

Civil Engineering Curriculum

Fall 2026 – Spring 2027

Math 20100 Calculus I Pre: Math 19500 (C min.) 4 cr.	Chem 10301 General Chemistry I Pre: Math 19500 (C min.) 4 cr.	CSc 10200 Introduction to Computing Pre: Math 19500 (C min.) or Pre/Co: Math 20100 (C min.) 3 cr.	ENGR 10200 A Data Sci & Stat Approach to Programming Pre: Math 19500 (C min.) Pre/Co: Math 20100 (C min.) 3 cr.	Engl 11000⁶ Freshman Composition 3 cr.	Liberal Arts⁴ 3 cr.
Math 21200 Calculus II Pre: Math 20100 (C min.) 4 cr.	Chem 10401 General Chemistry II Pre: Chem 10301 (C min.) 4 cr.	Phys 20700 University Physics I Pre/Co: Math 21200 4 cr.	Engl 21007 Writing for Engineering Pre: Eng 11000 or FIQWS 3 cr.	CE 20900 Structural and Site Plans Pre/Co: CSc 10200 or ENGR 10200 3 cr.	
Math 21300 Calculus III Pre: Math 21200 (C min.) 4 cr.	CE 23100 Statics Pre: Phys 20700 (C min.), Math 21200 (C min.) & CSc 10200 or ENGR 10200 Pre/Co: CE 10000, Math 21300 (C min.) 3 cr.	Phys 20800 University Physics II Pre: Phys 20700 Pre/Co: Math 21300 4 cr.	CE 21400 CE Data Analysis Pre: CSc 10200 or ENGR 10200, Phys 20700 (C min.) Pre/Co: CE 10000, Engl 21007, Math 21300 (C min.) 3 cr.	CE 10000⁸ Fundamentals of CE Problem Solving Coreq: Math 20100 (C min.) 1 cr.	CE 10100 (Fall only) Intro to Civil Engineering Pre: Phys 20700 (C min.); Co: Engl 21007 1 cr.
Math 39100 Differential Equations Pre: Math 21300 3 cr.	Math 34600 Linear Algebra Pre: Math 21300 (C min.) 3 cr.	CE 35000 Fluid Mechanics Pre: CE 23100 (C min.), CSc 10200 or ENGR 10200, CE 10000 Pre/Co: CE 10100, Math 39100 (C min.) 3 cr.	CE 33200 Mechanics Deformable Bodies Pre: CE 10000, CE 23100 (C min.), CE 21400 (C min.) Pre/Co: CE 10100, Math 39100 (C min.) 4 cr.	CE 31500 Computational Methods in CE Pre: CE 10000, CE 21400 (C min.), CE 23100 (C min.), CSc 10200 or ENGR 10200 Pre/Co: CE 10100, Math 34600, Math 39100 (C min.) 3 cr.	
CE 34000 Structural Analysis Pre: CE 32000, CE 20900 (C min.) 3 cr.	CE 36500 Hydraulic Engr. Pre: CE 35000 (C min.) 3 cr.	CE 32600 (Fall Only) Transportation Planning Pre: CE 21400 (C min.) Pre/Co: CE 31500 3 cr.	CE 37200 Environmental Impact Assessment Pre: For CE Students: Chem 10401 (C min.), CE 21400 (C min.), & CE 35000 (C min.); For ESE Students: ENGR 26400, Chem 10401 (C min.) and choice CE 35000 (C min.), ME 35600, or ChE 34100 3 cr.	CE 34500 Soil Mechanics Pre: CE 35000 (C min.), CE 21400 (C min.) & CE 33200 3 cr.	Liberal Arts⁴ 3 cr.
CE 44100 Reinforced Concrete Pre: CE 26400 or CE 21400 (C min.) Pre/Co: CE 34000 3 cr.	CE 32700 (Spring only) Transportation Systems Engr. Pre: CE 20900 (C min.), CE 21400 (C min.), CE 33200 3 cr.	CE 37400 Environment Engineering Pre: CE major: Chem 10401, CE 21400, CE 35000; ESE major: Chem 10401; ENGR 26400; CE 35000 or ME 35600 or ChE 34100 3 cr.	Science Elective EAS 32800 Global Environ. Haz. Or EAS 48800 Climate & Climate Change Pre: CE 37200, Math 20200 or Math 21200, Phys 20800 3 cr.		Liberal Arts⁴ 3 cr.
Specialization Core (Select one of four areas) 3 cr.	Specialization Elective (In same area) 3 cr.	CE 43500 (Fall only) Dynamics of CE Systems Pre: CE 33200, CE 31500, Math 34600 3 cr.	CE 39500 (Fall only) Civil Engineering Management Pre: CE 20900, CE 31500, CE 32600 3 cr.	Liberal Arts⁴ 3 cr.	Liberal Arts⁴ (20000 or higher) 3 cr.
Specialization Core (In same area) 3 cr.	Specialization Elective (In same area) 3 cr.	CE 40100⁷ ((Spring Only) Review of Civil Eng'ng Fundamentals (Pass/Fail) Pre: Upper junior or senior standing 1 cr.	CE 50900 Senior Design Project Pre: senior standing Pre/Co: CE 32600, CE 32700, CE 37200, CE 37400 & CE 44100 3 cr.	CE 41500 (Spring only) CE Decision & Systems Analysis Pre: CE 21400 (C min.), CE 31500, CE 39500 & Math 34600 Pre/Co: CE 32700, CE 36500 & CE 44100 3 cr.	Liberal Arts⁴ (20000 or higher) 3 cr.
