

MA 3025 — LOGIC AND DISCRETE MATHEMATICS (4-1)

Prerequisite: MA 2025 (MA 1025 can possibly be used as well).

Text: Discrete Mathematics and Its Applications, 7th Edition, K.H. Rosen, WCB/McGraw-Hill 2012.

HOURS	TOPIC	SECTION
2-2	Propositional Logic, quantifiers, rules of inference	1.1-1.6
1-3	Proof Methods and Strategy; Sets, Set Operations	1.7; 1.8; 2.1; 2.2
1-4	Divisibility and Modular Arithmetic; Primes and Greatest Common Divisors ; Solving Congruences	4.1- 4.5
1-5	The Basics of Counting, The Pigeonhole Principle; Permutations and Combinations	6.1- 6.3
2-7	Binomial Coefficients	6.4
1-8	Mathematical Induction	5.1
	Solving Recurrence Relations	8.2
1-18 2-20	Inclusion Exclusion	8.5