

# COURSE DETAIL

## ALGEBRAIC STRUCTURES

**Country**

Sweden

**Host Institution**

Lund University

**Program(s)**

Lund University

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Mathematics

**UCEAP Course Number**

130

**UCEAP Course Suffix****UCEAP Official Title**

ALGEBRAIC STRUCTURES

**UCEAP Transcript Title**

ALGEBRAIC STRUCTURS

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

The course reviews number theory including the fundamental theorem of arithmetic, modular, and arithmetic; groups including definition, basic examples of groups, subgroups, normal subgroups, factor groups, isomorphisms, and homomorphisms, Lagrange's theorem, permutation groups, symmetric and alternating groups, finitely generated Abelian groups; rings including definition, basic examples of rings, isomorphisms and homomorphisms, ideals, factor rings, polynomial rings, factorization of polynomials as products of irreducible polynomials; and fields including characteristic, simple field extensions, finite fields.

### Language(s) of Instruction

English

### Host Institution Course Number

MATM31

### Host Institution Course Title

ALGEBRAIC STRUCTURES

### Host Institution Course Details

<https://www.lunduniversity.lu.se/lubas/i-uoh-lu-MATM31>

### Host Institution Campus

Lund

### Host Institution Faculty

Science

### Host Institution Degree

### Host Institution Department

Math

### Course Last Reviewed

2023-2024

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