Specialization Core Courses⁹ Water Resources & Environmental Engineering CE 56600 Eng. Hydrology (Pre: CE 214 (C min), CE 365) (S) CE 58300 Air Poll. and Control (Pre: Math 391; co: CE 474) or CE 584 Solid Waste Mgmt. (Co: CE 474) (F) Structural & Construction Engineering CE 44000 FEA (Pre: CE 315, CE 340, Math 346) (S) CE 44200 Structural Design (Pre: CE 214 (C min), CE 340) (F) Transportation Engineering CE 52000 Traffic Engineering (Pre: CE 327; Co: CE 326) CE 54000 Highway Eng. (Pre: CE 327; Co: CE 326) (S) Multidisciplinary CE 44000 FEA (Pre: CE 315, CE 340; Math 346) (S) CE 44200 Structural Design (Pre: CE 214 (C min), CE 340) (F) CE 52000 Traffic Engineering (Pre: CE 327; Co: CE 326) CE 54000 Highway Eng. (Pre: CE 327; Co: CE 326) (S) CE 56600 Eng. Hydrology (Pre: CE 214 (C min), CE 365) (S) CE 58300 Air Poll. and Control (Pre: Math 391; co: CE 374) or CE 58400 Solid Waste Mgmt. (Co: CE 374) (F)		Specialization Elective Courses⁹ (code: F=fall, FE= fall even, FO = fall odd, S= spring, SE= spring even, SO = spring odd) Water Resources & Environmental Engineering CE 48200 Water and Wastewater Treatment (Pre: CE 374) (FO) CE 51003 Independent Study (consent) CE 57100 Water Quality Analysis (Pre: CE 374) (SO) CE 57300 Sustainable Infrastructure (Pre: CE 372) CE 57800 Solid Waste Reuse/Recycling (Pre: CE 374) CE 57900 Water Reclamation & Reuse (Pre: CE 37400) CE 58300 Air Pollution & Control (Pre: Math 391; Co: CE 374) (FO) CE 58400 Solid Waste Management (Co: CE 374) (FE) Chem 26100 Organic Chemistry (Pre: Chem 104) Math 20300 (C min), Chem 103 (C min)) Structural & Construction Engineering CE 51003 Independent Study (consent) CE 53000 Adv. Strength (Pre: CE 332, CE 315, Math 346) (F) CE 54000 Highway Engineering (Pre: CE 327; Co: CE 326) (S) CE 55000 Adv. Reinforced Concrete (Pre: CE 315, CE 441) (F) CE 55500 Concrete Sustainability (Pre: CE 441) (SE) CE 55600 Design of Wood Struc. (Pre: CE 214 (C min), CE 340) (SO) CE 59000 Foundation Engineering (Pre: CE 315, CE 345) (S) CE 59901 Additive Manufacturing & 3D Printing in Archt & CE (CE 340) ME 46100 Eng. Materials (Pre: Chem 103, Engl 210, CE 332) Transportation Engineering CE 51003 Independent Study (consent) CE 52600 Rail System Design (Pre: CE 327) (FE)			
		CE 54100 Highway & Airport Design (Pre: CE 327; Pre/Co: CE 326) (FO) CE 54500 Urban Transportation Systems (Pre: CE 326) (SE) CE 54700 Urban Freight & City Logistics (Pre: CE 326) (SO) CE 54800 Transit Systems (Pre: CE 326) (FE) CE 56600 Engineering Hydrology (Pre: CE 214 (C min), CE 365) (S) CE 59000 Foundation Engineering (Pre: CE 315, CE 345) (S) Multidisciplinary CE 44000 FEA (Pre: CE 315, CE 340; Math 346) (S) CE 44200 Structural Design (Pre: CE 214 (C min), CE 340) (F) CE 52000 Traffic Engineering (Pre: CE 327; Co: CE 326) CE 54000 Highway Eng. (Pre: CE 327; Co: CE 326) (S) CE 56600 Engineering Hydrology (Pre: CE 214 (C min), CE 365) (S) CE 58300 Air Pollution and Control (Pre: Math 391; Co: CE 374) CE 58400 Solid Waste Management (Co: CE 374) (F) (Refer to the CCNY/GSOE Bulletin for a more complete list of Electives.) Civil Engineering (CE) Open Electives Engr 22800 (Artificial Intelligence & Machine Learning) Engr 30100 (Introduction to Satellite Remote Sensing & Imaging) Engr 31230 (Energy and the Environment) Engr 598-3 (Industrial Ecology & Life Cycle Analysis) Engr 59910 (Introduction to GIS)			

