Doctor of Philosophy in Computer Science

KENNESAW STATE UNIVERSITY

Updated 6/5/2025

Catalog Year: 2025

Total Degree Credit Hours: 72

Please see admission requirements and dates/deadlines at https://www.kennesaw.edu/admissions/graduate/

Program Core Requirements (18 credit hours)

Course Number/Title	Prerequisite	Credits	✔
CS 8025 Advanced Operating Systems	Admission to PhD or MSCS	3	
CS 8027 Advanced Networking and Architecture	Admission to PhD or MSCS	3	
CS 8041 Advanced Theory of Computation	Admission to PhD or MSCS	3	
CS 8045 Advanced Design and Analysis of Algorithms	Admission to PhD or MSCS	3	
CS 8050 Principles of Software Design and Programming Languages	Admission to PhD or MSCS	3	
CS 8260 Advanced Database Systems and Applications	Admission to PhD or MSCS	3	

Research Requirement (6 credit hours)

Course Number/Title	Semester	Research topic	Credits	✔
CS 8998 Advanced Research in CS			1-3	
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Research is conducted under the PhD Advisor's supervision. Up to six hours may be applied to the major area. Prerequisites vary depending on topic.

Internship Requirement (6 credit hours)

Students may select to take one course twice or take each course once, for a total of 6 hours earned.

Course Number/Title	Prerequisite	Internship Employer	Credits	✔
CSE 7983 Graduate Internship	9 grad CSE hours & good standing		3	
DS 9700 Doctoral Internship	Ph.D. Candidacy		1-6	

To find more information about internships for credit, visit https://ccse.kennesaw.edu/student-resources/ccse-internships.php or email ccseinternship@kennesaw.edu.

Electives – Choose 6 (18 credit hours)

Course Number/Title	Prerequisite	Credits	✔
CS 8125 Advanced Cloud Computing	Admission to program	3	
CS 8172 Advanced Parallel and Distributed Computing	CS 8025 (may take concurrently)	3	
CS 8253 Advanced Graph Algorithms	CS 8045 (may take concurrently)	3	
CS 8263 Advanced Information Retrieval	CS 8045 (may take concurrently)	3	
CS 8265 Advanced Big Data Analytics	Admission to program	3	
CS 8267 Advanced Machine Learning	Admission to program	3	
CS 8347 Advanced Natural Language Processing	CS 8041 (may take concurrently)	3	
CS 8357 Advanced Neural Networks and Deep Learning	CS 8045 (may take concurrently)	3	

Additional elective options & degree requirements on back

CS 8367 Advanced Computer Vision	CS 8045 (may take concurrently)	3	
CS 8375 Advanced Artificial Intelligence	CS 8045 (may take concurrently)	3	
CS 8540 Advanced Network Security	CS 8027 (may take concurrently)	3	
CS 8545 Advanced AI for Security and Privacy	CS 8045 (may take concurrently)	3	
CS 8990 Advanced Special Topics in Computer Science	Depends on topic	3	
CS 8992 Advanced Directed Studies	Admission to program	1-3	

Dissertation (24 credit hours)

The prerequisites to be able to register for CS 9900 are: admission to PhD in CS program, CS 8041, CS 8045, CS 8260, CS 8025, CS 8027, CS 8050, and permission of your advisor.

CS 9900 is a variable credit hour course and will need to be repeated until 24 credit hours are earned. This would be a minimum of 3 semesters (two semesters at 9 credit hours and 1 semester at 6 credit hours). **You must complete all requirements, including the 24 credits of CS 9900, within 10 years** beginning with the first registration in graduate-level classes (5000-9000 level) following admission to the PhD program.

Course Number/Title	Semester	Research topic	Credits	✔
CS 9900 Ph.D. Dissertation Research			1-9	
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CS 9900 includes dissertation writing under the direction of the major professor (dissertation advisor). The course is taught using a non-traditional format of independent research and preparation of the doctoral dissertation.