

MATH-338

Topological groups

Monod Nicolas

Cursus	Sem.	Type
Mathematics	BA6	Opt.

Language of teaching	English
Credits	5
Session	Summer
Semester	Spring
Exam	Written
Workload	150h
Weeks	14
Hours	4 weekly
Courses	2 weekly
Exercises	2 weekly
Number of positions	

Summary

We study topological groups. Particular attention is devoted to compact and locally compact groups.

Content

Topological groups, subgroups and quotients. Examples, connected, totally disconnected, profinite. Haar measure. Some fundamental theorems about locally compact groups.

Learning Prerequisites**Required courses**

MATH-220, Metric and topological spaces
MATH-211, Théorie des groupes

Learning Outcomes

By the end of the course, the student must be able to:

- The student will develop a deep understanding of the fundamental concepts related to topological groups.

Teaching methods

Ex cathedra lecture and exercise sessions.

Expected student activities

Following the lecture.

Working over the material of the course independently.

Attending the exercise sessions.

Attempting to solve all exercises and writing up the result of these attempts.

Assessment methods

Written exam.

Supervision

Office hours	No
Assistants	Yes
Forum	No