- The latest version of the curriculum sheet supersedes any curriculum and pre/co-requisite information in the Undergraduate Bulletin or online.**
- “C” Passing Grade Requirement:** Courses in shaded area (■) require a minimum passing grade of “C”.
- Skills tests:** Certain students may be required to pass CUNY Assessment Tests in one or more subjects within 1 or 2 years of admission.
- Liberal Arts electives:** CE students must take six approved courses (18 credits) of which at least two (6 credits) must be at the 20000 level or higher. **Four** of the courses should satisfy Flexible Core (Pathways) liberal arts requirements in the Creative Expression (CE), World Cultures & Global Issues (WCGI), Individual & Society (IS), and U.S. Experience (US) areas. Prior courses in these four areas from other colleges can satisfy the electives. The remaining **two** courses must be chosen from the list on the Grove School of Engineering web site at ccny.cuny.edu/engineering/gen-ed. See ccny.cuny.edu/engineering/pathways for details and the Pathways course lists. A prior degree may fulfill the requirement of all six courses.
- Other Graduation Requirements:** Apply for graduation during registration for the last semester. Minimum GPA of 2.00. Minimum QPA of zero.
Residency Requirement: 33 credits of 30000-level or higher Civil Engineering courses taken at CCNY.
- Program Changes:** Substitution of other courses for required courses must be approved by the Chair of the Civil Engineering Department (ST-136), and the Associate Dean of the Office of Undergraduate Affairs (ST-209).
- Students can satisfy this requirement by passing the Fundamentals of Engineering licensing examination.
- CE 10000 (Fundamentals of Engineering Problem Solving) replaces the Engineering Science requirement.
- Students must select one area of specialization: For “Structural & Construction Engr.,” or “Transportation Engr.,” or “Environmental Engr.,” choose two core courses and two elective courses from the chosen specialization or choose two core courses and one elective course from the chosen specialization and one elective course from the CE open electives. For Multidisciplinary students, choose three core courses from “Structural & Construction Engr.,” or “Transportation Engr.,” or “Water Resources & Environmental Engr.,” specializations and one elective course from the specialization cores or specialization electives or the CE Open Electives.

Total Credits: 134 – 135.