

MS/MCS Area Course List

Course Prefix	Course Title	Found.	Syst.	Apps	Def. Prerequ.
CSE 509	Digital Video Processing			X	310
CSE 510	Database Management System Implementation			X	310, 330
CSE 511	Data Processing at Scale			X	310
CSE 512	Distributed Database Systems			X	310,330
CSE 515	Multimedia and Web Databases			X	310
CSE 520	Computer Architecture II		X		230, 310, 330
CSE 522	Real-Time Embedded Systems		X		230, 310, 330
CSE 530	Embedded Operating Systems Internals		X		230, 310, 330
CSE 531	Distributed and Multiprocessor Operating Systems		X		230, 310, 330
CSE 534	Advanced Computer Networks		X		310
CSE 535	Mobile Computing		X		310
CSE 536	Advanced Operating Systems		X		230, 310, 330
CSE 539	Applied Cryptography		X	X	355
CSE 543	Information Assurance and Security		X		310
CSE 545	Software Security		X		230, 310, 330
CSE 546	Cloud Computing		X		230, 310, 330
CSE 548	Advanced Computer Network Security		X		310
CSE 550	Combinatorial Algorithms and Intractability	X			310, 355
CSE 551	Foundations of Algorithms	X			310, 355
CSE 552	Randomized and Approximation Algorithms	X			310, 355
CSE 555	Theory of Computation	X			310, 355
CSE 556	Game Theory with Applications to Networks	X			310, 355
CSE 561	Modeling and Simulation Theory and Applications		X		310
CSE 563	Software Requirements and Specification		X		310, 340, 355
CSE 564	Software Design		X		310, 340, 355
CSE 565	Software Verification, Validation and Testing		X		310, 340, 355
CSE 566	Software Project, Process and Quality Management		X		310
CSE 569	Fundamentals of Statistical Learning and Pattern Recognition	X			310
CSE 570	Advanced Computer Graphics I			X	310
CSE 571	Artificial Intelligence			X	310, 340, 355
CSE 572	Data Mining			X	310
CSE 573	Semantic Web Mining			X	340, 355
CSE 574	Planning and Learning Methods in AI			X	310
CSE 575	Statistical Machine Learning			X	310
CSE 576	Topics in Natural Language Processing			X	310, 340, 355
CSE 577	Advanced Geometric Modeling I			X	310
CSE 578	Data Visualization			X	310
CSE 579	Knowledge Representation and Reasoning	X			310, 340, 355

Spring 2014 and earlier admits can take one of the following as an area course

Course Prefix	Course Title	Foundations	Systems	Applications
CSE 408/598	Multimedia Information Systems			X
CSE 412/598	Database Management			X
CSE 420/598	Computer Architecture I		X	
CSE 432/598	Operating System Internals		X	
CSE 434/598	Computer Networks		X	
CSE 440/598	Compiler Construction		X	
CSE 450/598	Design and Analysis of Algorithms	X		
CSE 457/598	Theory of Formal Languages	X		
CSE 459/598	Logic for Computer Scientists I	X		
CSE 460/598	Software Analysis and Design		X	
CSE 468/598	Computer Network Security		X	
CSE 470/598	Computer Graphics			X
CSE 471/598	Introduction to Artificial Intelligence			X
CSE 477/598	Introduction to Computer-Aided Geometric Design			X