OFFICIAL TRANSLATION OF

Studienordnung für den Strukturierten Promotionsstudiengang Betriebswirtschaftliche Forschung der Fakultät für Betriebswirtschaft

THIS TRANSLATION IS FOR INFORMATION ONLY – ONLY THE GERMAN VERSION SHALL BE LEGALLY VALID AND ENFORCEABLE!

Academic Regulations for the Structured Doctoral Degree Program in Business Administration Research for the Faculty of Business Administration

dated 24 January 2018 and amended on 4 July 2018

Valid for doctoral researchers commencing this doctoral degree program from Winter Semester 2018/19.

On 24 January 2018, the Faculty Council of the Faculty of Business Administration at Universität Hamburg adopted these Academic Regulations in accordance with Section 91 subsection 2 no. 1 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG) dated 18 July 2001 (HmbGVBl. p. 171) as amended on 4 April 2017 (HmbGVBl. p. 171).

Preamble

These Academic Regulations supplement the Faculty of Business Administration's Doctoral Degree Regulations dated 9 July 2014 and describe the objectives, content, and structure of the doctoral degree program "Business Administration Research". Admission to the degree program requires acceptance to doctoral studies in accordance with applicable Faculty of Business Administration doctoral degree regulations. Participation in the study program is optional for doctoral researchers. The completion of the doctorate is not contingent on the certification of the study program. The faculty's graduate school is responsible for the organization and structure of the doctoral program; which also draws on courses offered by the Hamburg Research Academy (HRA).

Section 1 Program objectives

(1) The doctoral degree program aims to qualify students to conduct independent scholarly research in the field of business administration. To this end, doctoral researchers acquire advanced theoretical, methodological, and interdisciplinary qualifications in a structured manner. The aim is also to improve self-organization skills of doctoral researchers and to enhance their academic network.

(2) The Research in Business Administration Certificate, awarded for successful performance in the doctoral program, is specifically intended to make it easier for graduates to gain access to research institutions and those institutions that require business-oriented research activities.

Section 2

Regular period of study / enrollment / and program membership

(1) The regular period of study for the doctoral program pursuant to these Academic Regulations is six semesters or three years.

(2) Enrollment in the program coincides with admission to doctoral studies.

(3) Membership in the program ends automatically upon successful completion, upon completion of the doctorate, or upon discontinuation/cessation of the doctoral degree program.

Section 3 Scope of study / ECTS credits

The workload (course attendance, independent study, coursework) for individual program courses is reported in ECTS credits. As a general rule, one ECTS credit corresponds to 30 hours of work. As a rule, a course totaling one credit hour per week corresponds to two and a half ECTS credits. The aggregate scope of the program encompasses at least 32 ECTS credits.

Section 4 Coursework

(1) The doctoral program is subdivided into three required elective areas: (a) a method area encompassing a total of 10 ECTS credits, (b) a specialization area encompassing a total of at least 10 ECTS credits, and (c) a supplementary area encompassing a total of at least 12 ECTS credits. The study program is structured as follows:

Course description	Course type	Credit hours per week	Required subject / Elective subject
Econometrics	Seminar	5 ECTS credits / 2 credit hours per week	Required elective subject (2 from 6)
Experiments	Seminar	5 ECTS credits / 2 credit hours per week	
Survey Research	Seminar	5 ECTS credits / 2 credit hours per week	
Advanced Modeling and Optimization	Seminar	5 ECTS credits / 2 credit hours per week	
Matheuristics	Seminar	5 ECTS credits / 2 credit hours per week	
Other Advanced Research Methods	Seminar	5 ECTS credits / 2 credit hours per week	

(a) Method area (10 ECTS credits)

(b) Specialization area (at least 10 ECTS credits)

Course description	Course type	ECTS credits	Required subject /
Seminars/workshops on content, methods, software, theories (general or focus- specific)	Seminar/works hop	10 ECTS credits / 4 credit hours per week	Elective area

(c) Supplementary area (at least 12 ECTS credits)

Course description	Course type	ECTS credits	Required subject /
Seminars/workshops	Seminar/	2 ECTS credits per day	Elective area
from the	workshop		
Universität Hamburg			
doctoral degree			
qualification program			
(e.g. academic writing,			
project management			
Doctoral seminar,	Presentation at	4 ECTS credits per	Required elective
doctoral workshop	doctoral seminar,	presentation and	
conference	doctoral	conference (at least	
	workshop or	once)	
	conference		
	presentation		

(2) Credits may be earned through both Universität Hamburg and Hamburg Research Academy courses as well as offerings of equivalent quality from external institutions.

