

MATH 480 (MATH 621/MAST 653), Sec. A
Geometry & Topology
Winter 2018

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Office hours: Mondays, 13:00-14:30 p.m.

Required Textbook: *Elementary Differential Geometry*, by A. Presley Springer (2010) ISBN 978-1-84882-890-2 (softcover) or ISBN 978-1-84882-891-9 (e-book).

Other material:

- Differential geometry of curves and surfaces by M. P. do Carmo
- Differential geometry of curves and surfaces by Kristopher Tapp
- Differential geometry by Theodore Shifrin (e-resource)
- Riemannian geometry by M. P. do Carmo (for MSc students)

Topics:

- Curves and surfaces in three dimensions
- The first and second fundamental forms of surfaces
- Curvatures of surfaces
- Geodesics
- Hyperbolic Space
- Theorema Egregium and Gauss-Bonnet theorem

Grading: Homework (20%), Midterm (30%), and Final Exam (50%).
Graduate students will be required to do extra work for these evaluations.

If the grading scheme for this course includes graded assignments, a reasonable and representative subset of each assignment may be graded. Students will not be told in advance which subset of the assigned problems will be marked and should therefore attempt all assigned problems.

The homework will be assigned approximately every two weeks, during class, and posted on Moodle. In case of a student's absence or late arrival, it is the student's responsibility to find the assignment and submit it on time. **No late assignments will be accepted.**

A midterm exam will be scheduled in class during the 7th week of classes. The exact date will be announced before the end of January. **Please be aware that a missed test cannot be made up.**

Have a good term!

Academic Integrity and the Academic Code of Conduct

This course is governed by Concordia University's policies on Academic Integrity and the Academic Code of Conduct as set forth in the Undergraduate Calendar and the Graduate Calendar. Students are expected to familiarize themselves with these policies and conduct themselves accordingly. "Concordia University has several resources available to students to better understand and uphold academic integrity. Concordia's website on academic integrity can be found at the following address, which also includes links to each Faculty and the School of Graduate Studies: concordia.ca/students/academic-integrity." [*Undergraduate Calendar, Sec 17.10.2*]