Georg-August-Universität Göttingen **Module M.WIWI-QMW.0021: Introduction to Statistical Programming**	3 C 2 WLH

Learning outcome, core skills: The students: - get to know the basic functionality of the statistical software package R - can implement advanced statistical approaches in R while using approproate tools for optimising the code	**Workload:** Attendance time: 28 h Self-study time: 62 h

Course: M.WIWI-QMW.0021.C **Introduction to Statistical Programming (Lecture with tutorial)** *Contents*: Data types and class structures, vectors and matrices, reading and writing data, statistical graphics, creating R packages, including other programming languages, debugging and profiling code, S3 and S4 classes, Trellis graphics and other advanced graphics features	2 WLH
Examination: Written examination (90 minutes) or oral examination (approx. 20 minutes) or term paper (max. 10 pages) M.WIWI-QMW.0021.Mp: Introduction to Statistical Programming **Examination prerequisites:** Presentation (approx. 40 minutes) or Exercises (50% successful completion)	3 C

Examination requirements: The students demonstrate their understanding of the basic concepts of statistical programming with R. In particular, they demonstrate their ability to implement statistical methodology in R, to document their code and to use programming tools for debugging and optimizing the code.	

Admission requirements: none	**Recommended previous knowledge:** Basic knowledge of mathematics and statistics
Language: English	**Person responsible for module:** Prof. Dr. Thomas Kneib
Course frequency: once a year	**Duration:** 1 semester[s]
Number of repeat examinations permitted: twice	**Recommended semester:** 1
Maximum number of students: 30	

Additional notes and regulations: The actual examination will be published at the beginning of the semester.