

DEPARTMENT OF MATHEMATICS

ORAL EXAMINATION

Minor area: COMBINATORICS AND GRAPH THEORY

Core material:

Introductory combinatorics, Brualdi, Chapters 1,2,3,5,6,8. (Combinations, permutations, pigeonhole principle, binomial and multinomial coefficients, inclusion-exclusion principle, special numbers such as Catalan and Stirling.)

Generatingfunctionology, Wilf, Chapters 1,2.

Graphs & Digraphs, Chartrand and Lesniak, Chapters 1,2,3,6,8,10.

Advanced graph theory

Graphs & Digraphs, Chartrand and Lesniak, Chapters 4,5,11.

Algorithms

Algorithms and Complexity, Wilf, Chapters 1,2,3,5.