

# MATH 425/525 101 Introduction to Modern Differential Geometry

MATH 425/525 September-December 2018

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## Course Information

**Classes:** Tue/Thurs 12:30-2pm in MATH ; **OFFICE HOURS** Thurs 2:00pm-3:00pm in MATH 239;

**Textbook:** Introduction to smooth manifolds, by John M. Lee, 2003, Graduate texts in mathematics, Volume 218.

(the e-book version can be accessed online at <http://www.library.ubc.ca/>)

In this course we study the basic theory of smooth manifolds. We will consider fundamental constructions/objects on manifolds including vector bundles, tensors, differential forms and submanifolds. Depending on time, we may also discuss one or more of the following topics: Integration on manifolds, curvature and geodesics, Lie Groups and Lie algebras.