Modern Algebra I

Math 5520.001, Fall 2022, MW 12:30-1:50, Lang 222

Professor: Conley, GAB 419, conley@unt.edu
   Assignments, announcements: www.math.unt.edu/∼conley

Office Hours: M 2:00-4:00, W 2:30-3:30, F 12:00-1:00, and by appointment

Text: *Abstract Algebra,* 3$^{\text{rd}}$ edition, Dummit and Foote

Exams, Homework, Grading:
   Midterm: 150 points, Wednesday, October 23
   Final: 230 points, comprehensive, Wednesday, December 14, 10:30-12:30
   Problem Sets: 12, each 10 points, due beginning of Wednesday lectures
   Policies: no make-up exams, late homework worth half-credit

Disabled Students: See me at end of first lecture

Topics: The text has 6 parts. The first 4 are
   Part I: groups; *Part II:* rings; *Part III:* modules; *Part IV:* fields

Math 5520: covers Part I and the beginning of Part II. Highlights:
   Sylow's theorems, simplicity of A_n, classification of finite abelian groups

Math 5530: usually covers Part II and selections from Parts III & IV.

Problem Set 1 (due Wednesday, September 7):
   Section 0.2: 1ab, 3, 5, 7, 10*, 11
   Section 0.3: 4, 8, 9, 11, 12, 13, 15b
   Section 1.1: 1bcd, 6, 8, 9, 11, 12, 21, 22, 25*, 31*, 32, 33

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MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8/29 First lecture	8/30	8/31	9/1	9/2
9/5 Labor Day	9/6	9/7 HW 1	9/8	9/9
9/12	9/13	9/14 HW 2	9/15	9/16
9/19	9/20	9/21 HW 3	9/22	9/23
9/26	9/27	9/28 HW 4	9/29	9/30
10/3	10/4	10/5 HW 5	10/6	10/7
10/10	10/11	10/12 HW 6	10/13	10/14
10/17	10/18	10/19 HW 7	10/20	10/21
10/24	10/25	10/26 Midterm Exam	10/27	10/28
10/31	11/1	11/2 HW 8	11/3	11/4
11/7	11/8	11/9 HW 9	11/10	11/11
11/14	11/15	11/16 HW 10	11/17	11/18
11/21	11/22	11/23 No Classes	11/24 Thanksgiving	11/25 No Classes
11/28	11/29	11/30 HW 11	12/1	12/2
12/5	12/6	12/7 HW 12	12/8	12/9 Reading Day
12/12	12/13	12/14 Final Exam: 10:30-12:30	12/15	12/16