

HOSTOS COMMUNITY COLLEGE

MAJORS

CIVIL ENGINEERING SCIENCE

Hostos Community College offers the Associate in Science (A.S.) degree in Civil Engineering as a jointly registered, dual admission program with the existing Bachelor of Engineering in Civil Engineering (B.E./C.E.) at the City College of New York. The program has been designed to meet the licensure guidelines of the Accreditation Board of Engineering and Technology (ABET).

This program is designed to provide HCC students with the same curriculum as the first two years of the licensure qualifying Civil Engineering program required at CCNY. The collegial nature of the program will facilitate the transition to the professional portion of the curriculum.

HCC students will be enrolled in the existing science and mathematics courses at Hostos and will be given permit to enroll in the eight engineering courses at CCNY until such time as there is sufficient enrollment to offer the course(s) at Hostos.

Hostos Community College

| First Year - Fall | Credits |
|---|-------------|
| MAT 210Calculus I | 4.0 |
| ENG 110Expository Writing | 3.0 |
| CHE 210Chemistry I | 4.0 |
| VPA 111Arts & Civilization I OR | |
| VPA 112Arts & Civilization II OR | |
| VPA 113Introduction to Art | 3.0 |
| *ENGR 10100Engineering Design I | 1.0 |
| †Liberal Arts | 3.0 |
| SSD 1000Freshman Orientation | 0.0 |
| Subtotal | 18.0 |

| First Year - Spring | Credits |
|---|-------------|
| MAT 220Calculus II | 4.0 |
| ENG 111Literature & Composition | 3.0 |
| CHE 220Chemistry II | 4.0 |
| PHY 210Physics I | 4.0 |
| MAT 200Modern Programming | 3.0 |
| Subtotal | 18.0 |

| Second Year - Fall | Credits |
|--|-------------|
| MAT 310Calculus III | 4.0 |
| *CE 23100Introduction to Structural Mechanics | 3.0 |
| *CE 209Structural and Site Plans | 3.0 |
| *CE 264Civil Engineering Data Analysis | 3.0 |
| PHY 220Physics II | 4.0 |
| Subtotal | 17.0 |

| Second Year- Spring | Credits |
|---|-------------|
| MAT 360Differential Equations | 3.0 |
| *CE 332Mechanics of Deformable Bodies | 4.0 |
| *CE 350Fluid Mechanics | 3.0 |
| *CE 37200Environmental Impact Assessment | 3.0 |
| *ENG 202Technical Writing | 3.0 |
| Subtotal | 16.0 |
| Total Hostos Credits for Degree | 69.0 |

City College of New York (CCNY)

| CCNY - Third Year - Fall | Credits |
|--|-------------|
| CE 34000Structural Analysis | 3.0 |
| CE 36500Hydrology & Hydraulic Engineering | 3.0 |
| CE 33500Computational Methods in CE | 3.0 |
| CE 32600Transportation Engineering | 3.0 |
| MA 39200Linear Algebra /Vector Analysis | 3.0 |
| LA.Liberal Arts Elective | 3.0 |
| Subtotal | 18.0 |

| CCNY - Third Year - Spring | Credits |
|--|-------------|
| CE 34500Soil Mechanics | 3.0 |
| CE 31600Civil Engineering Decision & Systems Analysis | 3.0 |
| CE 44100Reinforced Concrete | 3.0 |
| CE 32700Transportation Systems Engineering | 3.0 |
| ENGR 23000Thermodynamics | 3.0 |
| LA.Liberal Arts Electives | 3.0 |
| Subtotal | 18.0 |

| CCNY - Fourth Year - Fall | Credits |
|--|---------|
| CE 40500Civil Engineering Management | 3.0 |
| CE 43500Dynamics of Civil Engineering Systems | 3.0 |
| CE 40100Reviews of Engineering Fundamentals | 1.0 |
| CE 47400Environmental Engineering | 3.0 |
| Specialization Core (Select one option; 6 cr) | 6.0 |

Structures

| | |
|--|--|
| CE 44000Finite Element Analysis of Structures | |
| CE 44200Structural Design OR Environmental | |
| CE 45100Environmental Water Resources | |
| CE 48200Environmental Engineering II | |
| OR | |

Transportation

| | | |
|-----------------|---------------------------|-------------|
| CE 52000 |Traffic Engineering | |
| CE 54000 |Highways Engineering | |
| Subtotal | | 16.0 |

CCNY - Fourth Year - Spring Credits

| | | |
|---|----------------------------|----------|
| CE 50900 |Senior Design Project |3.0 |
| ENGR 20400 |Electrical Circuit |3.0 |
| LA |Liberal Arts Elective |3.0 |
| Specialization Design Electives | |6.0 |
| (Take two courses from the same specialization option selected above) | | |

Transportation

| | |
|----------|--------------------------------------|
| CE 50500 |Construction Project Management |
| CE 51000 |Independent Study |
| CE 52500 |Geometric Design of Facilities |
| CE 52600 |Rail System Design |
| CE 54100 |Highway & Airport Construction |
| CE 54500 |Urban Transportation |
| CE 59000 |Foundation of Engineering |

OR

Environmental

| | |
|------------|-----------------------------|
| BIO 35000 |Microbiology |
| CE 51000 |Independent Study |
| CE 57100 |Water Quality Analysis |
| CHEM 26100 |Organic Chemistry I |
| EAS 21300 |Engineering Geology |

OR

Structures

| | |
|----------|-------------------------------------|
| CE 51000 |Independent Study |
| CE 53000 |Advanced Strength of Materials |
| CE 55000 |Advanced Reinforced Concrete |
| CE 59000 |Foundation of Engineering |
| CE G2300 |Advanced Steel Design |
| ME 46100 |Engineering Materials |

Subtotal**15**

TOTAL CCNY CREDITS**67**

TOTAL DEGREE CREDITS**136**

Bachelor of Engineering in Civil Engineering – B.E (C.E)

†Students should consult The City College Bulletin for the appropriate course.

*Course will be co-listed. Students will be given a permit to attend CCNY until such time as there is sufficient enrollment to offer the course at Hostos.