Econometrics of qualitative variables

Course title - Intitulé du cours	Econometrics of qualitative variables
Level / Semester - Niveau /semestre	M2 / S1
School - Composante	Ecole d'Economie de Toulouse
Teacher - Enseignant responsable	BONNAL LILIANE
Other teacher(s) - Autre(s) enseignant(s)	
Other teacher(s) - Autre(s) enseignant(s)	
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Other teacher(s) - Autre(s) enseignant(s)	
Lecture Hours - Volume Horaire CM	21
TA Hours - Volume horaire TD	
TP Hours - Volume horaire TP	0
Course Language - Langue du cours	Anglais
TA and/or TP Language - Langue des TD et/ou TP	Anglais

Teaching staff contacts - Coordonnées de l'équipe pédagogique :

email : liliane.bonnal@tse-fr.eu

office number : MF 216

Day of the week when students can drop by : Tuesday

Preferred means of interaction : after the classes or by email

Course Objectives - Objectifs du cours :

This course covers methods for empirical models that have dependent variables that are not continuous. These models include dichotomous and polychotomous response models, models for censored and truncated data and sample selection models.

The aim of the course is to explain endogenous qualitative variables and truncated variables.

Analyse models with qualitative variables: the LPM, Logit, Probit and Tobit models.

At the end of the course students are able to

  - identify the best econometric model associated with an empirical problem

  - to interpret the results

Prerequisites - Pré requis :

Linear regressions model. Tests theory

Maximum likelihood estimation

Practical information about the sessions - Modalités pratiques de gestion du cours :

Laptops or tablets are accepted in the class

Grading system - Modalités d'évaluation :

One empirical exam, with computer, at the end of the course

Semester 1

Bibliography/references - Bibliographie/références :

Wooldridge : Econometric analysis of cross section and panel data

Chapters 15 - 16 - 17 - 19

Greene : Econometric analysis (seventh edition)

Chapters 17 - 18 - 19

Session planning - Planification des séances :

Course materials are available on Moodle

While theoretical and statistical underpinnings of these methods will be discussed in class, the emphasis of the course will be on the application and interpretation of the techniques covered. Thus, the typical in-class approach will be

1. A brief lecture on the motivation for using a particular statistical technique

2. A demonstration of the technique including how to prepare the data, specifying the model,

3. Interpretation and assessment of the model results.

We will use SAS software.

Session 1 : Recall about qualitative variables, dummies and maximum likelihood

Session 2 and 3 : simple qualitative variable model : logit and probit. Estimation, marginal effects, odd ratios.

Session 4 : bivariate qualitative model : identification, estimating average treatment effects.

Session 5 and 6 : multinomial qualitative variable model : ordered, unordered and sequential models.

Session 6 and 7 : truncated and censored models : simple ans generalized Tobit.