MATH 800 - COMPLEX ANALYSIS
SPRING 2020

- **Instructor:** Professor Milena Stanislavova
- **Office:** Snow 415 D, Phone: 864-4365
- **Office Hours** Monday 10-11am, Friday 2-3pm
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- **Prerequisite**: Math 766 or equivalent or currently taking Math 766
- **Text:** Function Theory of One Complex Variable, by R. Greene and S. Krantz, American Mathematical Society; 3rd edition (2006), ISBN 0821839624
- **Topics**: Complex numbers and functions; complex differential operators; Cauchy-Riemann equations; analytic and harmonic functions; Cauchy formula; Power series representation of analytic functions; Liouville's theorem; zeros of analytic functions; Laurent series and meromorphic functions; argument principle, the residue theorem and applications; counting zeros and poles of meromorphic functions; maximum modulus principle and Schwartz lemma; Riemann mapping theorem.
- **Homework**: There will be six biweekly homework assignments, typically due on Wednesdays. Each one will cover the material in one chapter of the book.
- **Exams**: There will be one midterm exam and a *comprehensive* final exam.
- **Grade**: Your grade will be determined as follows:
  Homework assignments - 30 %, Midterm exam - 30 %, Final exam - 40 %. As usual, 90 % of the points will guarantee an A, 80 % will guarantee a B etc.
- **Students with disabilities**: The staff of Services for Students with Disabilities (SSD), 135 Strong, 785-864-2620, coordinates accommodations and cervices for KU sources. If you have a disability for which you may request accommodation in KU classes and have not contacted them, please do so as soon as possible. Please also see your instructor privately in regard to this course.
- **Religious observances**: Any student in this course who plans to observe a religious holiday which conflicts in any way with the course schedule or requirements should contact me as soon as possible to discuss alternative accommodations.