

MATHEMATICS 126

Combinatorics

Text: Combinatorics and Graph Theory, Second Edition, by J.M.Harris, J.L.Hirst and M.J. Mossinghoff, Springer Verlag,

An ebook is also available.

A continuation of Math 11, covering more advanced techniques for discrete mathematics

TOPICS	SUGGESTED NO. OF WEEK'S COVERAGE
Chapter 1: Graph Theory	
Introductory Concepts, Distances and Trees	1/2
Paths, Circuits	1/2
Planarity, Colorings	1
Matching, Ramsey Theory	1
Chapter 2: Combinatorics	
Binomial and Multinomial Coefficients, Pigeon Hole Principle	1/2
Principle of Inclusion and Exclusion, Generating Functions	1
Polya's Theory of Counting	2
More Numbers	2
Stable Marriage	1/2
Combinatorial Geometry	1