## MATH 358/658: Mathematical Statistics, Spring 2014

Professor: Dr. Rob Erhardt Office: 342 Manchester Hall Office Hours: Tues 3-5PM, Wed 12:00-1:00, and by appointment (Manchester 342) E-mail: erhardrj@wfu.edu Phone: 336-758-3334

## 1. Location and Time: MWF 11:00-11:50, in Manchester 124

- 2. Book: Probability and Statistics by DeGroot and Schervish (4th edition)
- 3. **Outline:** In this class we will learn to fit probabilistic models to observed data. We will study, in a mathematically rigorous fashion, why certain methods of fitting data are preferred. We will learn to estimate unknown parameters, estimate confidence and credible intervals for parameters, test hypotheses, and utilize simulation-based methods to extend estimation and testing to more complicated data types.

Specifically, we will cover much of chapters 6-9, bits of chapter 10, and (time permitting) 12.

- 4. Exams: There will be a total of three in-class midterm exams (scheduled for February 19, March 26 and April 23). We also have a comprehensive final exam on May 8 at 9:00AM. In general make-up exams are not given, but for truly exceptional circumstances, contact me *before* the exam date. Graduate students (MATH 658) will also have a short take-home portion to exams.
- 5. Assignments: We will have weekly assignments, due in class each Wednesday. Assignments must be neat, stapled, entirely your own work, and on time. Plan on assignments taking 4-6 hours per week. If you need to miss class, place HW in my mailbox (in Manchester 131) by the start of class to be counted fully. Homework up to 24 hours late is counted 50%, and not accepted after 24 hours since solutions are posted.
- 6. Grading: Assignments count 20%, each midterm counts 18%, and the final exam counts 26%. Grades follow the standard scale, with cutoffs: 93 A, 90 A-, 87 B+, 83 B, 80 B-, 77 C+, 73 C, 70 C-, 67 D+, 63 D, 60 D-, and below 60 is F. Modest curving of grades *may* be used, but only at the end of the semester.
- 7. Honesty and Courtesy: Academic dishonesty of any sort will not be tolerated, and could result in an immediate grade of F. Refer to http://services.studentlife. wfu.edu/judicial-affairs/honor/. Phones, laptops, and other electronic devices are distractions when used in class. There is a mountain of research that shows we do lower quality work when distracted by electronic devices. Additionally, I find it extremely disheartening when I see students texting or on the internet during class.
- 8. Getting Help: Come to my office hours, or e-mail me and set up an appointment. Please contact the Learning Assistance Center (758-5929) within the first two weeks of class if you require accommodations for taking this course due to a disability.