

Instructor:

Dr. G. Slade, MATX 1211, 604-822-3781, slade@math.ubc.ca.

Office hours: See course webpage.

Course webpage: <http://www.math.ubc.ca/~slade/math321/321-web-18.html>

Text: Walter Rudin, “Principles of Mathematical Analysis” 3rd edition, McGraw Hill, 1976.

Solutions manual is here: <https://minds.wisconsin.edu/handle/1793/67009>.

Alternate references:

Tom M. Apostol, “Mathematical Analysis.”

Dr. Feldman has posted some notes at <http://www.math.ubc.ca/~feldman/m321/>.

Topics: The course will be based primarily on topics from Chapters 6, 7, 8, 9 of Rudin:

1. The Riemann–Stieltjes integral (Chapter 6).
2. Sequences and series of functions; uniform convergence (Chapter 7).
3. Power series; special functions; Fourier series (Chapter 8).
4. Functions of several variables; inverse and implicit function theorems (Chapter 9).
5. Other topics as time permits.

Evaluation: There will be homework assignments, two tests, and a final exam.

Homework: Nine assignments will be given and marked for credit. Assignments are due at the beginning of class on the due date. *No late assignments will be accepted.* The assignment schedule is as follows:

<u>Assignment given</u>	<u>Assignment due</u>
January 5	January 12
January 12	January 19
January 19	January 26
January 26	February 2
February 9	February 16
February 16	March 2
March 2	March 9
March 9	March 16
March 23	April 4

Tests: There will be two 50-minute tests held during the regularly scheduled class hours on the following dates:

Wednesday, February 7, Wednesday, March 21.

The midterms and final exam are closed book: no calculators, formula sheets, or other aids are permitted. Missing a test normally results in a mark of zero. Exceptions may be granted in two cases: prior consent of the instructor or a medical emergency. In the latter case, the instructor must be notified within two working days of the missed test, and presented with a doctor’s note immediately upon the student’s return to UBC. When an exception is granted for a missed test, there is no make-up test, and the final exam mark will be used.

Final exam: There will be a final examination during the April examination period.

Final mark: The final mark will be calculated (subject to possible scaling) as follows:

Homework: 10% (best 8 assignment marks)

Tests: 20% each

Final exam: 50%

Prerequisite: MATH 320.

Updated December 26, 2017.