

# COURSE DETAIL

## ALGEBRAIC TOPOLOGY

**Country**

Denmark

**Host Institution**

University of Copenhagen

**Program(s)**

University of Copenhagen

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Mathematics

**UCEAP Course Number**

150

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

ALGEBRAIC TOPOLOGY

**UCEAP Transcript Title**

ALGEBRAIC TOPOLOGY

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

This course is a first introduction to algebraic topology, the area of mathematics in which algebra is used to study topological spaces. It defines the fundamental group and singular homology and studies their basic properties and applications. The course introduces foundational competencies in algebraic topology. Important concepts include homotopy, homotopy equivalence, fundamental group, covering space, chain complex, and homology. Prerequisites include knowledge about general topology and abelian groups, as obtained through courses such as Topology and Algebra 2, and Advanced Vector Spaces.

## Language(s) of Instruction

English

## Host Institution Course Number

NMAA05038U

## Host Institution Course Title

ALGEBRAIC TOPOLOGY

## Host Institution Course Details

<https://kurser.ku.dk/course/nmaa05038u/2024-2025>

## Host Institution Campus

## Host Institution Faculty

Science

## Host Institution Degree

Master

## Host Institution Department

Mathematical Sciences

## Course Last Reviewed

2024-2025

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