

Environmental Science

Associate in Science - Transfer (AS-T)

Today's environmental problems call for people who are educated in more than one discipline, highly trained in scientific and technical skills, and aware of the ecological, political, economic, and social dimensions of environmental decisions. The Associate in Science-Transfer (AS-T) degree in Environmental Science provides a foundation in basic physical, biological, and social sciences, and also addresses the human element in environmental issues. This curriculum prepares students to transfer and complete a BS or BA in an Environmental Science field for subsequent graduate study in MS, PhD, and law degree programs and careers in government agencies or the private sector.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- [Environmental Science Associate in Science - Transfer \(AS-T\) \(lowercolumbia.edu/program-maps/stem/AST-Environmental-Science\)](https://lowercolumbia.edu/program-maps/stem/AST-Environmental-Science)

Degree Requirements

Total credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See [Diversity and Distribution Lists \(lowercolumbia.edu/publications/catalog/distribution-lists/\)](https://lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

5 credits - ENGL& 101 English Composition I.

- **Quantitative / Symbolic Reasoning Skills:**

10 credits – MATH& 151* Calculus I **AND**
MATH& 152* Calculus II.

- **Humanities / Social Sciences:**

15 credits – Selected from at least three disciplines on the *Distribution List*. A minimum of 5 credits in Humanities, and a minimum of 5 credits in Social Science, and an additional 5 credits in either Humanities or Social Science.

- **Diversity:**

5 credits – from the *Diversity Course List*. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title.

- **Electives:**

15 credits - These remaining credits must include program advisor approved credits.

Program Requirements

Pre-Major Requirements (45 credits)

Course Code	Course Title	Number of Credits
BIOL& 221*	Majors Ecology/Evolution: w/ Lab	5
BIOL& 222*	Majors Cell/Molecular: w/Lab	5
BIOL& 223*	Majors Organismal Phys: w/ Lab	5
CHEM& 161*	General Chemistry w/Lab I	5
CHEM& 162*	General Chemistry w/Lab II	5
CHEM& 163*	General Chemistry w/Lab III	5
ENVS& 100	Survey of Environmental Science	5
ENVS 215	Environmental Issues	5
MATH& 153* OR MATH& 146	Calculus III OR Introduction to Statistics	5

Recommended Electives

Course Code	Course Title	Number of Credits
BIOL 130	Biodiversity of the Pacific Northwest	5
BIOL& 260	Microbiology	5
GEOG 105	Physical Geography	5
GEOL 118	Historical Geology	5
GEOL& 208	Geology of Pacific Northwest	5
OCEA& 101	Intro to Oceanography	5

Program Outcomes

Students completing this program should acquire the following skills and abilities:

- Familiarity with the (empirical) scientific method of problem solving.
- Perform competitively with peers at four-year institutions or professional programs.
- Express ideas and information in writing in a format that is clear and appropriate to a science-literate audience.

- Ability to apply various techniques and processes using information, data, and situation, to draw logical, rational and ethical and coherent conclusions.
- Competent with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

Notes

Revised August 2022 (effective Summer 2023)

*It is recommended that sequence courses be completed at one institution.

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* for checking specific major requirements of baccalaureate institutions in the year prior to transferring. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.