

CS103A Syllabus

Please note the frequency of the problem sets in the first half of the quarter. We have learned through experience that frequent practice is the key to learning formal logic and proof skills. Note also that reading from the text "due" on a given date means that the reading should be done before class on that day. For the second half of the course, readings will be from handouts.

Date	Day	Lecture #	Topic	Due
9/22	M	1	Introduction	
9/24	W	2	Introduction to Prop Logic PS1 distributed	Read LPL pp. 1-10, 19-34, 41-46
9/26	F	3	Methods of Proof I	Read LPL pp. 46-65
9/29	M	4	Connectives Logical Equivalence PS2 distributed	PS1 Read LPL pp. 67-86, 93-109
10/1	W	5	Consequence Methods of Proof II	Read LPL pp. 110-124, 127-141
10/3	F	6	Formal Proofs PS3 distributed	PS2 Read LPL pp. 142-175
10/6	M	7	Proof Strategies	
10/8	W	8	Conditionals PS4 distributed	PS3 Read LPL pp. 176-183, 198-203, 206-212
10/10	F	9	Quantification	Read LPL pp. 227-251
10/13	M	10	Logic of Quantifiers PS5 distributed	PS4 Read LPL pp. 257-283
10/15	W	11	Multiple Quantifiers	Read LPL pp. 289-309
10/17	F	12	Proofs with Quantifiers I PS6 distributed	PS5 Read LPL pp. 319-338

Date	Day	Lecture #	Topic	Due
10/20	M	13	Proofs with Quantifiers II	Read LPL pp. 342-358
10/22	W	14	Axiomatic Method, Resolution	Read LPL pp. 283-288 pp. 338-340 PS6 (not accepted late)
10/23 Thursday			Midterm exam 7:00-9:00 p.m. Location TBA.	
10/24	F	15	Number Theory & Doing “Real” Proofs PS7 distributed	
10/27	M	16	Number Theory & Proof Techniques I	
10/29	W	17	Number Theory & Proof Techniques II	
10/31	F	18	Applications of Number Theory: Cryptography I PS8 distributed	PS7
11/3	M	19	Cryptography II	
11/5	W	20	Sequences and Summations; Induction I	
11/7	F	21	Induction II	
11/10	M	22	Program Proofs	PS8
11/12	W	23	Recursive Definitions PS9 distributed	
11/14	F	24	Recursive Algorithms	
11/17	M	25	Combinatorics I	
11/19	W	26	Combinatorics II PS10 distributed	PS9
11/21	F	27	Functions	
11/24 – 11/28			Thanksgiving Holiday!	
12/1	M	28	Gödel's Incompleteness Theorem	
12/3	W	29	Review or Optional Topics	PS10
12/5	F		no class	

Final Exam: Wednesday, Dec. 10, 8:30 am, location TBA