

STAT 4100 (CRN: 11517)
STATISTICAL INFERENCE I
FALL 2018

Instructor: Dr. Yuliya V. Martsynyuk
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Office Hours: Monday, Wednesday and Friday 14:30 pm – 15:30 pm, or by appointment

Prerequisite: STAT 3800 or the former STAT 3600 (with a grade of C or better)

References: The following textbooks are recommended, but not required.

- Hogg, R.V., McKean, J.W. and Craig, A.T. *Introduction to Mathematical Statistics*. 6th ed. Pearson, 2005.
- Casella, G. and Berger, R.L. *Statistical Inference*. 2nd ed. Duxbury, 2002.

Lectures: Monday, Wednesday and Friday 13:30 pm -- 14:20 pm, in 401 Biological Sciences

- attendance is mandatory
- several lectures will be dedicated exclusively to solving practice problems

Homework: Selected practice problems will be assigned as no-credit homework.

Term Tests: There will be three 50-minute closed-book tests that will be held during the regular class time on **October 1**, **October 29** and **December 3, 2018** (locations TBA). The test problems will be related to the homework and the problems solved in class. There are no early and deferred term tests in this course.

Evaluation: Final grade is based on:

- Term Work (50%): term tests 1, 2 and 3 (equally weighted)
- Final Exam (50%): two-hour closed-book test based on the whole term

Course Topics:

- Chapter 1—Statistics and Sampling Distributions
- Chapter 2—Methods of Point Estimation
- Chapter 3—Sufficiency and Completeness
- Chapter 4—Decision Theory and Bayes Estimation
- Chapter 5—Asymptotic Theory

Voluntary Withdrawal Deadline: November 19, 2018

Academic Dishonesty: It is important that you understand what constitutes academic dishonesty and that you are familiar with the very serious consequences. Links to resources that describe academic dishonesty (including plagiarism, cheating, inappropriate collaboration and examination impersonation, as well as typical penalties) can be found at:

<http://umanitoba.ca/science/undergrad/resources/webdisciplinedocuments.html>

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Class Communication: The University requires all students to activate an official University email account. Please note that all communication between your instructor and you as a student must comply with the Electronic Communication with Students Policy. Please see

http://umanitoba.ca/admin/governance/governing_documents/community/electronic_communication_with_students_policy.html

You are required to obtain and use your U of M email account for all communication between yourself and the university.

Student Accessibility Services: If you are a student with a disability, please contact SAS for academic accommodation supports and services such as note-taking, interpreting, assistive technology and exam accommodations. Students who have, or think they may have, a disability (e.g. mental illness, learning, medical, hearing, injury-related, visual) are invited to contact SAS to arrange a confidential consultation.

<http://umanitoba.ca/student/saa/accessibility/>

ROASS Schedule A: Schedule A of the Responsibilities of Academic Staff with regards to Students (ROASS) policies of the University of Manitoba lists resources and policies for students. It is important that you familiarize yourself with these resources and policies. Schedule A is posted on the Department of Statistics webpage.