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

- **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)**

(lowercolumbia.edu/program-maps/stem/) **Important**: Many course sequences only begin in fall quarter. Check with your program advisor.

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 the FAFSA (lowercolumbia.edu/pay-for-college/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 the FAFSA (lowercolumbia.edu/pay-for-college/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)**