

MATH 7900 (Azoff)

Foundations for Graduate Mathematics

Fall 2007

This website was last updated on September 12.

Assignment 4, covering Chapters 11 through 14 of Spivak, has also been posted.

Lists of texts & references and class members can also be found below.

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Texts and References

Author	Title	Web Link or Publisher	Comments
Zakon, Elias	Basic Concepts of Mathematics	http://www.trillia.com/zakon1.html	For logic and set theory (Chapter 1)
Bond, R. J.; Keane, W. J.	Intro to Abstract Mathematics	Brooks/Cole	Logic/set theory reference
Spivak, Michael	Calculus, 4th Edition	Publish or Perish	Free prepublication version
Azoff, Edward	Sequences and Series	http://www.math.uga.edu/%7Eazoff/courses/3100s05.pdf	For Taylor series & uniform conv
Halmos, Paul R	How to Write Mathematics	http://www.math.uga.edu/%7Eazoff/courses/halmos.pdf	Expository suggestions
Shifrin, Theodore	Multivariable Mathematics	Wiley, 2005; ISBN 0-471-52638-X	Main text

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Exams

There will be three hour exams during the term. The first test will cover the material from the Zakon and Spivak texts.

The final exam is scheduled for 8 - 11 AM on Wednesday December 12 in our usual classroom. It will be comprehensive.

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Assignment Summary

Assign ment	Da te Du e	Text	Reading	Pages for Problems	Problems to Hand In	Extra Problems for Practice & Class Discussion
1	F 24 Au g	Zakon	Chap 1	9-11	4, 11i, 17ii	
				20-22	2ix, 6, 12, 18	
				26-27	7ii, 9, 11iii	
				30-31	7, 8i, 12i	
				35	2, 11	
				Worksheet on Symbolization: online at http://www.math.uga.edu/%7Eazoff/courses/7900symp.pdf		
2	F 7 Se pt	Spivak	Chap 1	13-19	5iv,6ab,11iii,1 2v,14	3ii,22
			Chap 2	32	19	
			Chap 3	51-53	13,21,26	
			Chap 4	72-73	17v	20
			Chap 5	108	3,8,12,13,24,3 7b	10cd,18,21b, 31
3	F 14 Se	Spivak	Chap 6	119-121	3ab,6,12	4,10c,16abc
			Chap 7	130-131	7,10,17	3,5
			Chap 8	140-141	6c,12	1,6ab

	pt		8 Appendix	146	1b,2bc	1c
			Chap 9	163-166	14,22a	3,7
			Chap 10	181-186	9,16,28	1
			Chap 11	207-215	11,20,28,38,43,49,55	1vi,2vi,5,31,33,41,53
4	F 21 Se pt	Spivak	Chap 12	242-243	23	5
			Chap 13	274-280	13,19,20,23ab,37	5,16,29,33,36
			Chap 14	298-299	8,18	3,4,16

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Phone Numbers and e-mail Addresses

Go By	Family Name	e-mail	Phone
Michael	Berglund	berglund@math.uga.edu	
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Course Objective

From the Bulletin: "An intensive review of techniques and material essential for graduate study in mathematics, including background in calculus and linear algebra".

The main text, by Shifrin, will be used for topics in linear algebra and multivariate calculus.

Handouts and outside references will be provided for preliminary discussions involving logic, limits, and continuity. Depth and length of this part of the course will depend on background of class members.

MATH 7900
Foundations for Graduate Mathematics
Course Syllabus

Call Number 01-685

Web Page <http://www.math.uga.edu/~azoff/courses/7900.html>

Time & Place 1:15 - 2:05 MWF 524 Boyd

Texts Logic: First Chapter of E. Zakon's Basic Concepts of Mathematics, available online at <http://www.trillia.com/zakon1.html>
Main Text: Multivariable Mathematics, by Theodore Shifrin, Wiley, 2005; ISBN 0-471-52638-X.

Grading	Homework	100 points
	Hour Tests (3 @ 100 pts)	300 points
	Final Exam	200 points

Homework will be collected once or twice a week; no late work will be accepted. The final exam is scheduled 8-11 AM on Wednesday December 12; it will be comprehensive.

Instructor [E. Azoff](#)
e-mail azoff@math.uga.edu
Phone 542-2608
Office 443 Boyd

Office Hours	MTuWTh:	3:30 - 4:30 PM	No Office Hours on:
	F:	2:30 - 3:30 PM	Th - F September 13 - 14
			Th - F September 27 - 28
			Th - F October 4 - 5

Assignment on Logic and Set Theory

Due Friday August 24

1. Read Chapter 1 of Elias Zakon's online text, Basic Concepts of Mathematics, available online at <http://www.trillia.com/zakon1.html>.
2. Work the following problems from that text:

Pages

Problems

9-11	4, 11i, 17ii
20-22	2ix, 6, 12, 18
26-27	7ii, 9, 11iii
30-31	7, 8i, 12i
35	2, 11

3. Read the Symbolization Worksheet located online at <http://www.math.uga.edu/%7Eazoff/courses/7900symb.pdf> and work the problems at the end of the worksheet..