

離散數學教課大綱

授課老師:曾一凡

This is a fundamental mathematical course for computer science students. It is intended to introduce to the students basic discrete mathematical tools and skills that are needed in the study of computer science. The course includes the following lessons.

1. Logic: Propositional logic, Predicate Logic
2. Basic Structures: Sets, Functions, Sequences, Sums, Matrices
3. Introduction to Algorithms
4. Number Theory and Cryptography: Divisibility, Modular Arithmetic, Integer Representations, Primes, Greatest Common Divisors, the Chinese Remainder Theorem, Cryptography
5. Counting: Permutations, Combinations, Binomial Coefficients and Identities
6. Recurrence Relations
7. Relations: Relations and their properties, Equivalence Relations, Partial Orderings

評分標準

及格標準：60 分

作業：20%

出席：20%

期末考：60%