

## **CURRICULUM FOR THE PHD DEGREE PROGRAM IN FINANCE**

Pursuant to § 25 (1) item 10 of the Universities Act 2002 (*Universitätsgesetz 2002*), Federal Law Gazette (*Bundesgesetzblatt*, BGBl.) I no. 120/2002, last amended by the federal act promulgated in Federal Law Gazette I no. 177/2021, the following regulation is passed:

### **§ 1 Objectives**

The PhD Degree Program in Finance is a degree program in social and economic sciences within the meaning of § 54 (1) of the Universities Act 2002 and is taught in English. The focus of the degree program is on developing students' ability to conduct independent research and on qualifying early-stage researchers in the field of finance. Students conduct theoretical or applied research in the field of finance, and in this context they are able to independently formalize problems, conduct research-based analyses, and develop solutions.

In the PhD Degree Program in Finance, students gain an in-depth, research-guided understanding of the theories of the economic sciences and the theories, models, and methods of finance. Students develop and perfect the knowledge and skills they need to fully comprehend financial issues using scientific methods and models and to conduct their own research. Graduates of the PhD Degree Program in Finance possess a comprehensive academic qualification with in-depth specialist knowledge in core areas of modern finance as well as academic methods specific to the discipline. Students learn to generate new research results and to implement academic publication strategies, and they acquire communication skills for engaging in the academic discourse of the discipline and to make science accessible to the public.

Graduates of the PhD program are qualified early-stage researchers and meet the requirements for an academic career at universities and research institutes. Especially due to their high degree of independence and their ability to apply knowledge to completely new problems, they are also qualified for careers at for-profit, nonprofit, and public sector organizations.

In the PhD Degree Program in Finance, students acquire the following general knowledge, skills, and competencies:

Discipline-specific knowledge:

- Students acquire a broad, systematic, and critical understanding of the field of finance, especially financial econometrics (empirical corporate finance and applied cross-sectional econometrics, e.g. endogeneity, measurement error, simulation estimators, estimation of dynamic models), corporate finance (including determinants of corporate capital structure choices), asset pricing (market efficiency, state prices, and arbitrage, CAPM and APT: theory and evidence and multi-period consumption investment models), and continuous time finance (arbitrage theory for pricing contingent claims in continuous time, valuation in incomplete markets, martingale approach to arbitrage pricing, interest rate theory)

- They have in-depth and up-to-date specialist knowledge and professional expertise in a particular aspect of the field of finance
- They have the ability to critically analyze academic contributions in the field of finance
- They are able to recognize the need for acquiring further knowledge in their own subject area and to identify and make connections to related areas of research
- They are familiar with the theories of the economic sciences

#### Synthesis and evaluation:

- Students can grasp problems in the field of finance in a comprehensive manner using appropriate methods
- They can apply fundamental analytical instruments required for carrying out finance research (primarily stochastic calculations and optimization methods)
- They can engage in academic analysis and synthesis, and can independently and critically examine and assess new and complex phenomena, issues, and situations
- They make a significant contribution to the advancement of finance models and methods through their own research
- Students have learned to develop, adapt, and apply research methods to expand and redefine existing knowledge or professional practice in the field of finance
- They generate original knowledge and understanding to make a significant contribution to finance research or professional practice in the field of finance
- They can critically discuss, analyze, and advance theories of finance

#### Research:

- Students can identify and formulate research questions critically, independently, innovatively, and with academic rigor
- They have the skills to plan and conduct research and other work on complex problems using appropriate methods and within specified time frames
- They know how to plan and conduct substantial research projects with academic integrity, and to reflect on these research processes scientifically and theoretically
- They can contribute to teams and actively take part in participatory problem-solving processes
- Students have learned to reflect on the ethical and social implications of their research findings
- They have a deeper understanding of the possibilities and limitations of academic research, its role in society, and the responsibilities of the individual researcher

#### Communication:

- Students can use English finance terminology at a high level
- They have the skills needed to write academic publications in English that meet the international quality standards of the discipline
- They can present and discuss their research and findings competently in English, both in an international context and in dialog with the scientific community and with society in general
- They know how to make new knowledge and insights accessible and promote the learning of others in research, teaching, and other professional contexts

## **§ 2 Admission Requirements**

(1) The prerequisite for admission to the PhD Degree Program in Finance is the completion of a previous degree within the meaning of § 64 of the Universities Act 2002. Admission to the PhD Degree Program in Finance is regulated by a selection procedure pursuant to the Universities Act 2002.

(2) Dual application of examinations to the PhD Degree Program in Finance through credit transfer of examinations completed for the previous degree pursuant to (1) is not permissible.

### § 3 Program Duration

(1) The duration of the PhD Program in Finance is three years.

### § 4 Types of Examinations

The examination types indicated in this curriculum are defined in the Examination Regulations of WU (Vienna University of Economics and Business). This curriculum, together with the Examination Regulations, forms a curriculum pursuant to § 25 (1) item 10 of the Universities Act 2002.

