Math 231A: Lie Groups and Lie Algebras
Winter, 2020

Instructor. David R. Morrison. Email: drm@math.ucsb.edu.

Meeting time. MWF 1:00–1:50 in North Hall 1105.

Course description of Math 231A-B (from the UCSB Catalog). Differentiable manifolds, definition and examples of Lie groups, Lie group-Lie algebra correspondence, nilpotent and solvable Lie algebras, classification of semi-simple Lie algebras over the complexes, representations of Lie groups and Lie algebras, special topics.

Gauchospace. This course has a Gauchospace site, available to enrolled students and invited guests at https://gauchospace.ucsb.edu .

Textbook. We will use "Representation Theory: A First Course" by W. Fulton and J. Harris (part of the Springer-Verlag Graduate Texts in Mathematics series) as our primary textbook. This book is not in one-to-one correspondence with the catalog description of the course, so there may be some supplementary lecture notes. In general, we will follow the order of the textbook rather than the order of the catalog description.

Office Hours. I will hold office hours in South Hall 6708 on Wednesdays 11:00-12:30 and at other times by appointment. In addition, I will hold office hours in Broida 6135 on Mondays 10:00-11:30.

Grading. The textbook has lots of exercises and there will be a weekly assignment. Your course grade will be based on these weekly assignments (65%) and on a final exam (35%).

Exam. The final exam is scheduled for 4–7 p.m. on Wednesday, March 18. The exam will be designed to last less than 3 hours, but you will have 3 hours to complete it.

Pass/No Pass policy. Students taking this course on a Pass/No Pass basis will be required to do a reasonable number of the problems on the weekly assignments. The instructor will inform students if he feels that they are not doing a reasonable number. **Such students are not required to take the final exam.**