

Data Analysis and Data Modelling

COURSE LEADER **Paul-André Salamin**, Swiss Federal Statistical Office

OBJECTIVE(S) The participants are introduced into the methods of data analysis and modelling. Emphasis is given to the way of exploring univariate and multivariate data and applications of known statistical models as multiple linear regression, ANOVA and ANCOVA, as well as some generalized linear models, e.g. logistic regression. The validation of the applied models is treated as an important part of the training.

TRAINING METHODS

- Lectures and presentations
- interactive joint statistical modelling of given data
- Group discussions

TARGET GROUP Junior statisticians of National Statistical Institutes involved in the process of data analysis and modelling.

ENTRY QUALIFICATIONS The course is based on some knowledge of basic statistical concepts, such as e.g. confidence intervals and statistical tests. These basic concepts are expected to be known. Good command of English

EXPECTED OUTPUT The participants are introduced into the methods of data analysis and modelling.

CONTENTS

- Exploring data: univariate and multivariate
- Data transformation
- Correlation and simple linear regression
- Multiple linear regression with emphasis on model validation
- Model building methods
- ANOVA and ANCOVA
- Categorical data analysis, log-linear models
- Logistic regression

TRAINERS/ LECTURERS Professor Jürg Hüsler, Department of Mathematical Statistics (IMSV), University of Bern, Switzerland

SUGGESTED READING / PREPARATION If participants want to discuss a data set, they are asked to prepare their example. If time is left for discussion in the group, a prepared presentation of the example is needed.

REQUIRED EQUIPMENT None

PRACTICAL INFORMATION:

WHEN	DURATION	WHERE	LANGUAGE	REGISTRATION
8-12 September 2008	5 days	Swiss Federal Statistical Office Neuchâtel	English	Deadline 31.5.2008