

MATH 410—Advanced Calculus II
SPRING 2015, SECTION 500

Instructor: David Kerr

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Office: Blocker 525L

Office hours: T 2:00-3:00, W 1:00-2:00, or by appointment

Lectures: TR 11:10-12:25, CE 222

Textbooks: *An Introduction to Analysis*, fourth edition, by William R. Wade, published by Prentice Hall.

Course description: Differential and integral calculus of functions defined on \mathbb{R}^m including inverse and implicit function theorems and change of variable formulas for integration; uniform convergence.

Schedule:

1. Uniform convergence, power series, analytic functions (2.5 weeks)
2. Euclidean spaces, linear transformations, topology of \mathbb{R}^m (2.5 weeks)
3. Limits and continuity of functions on \mathbb{R}^m , compactness (3 weeks)
4. Differentiability on \mathbb{R}^m , mean value theorem, inverse function theorem (3 weeks)
5. Integration on \mathbb{R}^m (3 weeks)

Grading: Grades will be based on two in-class exams (worth 25% each), a cumulative final exam (30%), and weekly assignments (20%), and will be determined in the standard way: A: 90–100, B: 80–89, C: 70–79, D: 60–69, F: 0–59. The final exam will be held from 3:00 p.m. to 5:00 p.m. on Thursday May 7. The in-class exams will be held on Thursday February 19 and Thursday March 26.

Make-up policy: In accordance with university regulations, make-ups for missed exams and assignments will only be allowed for a university-approved excuse in writing. Whenever possible, students should inform the instructor before an exam or assignment is missed. Students are required to notify the instructor by the end of the next working day after missing an exam or assignment. Otherwise, they forfeit their rights to a make-up.

Support services: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Room 126 of the Koldus Building or call 845-1637.

Academic integrity: See <http://aggiehonor.tamu.edu> for university policy concerning academic dishonesty and the rules and procedures of the Honor Council.

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