
***This translation is provided solely as a courtesy to international students and applicants.
Reliance in law may only be placed upon the official German version of these Regulations.***

Faculty of Economic Sciences (responsible faculty):

According to resolutions of the faculty councils of the Faculty of Economic Sciences of 29.01.2014, the Faculty of Medicine of 20.01.2014, the Faculty of Biology and Psychology of 17.01.2014, the Faculty of Agricultural Sciences of 16.01.2014, the Faculty of Forest Sciences and Forest Ecology of 21.01.2014 and the Faculty of Social Sciences of 22.01.2014 as well as according to the statement of the senate of 12.03.2014 the Presidential Board of the Georg-August-Universität Göttingen on 18.03.2014 approved the regulations of the certificate programme "Applied Statistics and Empirical Methods" (§ 44 section 1 Sentence 2 NHG in the version of the publication of 26.02.2007 (transcript GVBl. p. 69), last amended by Article 1 of the Act dated 11.12.2013 (Nds. GVBl. p. 287); § 41 section 2 sentence 2 NHG, § 37 section 1 sentence 3 no. 5 letter b) NHG).

**Regulation
of the certificate programme "Applied Statistics and Empirical Methods"
(other courses and degrees offered)
at the Georg-August-Universität Göttingen**

§ 1 Scope

(1) The certificate programme "Applied Statistics and Empirical Methods" is a joint course and degree provided by the Faculty of Medicine, the Faculty of Biology and Psychology, the Faculty of Agricultural Sciences, the Faculty of Forest Sciences and Forest Ecology, the Faculty of Social Sciences and the Faculty of Economic Sciences for the further education of graduates of relevant Master degree programmes in the field of applied statistics.

(2) ¹The provisions of the "Allgemeine Prüfungsordnung für Bachelor- und Master-Studiengänge sowie sonstige Studienangebote an der Universität Göttingen" (APO) shall apply. ²These regulations control the further provisions for the courses and degrees offered, in particular the acquisition of a certificate.

(3) ¹The admission to the certificate programme "Applied Statistics and Empirical Methods" does not establish any claim to the enrolment as a student of the Georg-August-Universität Göttingen. ²An enrolment solely based on the admission to the certificate programme is excluded.

§ 2 Aim of the qualification

(1) ¹The increasing quantitative development of numerous scientific disciplines, and also general areas of life, result in the increased availability of corresponding data of substantial complexity and heterogeneity, and hence increase the relevance of statistical methods for the extraction of information coded in the data. ²Statistics is thus one of the key discipline of the information era and an essential requirement for academic progress in manifold research areas. ³In the certificate programme "Applied Statistics and Empirical Methods" the students should acquire the ability to apply statistical approaches to novel problems and to use these in the context of an own academic activity in research projects of various disciplines or in their profession.

(2) Aims of the studies within a narrower context are the acquisition

- a) of competence to develop and implement new statistical methods adjusted to an existing problem,
- b) of the ability to apply advanced statistical modelling and analytical approaches in applied questions and
- c) of the ability to convey statistical methods to specialists and to the interested general public.

§ 3 Qualifications for entry

(1) ¹The admission requirement is the proof of examination components in statistics with a rating of at least 30 credits. ²The examination board can render the admission dependent on subsequently providing components according to sentence 1, which have not been accomplished yet, within two semesters; in this case the admission is subject to the condition subsequent up to the proof of the still pending components, which must have been received by the University within two semesters since the receipt of the application for admission to the certificate programme. ³If the proof of the still pending components is not submitted within the deadline, the entry notification and letter of admission will become ineffective. ⁴A resolution according to sentence 2 is excluded if the scope of the components according to sentence 1 that have not been accomplished yet have a rating of more than 15 credits.

