

## Science (A.S. Degree) \*

### Earth Systems and Environmental Science Option

FALL 2023-SPRING 2024

#### Footnotes:

<sup>1</sup>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.

<sup>2</sup> 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](#).

<sup>3</sup>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.

<sup>4</sup>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.

<sup>5</sup>Students who place out of MTH 28 and/or MTH 30 will take elective course(s) to complete 60 total degree credits. Either GIS 11 or GIS 12 is recommended to fulfill free elective credits.

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

<sup>7</sup>Students transferring into the program with 24 or more degree or equated credits will be exempt from FYS 11 and can take 1 credit of elective to satisfy this requirement.

<sup>8</sup>See your department advisor for the appropriate sequence of specialization courses.

#### \*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	English Composition I <sup>1</sup> & II	
<input type="checkbox"/> A	ENG 100 <sup>1</sup> OR ENG 110 <sup>1</sup> OR ENG 111 <sup>1</sup> ; AND ENG 112 OR ENG 113 OR ENG 114 OR ENG 115 OR ENG 116	6
<input type="checkbox"/> B	Mathematical and Quantitative Reasoning <sup>2,3,4</sup> MTH 28 <sup>2,3,4,5</sup> College Algebra and Elementary Trigonometry OR MTH 28.5 <sup>3</sup> (Corequisite)	3
<input type="checkbox"/> C	Life and Physical Sciences <sup>4</sup> CHM 11 General Chemistry 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		3
<input type="checkbox"/> B US Experience in its Diversity		3
<input type="checkbox"/> C Creative Expression		3
<input type="checkbox"/> D Individual and Society		3
<input type="checkbox"/> E Scientific World <sup>4</sup> CHM 12 General Chemistry II AND MTH 30 <sup>5</sup> Pre-Calculus Mathematics		8
Subtotal:		20

#### MAJOR REQUIREMENTS<sup>6</sup>

<input type="checkbox"/> MTH 31	Analytic Geometry & Calculus I	4
<input type="checkbox"/> MTH 32	Analytic Geometry & Calculus II	4
<input type="checkbox"/> ELECTIVES <sup>5</sup>	Free Electives <sup>5</sup>	0-7
<input type="checkbox"/> FYS 11 <sup>7</sup>	First Year Seminar <sup>7</sup>	1

#### Earth Systems and Environmental Science Option Requirements<sup>8</sup>

<input type="checkbox"/> CHM 27	Principle of Laboratory Safety	2
<input type="checkbox"/> CHM 33	Quantitative Analysis	4
Choose two of the three courses below:		
<input type="checkbox"/> ESE 11	Earth Systems Science: The Earth OR	
<input type="checkbox"/> ESE 12	Earth Systems Science: The Atmosphere OR	
<input type="checkbox"/> ESE 13	Earth Systems Science: The Ocean	8
<input type="checkbox"/> ESE 21	Earth Systems Science: The Environment	4
Subtotal:		27
TOTAL:		60