## Modern Algebra II

Math 5530.001, Spring 2013, MW 12:30-1:50, GAB 406

Professor: Dr. Conley, GAB 419, 565-3326, conley@unt.edu. Assignments and announcements will be posted at www.math.unt.edu/~conley.

Office Hours: MW 10:30-12:30 and by appointment.
Text: The text is Abstract Algebra, third edition, by Dummit and Foote.
Exams, Homework, and Grading: There will be a 150 point midterm on Wednesday, March 6, and a comprehensive 225 point final on Wednesday, May 8, 10:30-12:30. There will be thirteen problem sets worth 10 points each, due at the beginning of Wednesday lectures. There will be no make-up exams, and late homework will be worth half-credit.

Disabled Students: Please let me know of your disability at the end of the first lecture.

Topics: We will begin with Chapters 7-9, on rings, fraction fields, EDs, PIDs, UFDs, and polynomial rings. Then we will move to Chapters $13-14$ on fields and Galois theory. Any remaining time will be spent on Chapters 10-12, on modules, vector spaces, modules of PIDs, and canonical forms.

Problem Set 1 (due Wednesday, January 23):
Section 7.1: 3, 6, 9, 16, 21
Section 7.2: 3-4
Section 7.3: 6-7, 12ab, 13-14, 20-22, 25-26, 29-32, 34, 36-37

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| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
| :---: | :---: | :---: | :---: | :---: |
| 1/14 | 1/15 | 1/16 | $1 / 17$ <br> Last day to add/swap classes. | 1/18 |
| 1/21 MLK Holiday | 1/22 Math Lab opens | $\begin{aligned} & 1 / 23 \\ & \text { HW } 1 \end{aligned}$ | 1/24 | 1/25 |
| 1/28 Census date <br> Last day to drop for refund. | 1/29 | $\begin{aligned} & 1 / 30 \\ & \text { HW } 2 \end{aligned}$ | 1/31 | 2/1 |
| 2/4 | 2/5 | 2/6 <br> HW 3 | 2/7 | 2/8 |
| 2/11 | 2/12 | $\begin{aligned} & \hline 2 / 13 \\ & \text { HW } 4 \end{aligned}$ | 2/14 | 2/15 |
| 2/18 | 2/19 | $\begin{aligned} & \hline 2 / 20 \\ & \text { HW } 5 \end{aligned}$ | 2/21 | 2/22 Automatic W deadline |
| 2/25 WF for nonattendance now possible | 2/26 | $\begin{aligned} & 2 / 27 \\ & \text { HW } 6 \end{aligned}$ | 2/28 | 3/1 |
| 3/4 | 3/5 | 3/6 <br> Midterm Exam | 3/7 | 3/8 |
| 3/11 Break week | 3/12 | 3/13 | 3/14 | 3/15 |
| 3/18 | 3/19 | $\begin{aligned} & \hline 3 / 20 \\ & \text { HW } 7 \end{aligned}$ | 3/21 | 3/22 |
| 3/25 | 3/26 Drop day | $3 / 27$ <br> HW 8 | 3/28 | 3/29 |
| 4/1 | 4/2 | $4 / 3$ <br> HW 9 | 4/4 | 4/5 |
| 4/8 I now requestable | 4/9 | 4/10 <br> HW 10 | 4/11 | 4/12 |
| 4/15 | 4/16 | 4/17 <br> HW 11 | 4/18 | 4/19 Last non-attendance WF day |
| 4/22 | 4/23 | 4/24 <br> HW 12 | 4/25 | 4/26 |
| 4/29 | 4/30 | $\begin{aligned} & 5 / 1 \\ & \text { HW } 13 \end{aligned}$ | 5/2 | 5/3 Math Lab closes |
| 5/6 | 5/7 | 5/8 <br> Final Exam: 10:30-12:30 | 5/9 | 5/10 |