(2) ¹Applicants whose mother tongue is not English must demonstrate adequate English language skills. ²Deemed as proof of adequate skills is the successful completion of the module "Scientific English II" (module number: SK.FS.E-FN-C1-2) or "Business English II" (module number: SK.FS.E-FW-C1-2). ³Otherwise, adequate English language skills can be proven by achieving minimum results in one of the following internationally accredited test, especially through:

- a) International English Language Testing System (IELTS), at least band 5.5,
- b) Cambridge Certificate in Advanced English at least with the grade "B";
- c) Written test of "Test of English as a Foreign Language" (TOEFL-PBT): at least 550 points;

- d) Internet-based test of "Test of English as a Foreign Language" (TOEFL-iBT): at least 79 points;
- e) C1 proof according to CEF (Common European Framework);
- f) UNIcert of the level III.

⁴Successful completion of the test may not be more than three years before the application for admission to the certificate programme is received. ⁵The obligation to prove a test need not be met by applicants with at least two years spent studying or working abroad in an English-speaking country within the last three years before submitting the application for admission and such applicants, who have completed a prior course of study in this language. ⁶The programme committee will decide on the recognition of other proof of adequate English skills.

§ 4 Programme structure

¹The certificate programme comprises 20 credits. ²The study and examination components are to be accomplished in optional required and optional modules; the module overview (appendix) stipulates these binding. ³The module catalogue and module handbook are published separately in a common electronic version (digital module directory); they are part of these regulations, as far as the modules are itemised in the module overview.

§ 5 Examination board

The tasks of the examination board are performed by the programme committee of the doctoral degree programme "Applied Statistics and Empirical Methods".

§ 6 Admission to courses with a restricted number of participants

The provisions of the offering faculty apply to the admission to modules or lectures with a restricted number of participants.

§ 7 Total grade and peremptory failure

(1) The certificate examination is passed, if at least 20 credits were acquired and all of the required module examinations have been passed.

(2) The current average grade of the certificate examination is calculated as the weighted arithmetic average of all grades in all graded modules, according to credits.

(3) ¹The examination entitlement has finally lapsed if optional requirement or optional modules can no longer be passed to the necessary extent. ²In this case, the certificate examination is regarded as definitively failed.

(4) A notice of definitive failing of the certificate examination with information on legal remedies is created.

§ 8 Transcripts and certificates

¹The examined candidate will receive a certificate of the passed certificate examination. ²The date of the last required examination result is to be entered as the date of the certificate. ³The certificate will be signed by the chairperson of the programme committee. ⁴The provisions of the APO shall incidentally apply accordingly.

§ 9 Study advisory service

The specialist advice for the certificate programme "Applied Statistics and Empirical Methods" will be carried out by the office of the Centre for Statistics (ZfS).

§ 10 Coming into force

(1) This regulation enters into force on the day following its publication in the Official Announcements I of Georg-August-Universität Göttingen.

Appendix (re. § 4 sentence 2)

Module overview

Modules with a total rating of at least 20 credits should be successfully completed in accordance with the following provisions.

1. Statistical methods

At least two of the following modules with a total rating of 12 C should be successfully completed:

- M.WIWI-QMW.0001 Generalized Linear Models (6 C)
- M.WIWI-QMW.0002 Methods of Statistical Inference (Likelihood & Bayes) (6 C)
- M.WIWI-QMW.0005 Econometrics II (6 C)
- M.WIWI-QMW.0009 Time Series Analysis (6 C)
- M.WIWI-QMW.0010 Multivariate Procedures (6 C)
- M.WIWI-QMW.0011 Statistical Programming with R (6 C)
- M.WIWI-QMW.0016 Spatial Statistics (6 C)
- M.MED.0002 Longitudinal Data (6 C)
- M.MED.0003 Time-to-Event Analysis (6 C)
- SK.Bio.705 Data Mining for the Bioinformatics (6 C)
- M.Inf.1211 Probabilistic data models and their applications (6 C)
- M.Mat.4541 Specialisation in the cycle "Applied and Mathematical Stochastic" (9 C)
- M.Mat.4542 Specialisation in the cycle "Stochastic Processes" (9 C)
- M.Mat.4543 Specialisation in the cycle "Stochastic Methods of the Business Mathematics" (9 C)
- M.Mat.4544 Specialisation in the cycle "Mathematical Statistics" (9 C)
- M.Mat.4545 Specialisation in the cycle "Statistical Modelling and Inference" (9 C)
- M.Mat.4641 Aspects in the cycle "Applied and Mathematical Stochastic" (6 C)
- M.Mat.4642 Aspects in the cycle "Stochastic Processes" (6 C)
- M.Mat.4643 Aspects in the cycle "Stochastic Methods of the Business Mathematics" (6 C)
- M.Mat.4644 Aspects in the cycle "Mathematical Statistics" (6 C)
- M.Mat.4645 Aspects in the cycle "Statistical Modelling and Inference" (6 C)
- P.SPS.01 Introduction to Mixed Models and Spatial Statistics (8 C)
- P.SPS.02 Advances in Spatial Statistics (4 C)
- P.SPS.03 Generalised Regression (4 C)

