Syllabus for Lie Groups , MA 795G, Fall 2006

1. Instructor: Ron Fulp

Office: HA 219

Office Hours: 3:30—4:20 Tuesday, Thursday;

4:00-5:00 Monday, Wednesday. Other times by appointment

Phone Number: 515-2370

E-mail address: fulp@math.ncsu.edu

2. Goals and Objectives:

This course has as its objective to cover the basic properties of Lie groups. This includes a careful treatment of how Lie groups and Lie algebras are related to each other and how both relate to classical groups and algebras of linear transformations. We include a basic introduction to the representation theory of compact Lie groups and to compact topological groups.

3. Textbook:

The basic text is Representations of Compact Lie Groups by T. Brocker and T.tom Dieck. We also use the book Foundations of Differential Manifolds and Lie Groups by Frank Warner and classroom notes.

4. Day by day Schedule:

See the handout in class.

6. Tentative schedule of homework due dates, quizzes and tests:

There will be one mid-term test and a final exam. The mid-term test will be announced at least one week prior to the date of the test and will occur just prior to the fall break.

Homework will be done in groups and is due on Friday of each week unless designated otherwise.

The final is from 8:00-11:00 December 18

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7. Determination of grades:

Homework:

50%

Mid-Term test 25%

Final:

25%

8. Policy on incomplete grades and late assignments:

Late homework assignments will rarely be graded.

The policy on incomplete grades is consistent with Grading Policies in Chapter 5 of the Handbook on Advising at http://www.ncsu.edu/provost/academic policies/grading/reg.htm

9. Policy on absences (excused and unexcused) and scheduling makeup work:

Excused absences are required for making up a missed test.

The attendance policy is consistent with the Academic Regulations which can be found at http://www2.ncsu.edu/unity/project/www/ncsu/provost/info/academic regul

ations/attend/reg.htm (link)

10. Course Prerequisites / Restrictive Statements:

MA 555 or its equivalent

11. Academic Integrity Statement:

Students are expected to follow university guidelines available at http://www.ncsu.edu/provost/academic regulations/integrity/reg.htm (link)

12. Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Services for Students at 1900 Student Health Center, Campus Box 7509, 515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (REG02.20.1)"