Georg-August-Universität Göttingen **Module M.WIWI-QMW.0010: Multivariate Statistics**	6 C 4 WLH

Learning outcome, core skills: The students: • learn the basic concepts of multivariate data analysis, • know how to apply the most common methods of multivariate statistics in practice, • learn how to implement multivariate statistical approaches using the software package R, • know how to interpret the results of multivariate data analyses.	**Workload:** Attendance time: 56 h Self-study time: 124 h

Course: M.WIWI-QMW.0010.Lec **Multivariate Statistics** (Lecture) *Contents*: Multivariate distributions and their properties (e.g., multivariate normal distribution), copulas, classification methods, principal component analysis, cluster analysis.	2 WLH
Course: M.WIWI-QMW.0010.Ex **Multivariate Statistics** (Exercise) *Contents*: In the accompanying exercise, students deepen and expand the knowledge and skills acquired in the lecture.	2 WLH
Examination: Written examination (90 minutes) or oral examination (approx. 25 minutes) M.WIWI-QMW.0010.Mp: Multivariate Statistics	6 C

Examination requirements: In the exam, the students demonstrate that they are able to apply the basic concepts of multivariate statistics. They can decide for a suitable procedure given an applied problem, implement the approach in statistical software and interpret the results. The exam consists of material from both the lecture and the exercise class.	

Admission requirements: none	**Recommended previous knowledge:** Basic knowledge of statistical modelling using linear regression models M.WIWI-QMW.0002 Advanced Statistical Inference (Likelihood & Bayes)
Language: English	**Person responsible for module:** Prof. Dr. Elisabeth Bergherr
Course frequency: once a year	**Duration:** 1 semester[s]
Number of repeat examinations permitted: twice	**Recommended semester:** 2 - 3
Maximum number of students: not limited	