Math 308 Course Information Sheet

Course Description: This course explores the logical and foundational structures of mathematics, with an emphasis on understanding and writing proofs. Topics include set theory, logic, mathematical induction, relations and orders, functions, Cantor's theory of countability, and development of the real number system.

Text: *Mathematical Proofs,* 3rd edition, by Chartrand, Polimeni, and Zhang (CPZ).
Elementary Analysis, 2nd edition, by Ross (Ross). This book is freely available as a PDF while you are on campus.

Visit: *http://link.springer.com/book/10.1007%2F978-1-4614-6271-2*

Course Credits/Hrs: 3 credits/ 3 contact hours per week
Section Meeting Times: Tu-Th 2:00 - 3:40pm.
Instructor's Name: Bianca Santoro
Office: NA4/112B (CCNY).
Office Phone: 212-650-5165
e-mail: bsantoro@ccny.cuny.edu
Office Hours: Tuesdays 11am - 12pm or by appointment.

Exams: Three in-class exam will be given, on **October 1, November 3** and **December 3, 2015**.
If you cannot attend the in-class exams, it is your responsibility to schedule a make-up **one week before** the date of the exam.
The final exam date will be announced soon.

Homework: Assigned at the end of each class. Homework may be collected weekly, in class.

Quizzes: At the beginning of each Thursday class, there will be an in-class quiz. Each of them will consist of a few problems picked from the assigned homework. The two lowest grades on quizzes will be dropped, and there is no make-up for missed quizzes.

Grade computation:
Your class average is determined by:

In-class exams:	(45%)
Quizzes:	(15%)
Homework and Programming Assignments:	(10%)
Final Exam:	(30%)

That numerical grade turns into a letter grade as follows:
A = 90-100; B = 80-89 ; C = 70- 79 : D = 60:69 F = < 60

Programming assignments:
You will be assigned a programming assignments every two weeks in Python. There are a lot of overlapping concepts between programming and mathematical proofs. It is hoped that learning to program will reinforce the mathematical concepts in the course and broaden the applicability of ideas taught in the course. The lowest programming assignment grade will be dropped.

Academic Integrity: Please familiarize yourself with the CUNY policy on academic integrity at
http://www1.cuny.edu/portal_ur/content/2004/policies/image/policy.pdf

Syllabus: Roughly, each chapter in CPZ will be covered in two classes, with the exception of chapter 10, which will be covered in five classes.
Ross' chapter 1, sections 1.1 to 1.5, will be covered in about 3 classes.