

Georg-August-University Göttingen

Master Programm "Crop Protection"

M.Cp.0016 „Practical Statistics and Experimental Design in Agriculture"

Contents, Objectives: Contents: In the beginning of the course, students are introduced to the basic concepts of statistics like frequency distributions, the normal distribution and hypothesis testing. They are also introduced to software packages like SAS, that are used for the practical exercises. Regression and correlation analysis are then introduced. Different experimental designs like randomized block, latin square, and split plot are described and analyzed by one-way analysis of variance or as factorial experiments. Generalized Linear Models will be used and multivariate data will be analyzed by cluster and principal component methods. A large amount of examples and exercises constitute an important aspect of the course, enabling the students to understand and assimilate the theoretical content. Practical analyses of example data sets also provide the students with the required experience and skills for future statistical tasks in the context of Mastertheses. Objectives: The aim of the course is to familiarize students with the basic concepts of statistics and their application in agricultural science. The second goal is to learn the use of software packages like SAS.		C/H PER SW 6 C/4 H PER SW Arbeitsaufwand: 180 h Präsenzzeit: 56 h Selbststudium: 124 h		
Type of instruction and examination: Lecture and Practice (56h)				
<table border="1"><tr><td>Examination: Written 90 min</td></tr><tr><td>Examination prerequisite: none</td></tr></table>		Examination: Written 90 min	Examination prerequisite: none	
Examination: Written 90 min				
Examination prerequisite: none				
Entrance requirements: none	Recommended knowledge: Mathematics, statistics			
Language: English	Number of students: 20			
Frequency: Summer	Duration: One Semester			
Type of module: Key Competence				
Coordinator: Dr. Sharifi, DR. Kluth				