

Assignment 3
Due: in class, Wednesday, April 15

(Data and description from Kutner et al. 2004. *Applied linear regression models, fourth edition*. McGraw-Hill)

Creatinine clearance (Y) is an important measure of kidney function, but is difficult to obtain in a clinical office setting because it requires 24-hour urine collection. To determine whether this measure can be predicted from data that are easily available, creatinine clearance and three predictor variables were recorded from 33 male subjects. The predictor variables are: serum creatinine concentration (X_1), age (X_2), and weight (X_3).

The data are in the text file named “kidneyfunction.txt”, linked in the class website just below the link to this assignment description. After clicking on the link, the file can be downloaded and saved to your personal storage media using the **File** pull-down menu on your web browser. Alternatively, you can highlight, copy & paste the numbers into a file in a text editor. The columns of data are, in order: Y , X_1 , X_2 , X_3 .

Your assignment is to build a multiple regression model to predict Y from the predictor variables, using SAS. Minimal analyses would use PROC RSQUARE (with AIC) for model selection, and PROC REG for finding parameter estimates and diagnostics (including outlier & influential observation statistics and residual plots) for the selected model.

Hand in, stapled:

One-page cover sheet with name and 1-paragraph typed executive summary of the analysis results, interpreted in your own words, with the equation for the prediction model that you selected displayed

Printed program(s) and output of SAS analyses