## PURE MATHEMATICS 371 "COMBINATORIAL MATHEMATICS"

Calendar Description: $\quad \mathrm{H}(3-1 \mathrm{~T})$<br>Counting, graph theory, combinatorial optimization.<br>Prerequisite: Mathematics 271.

## Syllabus

## Topics

Graphs (eulerian graphs, trees, hamiltonian graphs, planarity, colouring, digraphs)

Counting (recurrence relations, generating functions, partitions)
Number of hours

1212

Posets (linear extensions, dimension, Dilworth's theorem)
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