

Engineering Science (A.S. Degree) *

FALL 2023-SPRING 2024

Footnotes:

¹ Students with English Proficiency Index (EPI) of 0-49 enroll in corequisite course ENG 100. Students with EPI of 50-64 enroll in corequisite course ENG 110. Students with EPI of at least 65 (or other English proficiency qualification) enroll in ENG 111. Students with ESL need should take appropriate ESL course(s) (Sequence: ESL 01->02->03->09) before enrolling in ENG 110.

² Students are eligible to enroll in MTH 28 if they 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), or if they are CUNY Math proficient AND have the appropriate math background in high school. See the Mathematics Course Placement page in the [College Catalog](#).

³ Students not eligible for MTH 28 or higher courses enroll in corequisite course MTH 28.5. However, note that students with Math Proficiency Index of 39 or lower are strongly encouraged to enroll in Math Start/CUNY Start.

⁴ This 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.

⁵ In 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.

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

⁷ Students 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.

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

*Note:

In order to apply for [graduation](#), students must complete all required courses with appropriate grades, complete two writing intensive courses, and have a minimum GPA of 2.0.

REQUIRED COMMON CORE

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

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 ⁴ 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	0-7
Subtotal:		27
TOTAL		60