

## *Syllabus*

### **Mathematics 914, Fall 2017 Lie (groups and) algebras**

MWF 10:20-11:10am  
A306 Wells Hall

J. Hall  
D219 Wells Hall  
x34653  
[jhall@math.msu.edu](mailto:jhall@math.msu.edu)

*Office Hours:* MWF 9:10-10:00am (or by arrangement).

Course grades will be based on some combination of homework, in-class lecture, project.

This is one semester course primarily on Lie algebras. It is a legacy course, repurposed from a two semester sequence on Lie algebras and Lie groups. For technical reasons the name lives one.

Early in the course, time will be devoted to introducing Lie groups (at least closed subgroups of linear groups over the reals) and demonstrating their connection to Lie algebras. From then on the focus of the course will be the introduction and discussion of the finite dimensional (semi-)simple Lie algebras over algebraically closed fields of characteristic 0: classification, construction, and representation. Other material will be provided as appropriate and time allows.

There is no text for the course. I will provide you with some references.

*Important dates:*

Wednesday – 08/30/2017: Classes begin.

Monday – 09/04/2017: Labor Day – University closed.

Thursday 11/23/2015 to Friday 11/24/2015: Thanksgiving Break

Friday – 12/08/2015: Last day of classes.

(Wednesday – 12/15/2017, 7:45 to 9:45am: Final Exam.)