STAT 3000
Applied Linear Statistical Models
Fall Term 1 2011/12

Instructor: Dr. Zeny F. Mateo

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Office Hours: M & W: 1:30 – 2:30   Tues 10:00 – 11:00,   by appointment or

whenever I am in.

Web Page: For Posting Notes: https://jump.umanitoba.ca/
JMP Download : http://www.stats.umanitoba.ca/download/jmp

Some information will be posted on the jump website for your convenience.
It is not intended to be complete. You will still be responsible for any
information/announcement given in the class.

Text: *Applied Statistics Analysis of Variance and Regression (Third Edition)* by Ruth
Mickey, Olive Dunn and Virginia Clark. Wiley 2004. ISBN 978-0-470-
57125-5

Reference: *Applied Linear Statistical Models with Student CD (Fifth Edition)* by M.H.
Kutner, C.J. Nachtsheim, J. Neter and W. Li. McGraw Hill 2004.ISBN 0-07-
310874-X
Student Solutions Manual is included in compact disk for use by students.
The disc also includes all data set files from the text.

Computer Package: Statistical software packages are usually needed to perform the necessary
calculations for regression analysis. Almost every statistics computer
package contains a regression component. From your STAT 1000 and 2000
courses, you know how to use the *JMP 6 SE* package for regression. We will
use *JMP 8* which can be downloaded to your computer to complete the
assignments.

Assignments: There will be 5 assignments during the term.
Assignments are due at the beginning of class on the day assigned.
All your assignments should be done on 8.5 x 11 paper using **<u>one</u>** side only.
Late assignments **WILL NOT BE ACCEPTED.**

Term Test: There will be a Midterm test on Nov 3, 2011 during the class time period.

Marking Scheme: Assignments: 15%
Term Test: 35%
Final Exam: 50%

Regardless of term marks, minimum marks will be required on the test and the final exam to get grades of C or D.

Voluntary Withdrawal: The voluntary withdrawal date is **November 16, 2011** by which time you will have received your marks for the midterm test and probably 4 assignments.

Academic Dishonesty: I wish to draw your attention to **Section 8: Academic Integrity** in the *General Academic Regulations and Requirements* of the 2011-2012 calendar & registration guide dealing with academic dishonesty, including plagiarism, cheating, and examination impersonation.

Course Contents: (Based on the text chapters)

1. Data Screening
2. One-Way Analysis of Variance
3. Estimation and Simultaneous Inference
4. Nested Design
5. Two Crossed Factors: Fixed Effects and Equal Sample Sizes
6. Randomized Complete Block Design
8. Crossed Factors: Mixed Models
10. Linear Regression: Fixed X Model
11. Linear Regression: Random X Model and Correlation
12. Multiple Regression
14. Miscellaneous Topics in Regression
15. Analysis of Covariance

2011–2012 REGISTRATION ADVISORY

Important Note from the Dean of Science:

It is your responsibility to ensure 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, STAT 3000 cannot be held for credit with STAT 3120, STAT 3130, STAT 3470 or STAT 3480.

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 appeal able. Please be sure to read the course description for this and every course in which you are registered.