Mathematics 220: Mathematical Proof

September-December 2018

Sections and Instructors

<table>
<thead>
<tr>
<th>Section</th>
<th>Time</th>
<th>Instructor</th>
<th>Location</th>
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<tbody>
<tr>
<td>101</td>
<td>MWF 12-1pm</td>
<td>Jamie Juul</td>
<td>GEOG 212</td>
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<tr>
<td>102</td>
<td>MWF 12-1pm</td>
<td>Andrew Rechnitzer</td>
<td>LSK 200</td>
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<td>103</td>
<td>MWF 10-11am</td>
<td>Andrew Rechnitzer</td>
<td>LSK 460</td>
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<td>104</td>
<td>MWF 3-4pm</td>
<td>Seckin Demirbas</td>
<td>LSK 460</td>
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<td>105</td>
<td>MWF 2-3pm</td>
<td>Andrew Rechnitzer</td>
<td>LSK 460</td>
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<tr>
<td>106</td>
<td>MWF 2-3pm</td>
<td>Jongchon Kim</td>
<td>BUCH B315</td>
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Assessment

Breakdown of marks

- 15% Homework (one each week)
- 25% Midterm (on Wednesday October 17th)
- 60% Final

Homework
There will be one homework assignment each week.
Each assignment is due at the beginning of class on the indicated date.
Late homework will not be accepted
Each assignment will consist of a small number of questions both from the textbook and not from the textbook.

**Presentation**

- One of the main goals of mathematics 220 is to teach how to present and communicate mathematics precisely and correctly.
- Accordingly handwritten or messy homework will not be accepted.
- **Homework must be typeset, printed and stapled.**
- We recommend that you use latex to prepare your homework.

**Midterm**

**Place and time**

- The midterm will be held in your usual class at your usual class time.
- It will last 45 minutes.
- It will be held on Wednesday October 17th.
- If you cannot attend due to varsity sport please inform your instructor as soon as possible.

**Topics**

- The midterm will cover
  - Sets
  - Logic
  - Direct and contrapositive proof
  - Induction

**Final exam**

**Date, time and location**
The final will be held during the exam period - December 4 until December 19.
The date, time and location will be announced close to the middle of the term.
You should not plan any travel until you know the dates of your exams.

Topics

- It will cover all topics covered in class.

Textbook


You can download the text for free from the author’s webpage
http://www.people.vcu.edu/~rhammack/BookOfProof/

Syllabus

We follow the textbook, though we will use a slightly different order of topics.

- Basic notation and sets - Chapter 1
- Logic - Chapter 2
- Direct and contrapositive proof - Chapters 4, 5 and 7. This topic will be taught concurrently with the previous one.
- Induction - Chapter 10
- More on sets - Chapters 1 and 8
- Relations - Chapter 11
- Functions - Chapter 12
- Proof by contradiction - Chapter 6
- Cardinality - Chapter 13
- Extras - We might do another topic if there is time.

Missed Assessment
Missed homework or midterm

- If a student misses a homework assignment or the midterm, that student shall provide a documented excuse otherwise a mark of zero will be entered for that piece of assessment.
- Examples of valid excuses are
  - an illness which has been documented by a physician and/or Student Health Services, or
  - an absence to play a varsity sport (your coach will provide you with a letter).
- A physician’s note must specifically state that the student was medically unfit to write the missed assessment on the date of the exam. Absence of this exact information will result in a mark of 0.
- Your instructor should be notified within 48 hours of such an absence and appropriate documentation should be produced within 7 days. Failure to comply with these time limits will result in a mark of zero.
- There will be no make-up midterms or homework; the weight of the missed assessment will be transferred to the final examination.

Missed final exam

- You will need to present your situation to your faculty’s Advising Office to be considered for a deferred exam.
- See the Calendar for detailed regulations.
- Your performance in a course up to the exam is taken into consideration in granting a deferred exam status (for instance, failing badly normally means you will not be granted a deferred exam).