Achille Varzi • 713 Philosophy Hall • tel. 4-3531 • email: av72 • url: ~av72 • office hours: Th 2:00-4:00 p.m.
Teaching Assistants: Zack Al-Witri (fa2274), Nathan Bice (nmb2138), Rush Stewart (rts2121)

➤ GENERAL DESCRIPTION. This course is designed as an advanced introduction to classical sentential and predicate logic. No previous acquaintance with logic is required. Nonetheless a willingness to master technicalities and to work at a certain level of abstraction is desirable.

➤ FORMAT. The course is organized in two lecture sessions (V3411/G4415, M and W, 2:40–3:55 p.m., 207 Mathematics) and a mandatory discussion session (V3413, W or Th or F, 1:00-1:50, 716 Philosophy).

➤ REQUIREMENTS. There will be two one-hour tests and a final three-hour examination. Each test will be worth 25% of the final grade; the examination will account for 40%. The remaining 10% will be based on home assignments and participation in the discussion sessions.

➤ TEXTBOOK ETC. The textbook is Haim Gaifman's *A Course in Symbolic Logic*. This book is available in electronic form through *CourseWorks* (https://courseworks.columbia.edu). All other material for the course, including all lecture notes and homework assignments/solutions, will be made available through *CourseWorks* (section *Class Files*, folder *Shared Files*) as the semester progresses.

Week	*Date*	*Topic*	*Reading(s)*	*HW*
1.	W 9/7	1. Introduction and overview	Chapter 1	
2.	M 9/12	2. Sentential logic: preliminaries; negation	2.0–2.1.1, 3.0–3.1.1	/
	W 9/14	3. Sentential logic: conjunction	2.1.2–2.1.2, 3.1.2	
3.	M 9/19	4. Sentential logic: truth-tables, logical equivalence	2.1.3, 2.2.0–2.21	HW#1
	W 9/21	5. Sentential logic: disjunction; tautologies/contradictions	2.2.2–2.2.3, 3.1.3	
4.	M 9/26	6. Sentential logic: equivalence laws	2.5.0	HW#2
	W 9/28	7. Sentential logic: using the equivalence laws	2.5.1–2.5.2	
5.	M 10/3	8. Sentential logic: conditional and biconditional	2.6, 3.1.4	HW#3
	W 10/5	9. Sentential logic: logical implication	4.0–4.2.0	
6.	M 10/10	TEST (25%) — will cover topics 1 through 9		HW#4
	W 10/12	10. Sentential logic: general implication laws	4.2.1	
7	M 10/17	11. Sentential logic: more implication laws	4.2.2	HW#5
	W 10/19	12. Sentential logic: the fool-proof method	4.3.2–4.4	
8.	M 10/24	13. Predicate logic: preliminaries	7.0, 7.3	HW#6
	W 10/26	14. Predicate logic without quantifiers: syntax	7.1.0	
9.	M 10/31	15. Predicate logic without quantifiers: semantics	5.0–5.1.4, 7.1.1	HW#7
	W 11/2	16. Predicate logic without quantifiers: derivations; equality	7.2	
10.	*M 11/7*	*Academic Holiday*		HW#8
	W 11/9	17. Predicate logic with quantifiers: preliminaries	7.4.0–7.4.1, 8.1	
11.	M 11/14	TEST (25%) — will cover topics 10 through 16		HW#9
	W 11/16	18. Predicate logic with quantifiers: symbolization	8.2.2, 8.3.2–8.3.5	
12.	M 11/21	19. Predicate logic with quantifiers: more on symbolization	8.3.6, 8.2.1, 8.2.3	HW#10
	W 11/23	20. Predicate logic with quantifiers: models and truth	9.1.0–9.1.1	
13.	M 11/28	21. Predicate logic with quantifiers: models and truth (cont'd)	9.1.1	HW#11
	W 11/30	22. Predicate logic with quantifiers: logical implications	9.2.0–9.2.2	
14.	M 12/5	23. Predicate logic with quantifiers: equivalence laws	9.2.3	HW#12
	W 12/7	24. Predicate logic with quantifiers: top-down derivations	9.3	
15.	M 12/12	25. Predicate logic with quantifiers: top-down derivations (cont'd)	9.3	HW#13
	TBA	FINAL EXAMINATION (40%) — Comprehensive		