

THE CITY COLLEGE – SCHOOL OF ENGINEERING

Civil Engineering Curriculum

Fall 2020 – Spring 2021 (Unofficial)

8/28/2020 (BW)

Math 20100 Calculus I Pre: Math 19500 (C min.) 4 cr.	Chem 10301 General Chemistry I Pre: Math 19500 (C min.) 4 cr.	Liberal Arts^d . 3 cr.	Liberal Arts^d . 3 cr.	Engl 11000^e Freshman Composition 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 General Physics I Pre/Co: Math 21200 4 cr.	CSc 10200 Intro to Computing Pre: Math 19500 (C min.) or Pre/Co: Math 20100 (C min.) 3 cr.	Engl 21007 Writing for Engineering Pre: Eng 11000 or FIQWS 3 cr.	
Math 21300 Calculus III Pre: Math 21200 (C min.) 4 cr.	Phys 20800 General Physics II Pre: Phys 20700 Pre/Co: Math 21300 4 cr.	CE 23100 Statics Pre: Phys 20700 (C min.), Math 21200 (C min.) & CSc 10200; Pre/Co: Math 21300 3 cr.	CE 26400 CE Data Analysis Pre: CSc 10200 Pre/Co: Math 21300, Engl 21007 3 cr.	CE 20900 Structural and Site Plans Pre/Co: CSc 10200 3 cr.	CE 10100 Intro to CE Pre: Eng 21007, Phys 20700 (C min.) (Fall Only) 1 cr.
Math 39100 Differential Equations Pre: Math 21300 3 cr.	Math 34600 Linear Algebra Pre: Math 21300 OR Math 39200 Linear Algebra/Vector Ana Pre: Math 21300 3 cr.	CE 35000 Fluid Mechanics Pre: CE 10100 , CE 23100 (C min.), CSc 10200 Pre/Co: Math 39100 (C min) 3 cr.	CE 33200 Mechanics Deformable Bodies Pre: CE 10100 , CE 23100 (C min.) Pre/Co: Math 39100 (C min.) & CE 26400 4 cr.	CE 31500 Computational Methods in CE Pre: CE 10100 , CE 23100, CE 26400, CSc 10200, Math 39100 (C min.) Pre/Co: Math 34600 (or 39200) 3 cr.	
CE 32600 Transportation Planning Pre: CE 26400 Pre/Co: CE 31500 (Fall Only) 3 cr.	CE 36500 Hydraulic Engr. Pre for CE majors: CE 35000 (C min.). Pre for ESE majors: CE 35000 or ME 35600 or ChE 34100 3 cr.	CE 37200 Environ. Impact Assessment Pre for CE majors: CE 26400, CE 35000 (C min), Chem 10401 (C min); Pre for ESE majors: CE 26400, [CE 35000, ME 35600 or ChE 34100], Chem 10401 (C min) 3 cr.	CE 34000 Structural Analysis Pre: CE 20900, CE 33200 Co: CE 31500, Math 34600 (or Math 39200) 3 cr.	CE 31600 CE Decision & Systems Analysis Pre: CE 26400, CE 31500, Math 34600 (or Math 39200) (Fall Only) 3 cr.	Liberal Arts^d 3 cr.
CE 32700 Transportation Systems Engr. Pre: CE 20900, CE 26400, CE 33200 (Spring Only) 3 cr.	CE 47400 Environment Engineering Pre: CE 36500, CE 37200 3 cr.	CE 34500 Soil Mechanics Pre: CE 35000 (C min.), CE 33200, CE 26400 3 cr.	CE 44100 Reinforced Concrete Pre: CE 26400, CE 34000 3 cr.	CE 40500 Civil Engineering Management Pre: CE 31600, CE 34000 3 cr. (Spring Only)	Liberal Arts^d 3 cr.
Specialization Core (select one of the four areas) ⁸ (Fall Only) 3 cr.	Specialization Elective (in same area) ⁸ (Fall Only) 3 cr.	CE 43500 Dynamics of CE Systems Pre: CE 33200, CE 31500, Math 34600 (or Math 39200) 3 cr. (Fall Only)	Science Elective EAS 32800 Global Environmental Hazards OR Bio 10100 Biological Found. I (Pre: Math 19500 (C min)) 3 - 4 cr.	Engineering Science Elective Engr 23000 Thermodynamics Pre: Chem 10301 (C min), Math 21300 (C min), Phys 20800 (C min) OR Engr 20400 Circuits Pre/Co: Math 21300, Phys 20800 3 cr.	
Specialization Core (in same area) ⁸ (Spring Only) 3 cr.	Specialization Elective (in same area) ⁸ (Spring Only) 3 cr.	CE 40100 Review of Civil Eng'ng Fundamentals (Pass/Fail) Pre: Senior 1 cr. (Spring Only)	CE 50900 Senior Design Project Pre: Senior Pre/Co: CE 32600, CE 32700, CE 47400, CE 44100. 3 cr.	Liberal Arts^d (20000 or higher) 3 cr.	Liberal Arts^d (20000 or higher) 3 cr.

