Biological Sciences - AS-T

2023-24

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

The biological sciences study living organisms and fundamental life processes that form the basis for careers in healthcare, research, teaching and related fields. Begin studies toward a bachelor's degree in general or molecular biology, botany, ecology, fisheries, genetics, marine science, soil science, wildlife management or zoology.

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)
- CHEM& 161: General Chemistry w/ Lab I (5 credits)
- MATH& 141: Precalculus I (6 credits)

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

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

Second Quarter

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

- MATH& 142: Precalculus II (5 credits)
- Choose one:
  - ANTH& 206: Cultural Anthropology (5 credits)
  - ART& 100: Art Appreciation (5 credits)
  - CMST& 250: Intercultural Communication (5 credits)
  - HIST& 128: World Civilization III (5 credits)
  - HUM 104: Ethics and Cultural Values (5 credits)
  - HUM 210: Myths and Rites (5 credits)
  - SOC& 101: Intro to Sociology (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 Chemistry w/ Lab III (5 credits)
- ENGL& 101: English Composition I (5 credits)
- Choose one:
  - ANTH& 204: Archaeology (5 credits)
  - CDS 101: Intro to Addictions/Chemical Dependency (5 credits)
  - ECON 105: Introduction to Economics (5 credits)
  - HIST& 128: World Civilization III (5 credits)
  - POLS& 202: American Government (5 credits)
  - PSYC& 100: General Psychology (5 credits)
  - SOC& 101: Intro to Sociology (5 credits)

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

Fourth Quarter (Summer)

- Choose one:
  - ART& 100: Art Appreciation (5 credits)
  - HUM 104: Ethics and Cultural Values (5 credits)
  - MUSC& 105: Music Appreciation (5 credits)

Fifth Quarter

- BIOL& 221: Majors Ecology/Evolution w/ Lab (5 credits)
- MATH& 151: Calculus I (5 credits)
- CHEM& 261: Organic Chemistry w/ Lab I (5 credits)

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

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

Contact transfer university advisor (lowercolumbia.edu/university-center)

Apply to transfer university (lowercolumbia.edu/university-center)

Sixth Quarter

- BIOL& 222: Majors Cell/Molecular w/ Lab (5 credits)
- MATH& 152: Calculus II (5 credits)
- CHEM& 262: Organic Chemistry w/ Lab II (5 credits)

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

Apply for Spring graduation (lowercolumbia.edu/graduation)

Seventh Quarter

- BIOL& 223: Majors Organismal Phys w/ Lab (5 credits)
- Choose one:
  - MATH&153: Calculus III (5 credits)
  - MATH& 246: Probability and Statistics (5 credits)
- CHEM& 263: Organic Chemistry w/ Lab III (5 credits)

Spring Graduation (lowercolumbia.edu/commencement)

Detailed Class Sequence

1. College Success

COLL 101: College Success 101 (2 credits)

2. Pre-Major Requirement

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

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

3. Prerequisite Coursework / Elective

MATH& 141: Precalculus I (6 credits)

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

4. Pre-Major Requirement

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

- *Prerequisites: CHEM& 161*

5. Prerequisite Coursework / Elective

MATH& 142: Precalculus II (5 credits)

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

6. Diversity Requirement

Choose one of the following recommended courses:

- ANTH& 206: Cultural Anthropology (5 credits)
  - *Fulfills [DIVR] requirement at WSU*
- ART& 100: Art Appreciation (5 credits)
- CMST& 250: Intercultural Communication (5 credits)
  - *Fulfills [DIVR] requirement at WSU*
- HIST& 128: World Civilization III (5 credits)
  - *Fulfills [ROOT] requirement at WSU*
- HUM 104: Ethics and Cultural Values (5 credits)
- HUM 210: Myths and Rites (5 credits)
- SOC& 101: Intro to Sociology (5 credits)

7. Pre-Major Requirement

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

- *Prerequisites: CHEM& 162*

8. 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.*

9. Social Science Requirement

Choose one of these recommended courses:

- ANTH& 204: Archaeology (5 credits)
- CDS 101: Intro to Addictions/Chemical Dependency (5 credits)
- ECON 105: Introduction to Economics (5 credits)
- HIST& 128: World Civilization III (5 credits)
  - *Fulfills [ROOT] requirement at WSU*
- POLS& 202: American Government (5 credits)
- PSYC& 100: General Psychology (5 credits)

- SOC& 101: Intro to Sociology (5 credits)

10. Humanities Requirement

Choose one of these recommended courses:

- ART& 100: Art Appreciation (5 credits)
- HUM 104: Ethics and Cultural Values (5 credits)
- MUSC& 105: Music Appreciation (5 credits)

11. Pre-Major Requirement

BIOL& 221: Majors Ecology/Evolution w/ Lab (5 credits)

12. Math Requirement

MATH& 151: Calculus I (5 credits)

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

13. Pre-Major Requirement

CHEM& 261: Organic Chemistry w/ Lab I (5 credits)

- *Prerequisite: CHEM& 163 or instructor permission.*

14. Pre-Major Requirement

BIOL& 222: Majors Cell/Molecular w/ Lab (5 credits)

15. Math Requirement

MATH& 152: Calculus II (5 credits)

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

16. Pre-Major Requirement

CHEM& 262: Organic Chemistry w/ Lab II (5 credits)

- *Prerequisite: CHEM& 261*

17. Pre-Major Requirement

BIOL& 223: Majors Organismal Phys w/ Lab (5 credits)

18. Pre-Major Requirement

Choose one:

- MATH& 153: Calculus III (5 credits)
  - *Prerequisite: MATH& 152 with a grade of C or better.*
- MATH 246: Probability and Statistics (5 credits)
  - *Prerequisites: MATH 125 or MATH& 141 with a grade of C or better or placement.*
  - *Recommended course for transferring to UW*

19. Suggested Elective

CHEM& 263: Organic Chemistry w/ Lab III (5 credits)

- *Prerequisite: CHEM& 262*

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)**