## LINEAR MODELS AND GLM: QUIZ 2

This is a take-home quiz. The due date is Thursday, April 15. You can either e-mail me your answers as a PDF file, or submit a printed copy.

**Question 1:** For the `UCBAdmissions` dataset in R, convert it into a data frame using `as.data.frame.table()`, and

(a) Fit a suitable Poisson GLM model using the R function `glm()`
(b) Fit a suitable log-linear model with the `loglm()` function in the MASS package, which is a formula-based interface (similar to that of `glm()`) to `loglin()`.

In your answer, you only need to provide the R code you used (please use a fixed-width font).

**Question 2:**

(a) For both approaches above, formulate and test the hypothesis that there is no gender bias in the rates of admission. Compare the results for the two approaches.
(b) If there is evidence for a gender bias, what is the direction of the bias?

The object returned by `loglm()` is documented in `help(loglin)`.

_Date_: 7 April, 2010.