

Earth System Science & Environmental Engineering

Associate of Science | Degree Map

Follow this map to graduate in two years, though other paths are possible. You must average 15 credits a semester to finish in two years. Contact an advisor for additional support, and see the back for more information.

	Course	PC = Program Core; RC = Required Core; FC = Flexible Core	Category	Credits	Session
SEMESTER 1	ECF090 First Year Seminar for Engineering & Computer Science		PC	0 (2hrs)	I
	ENG101 English Composition I		RC	3	I
	MAT201 Calculus I (see Math note on back)		RC	4	I
	SCC201 General Chemistry I		PC	4	I
	MAC102 C/C++ Programming		PC	3	II
	HUP104 Ethics & Moral Issues (recommended)		FC	3	II

	Course	Category	Credits	Session
SEMESTER 2	ENG259 Technical Writing	RC	3	I
	MAT202 Calculus II (Scientific World: pre-req for MAT203)	FC	4	I
	MAE101 Engineering Lab I	PC	1	I
	SCP231 General Physics I (Life and Physical Sciences: pre-req for SCP232)	RC	4	I
	HUM101 Intro. to Music or HUA101 Intro. to Art (recommended)	FC	3	II

	Course	Category	Credits	Session
SEMESTER 3	MAT203 Calculus III	PC	4	I
	SCP232 General Physics II (Scientific World)	FC	4	I
	MAE106 Earth Systems Engineering & Science	PC	4	I
	SCC202 General Chemistry II	PC	4	I
	MAT204 Elementary Differential Equations – Unrestricted Elective	PC	4	II

	Course	Category	Credits	Session
SEMESTER 4	MAE217 Systems Analysis of the Earth (Capstone)	PC	4	I
	MAE213 Electrical Circuits	PC	3	I
	SSN187 Urban Sociology (Urban Study) (recommended)	FC	3	I
	SSA101 Cultural Anthropology (recommended)	FC	3	I
	Register for GRDOOO "Intent to Graduate" in CUNYfirst to apply for graduation in your final semester Students must take at least one Urban Study course			

Start planning now for what comes after graduation! Connect with [Transfer Services](#) and the [Center for Career & Professional Development](#). Also see the back of this map for more information on transfer.



Credits Required to Graduate

Category	Credits
Pathways Required Core (RC)	14
Pathways Flexible Core (FC)	20
Program Core (PC)	29
Total	63

More information at laguardia.edu/engineeringscience

Effective Fall 2019-Spring 2020 catalog. Updated: 4/12/2022

Follow the map for the catalog year in which you first enrolled.
Check Degree Audit & speak to an advisor for more support.

Program Core (PC) and Pre/Co-requisites

The Program Core (PC) is the required set of major-specific courses. Refer to the Pre- and Co-requisite list below to ensure you register for the appropriate courses.

Pre-requisite: A course which must be completed prior to taking another course

Co-requisite: A course which must be taken during the same session as another course.

1. MAT201 PRE: MAT200 or Placement (PRE for MAT 200: MAT115/117 or Placement)
2. SCC201 PRE: English Proficiency & MAT115
3. MAC102 PRE: MAT200
4. MAT202: PRE: MAT201
5. MAE101 PRE: MAT200 & PRE/CO: ENG259
6. SCP231 PRE: English Proficiency & MAT201
7. MAT203 PRE: MAT202
8. SCP232 PRE: SCP231 & MAT202
9. MAE106 PRE: MAT200 & SCC201
10. SCC202 PRE: SCC201
11. MAT204 PRE: MAT202 & PRE/CO: MAT203
12. MAE213 PRE: MAE101&MAT203&SCP232&P/C: MAT204
13. MAE217 PRE: MAT201&MAE106&P/C: SCP231

City College Dual Enrollment

Engineering is a “dual enrollment” program. Once students complete their studies at LaGuardia, they will have the opportunity to transition to City College as third year students in pursuit of a bachelor’s degree.

Pathways Requirements & Transfer

PATHWAYS REQUIRED CORE (FC) Pathways is CUNY’s general education framework. For Required Core, students must take 2 English courses, 1 Mathematics and Quantitative Reasoning course, and 1 Life and Physical Sciences course. For more details visit the [Pathways Required Core website](#).

MATHEMATICS AND QUANTITATIVE REASONING MAT201 Calculus I is the required course but students may need to first take MAT115/117 Algebra & Trigonometry and/or MAT200 Precalculus.

PATHWAYS FLEXIBLE CORE (FC) allows students to choose courses based on interests, transfer or career plans, or for general exploration. Associate of Science students must take one course from each category listed below, plus an additional course from any category. View DegreeWorks or our [Pathways website](#) to see a full range of options, or talk with the program director or an advisor. Note: your program has specific requirements & recommendations listed below. The recommendations facilitate transfer to City College or other 4-yearr engineering programs.

- Creative Expression: **HUM101 Intro to Music** or **HUA101 Intro to Art** recommended
- Individual & Society: **HUP104 Ethics & Moral Issues** recommended
- Scientific World: **MAT202 Calculus II** required
- U.S. Experience in its Diversity: **SSN187 Urban Sociology** recommended
- World Cultures and Global Issues: **SSA101 Cultural Anthropology** recommended
- Additional (Scientific World): **SCP232 General Physics II** required

TRANSFER AGREEMENTS The Engineering program has an agreement with the following 4-year college. By graduating from LaGuardia and meeting certain requirements, you will be able to complete your studies at a 4-year college and earn a bachelor’s degree. For more information, visit our [Transfer Agreement \(Articulation\) web page](#).

1. City College – Bachelor’s of Engineering (dual enrollment program)