Computer Science

Associate in Computer Science DTA/MRP

Computer scientists today create software solutions, develop applications, and solve complex problems using technology across virtually every industry. From mobile apps and web platforms to artificial intelligence and cybersecurity systems, computer scientists are essential in building the digital infrastructure that powers our modern world. They collaborate in diverse teams to innovate in fields such as machine learning, data analytics, software engineering, network security, and emerging technologies.

This transfer degree provides the foundation for pursuing a Bachelor of Science in Computer Science. The program combines essential computer science coursework with mathematics, physics, and general education requirements, ensuring seamless transfer while meeting university prerequisites for competitive computer science programs.

Degree Requirements

Total credits required to earn this degree: 95-110 with a cumulative grade point average (GPA) of at least 2.0. Universities may expect certain minimal grades in various courses in order to certify into their computer science programs (work with a CS transfer advisor). 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/) for more information.

General Education Requirements

- **Communications:**

  10 credits - ENGL& 101 English Composition I ***AND*** ENGL& 102 English Composition II
- **Quantitative Skills:**

  5 credits – MATH& 151 Calculus I
- **Humanities**

  15 credits – ENGL& 235 Technical Writing ***AND*** other courses selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.
- **Natural Sciences:**

  15 credits – Select courses from at least two disciplines on the Distribution List; must include 5 credits of majors lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement. Note some CS programs require Physics, or require all lab based courses. Work with transfer or faculty advisor to assure transferability.
- **Social Sciences:**

  15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline. Recommend SOC& 101 Introduction to Sociology: DIV ***OR*** HIST& 128 World Civilizations III: DIV ***OR*** courses based on transfer institution requirements.

- **Diversity:**

  5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Recommend SOC& 101 Introduction to Sociology: DIV ***OR*** HIST& 128 World Civilizations III: DIV ***OR*** courses based on transfer institution requirements.
- **Electives:**

  10 to 25 credits based on transfer institution requirements; MATH& 152 Calculus II, MATH& 153 Calculus III, MATH& 254 Calculus IV, CS 285 Programming Tools, ENGR 205 Design of Logic Circuits, ENGR 206 Microprocessor Systems, IT 249 Linux Operating Systems, PHYS& 222 Engr Physics II w/Lab, PHYS& 223 Engr Physics III w/Lab, MATH 220 Linear Algebra, ENGL& 235 Technical Writing ***OR*** recommended courses from CS transfer advisor/faculty.

Program Requirements

Course Code	Course Title	Number of Credits
CS 170	Fundamentals of Computer Programming	5
CS 270	Data Structures I	5
CS 275	Object-Orientated Programming	5
CS 280	Advanced Data Structures	5
MATH 215	Discrete Structures	5

Program Outcomes

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

- Demonstrate proficiency in core computer science concepts, including programming, data structures, algorithms, and discrete mathematics.
- Apply computational thinking to analyze problems, design algorithms, and implement effective programming solutions.
- Communicate technical information clearly through writing, speaking, and teamwork for diverse audiences.
- Evaluate information from multiple sources to inform decisions about technology solutions and system design.
- Demonstrate awareness of ethical, social, and cultural implications of computing in a global society.
- Demonstrate readiness for upper-division study by applying core computer science knowledge to solve problems and design projects.
- Engage in continuous learning and professional development while functioning effectively in diverse teams.

Notes

Revised June 2026 (effective Summer 2026)

*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.