McMaster University
Department of Mathematics and Statistics
Stats 752 – Design of Experiments

Instructor: Aaron Childs
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Office Hours: Mondays 2:30pm-3:20pm (Except Jan. 26), Tuesdays 1:30pm-2:20pm, Wednesdays 10:30am-11:20am, Thursdays 2:30pm-3:20pm, Fridays 2:30pm-3:20pm

COURSE INFORMATION

Lectures: Mondays 1:30pm-2:20pm, Tuesdays 2:30pm-3:20pm, and Fridays 11:30am-12:20pm in HH/207

Topics Covered: Distribution of quadratic forms; full rank regression; generalized inverses and estimable functions; models not of full rank; unbalanced one-way and nested classifications; unbalanced two-way crossed classification; factorial designs; analysis of covariance; generalized linear models.

Textbooks: **Optional:**
Linear Models by Searle, Wiley.
An Introduction to Generalized Linear Models, Second Edition by Dobson, Chapman & Hall.
Applied Regression Analysis, Third Edition by Draper and Smith, Wiley.
Linear Models in Statistics, by Rencher, Wiley.
Design and Analysis of Experiments, Fifth Edition by Montgomery, Wiley.

Assignments: There will be seven assignments and a take-home exam, all due at 12:00noon (in the lockers next to HH/105), on the following dates:
Assignment #1: Monday, January 12
Assignment #2: Monday, January 26
Assignment #3: Monday, February 9
Assignment #4: Monday, March 2
Assignment #5: Monday March 16
Assignment #6: Monday, March 30
Assignment #7: Monday, April 13
Take Home Exam: Monday, April 27

Course Evaluation: Assignments: 60%
Take Home Exam: 40%

Academic Dishonesty: Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university. It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at
http://www.mcmaster.ca/senate/academic/ac_integrity.htm The following illustrates only three forms of academic dishonesty: 1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained. 2. Improper collaboration in group work. 3. Copying or using unauthorized aids in tests and examinations.