

STATISTICS 4561
CATEGORICAL DATA ANALYSIS

In this course, we discuss

1. basic results for cross-classification tables;
2. association in multi-dimensional tables;
3. loglinear models for nominal and ordinal variables;
4. logit models for nominal and ordinal variables;
5. measures of association for ordinal variables;
6. inference for ordinal measures of association.

Text. *Categorical Data Analysis*, by Alan Agresti.

Marks. Typically, there is a midterm examination counting 40% and a final examination counting 60%.

Calendar description. **4561 Categorical Data Analysis** is an analysis of cross-classified categorical data with or without explanatory variables, chi-square test, measures of association, multidimensional contingency tables, hypotheses of partial and conditional independence, log-linear models for Poisson, multinomial and product-multinomial sampling schemes, concept of ordinal categorical models, logit models, likelihood estimation, selection of suitable log-linear and logit models.

Prerequisite: Statistics 3520 or 3521.

Offered: *Contact the Deputy Head (Statistics) in the Department of Mathematics and Statistics for information regarding the scheduling of this course.*