**MATH 5613 INFORMATION**
**MWF 9:30 AM, ES214A**

**Instructor:** David Wright, MS 527, 744-5775, FAX: 744-8275,
Email: wrightd@okstate.edu
Online Classroom (D2L): oc.okstate.edu (Main location of class resources and grades)

**Office hours: MWF 1:30–3:00PM at MS 527 and at other times by appointment.** Please feel free to drop by or contact me to see if I am available at any time.

**Text:** *Basic Algebra*, by Anthony Knapp.

**Course objectives:** To learn the theory of basic algebraic structures, meaning primarily groups, rings, modules, and fields.

**Prerequisites:** A complete undergraduate mathematics background including at least two semester courses in abstract algebra.

**Syllabus:** The following sections of the text should be covered:

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| Appendices | Basic Set Theory |
| Sections II.4–II.9 | Vector Space Review |
| Sections IV.1–IV.11 | Group Theory |
| Sections V.1–V.8 | Rings and Modules |
| Sections VI.1–VI.9 | Multilinear Algebra |
| Sections VII.1–VII.4 | Advanced Group Theory |

**EXAMINATIONS:** There will be *two* two-hour exams during term in the weeks of Sept. 21–25 and Nov. 2–6. These exams will be prepared in advance of these weeks and then made available in the main office MS 401. You will clear out a two-hour period during the week starting from 8AM to 2PM, then check the exam out from the office, work on it for two hours, and return it before closing. Your answers should be on your own paper. There should be no substantial contact with any other person or written material while you are working on these exams.

There will also be a final exam from **8AM to 9:50 AM, Wednesday, December 9.**

**Homework:** Sets of homework exercises will be assigned and collected during the term. Your work should be prepared in a method suitable for an advanced mathematics class

**Grading:** Homework 30%, Midterm 1 20%, Midterm 2 20%, Final 30%. Students who score at least 90%, 80%, 70%, 60% of the total will receive at least a grade of A, B, C, D, respectively. Depending on the median scores, these cutoffs may be lowered. Some discretion of the instructor may be used in deciding borderline cases.

**STANDARD OPERATING PROCEDURE:** All students must complete a minimum of six hours of work each week outside attending lectures. This work is to consist of reading in detail all sections of the book covered in class and performing all assigned homework problems and enough additional problems to make sure that you understand the material. It is very important that you contribute this six hours of work every week. All assigned written homework that is collected must be completed with absolutely no help from other people, with the exception of help received from myself during office hours. If you cannot solve a problem completely, give as much of a partial solution as you can. Try to write down the exact point in the solution that you cannot understand. Try to record all theorems and examples from the class or the text that are possibly relevant to the problem. It is far better to learn this process of self-analysis than to seek the collaboration of others. General vague discussions of the course material are permitted between class members. On all examinations and assignments, all steps necessary to prove that your solution is true must be given.

**Academic Honesty:** It is a cornerstone of academic integrity that written work submitted under your own name should be prepared entirely by yourself. Informal discussion between students is permitted. You are also encouraged to seek help on the homework from myself during office hours. However, academic misconduct includes organized collaboration between students on homework assignments that involve, say, jointly writing solutions on the blackboard and then copying down the alleged solutions on each individual's paper. Also, examination of another student's written work before an assignment has been collected and graded is strictly forbidden.

**Attendance Policy:** Attendance of lectures is mandatory, but roll will not be taken every class.

# References


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