

開授課程大綱

開課單位系所	清華大學/統計所				
課 號	STAT 6200	班 次		學 分	3
名 稱	廣義線性模式 (Generalized Linear Models)				
授 課 教 師	鄭少為 (清華大學/統計所)				

一. 內容：

This is an advanced theoretical course for statistical students. The course is designed especially for students who already have a solid background in linear models and categorical data analysis. This course will focus on the theory of generalized linear models (GLM) and related topics. The GLMs extend the classical linear models to include many other models whose response variable has a non-normal distribution. The GLMs allow a unified theory for many of the models used in practice, such as logit and probit models for binary data, log-linear model for Poisson response, models for multinomial responses, and models for gamma responses and survival data.

二. 教科書：

Textbook: McCullagh, P., and Nelder, J.A. (1989), *Generalized Linear Models*, 2nd edition, Chapman and Hall.

三. 成績評量方式：

Homework (30%), Midterm (30%), Final (40%).

四. Lecture notes (hand written) will be email to students regularly

五. Teaching Assistant: TBA

六. Prerequisites : Linear Model (STAT 5410) and Discrete Analysis (STAT 5230)