

# Analysis – Math 4341

## Spring 2023

**Professor:** Dr. David Milan

**Office:** RBN 4006

**Office Hours:** MWF 2:30-3:20 pm, or by appointment.

**Email:** [dmilan@uttyler.edu](mailto:dmilan@uttyler.edu)

**Office Phone:** 903-565-5839 (email is best)

**Web:** class page on blackboard

**Class Meeting Time:** MWF 11:15 am – 12:10 pm

**Required Text:** *Understanding Analysis* by Stephen Abbott

**Prerequisites:** Math 3425 (Foundations of Mathematics)

**Course Description:** Continuation of MATH 3345. Study of metric spaces, sequences, series, continuous functions, differentiation, and integration.

**Learning Outcomes:** Upon completion of this course, students should be able to do the following:

- Write complete, correct, and coherent proofs involving analysis.
- Understand and use abstract mathematical concepts.
- Discuss and use properties of functions on the real numbers, particularly those involving continuity, differentiation, and integration.
- Exhibit some familiarity with selected topics involving metric spaces and/or functional analysis.

**Course Evaluation:** Your grade will be based on:

Homework and Presentations	20%
Three Midterm Exams	60%
Final Exam	20%

The grading scale will be no more harsh than 90% = A, 80% = B, 70% = C, 60% = D.

**Important Dates:**

Jan. 23: Census date: date to withdraw without penalty and grade replacement deadline.

March 13-18: Spring Break

March 23: Last day to drop course with a W.

**Attendance:** Analysis is a very difficult subject. The best way to succeed in this class is to attend all of the lectures, ask numerous questions, and complete the homework as soon as possible after it is assigned.

**Exams:** Students should expect to write high quality proofs on all exams. The focus will not be on memorization of terminology nor will the test consist of a series of routine calculations. There will be three midterm exams (approximate dates listed above) and a comprehensive final exam.

**University Policies:**

See <https://www.uttyler.edu/academic-affairs/faculty-resources/> and click “Syllabus Information” for a list of important University policies: student rights and responsibilities, grade replacement and forgiveness, state-mandated course drop policy, disability services, student absence due to religious observance or university sponsored events, and social security and FERPA.