# Cohort Math 4301: Mathematical Analysis I

**Spring 2017, Tues/Thurs: 2:30pm-3:45pm FN 2.204**

## Instructor Information

**Instructor**: Dr. Qingwen Hu  **E-mail**: `qingwen@utdallas.edu`
**Office**: FO. 2.610E  **Phone**: (972) 883 6599
**Office hours**: Friday: 9:00am-11:30am  http://www.utdallas.edu/∼qingwen

## Textbook and references

No textbook required. Electronic lecture notes will be provided at the course webpage at eLearning. The following books are highly recommended references for the course:

1. Wade, W. R., Introduction to Analysis, Pearson, 2010.

2. Rudin, W., Principles of Mathematical Analysis, McGraw-Hill, 1978.

3. Kennith, R., Elementary Analysis: The Theory of Calculus, Springer-Verlag, 2013.

## Course Description

This course will cover real number system, metric spaces, basic point set topology, power series, analytic functions, Cauchy's theorem, differentiation, integration.

## Learning Objectives

Students will be able to use the laws of logic and basic set theory to present formal proofs of mathematical statements. Students will be able to learn formal definitions of analytical and topological concepts used in mathematical analysis and will be able to prove the important theorems in Calculus. This course will prepare students for more advanced graduate courses in mathematics and statistics.

## Grading Policy

**Assignments**: A pdf file for assignment will be posted `weekly` or `bi-weekly` depending on the lecture progress. Assignments will be posted at the course homepage on the website eLearning:

<div align="center">

`https://elearning.utdallas.edu`

</div>

**Exams**: There will be two midterm exams and one final exam.

> Graded assignments (about eight): 20%
> Midterm exam I: 25%
> Midterm exam II: 25%
> Final exam: 30%.

## Important Dates

| | |
|---|---|
| Classes begin: | Monday, January 09, 2017 |
| Martin Luther King Day University Closing: | Monday, January 16, 2017 |
| Last Day to Drop a Class without a "W": | Wednesday, January 25, 2017 |
| **Midterm Exam I**: | Tuesday in class, February 21, 2017 |
| **Midterm Exam II**: | Thursday in class, April 06, 2017 |
| Spring Break: | Mon., Mar. 13, 2017–Satur., Mar. 16, 2017 |
| Last Day of Classes Full-Term Session: | Sunday April 30, 2017 |
| Reading Day: | May 01, 2017 |
| **Final Exam**: | To be available at the Galaxy account. |

## UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please go to

<div align="center">

`http : //go.utdallas.edu/syllabus − policies`

</div>

for these policies.

*These descriptions and timelines are subject to change at the discretion of the Professor.*