Theory of Computation (COMP0003)

**Description**

**Aims:**
The module aims to introduce students to formal logical reasoning and to fundamental concepts in the theory of computation and formal languages.

**Learning outcomes:**
On successful completion of the module, a student will be able to:
1. identify and reason with the logical content of arguments;
2. recognise, write down and reason about automata and language grammars;
3. carry out standard proofs and refutations involving logic and computational models.

**Content:**
This course introduces students to the theory of computation. The first 5 weeks of the course will focus on mathematical logic, including: propositional logic, first-order logic, proof by induction and modal logic. The second 5 weeks will focus on fundamentals of computation, automata and language theory.

**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 A-level Mathematics (or equivalent).

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**Key information**

- **Year**: 2019/20
- **Credit value**: 15 (150 study hours)
- **Delivery**: UG L4, Campus-based
- **Reading List**: View on UCL website
- **Tutor**: Dr James Brotherston
- **Term**: Term 1
- **Timetable**: View on UCL website

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**Assessment**

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

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