

1 Course information

Instructor: Daniel Groves
email: groves@math.uic.edu
Webpage: <http://www.math.uic.edu/~groves/teaching/2019-20/549/>
Course meeting location: Taft Hall 304
Meeting time: MWF 11am
CRN: 39514
Office Hours (in SEO 727): Mondays 10am, Fridays 2pm or by appointment.

2 Text

Introduction to Smooth Manifolds, by J.M. Lee, Second Edition, Springer 2012, GTM. Available for download as a free eBook from the UIC library.

3 Content

This is a first year graduate course on smooth manifolds. We will introduce and study (smooth) manifolds, smooth maps, tangent spaces, vector fields and differential forms.

The plan is to cover most of the book in varying amounts of detail.

For this class, you will need to know some basic topology, and also linear algebra and calculus. Lee's book has Appendices on these topics which cover the necessary material.

4 Homework

There will be homework due most Mondays, worth 50% of the final grade.

5 Midterm

There will be one take-home midterm exam, worth 20% of the final grade. Date and time to be determined.

6 Final

There will be a take home final at the end of the semester, with due date to be determined, worth 30% of the final grade.

7 Prerequisites

Linear algebra, calculus, basic point set topology.

8 Policies

You are encouraged to work with others on the homework. You are responsible for writing up your own solutions. Also, you should clearly mark who you collaborated with. Copying homework solutions from other students is not allowed. However, talking through problems, working out proofs and reading others' proofs to help them improve is allowed.

9 Academic Honesty

All UIC students are required to maintain the standards of academic integrity described in the [Guidelines Regarding Academic Integrity](#).

Any violation of these standards will be handled in accordance with the [Student Disciplinary Policy](#)

10 Academic deadlines

The UIC academic calendar includes the deadlines for adding and dropping courses, and can be found [here](#).