STAT 4100: Statistical Inference I (Fall 2013)

**Instructor** Dr. Liqun Wang

Office: 332 Machray Hall; Phone: 204-474-6270

Email: liqun.wang@umanitoba.ca

**Lectures** Monday/Wednesday: 1:00 pm - 2:15 pm, room 316 MH

**Tutorial** Friday: 1:00 pm - 2:15 pm, room 316 MH

Office hours Monday/Wednesday: 2:30 pm - 3:30 pm

Marking scheme The final grade will consist of two tests and one final exam. Their weights

and tentative schedules are given below. The tests will be written during

the class.

Test #1 25% October 7, 2013
Test #2 25% November 4, 2013
Final Exam 50% Scheduled by university.

**Homework** There will be no formal assignments. Supplementary problems will be

given in the class but they are not to be handed in for credits.

**Textbook** G Casella, RL Berger: *Statistical Inference*. 2<sup>nd</sup> ed. Brooks/Cole, 2002.

**References** RV Hogg, JW McKean, AT Craig: *Introduction to Mathematical Statistics*.

7<sup>th</sup> ed. Pearson, 2013.

EL Lehmann, G Casella: *Theory of Point Estimation*. 2<sup>nd</sup> ed. Springer, 1998.

## **Topics:**

- 1. Statistics and sampling distributions
- 2. Data reduction and sufficiency
- 3. Exponential family, location and scale parameters
- 4. Methods of point estimation
- 5. Decision theory and Bayes estimation
- 6. Additional topics (as time permits)

**Academic Dishonesty:** I wish to draw your attention to the sections in *The University of Manitoba Undergraduate Calendar* dealing with academic integrity, including plagiarism, cheating and examination impersonation.

## Important note from the Faculty of Science:

It is your responsibility to insure that you are entitled to be registered in this course. This means that you have:

- the appropriate prerequisites, as noted in the calendar description, or have permission from the instructor to waive these prerequisites;
- not previously taken, or are concurrently registered in, this course and another that has been identified as "not to be held with" in the course description. For example, BIOL 1000 cannot be held for credit with BIOL 1020.

The registration system may have allowed you to register in this course, but it is your responsibility to check. If you are not entitled to be in this course, you will be withdrawn, or the course may not be used in your degree program. There will be no fee adjustment. This is not appealable. Please be sure to read the course description for this and every course in which you are registered.