

- Faculté des sciences économiques
- www.unine.ch/seco

Categorical Data Analysis

Characteristics

- 3 ECTS credits
- Compulsory course for master in statistics
- Spring Semester
- Course : 2 hours
- Evaluation : written exam 2 hours
- Prerequisite : Basics of statistics

Teaching Team

- *Prof. Valentin Rousson*
Unité de Statistique
IUMSP
Université de Lausanne
Rue du Bugnon 17
CH-1005 Lausanne
- ☎ ++41 (021) 314 73 28 - Fax : ++41 (021) 314 73 73
- ✉ valentin.rousson@chuv.ch

Objectives

At the end of the course, the student should be able to understand, apply and correctly interpret the classical statistical tools to model categorical variables, being binary, nominal or ordinal.

Contents

classical statistics for binary variables, analysis of contingency tables, sampling schemes for contingency tables, gamma and tau coefficients, interpretation of odds-ratio (the most important concept in the course), chi-square and deviance tests, logistic regression, diagnostic studies and ROC curve, log-linear models, conditional and marginal independence, iterative proportional fitting algorithm, generalized logits, cumulative logits, proportional odds model, concept of underlying latent variable

Textbooks

Categorical Data Analysis by A. Agresti (1990)