

# Graduate Module Outline

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**Title:** Statistical analysis of qualitative data in the Social Sciences

**Instructor:** Dr. J. Stephen Clark, Business & Social Sciences

**Timing (month/year module will be offered):** Fall 2009

**Module Description:**

In this module, students will learn about:

- 1) Qualitative data in the regressors: Dummy variables
- 2) Probability, likelihood functions and maximum likelihood estimators.
- 3) Qualitative data in the regressands:
  - a) Binary Variables I: The linear probability model.
  - b) Binary Variables II: The logit and probit models.
  - c) Multinomial Variables I: Unordered data
  - d) Multinomial Variables II: Ordered data
  - e) Multinomial Variables III: Count data
  - f) Censored and truncated data.
  - g) Two step procedures: Heckit procedure.
  - h) The Tobit model.
  - i) The double hurdle model.
  - j) The frequency of purchase model
  - k) Non-stationary binary choice.

Reference texts:

1. Maddala: Limited dependent and qualitative variables in econometrics
2. Maddala: Introduction to econometrics
3. Greene: Econometric Theory
4. Phillips and Park: Non-stationary binary choice

**Format:**

Lecture and Laboratory, 3-4 weeks, 3 hours per week

Students will be required to study relevant background material and prepare a term paper.

**Method of Evaluation:**

The grade will be based on the term paper (100%)

**Prerequisites:**

AGRI5630 or equivalent or econometrics