Computer Science

Discrete Mathematics for Computer Scientists (COMP0147)

Description

Aims:
To equip first year computer science students with knowledge of foundational mathematics and logic that will be needed for future computer science modules. To provide students with basic tools and skills for mathematical problem solving, proof and refutation.

Learning outcomes:
On successful completion of the module, a student will be able to:
1. analyse and solve typical problems in discrete mathematics and logic;
2. identify and reason with the logical content of arguments;
3. carry out standard mathematical proofs and refutations;

Content:
The first part of the course will focus on foundational discrete mathematics, including but not necessarily limited to: functions and relations, permutations, group theory, set theory, cardinalities, diagonalisation, linear algebra and combinatorics. The module continues with mathematical reasoning, logical notation and proof by mathematical induction.

Requisites:
In order to be eligible to select this module, a student must be registered on a programme for which it is a formally-approved option or elective choice AND must have passed A-level Mathematics (or an appropriate equivalent).

Key information

Year 2019/20
Credit value 15 (150 study hours)
Delivery UG L4, Campus-based
Reading List View on UCL website
Tutor Prof Robin Hirsch
Term Term 2
Timetable View on UCL website

Assessment

- Written examination (main exam period): 90%
- Coursework: 10%

Find out more

For more information about the department, programmes, relevant open days and to browse other modules, visit ucl.ac.uk

Disclaimer: All information correct as of August 2019. Please note that aspects of the module may be subject to change. UCL will make best efforts to inform applicants of major changes.