MATH 721 – INTRODUCTION TO REAL ANALYSIS  
Fall 2019

Time and Place: Tu Th 9:30 am to 10:45 am, Cardwell 120

Instructor: Lizaveta Ihnatsyeva  
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Office Location: 234 Cardwell Hall  
Office Hours: Th 11:00 am to 12:00, or by appointment

Textbook:
The instructor will use her own lecture notes, which will closely follow the corresponding chapters from the texts recommended for the course:

- N.L. Carothers, Real Analysis, Cambridge University Press, 2000 (mostly Chapters 1; 3-5; 10-11; 16-18)
- M. Spivak, Calculus on Manifolds, Perseus Books, 1965 (Chapters 1 and 2)

Additional Reading:

Material and Structure: The material will, in particular, cover such topics as metric and normed linear spaces, limits and continuity of functions defined on a metric space, sequences of functions and convergence of them, Lebesgue measure on the real line, the Lebesgue integral. The course will also include basics of analysis of functions of real several variables, including differentiability, partial differentiability, the inverse function theorem, the implicit function theorem.

Students are expected to attend lectures. They are strongly urged to read the material in advance and to begin the homework assignments early. Interaction and participation in class are expected, and attendance to office hours is very welcome.

Homework assignments: There will be several homework assignments; problems and the schedule for homework will be seen in Canvas.

Grading Policy: Homework: 30%; Midterm: 30%; Final exam: 40%.

Disabilities: Students with disabilities who need classroom accommodations, access to technology, or information about emergency building/campus evacuation processes should contact the Student Access Center and/or their instructor. Services are available to students with a wide range of disabilities including, but not limited to, physical disabilities, medical conditions, learning disabilities, attention deficit disorder, depression, and anxiety. If you are a student enrolled in campus/online courses through the Manhattan or Olathe campuses, contact the Student Access Center at accesscenter@k-state.edu, 785-532-6441; for Salina campus, contact the Academic and Career Advising Center at acac@k-state.edu, 785-826-2649.
**Academic Honesty:** Kansas State University has an Honor System based on personal integrity, which is presumed to be sufficient assurance that, in academic matters, one's work is performed honestly and without unauthorized assistance. Undergraduate and graduate students, by registration, acknowledge the jurisdiction of the Honor System. The policies and procedures of the Honor System apply to all full and part-time students enrolled in undergraduate and graduate courses on-campus, off-campus, and via distance learning. The honor system website can be reached via the following URL: www.k-state.edu/honor. A component vital to the Honor System is the inclusion of the Honor Pledge which applies to all assignments, examinations, or other course work undertaken by students. The Honor Pledge is implied, whether or not it is stated: "On my honor, as a student, I have neither given nor received unauthorized aid on this academic work." A grade of XF can result from a breach of academic honesty. The F indicates failure in the course; the X indicates the reason is an Honor Pledge violation.

**Classroom Conduct:** All student activities in the University, including this course, are governed by the Student Judicial Conduct Code as outlined in the Student Governing Association By Laws, Article V, Section 3, number 2. Students who engage in behavior that disrupts the learning environment may be asked to leave the class.

**Changes:** The instructor reserves the right to modify the contents in this description if conditions arise during the semester that make such changes desirable. Such changes will be announced in class; it is your responsibility to keep abreast of such changes.