

In-person courses are in bold.

## CS Graduate Courses

### Fall Semester Core Courses

Course No.	Name	Prerequisites
<b>CS 5313</b>	<b>Formal Language Theory</b>	<b>CS 3613</b>
<b>CS 5413</b>	<b>Data Structures and Algorithms II</b>	<b>CS 3353</b>
<b>CS 5113</b>	<b>Computer Organization and Architecture</b> (fall course beginning 2024)	<b>CS 3443</b>

### Spring Semester Core Courses

Course No.	Name	Prerequisites
<b>CS 5313</b>	<b>Formal Language Theory</b> (Available in Fall 2024. Spring course beginning Spring 2025.)	<b>CS 3613</b>
<b>CS 5323</b>	<b>Operating Systems II</b>	<b>CS 4323</b>
<b>CS 5513 (core for PhD)</b>	<b>Numerical Computation</b>	<b>MATH 2233, 3013 and CS 3513 or MATH 4513</b>

### Fall Semester CS Elective Courses

Course No.	Name	Prerequisites
CS 5000	Master's Thesis	Instructor Permission
CS 5030	Professional Practice	Instructor Permission
CS 5070	Seminar and Special Problems	Instructor Permission
<b>CS 5070.65276</b>	<b>Network Security and Defense</b>	<b>CS 2133</b>
CS 5163	Video Game Development	CS 2133, 2433 and MATH 2144
<b>CS 5243</b>	<b>Intro to Computer Security</b>	<b>CS 3443</b>
<b>CS 5383</b>	<b>Computer Networks</b>	<b>CS 2133, CS 3443</b>
<b>CS 5423 (not with CS 5233)</b>	<b>Principles of Database Systems</b>	<b>CS 3353, CS 4433</b>
CS 5473	Software Engineering	
<b>CS 5683</b>	<b>Big Data Analytics</b>	<b>CS 5513</b>
<b>CS 5743</b>	<b>Extended Reality</b>	<b>CS 2133, 2433, and 3653</b>
<b>CS 5783</b>	<b>Machine Learning</b>	<b>CS 3353 and MATH 3013</b>
CS 6000	Doctoral Dissertation	Instructor Permission

### Spring Semester CS Elective Courses

Course No.	Name	Prerequisites
CS 5000	Master's Thesis	Instructor Permission
CS 5030	Professional Practice	Instructor Permission
CS 5070	Seminar and Special Problems	Instructor Permission
CS 5123	Cloud Computing and Distributed Systems	CS 3443 and CS 3353
CS 5153	Mobile Applications Development	
<b>CS 5233 (not with CS 5423)</b>	<b>Intro to Database Systems</b>	
CS 5243	Intro to Computer Security	CS 3443
<b>CS 5263</b>	<b>Quantum Computing</b>	<b>Python and Linear Algebra</b>
<b>CS 5623</b>	<b>Introduction to Cyber Physical Systems</b>	<b>CS 2133</b>
CS 5723	Artificial Intelligence I	CS 3353
CS 5743	Extended Reality	CS 2133, CS 2433, CS 3653
CS 6000	Doctoral Dissertation	Instructor Permission

## Summer Semester CS Elective Courses

CS 5243	Intro to Computer Security	CS 3443
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## Independent Study Courses

### Summer Semester CS 5000-level and 6000-level Courses

Course No.	Name	Prerequisites
CS 5000	Master's Thesis	Instructor Permission
CS 5030	Professional Practice	Instructor Permission
CS 5070	Seminar and Special Problems	Instructor Permission
CS 5243	Intro to Computer Security	CS 3443
CS 6000	Doctoral Dissertation	Instructor Permission
CS 6210	Parallel and Distributed Systems	Dai
CS 6300	Programming Languages	George
CS 6400	Information Systems	Thomas
CS 6620	Applied Algorithms	George
CS 6700	Artificial Intelligence	Bagavathi
CS 6800	Computing Networks	Paranjothi

### Spring Semester CS 6000-level Advanced Topics

Course No.	Advanced Topics in ...	Instructor
CS 6210	Parallel and Distributed Systems	Dai
CS 6240	Computer Organization	Park
CS 6253	Computer Architecture	George
CS 6300	Quantum Algorithms	George
CS 6350	Operating Systems	Thomas
CS 6400	Information Systems	Thomas
CS 6400	Information Systems	Heisterkamp
CS 6500	Numerical Analysis	Heisterkamp
CS 6620	Applied Algorithms	Cecil
CS 6623	Algebraic Structures of Formal Grammars	
CS 6700	Artificial Intelligence	Crick

### Fall Semester CS 6000-level Advanced Topics

Course No.	Advanced Topics in ...	Instructor
CS 6210	Parallel and Distributed Systems	Thomas
CS 6240	Computer Organization	Park
CS 6300	Programming Languages	George
CS 6350	Operating Systems	Thomas
CS 6400	Information Systems	Thomas
CS 6500	Numerical Analysis	Heisterkamp
CS 6600	Analysis of Algorithms	Cecil
CS 6620	Applied Algorithms	Cecil
CS 6700	Artificial Intelligence	Crick
CS 6700	Artificial Intelligence	Bagavathi
CS 6700	Artificial Intelligence	Shamsuddin
CS 6800	Computing Networks	Paranjothi
CS 6800	Aerial Computing	Pu