

From Modules 1 - 10 to Modules 11 - 12

H.M. James Hung

Some Key Messages from Modules 1-10:

- In Modules 1 - 10, we have learned the linear regression models and how to check, diagnose, and validate the linear regression models.

Now Move on to Modules 11 - 12

- In Modules 11-12, we shall learn models for handling responses such as binary (e.g., “disease/non-disease”), categorical response (e.g., “0, 1, 2” nights a person slept well in a week). After some transformation, a kind of “linear” model may be useful to describe the relationship between the special kind of response variables and regressors. This is so-called **Generalized Linear Model**.

Now Move on to Modules 11 - 12

- Estimation and testing in Generalized Linear Models are challenging, because generally there is no closed-form analytical solution. Instead, we need to rely on numerical iterative process to get numerical estimate, standard error, statistical test, etc. Please refer to numerical iterative process described in Modules 13-14 or mathematical/statistical software you use.