(3) An overview of the study program in the methods area is attached to these Academic Regulations as an appendix.

(4) The Graduate School in the Faculty of Business Administration shall establish rules and regulations for course registration and produce a catalog of courses for selection with detailed descriptions, which must be published appropriately.

(5) The examiners are the lecturers specified for courses announced by the Faculty's Graduate School.

Section 5 Course types

Courses shall in particular consist of:

Course type and	ECTS credits	Credit Hours	Group
didactic concept		per Week	Size
Workshops are designed for reflective and goal-oriented scientific work under the guidance of an expert and require active participation by doctoral researchers.	Ordinarily 5	Ordinarily 2	Ordinarily 10

Seminars are designed to expose complex scientific problems through the application of scientific theories and methods, which are materially shaped by active participation of doctoral researchers	Ordinarily 5	Ordinarily 2	Ordinarily 10
Presentations at seminars and conferences are designed to provide a qualified scientific exchange of knowledge and information.	Ordinarily 2 to 4		

Section 6 Coursework

(1) The successful completion of each course is contingent upon regular attendance by doctoral researchers and the completion of coursework in the method and specialization areas. Coursework is graded "pass / fail". Attendance confirmation is all that is necessary in the supplementary area. Lectures are deemed completed once given.

(2) Coursework that must be completed in order to successfully complete a course must be disclosed before or at the start of a course and the type and scope must correspond to the estimated workload reflected in the ECTS credits.

(3) If a doctoral researcher has a valid reason for not attending a class or a course, they must notify the responsible lecturer thereof.

Section 7 Recognition of other work for credit

On application from a doctoral researcher, the faculty's graduate school must render a decision about the equivalence and recognition of work for credits completed elsewhere for the achievement of the study objectives within the meaning of Section 1.

Section 8 Transcript of records

(1) The successful completion of the study program must be documented in a transcript of records recording academic performance and completed coursework. Upon completion of the study program, an original transcript of records is supplied in German and English.

(2) The successful completion of the study program is documented by issuing a certificate, executed by the head of the faculty's graduate school.

Section 9 Effective date

These Academic Regulations become effective on 19 September 2018. Doctoral researchers within the Faculty who have already been admitted at this time may enroll in the doctoral degree program. An invitation to this effect with an enrollment deadline will be sent.

Hamburg, 4 July 2018 Universität Hamburg Faculty of Business Administration (Hamburg Business School)

Attachment: Academic Regulations for Business Administration Doctoral Degree Program Research for Faculty of Business Administration

Module description for the courses in the methods area

1) Econometrics

Course value: 2 credit hours per week or 5 ECTS credits

Objectives:

The main goal of this course is to give an introduction to advanced topics in Econometrics with a focus on causal inference. Economics and business administration focuses on the identification and estimation of causal effects (program evaluation), an active field of research in the last decade in statistics, economics and many other fields. Doctoral students should be prepared to conduct empirical studies at the research level, to understand potential problems and pitfalls in empirical studies and able to identify potential solutions.

Topics:

- Introduction to Causal Inference/Basic Framework
- Methods for Causal Inference (Diff-in-Diff, IV, Propensity Score Matching, Randomized Control Trials, ...)
- Recent developments

Student evaluation:

Either: an oral presentation of a recent paper, a written summary of a recent research paper. or the student's own research proposal.

