## **CS COURSE AREA DESIGNATIONS**

Column1	Column2	Column3	Column4	Column5
Number	Title			
600.315/415	Databases (formerly Database Systems)		Systems	
600.316/416	Database Systems (formerly TSP)		Systems	
600.318/418	Operating Systems		Systems	
600.319/419	Storage Systems (last offered 2008)		Systems	
600.320/420	Parallel Programming		Systems	
600.321/421	Object-Oriented Software Engineering		Systems	Applications
600.323/423	Data Intensive Computing		Systems	
600.325/425	Declarative Methods	Analysis	Cyclonic	
600.328/428	Compilers and Interpreters	7	Systems	
600.335/435	Artificial Intelligence		Cyclonic	Applications
600.336/436/636	Algorithms for Sensor-Based Robotics	Analysis		, applications
600.337/437	Distributed Systems	7 triary or o	Systems	
600.340	Introduction to Genomic Research		Cyclonic	Applications
600.344/444	Computer Network Fundamentals		Systems	7 (ppiloations
600.357/457	Computer Graphics		Cyclonic	Applications
600.361/461/661	Computer Vision			Applications
600.363/463	Introduction to Algorithms/Algorithms I	Analysis		Applications
600.365	Knowledge Discovery from Text	Allalysis		Applications
600.424	Network Security		Systems	Applications
600.426	,	Analysis	Systems	
600.427	Principles of Programming Languages  Data Organization: Storage & External Memory Systems	Analysis	Systems	
600.429	Functional Programming at Work - Haskell & DSLs		Systems Systems	
		Analysis	Systems	
600.430	Ontologies and Knowledge Representation	Analysis		Applications
600.438/638 600.439/639	Computational Genomics: Data Analysis			Applications
	Computational Genomics: Sequences			Applications
600.441/641	Machine Learning for Genomic Data	Amalusia		Applications
600.442	Modern Cryptography	Analysis		Annlingtions
600.443	Security & Privacy			Applications
600.445/645	Computer Integrated Surgery I			Applications
600.446/646	Computer Integrated Surgery II		0	Applications
600.450	Network Embedded Systems & Sensor Networks		Systems	
600.451	Intro to Bit-Coin and other Crypto-currencies		Systems	
600.454	Practical Cryptographic Systems	A I !-	Systems	
600.459/659	Computational Geometry	Analysis		A 1' 1'
600.460	Software Vulnerability Analysis			Applications
600.464/664	Randomized Algorithms	Analysis		A 11 41
600.465	Natural Language Processing			Applications
600.466	Information Retrieval and Web Agents			Applications
600.468	Machine Translation			Applications
600.469/669	Approximation Algorithms	Analysis		
600.470	Combinatorics and Graph Theory in CS	Analysis		
600.471	Theory of Computation	Analysis		
600.472	Theoretical Cryptography	Analysis		
600.473	Algorithmic Game Theory	Analysis		
600.475	Machine Learning	Analysis (adde	ed 2016)	Applications
600.477/677	Causal Inference	Analysis		
600.476/676	Machine Learning: Data to Models (formerly in Complex Domains)	Analysis		Applications
600.478	Visual Imaging in Surgery & Medicine			Applications
600.479/679	Representation Learning	Analysis		Applications
600.484/684	[Medical] Augmented Reality			Applications
	Probabilistic Models of the Visual Cortex	Analysis		Applications
600.488/688/580.688	Found. Computational Biology & Bioinformatics II	Analysis		
600.615	Big Data,Small Languages, Scalable Systems		Systems	
600.617	Data Stream Processing		Systems	
600.619	Advanced Storage & Transaction Processing		Systems	
600.620	External Memory Data Structures and Algorithms	Analysis	Systems	
600.624	Advanced Topics in Data-Intensive Computing		Systems	
600.625	Event Semantics in Theory and Practice			Applications

## **CS COURSE AREA DESIGNATIONS**

Column1	Column2	Column3	Column4	Column5
600.629 (was 467)	Wireless Networks		Systems	
600.630	Computer Vision Seminar			Applications
600.640	Frontiers of Sequencing Data Analysis			Applications
600.642	Advanced Cryptographic Protocols (through Spring 2008)			Applications
600.642	Advanced Topics in Cryptography (starting Fall 2008)	Analysis		
600.643	Advanced Topics in Computer Security		Systems	Applications
600.644	Advanced Computer Networks		Systems	
600.649	Computational Genomics: Applied Comparative Genomics			Applications
600.657	Advanced Topics for Computer Graphics			Applications
600.658	Suvery of Methods in Computer Graphics [Shape Analysis & Retrieval	]		Applications
600.660	FFT in Graphics & Vision	Analysis		Applications
600.663	Pattern Matching Algorithms	Analysis		
600.665	Statistical Language Learning			Applications
600.666	Information Extraction			Applications
600.667	Advanced Distributed Systems		Systems	
600.668	Advanced Topics in Software Security		Systems	
600.670	Pseudorandomness and Combinatorial Constructions	Analysis		
600.671	Special Topics on Bio-Nano Computing			Applications
600.672	Advances in Computational Complexity	Analysis		
600.675	Statistical Machine Learning	Analysis		Applications
600.678	Adv Topics in Causal Inference	Analysis		1
600.681	Adv Topics in Computer Vision	j		Applications
600.682	Deep Learning for Image Understanding			Applications
600.683	Vision as Bayesian Inference	Analysis		Applications
580.689	Computational Personal Genomics			Applications
600.692 (was 675)	Unsupervised Learning: from Big Data to Low-Dimensional Representations (was Adv Topics in ML: Modeling and Segmentation of Multivariate Mixed Data)			Applications
	AT MOST ONE OF THE BELOW COURSES MAY BE APPLIED TOWARD THE 6 CORE COURSES REQUIREMENT FOR GRADUATE PROGRAMS (Undergrads should see the "CS other" policy about counting up to 6 credits from this list and others as well.)			
520.447	Introduction to Information Theory	Analysis		
520.629	Networked Dynamical Systems	Analysis		
550.661	Foundations of Optimization	Analysis		
550.662	Optimization Algorithms	Analysis		
550.663	Stochastic Search and Optimization	Analysis		
550.666	Combinatorial Optimization	Analysis		
550.672	Graph Theory	Analysis		