CSCI 4150 Introduction to Artificial Intelligence, Fall 1999 Topics

Introduction	
What is AI?	1.1, [1.2–4]
Agent framework	2.1–4
1.9010 120110 11 0110	
Search	
Formulating search problems	3.1-4
Six blind searches	3.5
Avoiding repeated states	3.6
Constraint satisfaction search	3.7, p. 114, pp. 104–5
Informed searches	4.1
Heuristic functions	4.2
Iterative improvement algorithms	4.4
iterative improvement argorithms	1.1
Game playing	
Minimax search	5.1–2
Evaluation functions	5.3
Alpha-beta pruning	5.4
Probabalistic games 5.5	
O	
Logic	
Knowledge representation & logical systems	6.1–3
Propositional logic	6.4
Inference in propositional logic	6.4-5
First order logic	7.1–2, [7.3–4]
Inference in first order logic	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Dealing with quantifiers	9.1–2
Generalized modus ponens	9.3
Forward and backward chaining	9.4
Resolution	9.6
Completeness in first order logic	9.5
•	10.2
Logical reasoning systems	10.4
Theorem provers	10.4
Uncertainty	
Probability and Bayes rule	14
Bayesian belief networks	15.1–3
·	
Learning	
Introduction	18.1–2
Decision trees	18.3–4
Computational learning theory	18.6
Bayesian learning/classifiers	19.6, Mitchell handouts
Reinforcement learning	
Sequential decision problems	17.1–3, 20.1
Passive learning	20.2–3
Active learning	20.4-5
Q-learning	20.6
Neural networks	-
Preliminaries	19.1–2
Perceptrons	19.3
Multilayer feed-forward networks	19.4
Mainayer reca for ward networks	エン・エ