

Math 5301: Elementary Analysis I

Fall 2016, Tues/Thurs: 5:30pm-6:45pm FO 1.202

Instructor Information

Instructor: Dr. Qingwen Hu

Office: FO. 2.610E

Office hours: Friday: 9:00am-11:30am

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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. Kenneth, 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:

<https://elearning.utdallas.edu>

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

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

Important Dates

Classes begin:	Monday, August 22, 2016
Labor Day University Closing:	Monday, September 5, 2016
Last Day to Drop a Class without a "W":	Wednesday, September 7, 2016
Midterm Exam I:	Thursday 5:30pm–6:45pm, October 6, in class
Midterm Exam II:	Thursday 5:30pm–6:45pm, November 10, in class
Fall Break:	Thursday Nov. 21–Sat. Nov. 23
Thanksgiving holiday University Closings:	Thursday Nov. 24–Sat. Nov. 26
Last Day of Classes Full-Term Session:	Wednesday December 7, 2016
Reading Day:	Thursday December 8, 2016
Final Exam:	Available at Galaxy after September 7, 2016

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

[http://go.utdallas.edu/syllabus – policies](http://go.utdallas.edu/syllabus-policies)

for these policies.

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