BUILDING SYSTEMS

Required Core Courses
ARCH 5210 – Environmental Systems
And ARCH 5211 – Recitation for ARCH 5210
SBSY 5100 – Sustainable Design and Technologies in Construction
SBSY 5400 – Sustainable Building Systems Seminar

Restricted Electives
CIVE 5275 – Life Cycle Assessment of Materials, Products, and Infrastructure
CIVE 7220 – Construction Management
Or EMGT 5220 – Engineering Project Management
CIVE 7230 – Legal Aspects of Civil Engineering
EMGT 6305 – Financial Management for Engineers
SBSY 5250 – Building Performance Simulation

Other Electives
ACCT 6200 – Financial Reporting and Managerial Decision Making 1
ACCT 6201 – Financial Reporting and Managerial Decision Making 2
CIVE 7351 – Behavior of Steel Structures
FINA 6200 – Value Creation through Financial Decision Making
FINA 6217 – Real Estate Finance and Investment

The full list of Required and Restrictive Electives for Sustainable Building Systems is found here.

How do I register for classes?
Visit the Office of the Registrar’s Registration Experience webpage to learn how to search and register for courses using your MyNortheastern account.
The online registration system will allow you to add or drop courses. If you have any questions or difficulties with course registration, please email gradstudentservices@coe.neu.edu.

**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, if available. 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: [http://www.northeastern.edu/financialaid/](http://www.northeastern.edu/financialaid/)

**How do I get a MyNEU account?**

After you confirm your enrollment, you will be able to log in to your MyNortheastern portal. If you have not set up your MyNortheastern account, log in to your electronic application account and look for instructions to do so.

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