Specialization Core Courses Environmental Engineering and Water Resources CE 566 Eng. Hydrology (Pre: CE 264, CE 365) (SP) CE 583 Air Poll. and Control (Pre: Math 391; co: CE 474) OR CE 584 Solid Waste Mgmt. (Co: CE 474) (FA) Structures CE 440 FEA (Pre: CE 315, CE 340; Math 346) (SP) CE 442 Structural Design (Pre: CE 264, CE 340) (FA) Transportation CE 520 Traffic Engineering (Pre: CE 326, CE 327) (FA) CE 540 Highway Eng. (Pre: CE 326, CE 327) (SP) Multidisciplinary CE 566 Eng. Hydrology (Pre: CE 264, CE 365) (SP) CE 583 Air Poll. and Control (Pre: Math 391; co: CE 474) OR CE 584 Solid Waste Mgmt. (Co: CE 474) (FA) CE 440 FEA (Pre: CE 315, CE 340; Math 346) (SP) CE 442 Structural Design (Pre: CE 264, CE 340) (FA) CE 520 Traffic Engineering (Pre: CE 326, CE 327) (FA) CE 540 Highway Eng. (Pre: CE 326, CE 327) (SP)	Specialization Elective Courses Environmental Engineering and Water Resources CE 51003 Independent Study (consent) CE 482 Water and Wastewater Treatment (Pre: 474) (FO) CE 583 Air Pollution & Control (Pre: CE 372, Math 391) (FO) OR CE 584 Solid Waste Management (Pre: CE 474) (FE) CE 571 Water Quality Analysis (Pre: CE 474) (SO) ENGR 59910 Intro to GIS (Pre: CE 264) (FA) ENGR 30100 Intro. to Sensing (Pre: Phy 208, ENGR 103) (SP) Chem 26100 Organic Chemistry (Pre: Chem 104) Structures CE 51003 Independent Study (consent) CE 530 Adv. Strength (Pre: CE 332, CE 315, Math 346) (FA) CE 540 Highway Engineering (Pre: CE 326, CE 327) (SP) CE 550 Adv. Reinforced Concrete (Pre: CE 315, CE 441) (FA) CE 555 Concrete Sustainability (SE) CE 590 Foundation Engineering (Pre: CE 315, CE 345) (SP) CE 540 Highway Engineering (Pre: CE 326, CE 327) (SP) ME 461 Eng. Materials (Pre: Chem 103, Engl 210, CE 332)	Transportation CE 51003 Independent Study (consent) CE 526 Rail System Design (Pre: CE 327) (FE) CE 541 Highway & Airport Design (Pre: CE 326, CE 327) (FO) CE 545 Urban Transportation Systems (Pre: CE 326) (SE) CE 547 Urban Freight & City Logistics (Pre: CE 326) (SO) CE 548 Transit Systems (Pre: CE 326) (FE) CE 566 Engineering Hydrology (Pre: CE 264, CE 365) (SP) CE 590 Foundation Engineering (Pre: CE 315, CE 345) (SP) Multidisciplinary CE 566 Engineering Hydrology (Pre: CE 264, CE 365) (SP) CE 583 Air Pollution and Control (Pre: Math 391; Co: CE 474) OR CE 584 Solid Waste Management (Co: CE 474) (FA) CE 440 FEA (Pre: CE 315, CE 340; Math 346) (SP) CE 442 Structural Design (Pre: CE 264, CE 340) (FA) CE 520 Traffic Engineering (Pre: CE 326, CE 327) (FA) CE 540 Highway Engineering (Pre: CE 326, CE 327) (SP)
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- The latest version of the curriculum sheet supersedes any curriculum and pre-/corequisite information in the Undergraduate Bulletin or online.**
- “C” Passing Grade Requirement:** Courses with shading (■) 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, of which at least two must have course numbers of 20000 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 remove 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).

Total Credits: 136 – 137