

MATH 335. GROUPS, TILINGS AND ALGORITHMS.

Credits: 3

Offered by: Mathematics and Statistics (Faculty of Science)

Terms offered: Winter 2026

[View offerings for Winter 2026 in Visual Schedule Builder.](#)

Description

Transformation groups of the plane. Inversions and Moebius transformations. The hyperbolic plane. Tilings in dimension 2 and 3. Group presentations and Cayley graphs. Free groups and Schreier's theorem. Coxeter groups. Dehn's Word and Conjugacy Problems. Undecidability of the Word Problem for semigroups. Regular languages and automatic groups. Automaticity of Coxeter groups.

- Prerequisites: MATH 235
- Restriction(s): Not open to students who have taken or are taking MATH 365.
- Note: This course is intended primarily for students in the Major Program in Mathematics and the Joint Major Program in Mathematics and Computer Science.

Most students use Visual Schedule Builder (VSB) to organize their schedules. VSB helps you plan class schedules, travel time, and more.

[Launch Visual Schedule Builder](#)