## BS/MS in Civil Engineering

### Curriculum Outline - Class of 2018, 2019, 2020

*Sample Only – Actual Curriculum Sequence May Deviate from Sample*

**Fall** | **Spring** | **Summer 1** | **Summer 2**
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**Year 1**
- MATH3421: Calculus 1 for Engrs.
- CHEM1151: General Chem. for Engrs.
- GE1110: Eng.'s Design
- GE1000: Intro. to Eng.'g.
- NU Core: Arts OR Humanities Lvl. 1

**Year 2 (AA)**
- MATH3421: Calculus 1 for Engrs.
- PHYS1555: Phys 2 for Engrs.
- PHYS1556: Phys 2 Lab
- PHYS1557: ILS for PHYS155
- CIVE2221: Statics & Strength
- CIVE2222: Recitation for CIVE2221
- CIVE2334: Environ. Eng.'g. 1

**Year 2 (BB)**
- MATH2321: Calculus 3 for Engrs.
- CIVE2000: Intro. to Eng.'g. Co-op
- CIVE2222: Recitation for CIVE2221
- CIVE2334: Environ. Eng.'g. 1

**Year 3 (AA)**
- PHYS1555: Physics 2 for Engrs.
- PHYS1556: Phys 2 Lab
- PHYS1557: ILS for PHYS155
- CIVE2320: Struct. Analysis 1
- CIVE2321: Recitation for CIVE2320
- CIVE2331: Fluid Mechanics
- CIVE2334: Elective
- ECON1115: Elective

**Year 3 (BB)**
- PHYS1555: Physics 2 for Engrs.
- PHYS1556: Phys 2 Lab
- PHYS1557: ILS for PHYS155
- CIVE2320: Struct. Analysis 1
- CIVE2321: Recitation for CIVE2320
- CIVE2331: Fluid Mechanics
- CIVE2334: Elective
- ECON1115: Macro or Micro Economics

**Year 4 (YB)**
- CIVE2324: Concrete Design
- CIVE3000: Prof. Issues in Eng'g.
- CIVE3464: Prof. Issues in Eng'g.
- CIVE3464: Grad. Civil Tech. Elective 1
- CIVE3464: Elective
- CIVE3464: Elective
- CIVE3464: Elective
- CIVE3464: Elective
- MATH2341: Diff. Eq./Lin. Alg.
- MATH2341: Elective
- MATH2341: Elective
- MATH2341: Elective

**Year 4 (ZC)**
- CIVE2324: Concrete Design
- CIVE3000: Prof. Issues in Eng'g.
- CIVE3464: Prof. Issues in Eng'g.
- CIVE3464: Grad. Civil Tech. Elective 1
- CIVE3464: Elective
- CIVE3464: Elective
- CIVE3464: Elective
- CIVE3464: Elective
- MATH2341: Diff. Eq./Lin. Alg.
- MATH2341: Elective
- MATH2341: Elective
- MATH2341: Elective

**Year 5 (YB)**
- CIVE3464: Prof./Eng'g. Econ.
- CIVE3464: Grad. Course 5
- CIVE3464: Grad. Course 6
- CIVE3464: Grad. Course 7
- CIVE3464: Grad. Course 8
- CIVE3464: Grad. Course 9
- CIVE3464: Grad. Course 10
- CIVE3464: Grad. Course 11
- CIVE3464: Grad. Course 12

**Year 5 (ZC)**
- CIVE3464: Prof./Eng'g. Econ.
- CIVE3464: Grad. Course 5
- CIVE3464: Grad. Course 6
- CIVE3464: Grad. Course 7
- CIVE3464: Grad. Course 8
- CIVE3464: Grad. Course 9
- CIVE3464: Grad. Course 10
- CIVE3464: Grad. Course 11
- CIVE3464: Grad. Course 12

*ENGW3315* is an acceptable substitution for engineering majors. Revised 3/30/2015

English course prefixes have changed from ENGL to ENG. ENG1111 is equivalent to ENGL1111. ENG3302 is equivalent to ENG13302. Effective Fall 2014, the ENG13302 course number will be retired. Students may take ENG3302 or ENG3315 to fulfill their Advanced Writing in the Technical Professions requirement. ENG13302 will still count towards the Advanced Writing in the Technical Professions requirement if the course was taken prior to Fall 2014. There are five (5) disciplines within the Civil Engineering BS/MS program that will following this curriculum scheme. Notes generic to all disciplines:

**NU Core Elective Requirements:** 2 required - (One Arts Lvl. 1 OR Humanities Lvl. 1) AND (One Social Science Lvl. 1 (Social Science Lvl. 1 fulfilled by either ECON1115 or ECON1116))

**General Elective Requirements:** 4 required - Any 4 SH course that is not remedial or repetitive

**Science Elective:** 1 required - See approved Science elective list.

**Ug Civil Engineering Technical Elective:** 1 required - Each discipline has one (1) undergraduate technical elective, specified by discipline, that may not duplicate a Graduate Technical Elective.

**Graduate Technical Electives:** Each discipline has two (2), specified by discipline. They are graduate classes that fulfill the undergraduate technical elective requirement.

**Graduate Courses:** Each discipline has six (6), specified in the M.S. program for that discipline. These are in addition to the two Graduate Technical Electives, and may include substitutions on the next page.

**Capstones (Senior Design Project):**
- CIVE4765: Environmental capstone
- CIVE4767: Structural capstone
- CIVE4768: Transportation capstone

Electives may be interchanged. Please consult with your academic and faculty advisors.

**Program Notes:**

Students will be required to meet with an undergraduate advisor to petition to enter the program.
Students are encouraged to meet with their financial aid counselor to review any financial questions.
4 semesters of coursework at Northeastern University must be completed with a minimum GPA of 3.2 to join the BS/MS program.
The registrar’s website provides a listing of degree requirements and the DARS system provides a degree audit utility for students.