

MATH-3580 Introduction to Analysis I
Course Outline for Fall 2020
Document Date: September 9, 2020

Professor: Dr. Zhiguo Hu

Office: LT 10114 (ext 3038, zhiguohu@uwindSOR.ca)

Office Hours: Tuesday 2:30 - 5:00PM, or by appointment.

Classes: TR 10:00 - 11:20AM, and F 10:30 - 11:20AM.

The Friday class is used for a lab. **The Lab starts in the week of Sept 14.**

Lab Assistant: TBA

Virtual Classroom: All classes and office hours are held in the Virtual Classroom at Blackboard. Please ensure that you are using Google Chrome to access the Virtual Classroom.

Recordings of Lectures: Recordings of lectures and labs will be available in the Virtual Classroom. Please note that using of the recordings is governed by the **Senate Policy on Recording Lectures** (which can be found under *Resources* in the course website).

Textbook: W. Rudin, Principles of Mathematical Analysis (Third Edition).

Course Content: Selected sections in Chapters 1 - 5.

References:

1. T. Traynor, Introduction to Analysis (available under *Resources* in the course website).
2. Your own class notes.

Assignments: Recommended reading and exercises will be assigned regularly. Your solutions to the exercise questions are not collected or marked, but they are your opportunity to practice for the tests and the final exam. **Please review and complement your lecture notes after classes and try the exercise questions on your own.** Some of these questions will be discussed in labs.

Evaluation:

Test One (20%): 9:00 - 12:30, Tuesday, October 6.

Test Two (30%): 9:00 - 12:30, Tuesday, November 10.

Final Exam (50%): TBA

There will be no re-test. If a test is missed for a valid documented reason, the weight will be added to the weight of the final examination.

You are required to provide the Student Medical Certificate if you miss a test or the final exam due to valid medical reason. The form is available on the course website.

The following are the university-wide grade descriptors for undergraduate programs.

Grade Range	Letter Grade	Grade Range	Letter Grade	Grade Range	Letter Grade	Grade Range	Letter Grade	Grade Range	Letter Grade
90-100	A+	77-79.9	B+	67-69.9	C+	57-59.9	D+	0-49.9	F
85-89.9	A	73-76.9	B	63-66.9	C	53-56.9	D		
80-84.9	A-	70-72.9	B-	60-62.9	C-	50-52.9	D-		

Web Page Access:

1. Use Google Chrome to go to the university website at "<http://www.uwindsor.ca>".
2. Click on "Current Students", and then click on "Blackboard Learn".
3. Log in with your UWinID and find the link "MATH-3580-1-R-2020F: Introduction to Analysis I".

Course Outline

Math-3580 Introduction to Analysis I: This course is a rigorous and proof-based study of supremum and infimum, the real number system, countable and uncountable sets, metric spaces, compact sets, connected sets, Cauchy sequences, completeness, limits and continuity, maximum and minimum on compact sets, intermediate value theorem, differentiation and the mean value theorem.

(Prerequisites: MATH-1730, MATH-1020, and one of MATH-1250, MATH-1260 or MATH-1270.) (3 lecture hours, 1 tutorial hour per week.)