# COURSE DETAIL

| DISCRETE MATHEMATICS |
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| **Country**<br>Sweden |
| **Host Institution**<br>Lund University |
| **Program(s)**<br>Lund University |
| **UCEAP Course Level**<br>Upper Division |
| **UCEAP Subject Area(s)**<br>Mathematics |
| **UCEAP Course Number**<br>136 |
| **UCEAP Course Suffix** |
| **UCEAP Official Title**<br>DISCRETE MATHEMATICS |
| **UCEAP Transcript Title**<br>DISCRETE MATH |
| **UCEAP Quarter Units**<br>6.00 |
| **UCEAP Semester Units**<br>4.00 |

**Course Description**

The course treats some basic parts of discrete mathematics of importance in mathematics, mathematical statistics, computer science and many other subject areas in science and technology. Topics include Number theory: divisibility, prime numbers, the Euclidean algorithm, Chinese remainder theorem, modular arithmetic; Sets, functions and relations, equivalence relations; Combinatorics: the four cases of counting with or without repetition and with or without regard to order, binomial coefficients, the principle of inclusion and exclusion, the method of generating functions; Recursion: recursion formulae and difference equations; Rings and fields: definitions and applications to coding theory; Graph theory: terminology and basic concepts, Eulerian and Hamiltonian graphs.

**Language(s) of Instruction**
English

**Host Institution Course Number**
MATB35

**Host Institution Course Title**
DISCRETE MATHEMATICS

**Host Institution Course Details**
https://www.lunduniversity.lu.se/lubas/i-uoh-lu-MATB35

**Host Institution Campus**
Lund

**Host Institution Faculty**
Science

**Host Institution Degree**

**Host Institution Department**

**Course Last Reviewed**
2025-2026

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