

Earth and Planetary Sciences, A.S.

HEGIS: 5499.00

PROGRAM CODE: 34242

PROGRAM DIRECTOR: Dr. John Mikalopas

DEPARTMENT: PHYSICAL SCIENCES

The Earth and Planetary Sciences AS degree is designed to provide students with foundational courses in earth science, physics, and mathematics in preparation for transfer to baccalaureate programs. Courses focus on understanding the earth's subsystems, their evolution and interaction on different temporal and spatial scales, relevance of the earth system to the individual and society, and support quantitative reasoning, scientific writing, and research.

The curriculum presented here applies to students who started the major in Fall 2026 or Spring 2027. If you enrolled as a matriculant prior to that, please see the *College Catalog* for the year you started the major as a matriculant for the curriculum requirements that apply to you.

Consultation with the Program Advisor is required.

Degree Maps:

Degree Map for Earth and Planetary Sciences, A.S. - MAT 9010 or MAT 9B0 or MAT 900 Placement (**see below**)

Degree Map for Earth and Planetary Sciences, A.S. - MAT 1500 Placement - Calculus I (**see below**)

Your Degree Map contains the suggested term-by-term course sequence for your academic path towards graduation.

To ensure successful and timely completion of your degree, it is recommended that you meet with your academic advisor to discuss your unique map.

Please note some courses *may* only be offered once an academic year.

Program Learning Outcomes:

Upon successful completion of the Earth and Planetary Sciences degree program requirements, graduates will:

1. demonstrate an understanding of the earth's subsystems
2. be able to describe the interaction and evolution of these subsystems on different temporal and spatial scales
3. demonstrate an understanding of the nature of human interactions with the earth subsystems

4. demonstrate a recognition of the relevance of the earth system to the individual and to society
 5. recognize, describe, and analyze the types of natural hazards and natural resources
 6. demonstrate an understanding of the nature of scientific knowledge and its historical development
-

College Requirements:

English and Math proficient as determined by the CUNY Proficiency Index, unless otherwise exempt, or successful completion of any required developmental course(s).

Civic Engagement Experiences:

One (1) Civic Engagement experience satisfied by Civic Engagement Certified or Civic Engagement Component course or approved outside activity.

Writing Intensive Requirement:

One (1) Writing Intensive Course in any discipline is required.

Required Core (4 Courses, 13 Credits):

When Required Core Courses are specified for a category, they are required for the major

- ENG 1200 - Composition I 3 Credit(s)
 - ENG 2400 - Composition II 3 Credit(s)
 - **Mathematical & Quantitative Reasoning Course***
 - MAT 9010 - Introduction to Mathematics with College Algebra 3 Credit(s) **or**
 - MAT 9B0 - College Algebra for STEM Majors 3 Credit(s) **or**
 - MAT 900 - College Algebra 3 Credit(s) **or**
 - MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics 3 Credit(s) **or**
 - MAT 1500 - Calculus I 3 Credit(s)
 - **Life & Physical Sciences Course***
 - CHM 1100 - General Chemistry I 4 Credit(s)
-

Flexible Core (6 Courses, 20 Credits):

When Flexible Core Courses are specified for a category, they are required for the major

One course from each Group A to D (Group E is satisfied by the courses shown). **No more than two courses can be selected from the same discipline**

A. World Cultures and Global Issues Designated Course

B. U.S. Experience in its Diversity Designated Course

C. Creative Expression Designated Course

D. Individual and Society Designated Course

E. Scientific World Designated Course*

- EPS 3100 - Meteorology 4 Credit(s)
 - EPS 3800 - Introduction to Earth Science 4 Credit(s)
-

Major Requirements (7 Courses, 26 Credits):

Additional Physical Sciences Requirements (5 Courses, 20 Credits)

- EPS 3200 - Oceanography 4 Credit(s)
- EPS 3300 - Physical Geology 4 Credit(s)
- EPS 3500 - Introduction to Astronomy 4 Credit(s)
- EPS 3600 - Planetology: A Trip Through the Solar System 4 Credit(s)
- PHY 1100 - General Physics I 4 Credit(s)

Additional Mathematics Requirements (2 Courses, 6 Credits)

Select **two (2)** additional courses beyond the Mathematical and Quantitative Reasoning (MQR) course from the following:

- MAT 1000 - College Trigonometry 3 Credit(s) ^
 - MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics 3 Credit(s) (*Recommended*)
 - MAT 1500 - Calculus I 3 Credit(s) (*Recommended*)
 - MAT 1600 - Calculus II 3 Credit(s) (*Recommended*)
 - MAT 2100 - Calculus III 3 Credit(s)
 - MAT 5500 - Differential Equations 3 Credit(s)
 - MAT 5600 - Linear Algebra 3 Credit(s)
-

Electives:

1 credit sufficient to meet required total of 60 credits

Notes:

^ Depending on Math placement, students may be required to select MAT 1000

*This program has a waiver to require particular courses in the Common Core, otherwise more than the minimum credits for the degree may be necessary.