2) Experiments

Course value: 2 credit hours per week or 5 ECTS credits

Objectives:

The main goal of this course is to introduce the design and implementation of both laboratory and field experiments in various fields of economics and business administration. Doctoral students who have some experience with experiments or who are considering setting up an experiment are particularly welcome to participate. First, different research questions are identified for a laboratory or a field experiment. We start with discussing critical theory assumptions. We then show how research hypotheses can be inferred from behavioral models and how these hypotheses may be tested in lab or field studies. Second, based on a literature review (as proposed by the participants for some fields) an experimental design is developed and a pilot experiment will be set up and run in class. As part of this exercise, students will learn the basic requirements of a human subjects committee.

Some topics:

- Identify a suitable research question for an experiment
- Ethical and scientific standards: historical and scientific reasons, consent requirements, human subjects committee, special requirements (children, elderly people, inmates, ...), data collection and evaluation
- Individual and group experiments in the laboratory
- Surveys and internet experiments
- Field experiments in cooperation with a company

Student evaluation:

- Experiment design presentation (extended summary of an economic question, relevant literature, hypotheses, design: presentation with max. 10 slides or max. five pages extended abstract)
- Pilot experiments are optional, but encouraged

3) Survey Research

Course value: 2 credit hours per week or 5 ECTS credits

Objectives:

This course is designed to lay the foundations for survey-based research in different areas of business administration. It covers a range of topics, for example, preference measurement, measurement models for complex constructs, structural equation models, moderation and mediation, multi-collinearity, heterogeneity, endogeneity, and common method bias. The goal is not to study any of these methods in depth, but to learn about the basic principles behind the different methods, their uses, and their various strengths and weaknesses. Students thus get an overview of what is in the "toolbox", so that they can pick the appropriate methods for their research.

Prerequisites: Students should have a solid foundation in statistics and be familiar with the basics of multivariate data analysis.

Student evaluation:

Students will be evaluated based on one or more of the following (details will be provided at the beginning of the course):

- Presentation
- Participation in class discussions
- Exercises
- Written exam

4) Advanced Modelling and Optimization

Course value: 2 credit hours per week or 5 ECTS credits

Objectives:

This course introduces students to the fundamentals of linear and combinatorial optimization and equips them with a set of advanced modeling tools. Students learn to formulate optimization models as mixed-integer linear programs, how to solve them with standard software and how to construct heuristic solution algorithms. Successful participants will be able to deal with the complexity of real-world decision problems via aggregation, relaxation, and decomposition techniques.

This course is aimed at doctoral students in information systems, business administration, and computer science. It provides an advanced understanding of linear and mixed-integer optimization models and solution methods.

The course is partly taught in a seminar-style format. Topics will be allocated to students in class.

Student evaluation:

- A successful completion of work assignments
- A successful presentation

5) Matheuristics

Course value: 2 credit hours per week or 5 ECTS credits

Objectives:

Matheuristics are optimization algorithms based on the inter-operation of metaheuristics and mathematical programming techniques. Metaheuristics and matheuristics support managers in decision making with tools providing high quality solutions to important problems in business, engineering, economics, and science within reasonable time horizons. While finding exact solutions in these applications still poses a real challenge despite the impact of recent advances in computer technology and the significant interactions between computer science, management science / operations research and mathematics, (meta-) heuristics still seem to be the methods of choice in many (not to say most) applications.

In this course we provide insight into state of the art matheuristics. This focuses on the significant progress regarding the methods themselves as well as the advances regarding their interplay and hybridization with exact methods. This course introduces students to the fundamentals of matheuristics and equips them with relevant solution methods and tools. This course is aimed at doctoral students in information systems, business administration, computer science and related fields. Students learn to develop methods for solving related optimization problems using metaheuristics and mathematical programming. Successful applications are developed and discussed.

Student evaluation:

• A successful completion of work assignments

6) Other Advanced Research Methods

Course value: 2 credit hours per week or 5 ECTS credits

Objectives:

In this course students will receive training in advanced research methods not related to the modules 1)-5) (Econometrics, Experiments, Survey Research, Advanced Modeling & Optimization and Matheuristics) which do not qualify as a further specialization. Thus, the content of this course must be able to apply to all research in business administration and/or economics, for example qualitative methods.

Student evaluation:

Students will be evaluated based on one or more of the following (details will be provided at the beginning of the course):

- Presentation
- Participation in class discussions
- Exercises
- Written exam
- A successful completion of work assignments