

STAT 3000 Section A01

Applied Linear Statistical Models

Time Slot 10 (T/TH 1:00 – 2:15)
Location 316 Machray Hall
CRN: 12213

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Web Pages Notes: <http://www.umanitoba.ca/jump>
Statistics: <http://umanitoba.ca/statistics>
Gradebook: <http://www.stats.umanitoba.ca/gradebook>
JMP Download: <http://www.stats.umanitoba.ca/download/jmp>

Office Hours Tuesday 12:00–1:00
Monday/Wednesday 1:00–2:00
(Or by appointment, please feel free to email me anytime.)

Textbook: *STAT2 Building Models for a World of Data*
by Cannon, Cobb, Et.al. W.H. Freeman and Company. ISBN 1-4641-4826-0

Assignments: there will *tentatively* be 5 assignments during the term,
more details will be given in class.

Test and Exam: There will be a Midterm test, tentatively scheduled for
Tuesday, November 5, 2013 during class time.
There will be a 2-hour final exam, which will be scheduled by student records.
It will cover the entire course with emphasis post-midterm.
There will be NO makeup up midterm test,
there will be only be a shift of the weight of the midterm grade onto the final exam.

Course Evaluation:

Assignments:	15%
Midterm:	35%
Final Exam:	50%

VW date: November 13, 2013 by which time you will have received your marks for the midterm test and a few assignments.

Course Topics

- Linear Regression
 - Review of the Simple Linear Regression
 - Assessing Conditions
 - Transformations
- Inference for Simple Linear Regression
 - Inference for regression slope
 - ANOVA for regression
 - Regression and correlation
 - Intervals for predictions
- Multiple Regression
 - Multiple linear regression model
 - Assessing the model
 - New predictors from old
 - Techniques for choosing predictors
- Analysis of Variance
 - One-Way ANOVA
 - Assessing and using the model
 - Scope of Inference
 - Fisher's LSD
- Multifactor ANOVA
 - Main effects model
 - Interaction in the Two-Way model
- Overview of Experimental Design
 - Comparisons and Randomizations
 - Randomization F-test
 - Blocking
 - Factorial Crossing

All course notes, assignments, tests, exams, practice exams and solutions are the intellectual property of your instructor. Reproduction or distribution of these materials is strictly forbidden without the consent of the Department of Statistics.