Total Credits: 60

Degree Map: A.S. Earth and Planetary Sciences

Degree InformationCatalog Year: 2026 - 2027Plan: Earth & Planetary Sciences ASSub Plan: NoneRequired Credits: 60General RequirementsReq GPA: 2.0Req Residential Credits: 30Req Pathways Credits: 33Req Civic Engagement: 1Req Writing Intensive: 1

1

Session A

COURSE	CRS
ENG 1200	3
MAT 9010 ¹ or MAT 9B0 ¹ or MAT 900 ¹ (NEED MIN. GRADE C)	3
CHM 100*	0
CHM 1100*	4
Choose 1: Flexible Core Individual and Society	3

Session B

COURSE	CRS
Additional Math 1: MAT 1400 ¹ (NEED MIN. GRADE C)	3

SEMESTER CRS: 16

2

Session A

COURSE	CRS
ENG 2400	3
EPS 3800	4
EPS 31, 32, 33, 35, or 36	4
Additional Math 2: MAT 1000 ¹	3

Session B

COURSE	CRS
EPS 31, 32, 33, 35, or 36	4

SEMESTER CRS: 18

3

Session A

COURSE	CRS
EPS 31, 32, 33, 35, or 36	4
EPS 31, 32, 33, 35, or 36	4
Choose 1: Flexible Core Creative Expression	3
Choose 1: Flexible Core U.S. Experiences in Its Diversity	3

Session B

COURSE	CRS

SEMESTER CRS: 14

4

Session A

COURSE	CRS
EPS 31, 32, 33, 35, or 36	4
PHY 1100	4
Choose 1: Flexible Core World Cultures & Global Issues	3
Elective	1

Session B

COURSE	CRS

SEMESTER CRS: 12

NOTE: The term-by-term course sequence takes into account necessary Prerequisites, Corequisites, and Pre-/Co-requisites

NOTE: Select ONE (1) WRITING INTENSIVE course & ONE (1) CIVIC ENGAGEMENT course. Some courses meet BOTH requirements, see CUNYfirst to determine course status

Important Notes:

*Based on the Chemistry Ready Placement Score, students may test directly into CHM 1100 and not be required to take CHM 100. Contact the Physical Sciences Department for Chemistry Ready Placement information.

Math Course Information

¹ Course is usually offered every semester

² Course is usually offered every Fall and Spring semesters

Degree InformationCatalog Year: **2026 - 2027**Plan: **Earth & Planetary Sciences AS**Sub Plan: **None**Required Credits: **60**General RequirementsReq GPA: **2.0**Req Residential Credits: **30**Req Pathways Credits: **33**Req Civic Engagement: **1**Req Writing Intensive: **1**

1

Session A

2

Session A

3

Session A

4

Session A

COURSE	CRS	COURSE	CRS	COURSE	CRS	COURSE	CRS
ENG 1200	3	ENG 2400	3	EPS 31, 32, 33, 35, or 36	4	EPS 31, 32, 33, 35, or 36	4
MAT 1500 ¹ (NEED MIN. GRADE C)	3	EPS 31, 32, 33, 35, or 36	4	EPS 31, 32, 33, 35, or 36	4	PHY 1100	4
EPS 3800	4	EPS 31, 32, 33, 35, or 36	4	CHM 1100*	4	Choose 1: Flexible Core World Cultures & Global Issues	3
Choose 1: Flexible Core Individual and Society	3	Additional Math 1: MAT 1600 ² (NEED MIN. GRADE C)	3	CHM 100*	0	Elective	1
				Additional Math 2: MAT 2100 ² , MAT 5500 ² , or MAT 5600 ²	3		

Session B

Session B

Session B

Session B

COURSE	CRS	COURSE	CRS	COURSE	CRS	COURSE	CRS
Choose 1: Flexible Core U.S. Experiences in Its Diversity	3	Choose 1: Flexible Core Creative Expression	3				

NOTE: The term-by-term course sequence takes into account necessary Prerequisites, Corequisites, and Pre-/Co-requisites**NOTE: Select ONE (1) WRITING INTENSIVE course & ONE (1) CIVIC ENGAGEMENT course. Some courses meet BOTH requirements, see CUNYfirst to determine course status****SEMESTER CRS: 16****SEMESTER CRS: 17****SEMESTER CRS: 15****SEMESTER CRS: 12**Important Notes:

*Based on the Chemistry Ready Placement Score, students may test directly into CHM 1100 and not be required to take CHM 100. Contact the Physical Sciences Department for Chemistry Ready Placement information.

Math Course Information¹ Course is usually offered every semester² Course is usually offered every Fall and Spring semesters