

Course Title: Functions of a Real Variable
Course #: 70100
Time and Location: 12:00pm-1:30pm in TBA
Instructor Name: Hooper
Contact Information: GC Room 4217-02, whooper@ccny.cuny.edu, 212-817-8567
Pre-Requisites: Undergraduate Advanced Calculus
Office Hours: Mondays 2-3pm, or by appointment.
Description:

See
http://www.gc.cuny.edu/CUNY_GC/media/CUNY-Graduate-Center/PDF/Mathematics/Real-Syllabus.pdf?ext=.pdf

The real number system, including the least upper bound property; elementary aspects of cardinal numbers (countable and uncountable sets, the uncountability of the reals); elementary point-set topology, including compactness, connectedness, metric spaces, complete metric spaces, metrizable spaces and the Baire Category Theorem; continuous functions between topological spaces; the topology of euclidean space \mathbb{R}^n , including the Heine-Borel and Bolzano-Weierstrass Theorems; function spaces, including sequences and series within such spaces, uniform convergence, the Stone-Weierstrass Theorem, and the Arzelà-Ascoli Theorem (a/k/a Ascoli's Theorem); differentiation in several variables, including the Inverse and Implicit Functions Theorems.