

MATH 341 - Sections 002,003

Theory of Analysis I

Syllabus - Winter 2014

Professor: Lennard Bakker

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Office Hours: MWF 3:00-4:00 in the Math Lab

Texts: *Understanding Analysis* by Stephen Abbott

Course Meeting: Sec. 002 Lecture 11:00-11:50 MWF 108 TMCB; Sec. 003 Lecture 12:00 - 12:50 MWF 136 TMCB

Course Description: This course will provide an understanding of the real number system and of real-valued functions of a single real variable. The focus will be on the theoretical and logical foundations of single variable calculus, and on training in the discovering and writing of mathematical proofs. Topics to be covered include completeness of the real numbers, topology, continuity, differentiability, integrability, and convergence of sequences and series of functions.

Course Web Page: Exact copies of the Syllabus, and the Lecture, Homework, and Exam Schedule are posted on the instructor's website math.byu.edu/~bakker. In case you misplace your copies, please reprint copies from this website.

Exam Study Guides: A study guide will be made available prior to each midterm exam. It will be posted on instructor's website. Each study guide will detail what is expected of you. Also, a previous midterm exam will be posted prior to each midterm exam.

Homework: *One* homework assignment will be assigned most class periods. A complete list of the homework assignments is contained in the Lecture, Homework, and Exam Schedule. You are encouraged to work with other students in the class by discussing these problems. However, the assignment that you hand in should be your own work; i.e., when you write up a problem you should not look at anyone else's work (copying does constitute cheating!).

These assignments are generally **due the following class day after being assigned, by 4 p.m. in my office wallbox**. (See the Lecture, Homework, and Exam Schedule for exact dates.)

Each homework assignment is worth 15 points: 10 points are for two problems that are graded, and 5 points are for attempting the rest of the problems on the assignment (one point deduction for each question not attempted). Each graded problem is worth up to 5 points: 0 points for no attempt or for unreadable work, 1 point for something, 2 points for more than something, 3 points for some substance but lacking all the details, 4 points for a nearly complete and correct solution, and 5 points for a neatly written, complete, and correct solution. Late work will be accepted, but only for 50% of earned credit. The deadline for late homework is the last day of classes (Apr. 15, 2014).

Tests: There will be 3 Midterm Exams, and a Comprehensive Final Exam. The schedule for the course exams is:

<u>Test</u>	<u>Sections</u>	<u>Location</u>	<u>Dates</u>
Exam 1	1.1-1.5,2.1-2.7	Testing Center	Fri. Feb. 7 - Tues. Feb. 11
Exam 2	3.1-3.4,4.2-4.6	Testing Center	Fri. Mar. 7 - Tues. Mar. 11
Exam 3	5.1-5.4,6.2-6.4	Testing Center	Fri. Mar. 28 - Tues. Apr. 1
Final Exam	All	Testing Center	Fri. Apr. 18 - Wed. Apr. 23

The use of calculators, books, and/or notes is prohibited on all examinations.

You should plan on two hours for each midterm exam and on three hours for the final exam.

Recording of Homework and Test Scores in Learning Suite: Scores from the homework assignments and the tests will be recorded on Gradebook within the Learning Suite. From time to time please check the accuracy of your scores listed there, and report any errors to your instructor for resolution.

Gradebook will estimate your current grade in the class, and it will be used to determine and submit your final letter grade.

Grading: The assessment items will determine your final grade in the following way:

Homework	25%
Midterm Examinations	45% (each exam is worth 15%)
Final Examination	30%

Letter grades will be assigned as follows:

B+	= 89-87%,	C+	= 79-77%,	D+	= 69-67%,				
A	= 100-93%	B	= 86-83%,	C	= 76-73%,	D	= 66-63%,	E	= 59-0%.
A-	= 92-90%	B-	= 82-80%,	C-	= 72-70%,	D-	= 62-60%,		

There is no curving of letter grades in this course.

Extra Credit: Extra credit worth 2 homework assignments will be available for completing the online evaluation near the end of the semester. Additional extra credit worth up to 2 homework assignments will also be available through an extra credit project on Fourier Series. This project will be posted on the instructor's website near the end of the semester.

Miscellaneous: Preventing Sexual Harassment: Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education and pertains to admissions, academic and athletic programs, and university-sponsored activities. Title IX also prohibits sexual harassment of students by university employees, other students, and visitors to campus. If you encounter sexual harassment or gender-based discrimination, please talk to your professor; contact the Equal Employment Office at 801-422-5895 or 1-888-238-1062 (24-hours), or <http://www.ethicspoint.com>; or contact the Honor Code Office at 801-422-2847.

Students with Disabilities: BYU is committed to providing reasonable accommodation to qualified persons with disabilities. If you have any disability that may adversely affect your success in this course, please contact the University Accessibility Center at 422-2767. Services deemed appropriate will be coordinated with the student and instructor by that office.

Children in the Classroom: The study of mathematics requires a degree of concentration and focus that is exceptional. Having small children in class is often a distraction that degrades the educational experience for the whole class. Please make other arrangements for child care rather than bringing children to class with you. If there are extenuating circumstances, please talk with your instructor in advance.