

## MS/MCS/Ph.D. Area Course List

Course Prefix	Course Title	Foundations	Systems	Applications
CSE 509	Digital Video Processing			X
CSE 510	Database Management System Implementation			X
CSE 511	Semi-Structured Data Management			X
CSE 512	Distributed Database Systems			X
CSE 515	Multimedia and Web Databases			X
CSE 520	Computer Architecture II		X	
CSE 522	Real-Time Embedded Systems		X	
CSE 530	Embedded Operating Systems Internals		X	
CSE 531	Distributed and Multiprocessor Operating Systems		X	
CSE 534	Advanced Computer Networks		X	
CSE 535	Mobile Computing		X	
CSE 536	Advanced Operating Systems		X	
CSE 539	Applied Cryptography		X	X
CSE 543	Information Assurance and Security		X	
CSE 545	Software Security		X	
CSE 546/591	Cloud Computing		X	
CSE 548	Advanced Computer Network Security		X	
CSE 550	Combinatorial Algorithms and Intractability	X		
CSE 551/591	Foundations of Algorithms*	X		
CSE 552	Randomized and Approximation Algorithms	X		
CSE 555	Theory of Computation	X		
CSE 556	Game Theory with Applications to Networks	X		
CSE 561	Modeling and Simulation Theory and Applications		X	
CSE 563	Software Requirements and Specification		X	
CSE 564	Software Design		X	
CSE 565	Software Verification, Validation and Testing		X	
CSE 566	Software Project, Process and Quality Management		X	
CSE 569	Fundamentals of Statistical Learning and Pattern Recognition	X		
CSE 570	Advanced Computer Graphics I			X
CSE 571	Artificial Intelligence			X
CSE 572	Data Mining			X
CSE 573/591	Semantic Web Mining			X
CSE 574	Planning and Learning Methods in AI			X
CSE 575	Statistical Machine Learning			X
CSE 576	Topics in Natural Language Processing			X
CSE 577	Advanced Geometric Modeling I			X
CSE 578/591	Data Visualization			X
CSE 579	Knowledge Representation and Reasoning	X		

**4XX and 4XX/598 courses do not apply toward the required area courses.**

\* CSE 598 Design and Analysis of Algorithms and CSE 591 Foundations of Algorithms cannot both be listed on the iPOS.