Earth Sciences - AS-T

2023-24

Program map for Earth Sciences Associate in Science-Transfer (AS-T)

Knowledge about the planet we inhabit, the surrounding universe and the natural forces that impact our world adds value to our daily lives and provides the basis for interesting careers in a broad range of disciplines: astronomy, geology, meteorology and oceanography. Begin studies for an advanced degree leading to positions with government agencies or private industry as an independent consultant, teacher, or researcher.

See also: (lowercolumbia.edu/programs/stem)

- **Degree Requirements for Science, Technology, Engineering and Math programs (lowercolumbia.edu/programs/stem)**
- **Course descriptions in LCC Catalog (lowercolumbia.edu/publications/catalog/courses)**
- **Distribution lists in LCC Catalog (lowercolumbia.edu/publications/catalog/distribution-lists)**

Please note that many course sequences only begin in fall quarter. Please check with your program advisor for more information.

Please review both the "By Quarter Overview" and "Detailed Class Sequence" tabs below.

By Quarter Overview

First Quarter

- COLL 101: College Success 101 (2 credits)
- ENGL& 101: English Composition I (5 credits)
- CHEM& 161: General Chem w/ Lab I (5 credits)
- ERSI 104: Introduction to Earth Sciences (5 credits)

Meet with faculty advisor (lowercolumbia.edu/advising/meet-with-advisor)

Apply for FAFSA (lowercolumbia.edu/financial-aid)

Second Quarter

- CHEM& 162: General Chem w/Lab II (5 credits)
- MATH& 141: Precalculus I (6 credits)
- GEOL& 101: Intro Physical Geology (5 credits)

Meet with faculty advisor (lowercolumbia.edu/advising/meet-with-advisor)

Decide on transfer university; research transfer requirements; contact transfer university advisor (lowercolumbia.edu/university-center)

Third Quarter

- CHEM& 163: General Chem w/Lab III (5 credits)
- SOC& 101: Intro to Sociology (5 credits)
- MATH& 142: Precalculus II (5 credits)

Meet with faculty advisor (lowercolumbia.edu/advising/meet-with-advisor)

Fourth Quarter

- PHYS& 221: Engr Physics I w/Lab (5 credits)
- HIST& 126: World Civilization I (5 credits)
- MATH& 151: Calculus I (5 credits)

Meet with faculty advisor (lowercolumbia.edu/advising/meet-with-advisor)

Apply for FAFSA (lowercolumbia.edu/financial-aid)

Contact transfer university advisor

Apply to transfer university

Fifth Quarter

- PHYS& 222: Engr Physics II w/Lab (5 credits)
- MATH& 152: Calculus II (5 credits)
- HIST& 127: World Civilization II (5 credits)

Meet with faculty advisor (lowercolumbia.edu/advising/meet-with-advisor)

Apply for Spring graduation (lowercolumbia.edu/graduation)

Sixth Quarter

- PHYS& 223: Engr Physics III w/Lab (5 credits)
- MATH& 153: Calculus III (5 credits)
- OCEA& 101: Intro to Oceanography (5 credits)

Spring Graduation (lowercolumbia.edu/commencement)

Detailed Class Sequence

1. College Success

COLL 101: College Success 101 (2 credits)

2. Communications Requirement

ENGL& 101: English Comp I (5 credits)

- *Prerequisites: College level reading and writing skills or completion of ENGL 099 or TECH 105 with a grade of C or better.*

3. Chem Pre-Major Requirement

CHEM& 161: General Chemistry w/ Lab I (5 credits)

- *Prerequisites: CHEM& 100 or high school chemistry and MATH 098.*

4. Geo Pre-Major Requirement

ERSI 104: Intro to Earth Sciences (5 credits)

5. Chem Pre-Major Requirement

CHEM& 162: General Chemistry w/ Lab II (5 credits)

- *Prerequisites: CHEM& 161*

6. Elective

MATH& 141: Precalculus I (6 credits)

- *Prerequisites: C or better in MATH 098, B or better in ABE 092, or placement.*

7. Geo Pre-Major Requirement

GEOL& 101: Intro to Physical Geology (5 credits)

8. Chem Pre-Major Requirement

CHEM& 163: General Chemistry w/ Lab III (5 credits)

