MATHEMATICS 305
Introductory Mathematical Analysis

(MWF 9:30-10:20 am, CL 313)

INSTRUCTOR:
Paul Arnaud SONGHAFOUO TSOPMENE, College West 307.28
Office phone: 585-4424
E-mail: pso748@uregina.ca
Office hours: MWRF 10:30-11:30 am and T 11:30-12:30 am, or by appointment.
Note: Email must be sent from a valid **@uregina.ca** address and **Math 305** must be included in the subject.

TEXT/PREREQUISITES:
Analysis with an introduction to proof by Steven Lay, Pearson, 5th edition. The essential prerequisite for this course is Math 221, but Math 111 is also a required to take this class. Please note that having courses in calculus, proofs, and abstract algebra will be beneficial. Please talk to me if you have any questions or concerns regarding these prerequisites.

COURSE DESCRIPTION:
You will begin by reviewing the topics contained in Chapters 1 & 2. It is essential that you re-familiarize yourself with all of the topics in these two chapters (I will come back to Section 2.4 as needed). The course will begin in Chapter 3. In this chapter we survey and study various properties associated with the real numbers. From there we move to Chapter 4, where we consider real sequences and their convergence. This material moves nicely to Chapter 5, in which we return to the theory of functions and consider limits and continuity. Finally, in Chapter 6, we study differentiation from a rigorous point of view.

ASSIGNMENTS/MIDTERM EXAMS/FINAL EXAM:
There will regular assignments usually every two weeks that are to be handed in and will be graded. Collaboration on assignments is allowed, but I insist on a certain amount of individuality on each assignment. There will also be two midterm exams (**Wednesday, February 7** and **Wednesday, March 21**). Finally, there will be a comprehensive final exam on Wednesday, April 18, location TBA.

GRADING:
The final mark for this course will be the maximum of three weighted averages of your test results and assignment results. Option 1: Assignments will count 30%, midterm exams will count 30% (15% each), and the final exam will count 40%. Option 2: Assignments will count 30%, maximum midterm score to count 15%, and the final exam will count 55% Option 3: Assignments will count 30%, midterm exams will count 0, and the final exam will count 70%.

UR Courses:
A website for our course has been set up and that is the site you should consult for additional infor-

mation about our course. I will update the site regularly, with notes, assignments, and examination information.