

COMP 611. MATHEMATICAL TOOLS FOR COMPUTER SCIENCE.

Credits: 4

Offered by: Computer Science (Graduate Studies)

Terms offered: Winter 2026

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Description

Introduction to mathematical concepts important across computer science, how to think mathematically, and how to write proofs. Proof techniques such as induction, contradiction, and monovariants; topics in combinatorics, graph theory, algebra, analysis, and probability; mathematical analysis of algorithms, data structures, and computational complexity. Emphasis on the mathematical explanations for useful concepts.

- Restrictions: Not open to students who have majored in Mathematics or an equivalent subject, or have taken a proof-based math or computer science course within the previous two years.
- Not open to students who have taken COMP 761 when the topic was "Mathematical Tools for Computer Science".

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