

Engineering Science (A.S. Degree)

FALL 2022-SPRING 2023

REMEDIAL SEQUENCE (if required)

ESL 1 (8) ▶▶ ESL 2 (6) ▶▶ ESL 3 (6) ▶▶ ENG 9 (4)

ENG 1¹ (4) ▶▶ ENG 2¹ (4)

RDL 1¹ (4) ▶▶ RDL 2¹ (6)

MTH 1² (4) ▶▶ MTH 5² (6) ▶▶ MTH 6² (6)

CHM 2 (4)

GRADUATION REQUIREMENTS

GPA ≥ 2.0 Writing Intensive 1 Writing Intensive 2

FRESHMAN SEMINAR

FYS 11

¹ENG 1/ENG 2 & RDL 1/RDL 2 are no longer offered. Students with ENG/RDL developmental need will now enroll in corequisite course ENG 100 (if English Proficiency Index is 0-49), **OR** ENG 110 (if English Proficiency Index is 50-64).

²MTH 1/MTH 5/MTH 6 are no longer offered. They have been replaced by MTH 28/28.5. Students who have successfully completed an elementary algebra math intervention at a CUNY college (e.g., Math Proficiency Workshop, CUNY Start Math, Math Start, or MTH 5) are eligible for MTH 28.

³This program has received a waiver to require students to complete specific STEM/STEM Variant courses in Required Area B, Required Area C and Flexible Area E. If students transferring into this program complete different courses in these areas, they will be certified as having completed the Common Core requirements, but it may not be possible for them to finish their degree within the regular number (60) of credits.

⁴For MTH 28 enrollment, a new student must be CUNY Math Proficient, and will also have to meet one of the following criteria:

Mathematics high school GPA of at least 70 and successful completion of a course beyond Algebra 1, **OR** New York State Regents Trigonometry Score of at least 65, **OR** New York State Regents Common Core Algebra 2 Score of at least 65.

⁵In choosing courses to fulfill Pathways Flexible core requirements for Areas A, B, C, and D, students are strongly advised to select courses from no fewer than three (3) different departments.

⁶See Degree map at: <http://www.bcc.cuny.edu/academics/academic-advising/degree-maps/> for semester-by-semester sequence.

⁷Students who place out of MTH 28 can use one elective credit toward EGR 31. Students who do not place out of MTH 28 should select EGR 21 so as to not exceed the 60-credit limit for the program

⁸Available only if student places out of MTH 28 and/or MTH 30.

Note: Students are encouraged to begin Transfer Planning early in their Academic careers. Please visit the Transfer Planning web site for the timeline as well as the information on Articulation and transfer: [Transfer Services – Bronx Community College \(cuny.edu\)](http://www.bcc.cuny.edu/academics/academic-advising/degree-maps/)

EQUIRED COMMON CORE

<input type="checkbox"/> A <input type="checkbox"/> A	English Composition ¹ I & II ENG 100 OR ENG 110 OR ENG 111; AND ENG 112 OR ENG 113 OR ENG 114 OR ENG 115 OR ENG 116	6
<input type="checkbox"/> B	Mathematical and Quantitative Reasoning ^{2,3} MTH 28 ⁴ College Algebra and Elementary Trigonometry OR MTH 28.5 ² (Corequisite)	3
<input type="checkbox"/> C	Life and Physical Sciences ³ PHY 31 Physics I	4
Subtotal:		13

FLEXIBLE COMMON CORE (Course list at: <http://www.bcc.cuny.edu/pathways/?p=Flexible-Common-Core>)

Students can complete no more than two courses from any one discipline or interdisciplinary field.		
<input type="checkbox"/> A	World Cultures and Global Issues ⁵	3
<input type="checkbox"/> B	US Experience in its Diversity ⁵	3
<input type="checkbox"/> C	Creative Expression ⁵	3
<input type="checkbox"/> D	Individual and Society ⁵	3
<input type="checkbox"/> E	Scientific World ³ PHY 32 Physics II AND CHM 11 General Chemistry I	8
Subtotal:		20

MAJOR REQUIREMENTS⁶

<input type="checkbox"/> EGR 11	Introduction to Engineering Design	1
<input type="checkbox"/> EGR 21 OR <input type="checkbox"/> EGR 31 ⁷	Analysis Tool for Engineers OR Circuit Analysis	2-3
<input type="checkbox"/> MTH 30	Pre-Calculus Mathematics	4
<input type="checkbox"/> MTH 31	Analytic Geometry & Calculus I	4
<input type="checkbox"/> MTH 32	Analytic Geometry & Calculus II	4
<input type="checkbox"/> MTH 33	Analytic Geometry & Calculus III	4
<input type="checkbox"/> MTH 34	Differential Equations & Selected Topics in Advanced Calculus	4
<input type="checkbox"/> PHY 33	Physics III	4
<input type="checkbox"/> RESTRICTED ⁸ ELECTIVES	Restricted Electives⁷ Select from the following	
	CHM 12 General Chemistry II	4
	CHM 31 Organic Chemistry I	5
	EGR 21 Analysis Tools for Engineers	2
	EGR 31 Circuit Analysis	3
	ENG 223 Technical Writing	3
	ELC 96 Digital Systems I	4
Subtotal:		27
TOTAL		60