

## SYLLABUS FOR MA 442

The text is *Mathematical Analysis*, Volumes I and II, by Elias Zakon, available at <http://www.trillia.com>.

The material from Chapter 1, Chapter 2, and the first 10 sections of Chapter 3 of the text are condensed from *Basic Concepts of Mathematics* by the same author, also available at that web site. You can review that book if you would like a more expanded introduction to the material.

We assume that students will be more-or-less familiar from MA 440 with the material from Chapters 1 and 2, as well as with the single-variable calculus in Chapter 5, although we will recall definitions and likely give some homework for review.

(1) Chapter 3.

- (1) Sections 1–3.
- (2) Section 9.
- (3) Section 10.
- (4) Section 11.
- (5) Section 12.
- (6) Section 13.
- (7) Section 14.
- (8) Section 15.
- (9) Section 16.
- (10) Section 17.

(2) Chapter 4.

- (1) Section 1.
- (2) Section 2.
- (3) Section 3.
- (4) Section 4.
- (5) Section 5.
- (6) Section 6.
- (7) Section 8.
- (8) Section 9.
- (9) Section 10.
- (10) Section 12.
- (11) Section 13.

(3) Chapter 6.

- (1) Section 1.
- (2) Section 2.
- (3) Section 3.
- (4) Section 4.
- (5) Section 5.
- (6) Section 6.
- (7) Section 7.
- (8) Section 9 (maybe).
- (9) Section 10 (maybe).