Computer Science AS-T (WSU-V)

2023-24

Program map for Computer Science Associate in Science-Transfer (AS-T) for Washington State University-Vancouver (WSU-V)

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 course in areas of interest to deepen knowledge and understanding. This degree is intended for WSU-V transfer students.

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)
- 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)
- MATH& 215: Discrete Structures (5 credits)

Third Quarter

- ECON& 201: Micro Economics (5 credits)
- MATH& 153: Calculus III (5 credits)
- MATH 220: Linear Algebra (5 credits)

Fourth Quarter

- CS 270: Data Structures I (5 credits)
- PHYS& 221: Engineering Physics I w/ Lab (5 credits)
- HIST& 128: Western Civ III (5 credits)

Fifth Quarter

- PHYS& 222: Engineering Physics II w/ Lab (5 credits)
- Choose one Humanities course from the distribution list from a discipline other than HIST or ECON (5 credits)

Sixth Quarter

- CS 280: Advanced Data Structures (5 credits)
- PHYS& 223: Engineering Physics III w/ Lab (5 credits)
- ENGL 235: Technical Writing (5 credits)

Seventh Quarter

- ENGR 205: Design of Logic Circuits (5 credits)
- IT 249: Linux Operating Systems (5 credits)
- MATH& 254: Calculus IV (5 credits)

Eighth Quarter

- ENGR 206: Microprocessor Systems (5 credits)
- 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.

Apply for Graduation (lowercolumbia.edu/graduation)

Ninth Quarter

- CS 285: Programming Tools (5 credits)
- Choose one for elective credit:
  - ANTH& 206: Cultural Anthropology (5 credit)
  - HIST& 126: World Civilizations I (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 or TECH 105 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 Science Requirement

ECON& 201: Micro Economics (5 credits)

- *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. Social Sciences / Diversity Requirement

HIST& 128: Western Civ III (5 credits)

- *Fulfills [ROOT] requirement at WSU*

14. Pre-Major Requirement

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

- *Prerequisites: 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. 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*

17. Pre-Major Requirement

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

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

18. Recommended Elective

ENGL& 235: Technical Writing (5 credits)

- *Prerequisite/s: ENGL& 101 with grade C or better*
- *Fulfills [WRTG] requirement at WSU*

19. Pre-Major Requirement

ENGR 205: Design of Logic Circuits (5 credits)

- *Prerequisite/s: MATH& 141*

20. Recommended Elective

IT 249 Linux Operating Systems (5 credits)

- *Required to transfer to WSUV at junior level*

21. Pre-Major Requirement

MATH& 254: Calculus IV (5 credits)

- *Prerequisite/s: MATH& 153 with grade C or better*

22. Pre-Major Requirement

ENGR 206: Microprocessor Systems (5 credits)

- *Prerequisite/s: CS 270, ENGR 205*

23. Lab Based Science Course Requirement

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)
  - *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.

24. Pre-Major Requirement

CS 285: Programming Tools (5 credits)

- *Prerequisite/s: CS 270 with grade C or better, or instructor permission*

25. Recommended Elective

Choose one:

- ANTH& 206: Cultural Anthropology (5 credits)
  - *Fulfills [DIVR] requirement at WSU*
- HIST& 126: World Civilization I (5 credits)
  - *Fulfills [DIVR] requirement at WSU*

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)**