COURSE: Introduction to Analysis (MATH 3002), **Section 001**,
M. W. F., 3:35-4:30 p.m., in Room 273 of 60WCharlton, Autumn-2014

TEXTBOOK: ***Introduction to Analysis*** by Maxwell Rosenlicht
Unabridged Dover (1985) republication of the edition published by Scott Foresman & Co., Glenview, Illinois, 1968. It is available as a new Dover paperback for less than $14.95 USA.

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OFFICE HOURS: Monday, Wednesday and Friday: 1:30 – 2:15 p.m. and 4:50 – 5:30 p.m.
In Room 4504 of French Hall West

NOTE to anyone who may read this syllabus after the year 2014: The estimated number of students for this course is about 15. It is recognized that, for class sizes greater than 20 to 25 students, the plan for teaching upon which this syllabus is based and the syllabus itself would likely need modifications.

GENERAL OBSERVATIONS: Our subject is about a careful development of results that provide a logical framework for traditional courses in calculus. In the various situations where the functions are defined on the real line **R** or on **t**he real plane **R** x **R** or on x,y,z-space **R** x **R** x **R** or etc., analogous results can be derived by similar arguments. Thus, while your intuition can be helped by visualizing these familiar examples as you read the textbook and develop solutions to assigned problems, emphasis of language will be on metric spaces without unnecessary restrictions.

A class size of about 15 students seems ideal for the purpose of encouraging students to develop their skill in communicating mathematics to others. Numerous problems in our textbook are ideal for that purpose. Students can experience the fun and challenge of developing solutions to assigned problems and clearly presenting their solutions at the blackboard (or whiteboard) of the next scheduled class.

SCHEDULE: The plan is to cover the sections and chapters of our textbook consecutively as far at time permits.

GRADING: Final grades will be based on the homework explanations, a 55-minute examination given on a mutually agreeable Friday in October and a two-hour final examination given on Wednesday, December 10 at 4:00-6:00 p.m. Questions on the examinations will either involve direct conclusions from the main results (**Definitions, Theorems, Propositions, Corollaries**) covered from our textbook or on the not-too-involved homework problems that have been explained in class.