

Tentative: Course offerings are subject to change.

Course #	Course Name	Credits	2024				2025				Notes
			Summer 24	Fall 24	Winter 24	Spring 24	Summer 25	Fall 25	Winter 25	Spring 25	
CPSC 5001	Programming Boot Camp I	3	X		X			X	X		
CPSC 5002	Programming Boot Camp II	3	X		X			X	X		
CPSC 5005	Data Structures	3		X		X			X	X	
CPSC 5011	Object-Oriented Concepts	3		X	X				X	X	
CPSC 5021	Database Systems	3		X		X			X	X	
CPSC 5031	Algorithms	3			X	X			X	X	
CPSC 5041	Computing Systems Principles I	3		X	X				X	X	
CPSC 5042	Computing Systems Principles II	3			X	X			X	X	
CPSC 5070	Programming for Data Science	3		X					X		Not for MSCS students
CPSC 5071	Data Management for Data Science	3			X				X		Not for MSCS students
CPSC 5075	Data Architectures for Analytics	3									Not for MSCS students, may or may not be offered
CPSC 5080	AI for Buiness & Analytics	3									Not planned to be offered
CPSC 5110	Fundamentals of Software Engineering	5		X		X			X	X	
CPSC 5120	Software Project Management	3			X						May not be offered in Winter 25. See CPSC 5810 / 5820 note.
CPSC 5200	Software Architecture and Design	5			X	X			X	X	
CPSC 5210	Software Testing and Debugging	5		X		X			X	X	
CPSC 5220	User Experience Design	5				X			X	X	
CPSC 5240	Software as a Service	5		X		X			X	X	
CPSC 5250	Mobile Software Development	5			X				X		
CPSC 5260	Refactoring and Software Design	5			X				X		
CPSC 5270	Graphics / Game Project	5				X				X	
CPSC 5300	Physical Database Design & Optimization	5			X				X		
CPSC 5305	Introduction to Data Science	3		X					X		Only open to students in MSCS-data science specialization
CPSC 5310	Machine Learning	5			X				X		
CPSC 5320	Visual Analytics	3				X				X	
CPSC 5330	Big Data Analytics	3			X					X	
CPSC 5340	Text Processing and Search	5							X		One data science elective will be offered in winter quarter. In Winter 2025, will be special topics on Large Language Models.
CPSC 5350	Social Media Analytics	5									
CPSC 5400	Compiler Principles & Techniques	5				X				X	
CPSC 5510	Computer Networks	5				X				X	
CPSC 5520	Distributed Systems	5		X	X				X	X	
CPSC 5530	Embedded Systems	5									Not planned to be offered
CPSC 5600	Parallel Computing	5		X	X				X	X	
CPSC 5610	Artificial Intelligence	5		X	X	X			X	X	
CPSC 5700	Computer Graphics	5		X					X		
CPSC 5710	Security in Computing	5		X					X		
CPSC 5800	Ethics & Professional Issues in Computing	2		X	X	X			X	X	X
CPSC 5810	Software Engineering Project I	4		X					must start in fall		In 25-26, planning to have a 3-quarter capstone project. A course comparable to CPSC 5120 will be part of the project.
CPSC 5820	Software Engineering Project II	4			X						
CPSC 5830	Data Science Capstone Project	5			X				X		
CPSC 5890	Seminar	3		X	X	X			X	X	X
CPSC 5910	Special Topics: Cloud Computing	5				X				X	Satisfies software development requirement
CPSC 5910	Special Topics: Large Language Models	5			X						Satisfies data science elective
CPSC 5910	Special Topics: Web Development				X					X	
CPSC 5990	Graduate Research Project	4		arranged					arranged		

Courses numbered CPSC 5001-5042 are part of the Computer Science Fundamentals Certificate. Individual courses may be restricted to students in that program.

Courses numbered CPSC 5070-5080 are for students in other graduate programs.

Courses numbered CPSC 5110-5990 are part of the MS-Computer Science program. Individual courses are restricted to students in that program.

Please see catalog for course prerequisites.