

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
<b>Hours</b>	<b>4 weekly</b>
Lecture	2 weekly
Exercises	2 weekly
<b>Number of positions</b>	

**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