Syllabus for MATH 4341 – Introduction to Real Variables

Instructor

Name: David Milan
Phone: (903) 566-7198 (email is best)
Email: dmilan@uttyler.edu
Office: RBN 4006

Office Hours: W,F 3:00 - 4:30 and other times by appointment

Texts

A Radical Approach to Real Analysis by David Bressoud
Elementary Analysis: The Theory of Calculus by Kenneth A. Ross (optional)

Prerequisites

You may enroll in MATH 4341 if you have successfully completed MATH 3345 (Introduction to Analysis).

Course Description

Study of real-valued functions of a real variable. Emphasis is given to continuity, differentiation, integration, series expansions.

Grades

Your grade will be determined by percentage from the following categories:

Homework and Projects	45%
Midterm Exams	30%
Final Exam	25%

Attendance

It is vital that you attend every class and take careful notes. Some lecture material will not appear in the textbook. I also encourage you to ask lots of questions and participate in class.

Homework

Homework will be assigned on a regular basis. Some of the assigned problems will require the use of Mathematica. Please let me know if you need additional help with Mathematica. I have made the homework a large portion of your grade in this class. For this reason, and because I believe it is important to explore the concepts in the homework independently, I am requiring that all homework be done **independently**. You will not be allowed to collaborate with other students on this homework. If you have homework questions, you can come see me.

Midterm Exams

There will be two midterm exams. The dates will be announced at least one week prior to the exam. The tests will primarily assess your ability to prove things, not how well you have memorized facts.

Final Exam

A final comprehensive exam is scheduled for **Wednesday, May 6, 2:45 pm - 4:45 pm**. No alternative times will be scheduled to accommodate travel plans or work schedules.

Disability Statement

If you have a disability, including a learning disability, for which you request disability support services and/or accommodation(s), please contact Ida MacDonald in the Disability Support Services office so that the appropriate arrangements may be made. In accordance with federal law, a student requesting disability support services/accommodation(s) must provide appropriate documentation of his/her disability to the Disability Support Services counselor. For more information, call or visit the Student Services Center located in the University Center, Room 282. The telephone number is 566-7079 (TDD 565-5579). Additional information may also be obtained at the following UT Tyler Web address: http://www.uttyler.edu/disabilityservices.

Social Security Statement

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number.

Note Regarding Student Absence due to Religious Observance

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor by the second class meeting of such absences.

Grade Replacement

If you are repeating this course for a grade replacement, you must file an intent to receive grade forgiveness with the registrar by the Census date (January 26). Failure to file an intent to use grade forgiveness will result in both the original and repeated grade being used to calculate your overall grape point average. A student will receive grade forgiveness (grade replacement) for only three (undergraduate student) or two (graduate student) course repeats during his/her career at UT Tyler. (2006-08 Catalog, p. 35).

For other university policies see: `http://www.uttyler.edu/academicaffairs/syllabuspolicies.pdf`

Student learning objectives

By the end of this course, the student will be able to do the following:

- Prove facts about innite series of real functions.
- Prove facts about continuity, differentiation, and integration of functions.
- Construct examples and counterexamples displaying basic properties about continuity, differentiation, and integration of sequences and series of functions.