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

2025-26

Begin studies toward a Bachelor of Science degree in Computer Science. For the AS-T degree in Computer Science, various courses are offered such as calculus, physics, and computer science. A student can also take individual courses in areas of interest to deepen knowledge and understanding.

Transfer institutions may have specific requirements for CS transfer. Please discuss requirements for your specific transfer situation with Pathway or Faculty Advisor.

View this program in the LCC Catalog (lowercolumbia.edu/publications/catalog/programs/STEM-AST-Computer-Science)

See also

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

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)
- CS 170: Computer Programming (5 credits)
- ENGL& 101: English Composition I (5 credits)
- MATH& 151: Calculus I (5 credits)

Second Quarter

- CS 275: Object-Orientated Programming (5 credits)
- MATH& 152: Calculus II (5 credits)

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- MATH 215: Discrete Structures (5 credits)

Third Quarter

- MATH& 153: Calculus III (5 credits)
- MATH 220: Linear Algebra (5 credits)
- Choose one for elective credit from Distribution List categories Humanities or Social Science
  - Must include 5 credits each Social Science(SS) and Humanities(HUM)

Fourth Quarter

- CS 270: Data Structures I (5 credits)
- PHYS& 221: Engineering Physics I w/ Lab (5 credits)
- Choose one for elective credit from Distribution List categories Humanities or Social Science
  - Must include 5 credits each Social Science(SS) and Humanities(HUM)

Fifth Quarter

- PHYS& 222: Engineering Physics II w/ Lab (5 credits)
- Choose one for elective credit from Distribution List categories Humanities or Social Science (Must include a. 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. Example: SOC& 101 – Introduction to Sociology:DIV.)
- Elective - subject to CS advisor approval (5 credits)
  - ENGR 205: Design of Logic Circuits (Note: can substitute MATH& 141: Precalculus I or MATH& 142: Precalculus II if already taken)

Apply for Graduation (lowercolumbia.edu/graduation)

Sixth Quarter

- Choose one:
  - BIOL& 100: Survey of Biology w/ Lab (5 credits)
  - BIOL& 160: General Biology w/ Lab (5 credits)
  - CHEM& 110: Chemical Concepts w/ Lab (5 credits)
  - CHEM& 121: Intro to Chemistry w/ Lab (5 credits)
  - CHEM& 161: General Chem w/ Lab 1 (5 credits)
  - ENVS 215: Environmental Issues & Applications w/ Lab (5 credits)
  - ERSI 105: Earth Systems w/ Lab (5 credits)
  - Other lab-based science courses may also work. Consult with an LCC advisor and the transfer university.
- CS 280: Advanced Data Structures (5 credits)
- PHYS& 223: Engineering Physics III w/ Lab (5 credits)

Detailed Class Sequence

1. College Success

COLL 101: College Success 101 (2 credits)

2. Pre-Major Requirement

CS 170: Computer Programming (5 credits)

- *Prerequisite/s: MATH 088 or MATH 097 with grade C or better and knowledge of Windows is required; or instructor permission.*

3. Communications Requirement

ENGL& 101: English Comp I (5 credits)

- *Prerequisite/s: College level reading and writing skills or completion of ENGL 099 with grade C or better.*

4. Math Requirement

MATH& 151: Calculus I (5 credits)

- *Prerequisite/s: MATH& 142 with grade C or better*

5. Pre-Major Requirement

CS 275: Object Oriented Programming (5 credits)

- *Prerequisite/s: CS 170 with grade C or better, or instructor permission*

6. Math Requirement

MATH& 152: Calculus II (5 credits)

- *Prerequisite/s: MATH& 151 with grade C or better.*

7. Pre-Major Requirement

MATH 215: Discrete Structures (5 credits)

- *Prerequisite/s: MATH& 142 with grade C or better.*

8. Social Sciences Requirement

ECON& 201: Micro Economics (5 credits)

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• *Prerequisite/s: MATH 088 or BUS 104 and ENGL& 101 or BUS 190*

9. Pre-Major Requirement

MATH& 153: Calculus III (5 credits)

• *Prerequisite/s: MATH& 152 with grade C or better*

10. Pre-Major Requirement

MATH 220: Linear Algebra (5 credits)

• *Prerequisite/s: MATH& 152 with grade C or better*

11. Pre-Major Requirement

CS 270: Data Structures I (5 credits)

• *Prerequisite/s: MATH 098 and CS 170, both with grade C or better, or instructor permission*

12. Pre-Major Requirement

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

• *Prerequisite/s: Completion of or concurrent enrollment in MATH& 151 or instructor permission*

13. Humanities / Diversity Requirement

HIST& 128: World Civilizations III (5 credits)

• *Fulfills [ROOT] requirement at WSU*

14. Pre-Major Requirement

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

• *Prerequisite/s: PHYS& 221, MATH& 152 or instructor permission*

15. Humanities Requirement

Choose one Humanities course from the distribution list from a discipline other than HIST or ECON (5 credits)

16. Elective - subject to CS advisor approval

ENGR 205: Design of Logic Circuits (Note: can substitute MATH& 141: Precalculus I or MATH& 142: Precalculus II if already taken) (5 credits)

17. Lab Based Science Course Requirement

Choose one of these recommended courses:

- BIOL& 100: Survey of Biology w/ Lab (5 credits)
- BIOL& 160: General Biology w/ Lab (5 credits)
- CHEM& 110: Chemical Concepts w/ Lab (5 credits)
- CHEM& 121: Intro to Chemistry w/ Lab (5 credits)
  - *Prerequisite/s: CHEM& 100 or CHEM& 110 or one year of high school chemistry, and completion of, or concurrent enrollment in Math 88 or 87 (or higher math)*
- CHEM& 161: General Chem w/ Lab 1 (5 credits)
  - *Prerequisite/s: MATH 098 (or higher) with CHEM& 100, OR MATH 98 (or higher) with high school chemistry; OR MATH& 142*
- ENVS 215: Environmental Issues & Applications w/ Lab (5 credits)
  - *Prerequisite/s: ENGL& 101 or instructor permission*
- ERSI 105: Earth Systems w/ Lab (5 credits)
- Other lab-based science courses may also work. Consult with an LCC advisor and the transfer university.

18. Pre-Major Requirement

CS 280 Advanced Data Structures (5 credits)

- *Prerequisite/s: CS 270 and MATH& 141, both with grade C or better, or instructor permission*

19. Pre-Major Requirement

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

- *Prerequisite/s: PHYS& 222 or instructor permission*