

## CSC 244/444, Fall 2023: Lecture Schedule (Topics are approximate)

Dates	Events	Assign.	Due	Back	Text B&L	Suppl. R&N	Topics
Oct. 31					LKS+TA		Intro., & Lisp
Sept. 5					ch. 1	§8.1	Role of logic in AI
Sept. 7		Lisp0			ch. 2	§8.2-4	Rep.'g knowledge in FOL
Sept. 12		As1/Proj.			ch. 2		Semantics of FOL (2 lec.)
Sept. 14			Lisp0		ch. 3	§7.3-4	Validity & entailment
Sept. 19			As1		G&N: 3	§7.5, 9.1	Proofs, soundness, completeness
Sept. 21		Lisp1		Lisp0	Notes	§9.2	Natural deduction
Sept. 26		As2		As1	ch. 4	§9.5	Resolution
Sept. 28					G&N: 4	§9.5	Resolution
Oct. 3			Lisp1↓ As2↓		G&N: 4	§8.3	Resolution & deductive Q-A
Oct. 5		Lisp2			Notes	§9.5.5	Paramodulation
Oct. 10		As3↓		As2↓	Notes, ch. 5	§9.5.6	Resolution strategies, Nat. Log., Specialist inference
Oct. 12				Lisp1	p. 77-83; ch. 7	§7.6	SAT-solving; production sys's
Oct. 17	Break						
Oct. 19		As4	As3		ch. 8		Frames & Schemas
Oct. 24			Lisp2↑		ch. 11.2	§12.6	types of NMR; CWA
Oct. 26			As4	As3	Notes, ch. 11.4		more CWA; NM inheritance
Oct. 31					ch. 12	§14.1-5	Bayesian networks
Nov. 2				As4	Notes		Markov logic networks
Nov. 7	Test 1	Lisp3		Lisp2			
Nov. 9					Notes		NN-based analog. inference
Nov. 14			Proj. abstr.	Test 1	Notes		GPT-based reasoning
Nov. 16		As 5			Notes		GPT-based reasoning
Nov. 21					ch. 14	§7.7	States, change, frame problem
Nov. 23	Thanks						
Nov. 28		As6↑	Lisp3↓,As5↑		ch. 14		Sol'ns to frame problem
Nov. 30					ch. 15	§10.1, p. 432	STRIPS planning
Dec. 5			As6↑	As5↑	ch. 15	§10.2-3, 11.2	SATPLAN, GRAPHPLAN
Dec. 7				Lisp3↓	Notes		Knowledge-based planning?
Dec. 12	Test 2			As6↑			
Dec. 14			Proj.↑				

↑ = previous day, ↓ = next day

**Course web pages:** <http://www.cs.rochester.edu/u/{schubert/444,yzhu104/CSC444-2023FALL}>

**Text (required for grads, online):** [B&L] Brachman & Levesque, *Knowledge Representation and Reasoning*

**Old text (still useful reference):** [G&N] Genesereth & Nilsson, *Logical Foundations of Artificial Intelligence*

**Supplementary reading:** [R&N] Russell & Norvig, *Artificial Intelligence, 4th ed.*; For LISP, see course web pages

**Tests (noncumulative):** Midterm Nov. 7, Final Dec. 12

**Approximate weights:**

	grads	undergrads
6 assignments	26%	33%
3 Lisp problems	22%	25%
Midterm test	13%	18%
Final test	14%	19%
2 Project	20%	
Participation	5%	5%

**Instructor office hours:** Tue/Thu 5-6pm (tentative).

**Grad TA:** Yifan Zhu, email: FirstLast at rochester.edu, office hours: Tue 2:00-3:00pm, Fri 4:00-5:00pm

**UG TAs:** Qianqian Wei (q last-name 2 at u dot etc)