

**CS 730/730W/830 Schedule, Spring 2012**  
**Lecture: Kingsbury N133, Mondays and Wednesdays, 1:10-2:30pm**  
**Recitation: Kingsbury N133, Fridays 1:10-2pm**

Week	Class	Date	Class topic	Chapter	Assignment
1	1	Jan 25	Agents <i>combinatorial search</i>	1.1,2	
2	2	Jan 30	Search	3-3.4	
	3	Feb 1	Heuristic search	3.5-3.7,4.3-4.5	
3	4	Feb 6	Constraint satisfaction	6	
	5	Feb 8	CSPs, Games	5-5.4	
4	6	Feb 13	Games <i>certain knowledge</i>		Asst 1 due (vacuum planner)
	7	Feb 15	Propositional logic	7.3-7.4	
5	8	Feb 20	Propositional reasoning	7.5-7.6	
	9	Feb 22	First-order logic	8.2	
6	10	Feb 27	Resolution	9-9.2, 9.5	
	11	Feb 29	Logic in practice	12.5	
7	12	Mar 5	Learning FOL <i>planning</i>	19.5	Asst 2 due (theorem prover)
	13	Mar 7 Mar 8 [spring recess]	Planning: STRIPS	10-10.2	Exam 1 during common exam time
8	14	Mar 19	Planning graphs	10.2	
	15	Mar 21	Non-forward planning	10.3	
9	16	Mar 26	Markov decision processes	13-13.2, 17-17.1	
	17	Mar 28	Solving MDPs <i>learning</i>	17.2-17.3	Asst 3 due (general planner)
10	18	Apr 2	Reinforcement learning	21-21.3	Project proposal due
	19	Apr 4	Scaling RL	21.4-21.7	
11	20	Apr 9	Supervised learning	18-18.2, 20-20.2	
	21	Apr 11	Decision trees	18.3	Asst 4 due (RL)
12	22	Apr 16 Apr 17	Naive Bayes	13.5	Exam 2 during common exam time
	23	Apr 18	Unsupervised learning: EM <i>uncertain knowledge</i>	20.3	
13	24	Apr 23	Bayesian networks	14-14.2, 14.4	Asst 5 due (classifier)
	25	Apr 25	Reasoning in Bayes nets	14.5	
14	26	Apr 30	More Bayes nets, particle filters	15.5.3	
	27	May 2	Partial observability: HMMs	15.3	
15	28	May 7 May 9 May 11 May 15	AI at UNH		Project presentations (9am-noon) Exam 3 (10:30-11:50am) Project write-up due (3pm, my office)

We will not cover in any depth: natural language processing (see CS 765), computer vision and perception (see perhaps ECE 774, ECE 717), control theory (see ECE 772/ME 772), robotics (see perhaps CS 931 or UNH robotics club), cognitive psychology (see perhaps Psych 513), neuroscience (see perhaps Psych 731), or philosophy (see perhaps Phil 447).