SYLLABUS – MATH 7608 STATISTICAL PROGRAMMING WITH R FALL 2016 5:30-6:55 T Th DUNN HALL 207

PROFESSOR: Dr. D. Bowman **OFFICE:** 380 Dunn Hall

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office hours: 12-1 T Th

Textbook: *Scientific Programming and Simulation Using R*, by Owen Jones, Robert Maillardet, and Andrew Robinson, CRC Press

Topics Covered:

Part I: Programming

Setting up, data structures, logical structures, I/O, functions, dataframes, lists, graphics, techniques of programming

Part II: Numerical Techniques

Mechanics of programs, root-finding, numerical integration, optimization

Part III: Student Projects

REQUIRED EQUIPMENT: Access to internet will be required. Students will install R, which is a free programming language.

EVALUATION:

There will be two tests plus a final project worth 100 points each. In addition there will be a number of programming assignments that will count a total of 200 points. The total possible number of points is 500. The student's grade in the course will be based on the percentage of the possible 500 points obtained according to the following scale.

90-100% - A 80 - 89% - B 70 - 79% - C 60 - 69% - D Below 60% - F

No makeup tests will be given. Each programming assignment will have a due date assigned and will be turned in via drop box. The program must run in R without error as it is turned in. If the program does not run without error in R as it is turned in, it will be assigned a grade of **0** (zero). If the program is not completed by the due date, the student will receive a grade of 0 (zero) on that assignment. No replacement grades will be possible for any programming assignments not completed by the due date. It is very important that you do not miss any tests or programming assignments.

STUDENT DISABILITY POLICIES ACOMODATION AND SERVICES: Information available at www.memphis.edu/sas

ACADEMIC MISCONDUCT: The University policy is available at www.memphis.edu/studentconduct/miscondut.htm

The professor reserves the right to make any necessary changes to the information provided in the syllabus during the semester.