1314-ST312 Applied Statistics II

II Semester 2013-14

Lecture times and locations

Wednesday 10:00-10:50 E112

Thursday 15:00-15:50 E112

Course lecturer

Dr. Milovan Krnjajić, `milovan.krnjajic [at] nuigalway.ie`

office: 1005 Aras de Brun, School of Mathematics

office hours: Thu 16:00-17:00 or by appointment (also, open door policy)

Course web page

All information will be communicated through the Blackboard or during the lectures.

Course description

This course teaches how to specify and apply basic statistical models for the analysis of data. Topics include inference in linear regression models; Conditions for linear models; Transformation of data; Multiple regression; Analyzing quantitative and categorical date; Analysis of variance; Logistic regression; Checking conditions for the logistic model; Prediction with logistic model; Overview of experimental design, randomization, blocking. The course does not focus on the mathematical theory of inference yet we shall not completely avoid mathematical derivations.

Course work and examination

Final mark based on the exam (about 75%) and continuous assessment (about 25%) including class participation, homework assignments and in-class quizzes.

Reference books and material

Ann R. Cannon et al. *STAT2: Building models for a world of data*, Freeman and Co. (2013)

L. Gonick, W.Smith, *The Cartoon Guide to Statistics*, HarperPerennial (1993)

Michael Lavine, *Introduction t Statistical Thought*

NOTE: a version of the book available online at `www.math.umass.edu/~lavine/Book/book.html`

C. Grinstead and L. Snell, *Introduction to Probability*, American Mathematical Society.

NOTE: a version of the book available online at

`www.dartmouth.edu/~chance/teaching_aids/books_articles/probability_book/book.html`

Various handouts/material to be posted on the Blackboard