University of Florida

# Alexander Berkovich

Department of Mathematics

College of Liberal Arts and Sciences

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Courses

Spring 2021 MHF 3202

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# Spring 2021 MHF 3202

#### Section

17HE at LIT 221

Online Section: 1501

#### Time and Location

Lectures will be given synchronously through zoom. Links to the lectures and all other course-related material can be found in

Canvas: https://elearning.ufl.edu/.

M W F Period 3 (9:35 am - 10:25 am)

#### **Textbook**

How to Prove It (2nd Edition) by Daniel Velleman

## **Prerequisites**

MAC 2312

## **Brief Description**

This course is an introduction to formal mathematics. The emphasis in this course is not on learning facts, but rather on writing clear and rigorous proofs. Some of the material covered in this course may be quite familiar to you. The goal is to understand and write about this material in a formal mathematical way.

#### Homework

Homework will be assigned regularly but not collected. However, doing all the homework is essential for success in this class as the exams test your conceptual understanding of the homework assignments. Many homework problems involve doing proofs. Students are encouraged to check their proofs with their instructor.

#### Here is the tentative list of homework problems:

- 1.1.6, 1.2.4, 1.3.6.

  Other problems: 1.1.1, 1.1.5, 1.1.7, 1.2.1, 1.2.5, 1.2.7, 1.2.9, 1.2.11, 1.2.14, 1.2.16, 1.3.1, 1.3.3, 1.3.5, 1.3.7.
- **1.5.5**, 2.1.3, 2.1.5.

Other problems: 1.4.1, 1.4.4, 1.4.8, 1.4.10, 1.4.12, 1.5.1, 1.5.4, 1.5.6, 1.5.8, 2.1.1, 2.1.4, 2.1.7, 2.2.1, 2.2.4, 2.2.6, 2.2.8, 2.2.11.

- 2.3.10, 3.1.8, 3.2.10.
  Other problems: 2.3.1, 2.3.4, 2.3.8, 2.3.11, 2.3.13, 3.1.1, 3.1.4, 3.1.9, 3.1.11, 3.1.14, 3.2.1, 3.2.5, 3.2.8, 3.2.11, 3.2.14.
- 3.3.18, 3.4.19, 3.5.10.

  Other problems: 3.3.1, 3.3.3, 3.3.7, 3.3.9, 3.3.12, 3.3.14, 3.3.17, 3.3.20, 3.3.22, 3.3.25, 3.4.1, 3.4.4, 3.4.7, 3.4.9, 3.4.12, 3.4.15, 3.4.17, 3.4.21, 3.4.23, 3.5.1, 3.5.4, 3.5.7, 3.5.11, 3.5.15, 3.5.19, 3.5.22, 3.5.23, 3.5.26, 3.5.28, 3.5.30.
- 3.6.8, 3.6.10.
  Other problems: 3.6.1, 3.6.4, 3.6.6, 3.6.11, 3.7.1, 3.7.4, 3.7.9.
- 4.1.10, 4.2.8ab, 4.2.9.Other problems: 4.1.1, 4.1.4, 4.1.6, 4.1.8, 4.1.12, 4.2.1, 4.2.4, 4.2.10.
- 4.3.14, 4.3.18, 4.4.6.
  Other problems: 4.3.1, 4.3.3, 4.3.5, 4.3.7, 4.3.10, 4.3.13, 4.3.17, 4.3.20, 4.3.23, 4.4.1, 4.4.4, 4.4.8, 4.4.11, 4.4.14, 4.4.17, 4.4.21.
- 4.4.22, 4.6.13, 4.6.16a.
  Other problems: 4.6.1, 4.6.3, 4.6.5, 4.6.9, 4.6.12, 4.6.15, 4.6.19, 4.6.21, 4.6.23.
- 5.1.17, 5.2.15, 5.3.12.

  Other problems: 5.1.1, 5.1.3, 5.1.5, 5.1.7, 5.1.10, 5.1.12, 5.1.16, 5.1.18, 5.2.2, 5.2.5, 5.2.7, 5.2.10, 5.2.14, 5.2.17, 5.3.1, 5.3.3, 5.3.5, 5.3.9, 5.3.11, 5.3.14, 5.3.16.
- 6.1.2, 6.1.11, 6.2.3.
  Other problems: 6.1.1, 6.1.3, 6.1.7, 6.1.10, 6.1.14, 6.1.19, 6.2.1, 6.2.4, 6.2.8, 6.2.10, 6.2.13.
- 6.3.9, 6.4.4, 7.1.3abc.
  Other problems: 6.3.1, 6.3.6, 6.3.8, 6.3.12, 6.3.15, 6.3.18, 6.3.20, 6.4.1, 6.4.3, 6.4.6, 6.4.8, 6.4.10, 6.4.14, 6.4.18, 6.4.20, 7.1.1, 7.1.4, 7.1.6, 7.1.8, 7.1.17, 7.1.20.

## **Grading System**

The course grade will be determined by three in-class exams (equally weighted), the first two of which will be announced a week in advance and the third one will be on the last day of classes. **No electronic devices (including calculators) are permitted during the exams.** The resulting score determines the letter grade according to the following table.

Letter Grade	Α	A-	B+	В	B-	C+	С	C-	D+	D
Score		92 <b>–</b> 88							53 – 49	48 – 40

#### **Attendance**

Attendance is mandatory. Also, please arrive to class before it starts; it is very

disruptive when someone walks in late.

## Make-ups

Make-up exams will not be administered unless it is supported by valid documentation.

#### Student Honor Code

Students are expected to abide by the Honor Code.

#### **Accommodations**

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting disability.ufl.edu/students/get-started. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

#### Disclaimer

I reserve the right to change the above policies if situations warrant.



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