638d Introduction of Multivariate Analysis in Community ecology

VS 7 LB IV LP 2 ZP (nach Vereinbarung)

Dauer: 03.12.2007 - 07.12.2007 (KW 49) **Beginn:** 03.12.2007, 8.15 Uhr, CIP 1

Institut: (52) Waldbau-Institut, Professur für Standorts- und Vegetationskunde

Dozenten: Dr. Stefanie Gärtner, Prof. Dr. Albert Reif, N.N.

Teilnehmerzahl: 12

Anmeldung: Sekretariat Waldbau-Institut bei Frau Trautwein (9:00 – 12:00 Uhr)

Erfolgskontrolle:
Diplom/MSc: Written assignment: Description of the statistical method, presentation and interpretation of the results of case studies – based on data from Part I and the applied methods.

Ziel/objectives:
After this course students should be able to:

- Select the proper analysis approach for a research question
- Apply statistical tests with SPSS
- examine and interpret the analysed results
- report and present methods and results in a Diplom-/Master thesis

content and schedule:

	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
am 9 - 13	Introduction: - what are multivariate Analyses - Repetition of basic statistical terms and concepts - Introduction to SPSS	Searching for group structure: - Similarities and Distances - Hierarchical and non-hierarchical Cluster Analysis	Testing group differences: - student presentations uni-bivariate Tests (T-Test, ANOVA, MWU..) - Applying SPSS - Introducing Multivariate Options (MANOVA, Discriminance Analysis)	Searching for Gradients and relations: - student presentations uni-bivariate Tests (Chi^2, Correlations) - Appling SPSS - Introducing Ordination Methods	Testing gradients and relations: - student presentations uni-bivariate Tests (linear regression) - Introducing Advanced Regression Methods (Multiple, Logistic…)
pm 14-16	Repetition of basic uni- and bivariate statistical methods (selfstudy)	Applying SPSS for Cluster analysis	Applying SPSS for Testing of group structure	Applying SPSS for finding gradients (PCA)	Applying SPSS for regression analysis

Key qualifications:

- Practical application of analysis methods in vegetation science
- Using statistic software
- Presentation and writing skills

Notwendige Vorkenntnisse:
Basic Knowledge in statistic (Kernblock Angewandte Statistik; Modul: Statistic)

Unterlagen:

- will be provided on Campus-Online during the course

Bemerkungen:

- Course instruction will be in German, all course materials are in English, LZK in German or English.