

**STA 442/2101F: Applied Statistics I**  
**Tuesdays, 1-4 pm, SS 2106**

Fall, 2009

**Course description** This course teaches methods of applied statistics, with the applications studied motivating the sets of methods taught. The undergraduate calendar description is:

Advanced topics in statistics and data analysis with emphasis on applications. Diagnostics and residuals in linear models, introductions to generalized linear models, graphical methods. Additional topics such as random effects models, split plot designs, smoothing and density estimation, analysis of censored data, introduced as needed in the context of case studies.

(Prerequisite: ECO327Y/357Y/STA302H)

I will stay reasonably close to this set of topics, with perhaps less emphasis on generalized linear models, smoothing, and density estimation, as these topics will be covered in detail in Applied Statistics II.

**Grading** The grade in the course will be based on regular homework (60%) and a final exam (40%) Homework sets will include additional questions for graduate students in statistics.

**Dates for Homework**

	available	due	worth
HW 1	Sept 22	Oct 13	20%
HW 2	Oct 13	Nov 3	20%
HW 3	Nov 3	Dec 1	20%
Final Exam			40%

**Text** The course text is *Statistical Models* by A. C. Davison (Cambridge University Press). Many examples will be taken from *Applied Statistics: Principles and Examples* by Cox and Snell. Other books of interest include , *Modern Applied Statistics with S* by Venables and Ripley, *Data Analysis and Graphics using R* by Maindonald and Braun, any linear regression text, and references tba as we go along.

**Course web page(s)** I am using Blackboard to manage the course lists and grades, but the course information is all on the web page <http://www.utstat.utoronto.ca/reid/sta442f.html>. The Blackboard pages for both STA442F and STA2101F will lead you to this page; click on "External Links".

**Computing** You are welcome to use the statistical computing package of your choice, but I will refer exclusively to the R computing package. Statistics Dept graduate students can access R on the Statistics Dept computers; undergraduate students

can access R on CQUEST. Alternatively, students can install R on the computer(s) of their choice, by downloading its "base" package (for free) from [probability.ca/cran](http://probability.ca/cran) or [www.r-project.org](http://www.r-project.org). There are many helpful introductions to R listed on the course webpage.

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Office hours Monday 3 to 4, Tuesday 4 to 5, or by appointment.

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### **Money**

**Statistics Canada** is holding an information session on **Monday, Oct 5** at 11 am in **SS 1084**.