2. Specialisation

At least one of the following modules with a rating of 6 credits should be successfully completed:

- M.WIWI-BWL.0106 Topics in Quantitative Marketing and Economics (6 C)
- M.WIWI-QMW.0012 Multivariate Time Series Analysis (6 C)
- M.WIWI-QMW.0013 Applied Econometrics (6 C)
- M.WIWI-QMW.0019 Statistical Methods for Impact Evaluation (6 C)
- M.WIWI-VWL.0022 Analysis of Micro Data (6 C)
- M.WIWI-VWL.0041 Panel Data Econometrics (6 C)
- M.MED.0004 Clinical Studies (6 C)
- M.MED.0005 Statistical Methods for the Bioinformatics (6 C)
- B.Bio.701-1 Algorithms in Bioinformatic I (5 C)
- B.Bio.704 Algorithms in Bioinformatic II (5 C)
- M.Mat.4741 Special course in the cycle "Applied and Mathematical Stochastic" (3 C) M.Mat.4742
Special course in the cycle "Stochastic Processes" (3 C)
- M.Mat.4743 Special course in the cycle "Stochastic Methods of the Business Mathematics" (3 C)
- M.Mat.4744 Special course in the cycle "Mathematical Statistics" (3 C)
- M.Mat.4745 Special course in the cycle "Statistical Modelling and Inference" (3 C)
- M.Mat.4841 Seminar course in the cycle "Applied and Mathematical Stochastic" (3 C)
- M.Mat.4842 Seminar course in the cycle "Stochastic Processes" (3 C)
- M.Mat.4843 Seminar course in the cycle "Stochastic Methods of the Business Mathematics" (3 C)
- M.Mat.4844 Seminar course in the cycle "Mathematical Statistics" (3 C)
- M.Mat.4845 Seminar course in the cycle "Statistical Modelling and Inference" (3 C)
- M.Mat.4941 Advanced seminar course in the cycle "Applied and Mathematical Stochastic" (3 C)
- M.Mat.4942 Advanced seminar course in the cycle "Stochastic Processes" (3 C)
- M.Mat.4943 Advanced seminar course in the cycle "Stochastic Methods of the Business Mathematics" (3 C)
- M.Mat.4944 Advanced seminar course in the cycle "Mathematical Statistics" (3 C)
- M.Mat.4945 Advanced seminar course in the cycle "Statistical Modelling and Inference" (3 C)
- P.Forst.110 Spatial statistics (3 C)
- M.Forst.1422 Remote Sensing and GIS (6 C)
- M.Forst.1513 Monitoring of forest resources (6 C)
- M.Forst.1609 Remote sensing image processing with open source software (6 C)
- PAG 0060 Advanced methods in animal breeding and statistical genetics (6 C)
- PAG 0065 Market Integration and Price Transmission (6 C)

PAG 0043 Efficiency and Productivity Analysis: Stochastic Approaches (6 C)

PAG 0070 Risk Analysis and Risk Management in Agriculture (6 C)

GRK1666.ME04 Consumer behavior and demand analysis: Theory and applications (3 C)

PAG 0073 Consumer Behavior and Demand Analysis II: Theory and Applications (6 C)

PAG 0080 Statistical Methods and Analyses in the Agricultural Sciences (6 C)

3. Summer schools/Conferences

At least one of the following modules with a rating of 2 credits should be successfully completed:

P.ASEM.0002 Summer schools (2 C)
