t.DP - Datenanalyse und Prognose

Person responsible for the course:	Marcel Dettling, dtli
Credits:	4
Valid for:	2010/2011
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Learning objectives:

The students are familiar with the most important statistical prediction methods, and are able to analyze, interpret and produce (using appropriate software) product, traffic and service forecasts, including estimates on their uncertainty.

Course content:

Multivariate Regression Analysis: model, concepts and prerequisites, fitting, confidence and prediction intervals, visualization and residual analysis

Classification and Data Mining: prediction of class membership with quantification of accuracy, as well as presentation of the results

Time Series Analysis: exponential smoothing, auto-regressive processes, point and interval estimates

Previous knowledge:

Introductory course on applied statistics.

Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	14*4 lessons
Tutorial/Practicum	included
Group teaching	
Block instruction	
Seminar	

Assessment:

According to the table or as specified in writing by the lecture at the beginning of the semester!

Number	Type	Weighting
1	End of term exam	80%
1	Exam during the semester	20% as bonus
	Further assessments	

Language of instruction:

German

Instruction material:

Theory and exercise material will be provided. Literature recommendations will be given in the first week of the course.

Comments:

The exercises will be based on the statistical software suite R/R-commander, which is freely available for all current platforms. Thus, we recommend to bring a notebook.