Statistics 252 Winter 2007
Final Exam Information

The date and location of the final exam are

- Friday, April 20, 2007, 9:00 a.m. – 12:00 p.m.
- Classroom Building 407 (CL 407)

Please ensure that you know where the location of the test room is and that you arrive at least 20 minutes before the exam is scheduled to start.

YOU MAY BE ASKED TO SHOW YOUR UNIVERSITY ID AT THE DOOR. YOU MAY NOT BE ALLOWED ENTRANCE INTO THE FINAL EXAM WITHOUT PROPER IDENTIFICATION.

Calculators: You are permitted to use a calculator on this exam. Be sure that your calculator is working and has fresh batteries!

Notes: You may prepare **TWO** 8.5×11 pages (each double-sided) of handwritten notes for your personal use during the examination. Except for these pages of notes and a calculator, no other aids are allowed. Tables of normal, t, and χ^2 probabilities will be supplied as needed.

Examinable Material: The final exam will be comprehensive and will test all of the material covered in Statistics 252 this semester. This includes everything covered in lecture, and everything in *Mathematical Statistics with Applications, sixth edition* from Chapters 1, 7 (excluding 7.5), 8, 9 (excluding 9.3 and 9.5), 10. Use your in-class lecture notes to serve as a guide to relative importance of, and to the emphasis on, these topics.

Note: From Section 9.4, we defined sufficiency via the Factorization Theorem (Theorem 9.4) and NOT via conditioning (Definition 9.3).

Note: From Section 9.8, we only studied the case $t(\theta) = \theta$. This reduces the formula on page 456 for an approximate level $(1 - \alpha)$ confidence interval for θ to

$$\left[\hat{\theta}_{\text{MLE}} - z_{\alpha/2} \frac{1}{\sqrt{nI(\hat{\theta}_{\text{MLE}})}} , \hat{\theta}_{\text{MLE}} + z_{\alpha/2} \frac{1}{\sqrt{nI(\hat{\theta}_{\text{MLE}})}} \right].$$

Note: From Section 10.9 (pages 503–505), we did not cover the F-test.

Note: Our notation for the generalized likelihood ratio test differs from the notation in Section 10.11.

Your Grade: Your final exam counts for 60% of your course grade. However, course grades are subject to (upward) adjustment based on superior performance on the final exam. Recall the course caveat that in order to receive a final grade of at least 60% it is necessary (but not sufficient) to receive a grade of at least 60% on the final exam.

Web Resources: The Stat 252 website, found at

`http://stat.math.uregina.ca/~kozdron/Teaching/Regina/252Winter07/index.html`

contains links to all of the materials distributed in lecture this semester.