- *Prerequisites: CHEM& 162*

9. Humanities/Social Science Requirement

SOC& 101: Intro to Sociology (5 credits)

10. Elective

MATH& 142: Precalculus II (5 credits)

- *Prerequisites: C or better in MATH& 141.*

11. Physics Pre-Major Requirement

PHYS& 221: Engineering Physics I w/ Lab (5 credits)

- *Prerequisites: Completion of or concurrent enrollment in MATH& 151 or instructor permission.*

12. Humanities/Social Science Requirement

HIST& 126: World Civilization I (5 credits)

13. Quantitative Requirement

MATH& 151: Calculus I (5 credits)

- *Prerequisites: MATH& 142 with a grade of C or better.*

14. Physics Pre-Major Requirement

PHYS& 222: Engineering Physics II w/ Lab (5 credits)

- *Prerequisites: PHYS& 221, MATH& 152 or instructor permission.*

15. Quantitative Requirement

MATH& 152: Calculus II (5 credits)

- *Prerequisite: MATH& 151 with a grade of C or better.*

16. Humanities/Social Sciences Requirement

HIST& 127: World Civilization II (5 credits)

17. Physics Pre-Major Requirement

PHYS& 223: Engineering Physics III w/ Lab (5 credits)

- *Prerequisites: PHYS& 222 or instructor permission.*

18. Math Pre-Major Requirement

MATH& 153: Calculus III (5 credits)

- *Prerequisite: MATH& 152 with a grade of C or better.*

19. Geo Pre-Major Requirement

OCEA& 101: Intro to Oceanography (5 credits)

Program Maps for Science, Technology, Engineering and Math (STEM) (lowercolumbia.edu/program-maps/stem)

- **Bioengineering and Chemical Pre-Engineering AS-T (Chemical Option) (lowercolumbia.edu/program-maps/stem/AST-Bioengineering-and-Chemical-Pre-Engineering-Chemical-Option)**
- **Bioengineering and Chemical Pre-Engineering AS-T (Bioengineering Option) (lowercolumbia.edu/program-maps/stem/AST-Bioengineering-and-Chemical-Pre-Engineering-Bioengineering-Option)**
- **Biological Sciences - AS-T (lowercolumbia.edu/program-maps/stem/AST-Biological-Sciences)**
- **Biology - DTA/MRP (lowercolumbia.edu/program-maps/stem/DTA-MRP-Biology)**
- **Chemistry - AS-T (lowercolumbia.edu/program-maps/stem/AST-Chemistry)**
- **Computer Science - AST (lowercolumbia.edu/program-maps/stem/AST-Computer-Science)**
- **Computer Science AS-T (WSU-V) (lowercolumbia.edu/program-maps/stem/AST-Computer-Science-WSU-V)**
- **Computer and Electrical Pre-Engineering - AS-T COMP E EE/MRP (2 year) (lowercolumbia.edu/program-maps/stem/AST-Computer-and-Electrical-Pre-Engineering-2-year)**
- **Computer and Electrical Pre-Engineering - AS-T COMP E EE/MRP (3 year) (lowercolumbia.edu/program-maps/stem/AST-Computer-and-Electrical-Pre-Engineering-3-year)**
- **Earth Sciences - AA-DTA (lowercolumbia.edu/program-maps/stem/AADTA-Earth-Sciences)**
- **Earth Sciences - AS-T (lowercolumbia.edu/program-maps/stem/AST-Earth-Sciences)**
- **Environmental Science - AS-T (lowercolumbia.edu/program-maps/stem/AST-Environmental-Science)**
- **Mechanical, Civil, Aeronautical, Industrial, Materials Science Engineering - AS-T (2 year) (lowercolumbia.edu/program-maps/stem/AST-Mechanical-Civil-Aeronautical-Industrial-Materials-Science-Engineering-2-year)**
- **Mechanical, Civil, Aeronautical, Industrial, and Materials Science Engineering AS-T (3 year) (lowercolumbia.edu/program-maps/stem/AST-Mechanical-Civil-Aeronautical-Industrial-Materials-Science-Engineering-3-year)**
- **Physics - AS-T (lowercolumbia.edu/program-maps/stem/AST-Physics)**
- **Physics - AS-T (Math Transfer Option) (lowercolumbia.edu/program-maps/stem/AST-Physics-Math-Transfer-Option)**