Math 478: Real Analysis 1 (CRN 11198 & 24227)
Syllabus Fall 2014

Instructor
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office hours: TBA

Class times & location
CRN 24227: M-W-F 12:00-1:00 SW 329 – Lecture, Th 1:15-2:40 LN G335 – Discussion

Text: Walter Rudin, Principles of Mathematical Analysis, 3rd Edition

Prerequisites
Linear Algebra (MATH 304), Calculus III (MATH 323) and Number Systems (MATH 330).

Course Description & Learning Objectives: Math 478 and Math 479 are fundamental courses for students who wish to pursue advanced work in mathematical sciences. Besides the specific topics to be covered, the purpose of the course is to bridge the undergraduate demands on the students with the graduate ones while still providing a level of support appropriate for an upper level undergraduate course. Math 478 starts with a review of the real number system, countable and uncountable sets, and then covers euclidean spaces, metric spaces, compactness, connectedness, numerical sequences and series, continuity, and differentiation. The emphasis is placed on precision and being able to understand and prove important properties related to these topics.

HW/Quizzes: Your success in this course largely depends on the commitment you make to the HW assignments.

Homework will be posted on blackboard on Thursday, and it will be usually due the following Thursday. There will be a quiz on Thursday based on the HW. The three lowest quiz and hw scores will be dropped. One purpose of dropping the scores is to accommodate any unforeseen circumstances that can prevent you from completing an assignment or attending the class that day. Therefore, there will be no late hw accepted and no make up for missed quizzes. This policy is strictly enforced, so any emails or requests asking for a make-up will be ignored.

Note the following:
• The hw is due AT THE BEGINNING of class. Any assignment that is not handed in at the beginning of class is considered late.

• You are encouraged to talk to your classmates about the homework. However, you should write down the solutions on your own (DO NOT COPY FROM EACH OTHER–SEE BELOW for ACADEMIC DISHONESTY).

• You will be handing in only a part of the assigned problems. So do not staple the pages.

• If you do not follow the following guidelines, your assignment will not be graded:
  – At the top of the assignment write down the names of students you worked with.
  – Each new problem should be written on a separate page. Statement of the problem (directions) should be copied over on the page.
– Your solutions must be legible.

Finally, print from blackboard a quiz template and bring it with you to each class. Print 12 copies.

**Exams:** There will be two midterm exams to be given outside of class at a common time for the two sections of the course. The tentative dates are:
Exam 1: October 15th, 7pm-8:25 pm;
Exam 2: November 19th, 7pm-8:25 pm.

There will be no make-up exams unless there is an emergency and a legitimate documentation is provided within a week of the missed exam. If you have any questions about the exam grades, you will have one week from the day the exam is returned to make an inquiry. After one week, no grading inquiries will be considered.

**Final:** The final is mandatory and will be comprehensive. The final is scheduled to occur on 12/17/2014 at 17:40–19:40 in S2 140. Implicit in registering for this class is your agreement that you will be present to take the final exam. Failure to take the final will result in a grade of F being recorded for the course.

**Course Grade:** HW 25%, Quizzes 5%, Midterms 40% (20% each), Final 30%.

**Credit Hours:** This course is a 4-credit course, which means that students are expected to do at least 12.5 hours of course-related work each week during the semester. This includes scheduled lecture and discussion meeting times as well as time spent completing HW, studying lecture notes, reading the book, studying for tests, and spending time on any other course-related tasks.

**Attendance:** Following the academic policy listed in the University Bulletin, no work of a student missing more than 25 percent of the classes will be graded; instead a grade of zero will be given. Students are expected to be on time for class and stay for the entire class period. Excessive tardiness will count as absence. A proper classroom behavior is expected including but not limiting to: having a phone on silent, no talking, no speaking out of turn, no texting, browsing on your phone, etc. Finally, no laptops, iPads, etc. are allowed without the prior permission of the instructor. A failure to behave properly will result in the student being removed from the classroom and/or the course.

**Drop deadline:** The last day to drop the course, with a “W”/Change grade option is Friday, October 31st.

**Academic Dishonesty** I have zero tolerance for dishonesty. Any instance of academic dishonesty will be referred to the Harpur College Academic Honesty Committee. Academic honesty violations can result in the student being suspended from the University for multiple semesters.