MA 425 Syllabus
Fall 2017
S.O. Paur

Text: *Introduction to Real Analysis* (4th edition) by Bartle and Sherbet

Schedule: We will cover the following sections although parts of some of the sections may be omitted.

1.1 (sets and functions)	1 day

2.1 - 2.5 (algebraic and order properties of R, absolute value, Supremum property of R and its applications, Nested Interval Property)
                                                                    2 weeks

3.1-3.6 (sequences, limits of sequences, limit theorems, monotone sequences, subsequences. Bolzano-Weierstrass Theorem, Cauchy criterion and properly divergent sequences)   3 weeks

Chapter 4 (limits of functions and limit theorems)   1 week

Chapter 5 except for section 5.5 (continuous functions and theorems for continuous functions on closed, bounded sets, uniform continuity, monotone and inverse functions)   2 - 3 weeks

6.1, 6.2 (6.4 if time permits) (the derivative and derivative theorems, including the Mean Value Theorem) 1 week

7.1 - 7.3 (from the 2nd edition) (Riemann integral, Riemann integrable functions, Fundamental Theorem of Calculus)   1 1/2 weeks

8.1, 8.2 (pointwise and uniform convergence, interchange of limits)
                                                                    1 week

There will be 3 exams during the semester, with the first one after we complete Chapter 3, the second after Chapter 5 and the third after Chapter 8. That schedule depends on the rate at which the class progresses so it is subject to change. Also, to ensure that students have sufficient time to think about the problems, I usually schedule the exams on Friday afternoon at 3 pm and allow a maximum of 2.5 hours to take the exam. I will arrange alternative times for students who have other commitments at that time. The final exam will be given on Friday, December 8, 2016, from 8 am – 11 am.

Grading Policy: Each hour exam is worth 18%, turn-in homework and quizzes count 18% and the final exam is worth 28%. Turn-in homework assignments are due at the beginning of class on the day due. No late homework will be accepted. Practice problems will be assigned every day but do not need to be turned in. However, doing well on the exams generally requires that students do the practice problems in addition to

the turn-in homework problems. You are expected to attend all classes on time. If you have to miss an exam for reasons of illness or some other excused absence, please contact me prior to the exam so we can arrange for a makeup. Incomplete grades will be handled on an individual basis. I will honor all written requests by the Office of Disability Services for Students. It is my understanding and expectation that your signature on any exam or assignment means that you have neither given nor received any unauthorized aid. Students may discuss assignments with other students in this section of the class and with me, but no other persons. Students are expected to write up their assignments individually.

Supporting fellow students in distress: As members of the NC State Wolfpack community, we each share a personal responsibility to express concern for one another and to ensure that this classroom and the campus as a whole remains a healthy and safe environment for learning. Occasionally, you may come across a fellow classmate whose personal behavior concerns or worries you, either for the classmate's well-being or yours. When this is the case, I would encourage you to report this behavior to the NC State Students of Concern website:http://studentsofconcern.ncsu.edu/. Although you can report anonymously, it is preferred that you share your contact information so they can follow-up with you personally.

General Information: Office: SAS 3144
Office Hours: 9:45 -10:30 MWF or by appointment
Office Phone: 515-2598
Home Phone: 782-8190 (8:30 AM – 9 PM)
Email: sopaur@ncsu.edu
Web page: http://www4.ncsu.edu/~sopaur/