

# MATH 458. HONOURS DIFFERENTIAL GEOMETRY.

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Credits: 3

Offered by: Mathematics and Statistics (Faculty of Science)

Terms offered: Winter 2026

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

## Description

In addition to the topics of MATH 320, topics in the global theory of plane and space curves, and in the global theory of surfaces are presented. These include: total curvature and the Fary-Milnor theorem on knotted curves, abstract surfaces as 2-d manifolds, the Euler characteristic, the Gauss-Bonnet theorem for surfaces.

- Prerequisites: MATH 251 or MATH 247, and MATH 248 or MATH 314 or MATH 358
- Restriction: Not open to students who have taken MATH 380.

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