STA261S DAY SECTION Spring '08

STATISTICS

AN INTRODUCTION TO THE ANALYSIS OF DATA: INFERENCIAL & INDUCTIVE REASONING

Instructors:

Lectures:

Tutorials:

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office: Mon. 2-3

Monday 3:00 - 5:00

Wednesday 3:00 - 4:00

Wednesday 4:00 - 5:00

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office: Wed. 5-6

Wednesday 7:00 - 10:00

Wednesday 6:00 - 7:00

Ref./Text:

WACKERLY D., MENDENHALL W., SCHEAFFER R.:

MATHEMATICAL STATISTICS WITH APPLICATIONS 6th ed.,

Duxbury Press, Wadsworth Publishing, 2002.

- basically chapters 1, (2-7), 8, 9 & 10 with selected topics from chapters 11-14; provisional emphasis as follows:

- fundamentals: the structure & function of data [1, (4,7)]
 - expection: four interpretations
 - samples & the law of large numbers (LLN) function
 - samples & the empirical distribution structure
 - normality & the central limit theorem (CLT)
 - examples & review of distribution theory: binomial, poisson, exponential, gamma, normal ...
 - the general statistical model, parametric & otherwise

- estimation & confidence [(7), 8, 9]
 - consistency, unbiasedness & minimum variance
 - sufficiency & the rao-blackwell theorem
 - maximum likelihood

- hypothesis testing [10]
 - testing means, variances: differences & ratios
 - neymann-pearson theory
- linear models [11]
 - correlation, covariance & the linear relation
 - simple linear regression

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Grading (G):

$$\begin{array}{llll} & \text{final (F)} = 50 \\ & \text{term (T)} = 50 & - & \text{test 1 (T_1)} & = & 20 & - & \text{Wed. Feb. 13} \\ & - & \text{test 2 (T_2)} & = & 20 & - & \text{Wed. Mar. 26} \\ & - & \text{assignments} & = & 10 & - & \text{one assignment handed out} \\ & & & & \text{immediately after each test; due} \\ & & & & & \text{in tutorial of the following week.} \end{array}$$

(NOTE: both term tests $T_1 \& T_2$ will be held during class time)

illness:

(...)

If either T_1 or T_2 is missed due to illness, an official University of Toronto 'Student Medical Certificate' (available at the office of your college registrar) is required. This must be filled out by a qualified licenced physician and submitted before any of the following:

If T₁ missed due to illness, 'make-up' test, T₁*, will be scheduled.

If T₂ missed due to illness, there will be no 'make-up'. In this case grades will be assessed as follows:

$$F = 60$$
 $T = 40$
 $T_1^* = 30$
 $T_2 = gone$
 $A = 10 as above$

$$T = T_1^* + A \quad , \qquad G = T + F$$

STA 261-Day Spring 2008 General Calendar

[reading week #1: 18-22] [reading week #2: 14-18]