Outline for Math 466/506
Lattice Theory
Spring 2006

Meetings: MWF 1:30-2:20 in SH 111

Instructor: Guram Bezhanishvili

Office Hours: MWF 12:25-1:25

Office: WH 203

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Prerequisites: C or better in Math 330 or Math 331 or consent of instructor.


Objectives: The main goal is to give a concise introduction to partially ordered sets and lattices. We will cover modular, distributive, and Boolean lattices, as well as complete lattices and Galois connections. We will also discuss MacNeille completions of partially ordered sets. If time permits, we will introduce the main ideas of the Priestley representation of distributive lattices.

Material: We will cover portions of chapters 1, 2, 4, 6 and 7. For the most part, these will be covered in the order they appear. Additional material (such as chapters 10 and 11) will be covered as time permits.

Grades:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework</td>
<td>30 %</td>
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<tr>
<td>Midterm</td>
<td>20 %</td>
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<tr>
<td>In class presentation</td>
<td>20 %</td>
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<tr>
<td>Final</td>
<td>30 %</td>
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Homework: Homework will be assigned routinely and a sample of exercises will be collected periodically for grading. Homework must be written up in a comprehensible way. I expect students to show some mathematical maturity in the work they turn in. I will not accept late assignments without a medical certificate or other university approved excuse.
**Midterm:** There will be midterm exam during class time. It will cover chapters 1, 2, and parts of chapter 4 and will be given before the spring break.

**Missed Test Policy:** Students must notify the instructor before an exam is missed in order to qualify for a make-up exam. Failure to do so will result in a “0” for any missed exam. The only valid excuses for missing an exam are documented illness, death in the family, or required participation in any university related function. Supporting documentation is required.

**In class presentation:** To make the course more fun, I require each student to give an in class presentation. You are welcome to choose the topic you would like to talk about. The presentations will be scheduled for the second half of the semester, but I would like the topics to be chosen and discussed with me well in advance. I expect all the presentation topics to be agreed on before the spring break.

**Final:** The final exam for Math 466/506 will take place on Friday May 12th, 1:00 – 3:00 in SH 111.

**Withdrawals and Incompletes:** You have the primary responsibility for withdrawing from the course. **The last date to drop with a “W” is Thursday, March 16th.** Under University policy, an I grade is allowed only if a student has passed the first half of the course, and is precluded from completion of the second half of the course by a documented illness or family crisis.

**Disabilities:** If you have or believe you have a disability, you may wish to self-identify. You can do so by providing documentation to the Services for Students with Disabilities (SSD) office in Corbett Center Room 244 at 646-6840. Appropriate accommodations may then be provided for you. If you are already registered with the SSD office, please make sure that I have received a copy of your “Accommodations Memo” from the SSD within the first two weeks. It is your responsibility to inform your SSD representative or me if the services or accommodations provided are not meeting your needs.