

SCIENCE

Earth Systems & Environmental Science Option

A.S. Degree*

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 if they are CUNY Math proficient AND had the appropriate math background in high school. See the Mathematics Course Placement page in the [College Catalog](#).

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.

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

³ 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.

Students who place out of MTH 28 will take CHM 11 in the first semester.

⁴ See [Common Core Pathways course listing](#).

⁵ It is highly recommended that students take FYS 11 in their first or second semester prior to earning 24 credits. This requirement will be waived for students who have earned 24 or more degree or equated credits at BCC. Students transferring into the program with 24 or more degree or equated credits will also be exempt from FYS 11 and only required to complete 60 credits to graduate.

***Note: In order to graduate, students must meet all requirements, including, completing all required courses with appropriate grades, completing two writing intensive courses, and earning a minimum GPA of 2.0, and [applying for graduation](#).**

SEMESTER I Freshman	Prerequisite/Corequisite	Credits
<input type="checkbox"/> Required Core A: English Composition I - ENG 100 Integrated Reading and Writing OR ENG 110 Fundamentals of Writing and Rhetoric OR ENG 111 Writing and Rhetoric ¹	See footnote ¹	3
<input type="checkbox"/> Required Core B: MTH 28 College Algebra and Elementary Trigonometry OR MTH 28.5 College Algebra and Elementary Trigonometry Corequisite ^{2,3}	See footnote ^{2,3}	3
<input type="checkbox"/> Flexible Core A-D: Select ONE course from any Flexible Core Area ⁴	See catalog ⁴	3
<input type="checkbox"/> Flexible Core A-D: Select ONE course from a different Flexible Core Area ⁴	See catalog ⁴	3
<input type="checkbox"/> Major Requirement: FYS 11 First Year Seminar ⁵	None	1
Subtotal:		13

WINTER/SUMMER SESSION	Prerequisite/Corequisite	Credits
<input type="checkbox"/> Required Core C: CHM 11 General College Chemistry I ³	MTH 28 or 28.5 Corerequisite: ENG 110, if required	4

SEMESTER II Freshman	Prerequisite/Corequisite	Credits
<input type="checkbox"/> Required Core A: ENG 112 Composition and Rhetoric II OR ENG 113 Writing About Literature OR ENG 114 Written Composition and Prose Fiction OR ENG 115 Written Composition and Drama OR ENG 116 Written Composition and Poetry	ENG 100, ENG 110, or ENG 111	3
<input type="checkbox"/> Flexible Core E: CHM 12 General College Chemistry I ³	CHM 11	4
<input type="checkbox"/> Flexible Core E: MTH 30 Pre-Calculus Mathematics ³	MTH 28 or equivalent	4
<input type="checkbox"/> Earth Sys and Env Sci Option Requirement: Select ONE from ESE 11 Earth Systems Science: The Earth OR ESE 12 Earth Systems Science: The Atmosphere OR ESE 13 Earth Systems Science: The Ocean	CUNY English Proficiency, or ENG 100 or 110, if required Corequisite: MTH 23.5 or 28.5, if required	4
Subtotal:		15

SEMESTER III Sophomore	Prerequisite/Corequisite	Credits
<input type="checkbox"/> Earth Sys and Env Sci Option Requirement: Select ONE from ESE 11 Earth Systems Science: The Earth OR ESE 12 Earth Systems Science: The Atmosphere OR ESE 13 Earth Systems Science: The Ocean	CUNY English Proficiency, or ENG 100 or 110, if required Corequisite: MTH 23.5 or 28.5, if required	4
<input type="checkbox"/> Earth Sys and Env Sci Option Requirement: CHM 27 Principle of Laboratory Safety	CHM 11 or CHM 17	2
<input type="checkbox"/> Earth Sys and Env Sci Option Requirement: MTH 31 Analytic Geometry and Calculus I	MTH 30 or equivalent; CUNY English Proficiency or ENG 100 or 110, if required	4
<input type="checkbox"/> Flexible Core A-D: Select ONE course from a different Flexible Core Area ⁴	See catalog ⁴	3
Subtotal:		13

SEMESTER IV Sophomore	Prerequisite/Corequisite	Credits
<input type="checkbox"/> Earth Sys and Env Sci Option Requirement: CHM 33 Quantitative Analysis	CHM 12	4
<input type="checkbox"/> Earth Sys and Env Sci Option Requirement: ESE 21 Earth Systems Science: The Environment	Choice of two out of three courses from ESE 11, ESE 12 and ESE 13	4
<input type="checkbox"/> Earth Sys and Env Sci Option Requirement: MTH 32 Analytic Geometry and Calculus II	MTH 31 or equivalent; CUNY English Proficiency or ENG 100 or 110, if required	4
<input type="checkbox"/> Flexible Core A-D: Select ONE course from a different Flexible Core Area ⁴	See catalog ⁴	3
Subtotal:		15

TOTAL: 60