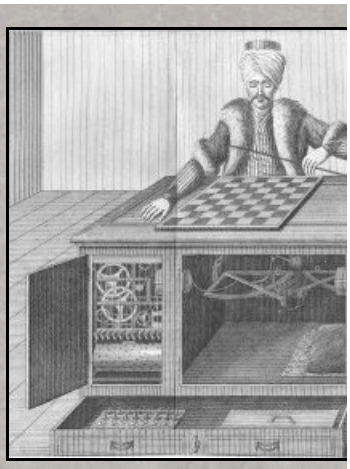
Syllabus



Date	Topic	Reading	Homework
Introduction			
Sep 5th	What is artificial intelligence? [ppt]	C1.1 C1.4	
Problem solving			
Sep 10th	Uninformed search [ppt]	C. 3	
	Depth first, breadth first, iterative deepening		
Sep 12th	Heuristic search [ppt]	C.4.1 - 4.3	HW1: Search
	Greedy, best first, A*		
Sep 17th	Heuristic search [ppt]	C. 4.5	
	Heuristic functions and examples		
Sep 19th	Search and applications [ppt] [ppt]	Paper	
	Machine Translation		
Sep 24th	Constraint satisfaction [ppt]	C. 5	HW1 due
	Solving crossword puzzles		
Game Playing			
Sep 26th	Multi-party games and adversarial search [ppt]	C.6.1-6.4	
			HW 2: game playing
Oct 1st	Multi-party games and adversarial search [ppt]	C6.5-6.8	
Oct 3rd	Applications [ppt]	paper	
	Chess, card games		
Retrospective			
Oct 8th	What makes a machine intelligent?	Turing test paper	
Empirical Methods			
Oct 10th	Uncertainty and Probabilistic Reasoning [ppt]	C.13	
Oct 15th	Bayesian networks [ppt]	C.14	
Machine Learning			
Oct 17th	Machine Learning - Introduction [ppt]	paper	
Oct		C.18.1-	

22nd	Decision Trees **[ppt]**	18.2	
Oct 24th	Statistical learning and midterm review **[ppt]**	C.18.3-18.6	HW 2 Due
Oct 29th	**Class Cancelled - Fire alarm**		
Oct 31st	Midterm		
Nov 7th	Support Vector Machines, Guest Lecturer: Jason Weston, NEC **[pdf]**		HW 3: Machine learning
Nov 12th	Applications and WEKA tutorial **[KDD OVerview] [Task 3] [Weka]**	C.20.2,20.4	
Nov 14th	Financial applications and tournament celebration **[pdf]**	C.10.1-10.2	
Knowledge Representation and Natural Language Processing			
Nov 19th	Frames, semantic nets and world knowledge **[ppt]**	C.10.3	
Nov 21st	Using knowledge for learning **[Guest lecture on KR and narrative] [Important HW Guidelines]**	paper	
	Applications to natural language		
Nov 26th	Other approaches to natural language processing **[ppt]**		HW 4: Knowledge representation
Nov 28th	Logic and inference **[ppt]**	C.7	
Dec 3rd	Logic and inference **[ppt]**		HW 3 due
Advanced Topics			
Dec 5th	Robotics and Vision **[Logic] [Vision]**		
Dec 10th	Review **[Review]**		HW4 due