Abbreviation key:

AG – <i>Arbeitsgemeinschaft</i> , workshop-type course
FP – <i>Fachprüfung</i> , subject examination
FS – <i>Forschungsseminar</i> , research seminar
LVP – <i>Lehrveranstaltungsprüfung</i> , course examination
MP – <i>Modulprüfung</i> , module examination
PI – <i>prüfungsimmanent</i> , course with continuous assessment of student performance
VUE – <i>Vorlesungsübung</i> , lecture with interactive elements

### § 5 Courses and Examinations

(1) Students in the PhD Degree Program in Finance must complete the following courses:

<i>Subject/Course title</i>	<i>ECTS credits</i>	<i>Credit hours</i>	<i>Type of examination</i>
<i>In Quantitative Methods (4 ECTS credits)</i>			
Quantitative Methods	4	2	PI
<i>In Financial Econometrics (4 ECTS credits)</i>			
Financial Econometrics	4	2	PI
<i>In Corporate Finance (4 ECTS credits)</i>			
Corporate Finance	4	2	PI
<i>In Asset Pricing (4 ECTS credits)</i>			
Asset Pricing	4	2	PI
<i>In Continuous Time Finance (4 ECTS credits)</i>			
Continuous Time Finance	4	2	PI
<i>In Finance Paper Reading and Writing (12 ECTS credits)</i>			
Finance Paper Reading A	2	1	FS
Finance Paper Reading B	2	1	FS
Paper Writing	8	4	FS
<i>In Finance Research Seminar (4 ECTS credits)</i>			
Finance Research Seminar A	2	2	AG
Finance Research Seminar B	2	2	AG
<i>In Defensio Dissertationis (4 ECTS credits)</i>			
Defensio Dissertationis	4		FP

(2) In the course of the PhD Degree Program in Finance, six electives with continuous assessment of student performance (PI) worth 4 ECTS credits and 2 credit hours each must be completed. Each elective can be chosen up to six times. The following electives are available:

1. Asset Pricing
2. Corporate Finance
3. Quantitative Methods

## **§ 6 Research Proposal**

(1) The research proposal should include the topic, the state of the art of the research field, the research question, and basic information on the theoretical and methodological approach to be taken in the dissertation. The research proposal will be posted on the intranet of WU (Vienna University of Economics and Business) for a period of one month.

(2) The provisions in § 34 (6), final sentence, of the By-Laws of WU (Vienna University of Economics and Business) apply *mutatis mutandis* to the assessment of the research proposal. Each member of the supervisory team shall combine their assessment with constructive suggestions for the further development of the dissertation, and in the event of a negative assessment, suggestions for the improvements necessary to achieve a passing grade.

## **§ 7 Dissertation and *Defensio Dissertationis***

(1) In the PhD Degree Program in Finance, students shall write a dissertation in the form of one or more academic papers. The paper or papers included in the dissertation must be classified as belonging to one of the following subjects:

- a) Quantitative Methods
- b) Financial Econometrics
- c) Corporate Finance
- d) Asset Pricing
- e) Continuous Time Finance

(2) The successful completion of all courses specified in § 5 and a positive grade on the research proposal are prerequisites for admission to the *Defensio Dissertationis*. During the *Defensio Dissertationis*, the student shall present their dissertation to the Doctoral Committee and respond to questions posed by members of the Committee.

(3) The provisions in § 34 (6), final sentence, of the By-Laws of WU (Vienna University of Economics and Business) apply *mutatis mutandis* to calculating the assessment of the *Defensio Dissertationis*.

## **§ 8 Completion of the PhD Degree Program**

After successful completion of all required courses and examinations pursuant to § 5 and the dissertation, the doctoral candidate shall be issued a certificate confirming that he/she has successfully completed the PhD Degree Program in Finance.

## **§ 9 Academic Degree**

Graduates of the PhD Degree Program in Finance will be awarded the academic degree of "Doctor of Philosophy," abbreviated as "PhD."

## **§ 10 Effective Date**

- (1) This curriculum shall enter into force on October 1, 2009.
- (2) The amendments to this curriculum pursuant to the resolution of the Academic Programs Committee dated November 18, 2010, approved by the Senate on December 1, 2010, will enter into force on October 1, 2011.
- (3) The amendments to this regulation as published in WU Bulletin no. 40 of June 27, 2018, shall enter into force on October 1, 2018.
- (4) The amendments to this regulation as published in WU Bulletin no. 44 of June 30, 2021, shall enter into force on October 1, 2021.
- (5) The amendments to this regulation as published in WU Bulletin no. 44 of June 30, 2022, shall enter into force on October 1, 2022.

## **§ 11 Expiry and Transitional Provisions**

- (1) The curriculum for the PhD Degree Program in Finance 05 in effect at Vienna University of Economics and Business on September 30, 2009, which was enacted pursuant to the Federal Act on the Organization of Universities and their Studies (Universities Act 2002), Federal Law Gazette I no. 120/2002, shall expire on October 1, 2009, pursuant to (2).
- (2) Pursuant to the Federal Act on the Organization of Universities and their Studies (Universities Act 2002), Federal Law Gazette I no. 120/2002, degree program students who, at the time of entry into force of this curriculum, have already begun the PhD Degree Program in Finance 05 at WU (Vienna University of Economics and Business), shall be entitled to complete their studies by September 30, 2017, according to the curriculum applicable on September 30, 2009. If a student fails to complete the program within that period, the student will be subject to the new curriculum for the remainder of their studies. In addition, the students are entitled to voluntarily transfer to the new curriculum at any time. If students are subject to the new curriculum, the selection procedure pursuant to § 64 (6) of the Universities Act 2002 shall apply.
- (3) Degree students who began the PhD Degree Program in Finance before the 2018 summer semester shall be entitled to complete their studies according to the curriculum applicable on September 30, 2018, with the exception of the amendments in § 5. Students are entitled to change to the curriculum valid as of October 1, 2018, at any time.