The Department of Mathematics
2023–24–A term

Course Name  Discrete Mathematics
Course Number  201.1.2201

Course web page  https://www.math.bgu.ac.il/en/teaching/fall2024/courses/discrete-mathematics

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Office Hours  https://www.math.bgu.ac.il/en/teaching/hours

Abstract

Requirements and grading

Course topics


.3 The inclusion-exclusion method: The complete inclusion-exclusion theorem. An explicit formula for the Stirling numbers. Counting permutations under constraints, rook polynomials.

.4 Generating functions: General notion, combinatorial meaning of operations on generating functions. Theory of recurrence equations with constant coefficients: the general solution of the homogeneous equation, general and special cases of nonhomogeneity. Catalan numbers. Partitions of numbers, Ferrers diagrams. Exponential generating functions, counting words, set partitions, etc.

1Information may change during the first two weeks of the term. Please consult the webpage for updates