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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