

**CS 730/730W/830 Schedule, v1**  
**Spring 2008, Kingsbury N111, Tuesday and Thursday, 2:10-3:30**  
**Prof. Wheeler Ruml**

Week	Date	Class topic	Book	Assignment
1	Jan 22	Agents	2	
	Jan 24	Search	3	
2	Jan 29	Heuristic search: A*	4-4.2	
	Jan 31	More search	4.3	
3	Feb 5	Constraint satisfaction	5-5.3	
	Feb 7	Games	6-6.3	Asst 1 due (vacuum planner)
4	Feb 12	Propositional logic	7.3-7.4	
	Feb 14	Propositional reasoning	7.5-7.6	
5	Feb 19	First-order logic	8.2	
	Feb 21	Resolution	9-9.2, 9.5	
6	Feb 26	Ontologies, description logic	10.3, 10.6	
	Feb 28	Learning FOL: ILP	19.5	Asst 2 due (theorem prover)
7	Mar 4	Planning: STRIPS	11-11.1	
	Mar 6	State-space planning	11.2	
8	Mar 11	Planning graphs	11.4	
	Mar 13	Partial-order planning [spring recess]	11.3	Exam 1 during common exam time
9	Mar 25	Markov decision processes	13.2, 13.6	Asst 3 due (general planner)
	Mar 27	Solving MDPs	17-17.3	Project proposal due
10	Apr 1	Reinforcement learning	21-21.3	
	Apr 3	Scaling RL	21.4-21.6	
11	Apr 8	Supervised learning: linear regression	18-18.2, 20.2, 20.5	
	Apr 10	Decision trees, k-NN	18.3	Asst 4 due (RL)
12	Apr 15	Naive Bayes	20-20.2	
	Apr 17	Unsupervised learning: EM	20.3	
13	Apr 22	Partial observability: HMMs	15-15.3	
	Apr 24	Bayesian networks	14-14.2, 14.4	Asst 5 due (classifier)
14	Apr 29	Reasoning in Bayes nets	14.5	
	May 1	Learning Bayes nets	20.3	Exam 2 during common exam time
15	May 6	Reasoning with time: particle filtering	p. 566-568	
	May 8	Philosophy: Turing and Searle		
	May 14			Project presentations (12:30-5:30pm)
	May 19			Project write-up due (3pm, my office)

We will not cover in any depth:

1. natural language processing (see CS 765)
2. computer vision and perception (see perhaps ECE 774, ECE 717)
3. control theory (see ECE 772/ME 772)
4. robotics (see perhaps UNH robotics club)
5. cognitive psychology (see perhaps Psych 513)
6. neuroscience (see perhaps Psych 731)
7. philosophy (see perhaps Phil 447)