

**Education curriculum in SGH Doctoral School
in the field of Economics and Finance in the scope of *Economics with instruction
in English***

1. General characteristics of education

Education in the Doctoral School lasts 8 semesters and prepares for obtaining the degree of *doctor* in the field of economics and finance. The main subject of education and research shall be economics. This education involves the implementation of the education curriculum and the Individual Research Plan and shall lead to the achievement of the educational outcomes for the qualification at level 8 of the Polish Qualification Framework.

2. Educational outcomes (*knowledge, skills and social competences*)

| Symbol of the educational outcome | A graduate of a doctoral programme in the field of <i>Economics with instruction in English</i> holding the degree of <i>doctor</i> : | Reference to the characteristics of the Polish Qualification Framework level 8 – code of the descriptor* |
|---|--|--|
| KNOWLEDGE: knows and understands | | |
| W_1 | the world-renowned output, including theoretical foundations and general problems related to the field of economics and finance | P8S_WG |
| W_2 | the world-renowned output, including selected economics-specific problems in the extent allowing for a review of the existing paradigms | P8S_WG |
| W_3 | key development trends of the field of economics and finance | P8S_WG |
| W_4 | general methodology of social sciences, including the methodology of scientific research specific to the field of economics and finance | P8S_WG |
| W_5 | the rules for popularising scientific research outcomes, also as open source and basic rules of the knowledge transfer to the economy and the social domain, including basic rules for commercialising scientific research outcomes and the know-how arising therefrom | P8S_WG P8S_WK |

| | | |
|---------------------------|--|------------------|
| W_6 | economic, legal and ethical conditions of the conducted scientific research | P8S_WK |
| W_7 | fundamental dilemmas of the contemporary civilisation | P8S_WK |
| SKILLS: is able to | | |
| U_1 | <p>apply the knowledge from various disciplines of science for creative identifying, formulating and innovative solving of complex problems or performing research tasks, in particular:</p> <ul style="list-style-type: none"> – define the purpose and subject matter of the scientific research, formulate research hypotheses, – creatively apply and develop methods, techniques and research tools characteristic of the conducted research, – deduct based on the scientific research outcomes | P8S_UW |
| U_2 | perform critical analysis and assessment of scientific research outcomes, expert activity and other creative works and their contribution to the development of science in the area of the conducted research | P8S_UW |
| U_3 | popularise scientific research outcomes or transfer them to the economy and the social domain | P8S_UK P8S_UW |
| U_4 | communicate on specialist topics, also in a modern foreign language at a C1 level CEFR with specialists in their field of research and professional area as well as with other persons outside of these circles | P8S_UK |
| U_5 | document and present scientific research outcomes and prepare scientific publications – according to the rules of preparing such works – respecting the principles of intellectual property protection | P8S_UK |
| U_6 | participate in the scientific discourse | P8S_UK |
| U_7 | initiate a debate | P8S_UK |
| U_8 | plan and implement team research projects, also in an international environment | P8S_UO |
| U_9 | independently plan and activate own scientific and professional and inspire and organise the development of others | P8S_UU |
| U_10 | design and conduct classes in the area of the scientific research and professional activity run using modern methods and tools | P8S_UU |

| SOCIAL COMPETENCES: is ready to | | |
|--|---|--------|
| K_1 | critically assess the scientific research outcomes and expert activity in the field of the prepared doctoral dissertation | P8S_KK |
| K_2 | critically assess own contribution to the development of the scientific field in which the doctoral dissertation is prepared | P8S_KK |
| K_3 | acknowledge the importance of knowledge in solving cognitive as well as practical problems | P8S_KK |
| K_4 | responsibly meet social commitments of a researcher including initiating actions for the public good | P8S_KO |
| K_5 | respect and enhance the ethos of the research community by, among others: <ul style="list-style-type: none"> – conducting scientific activity in an independent and ethical way – respecting the principle of public ownership of the scientific research outcomes accounting for the principles of intellectual property protection – conducting the opinion-forming activity in a responsible and ethical manner | P8S_KR |
| K_6 | think and act in an enterprising and innovative manner | P8S_KO |

* Ordinance of the Minister of Science and Higher Education of 14 November 2018 on the second degree characteristics of the learning outcomes for qualification 6-8 of the Polish Qualification Framework, Journal of Laws of 2018 item 2218.

3. Education curriculum in SGH Doctoral School in the field of Economics and Finance in the scope of *Economics with instruction in English*

| Education curriculum | | | | | |
|--|--|--|---------------------------|---------------------|------------------------|
| Groups of courses / course title | Status of the course: O – obligatory, F – facultative | Evaluation: GA – graded assignment A – assignment | Year/ Semester | ECTS credits | Number of hours |
| A. Research and Methods | | | | 9 - 11 | 74 - 94 |
| 1. Philosophy of science | O | GA | I | 2 | 15 |
| 2. Ethics in science | O | GA | I | 2 | 15 |
| 3. Methodology and practice of scientific research | O | GA | I | 3 | 30 |
| 4. Research team building | O | GA | II-III | 2 | 14 |
| 5. The art of teaching and presentation ¹ | F | GA | I-III | 2 | 20 |

| | | | | | |
|--|---|----|--------|------------------|------------------|
| B. Major courses^{2*}: | | | | 28 | 240 |
| 1. Advanced Microeconomics I or Contemporary Economic Theories of the Firm and Markets | O | GA | S1 | 7 | 60 |
| 2. Advanced Macroeconomics I or Major Trends in Contemporary Macroeconomics | O | GA | S1 | 7 | 60 |
| 3. Elective courses (2-4) from a provided list | F | GA | S2-S3 | 14 | 120 |
| C. Elective courses: | | | | 14 – 17,5 | 120 - 150 |
| 1. From the provided list. Courses will be opened based on the request with minimal enrolment limits | F | GA | II-III | 14 – 17,5 | 120 - 150 |
| 2. Electives are categorized into majors but there is no need to complete one nor to follow these suggestions, i.e. students can select courses freely in order to acquire a desired profile | F | | | | |
| D. Additional: | | | | 6 | 60 |
| 1. Academic writing and communication | F | GA | S1 | 3 | 30 |
| 2. Guest lectures** | F | GA | S2-S8 | 3 | 30 |
| 3. Economic research seminar | F | GA | S4-S7 | 3 | 30 |
| 4. Course from the Doctoral School offer | F | GA | S4-S8 | 3 | 30 |
| E. Doctoral Seminar | O | A | I-IV | 4 | 60 |
| Total | | | | 61 - 66,5 | 554 - 604 |
| Individual Research Plan | O | A | II-IV | | |

¹ The course should be passed before doctoral candidates start their (non-obligatory) teaching apprenticeship with students.

² Major courses prepare for two major exams (see point 4.2).

*Additional courses (hours and ECTS) covered above the minimum requirement are transferred to be covered as electives (hours and ECTS).

** A slot left for guest lectures offered by visiting Professors from abroad.

LIST OF ELECTIVE COURSES

| No. | Module / course title | Number of hours | ECTS credits |
|------------------------------------|--|-----------------|--------------|
| I. INTERNATIONAL ECONOMICS | | | |
| 1 | International Competitiveness | 30 | 3.5 |
| 2 | Advanced International Trade | 30 | 3.5 |
| 3 | Advanced International Business | 30 | 3.5 |
| 4 | Advanced International Finance | 30 | 3.5 |
| 5 | Corporate Finance and International Capital Markets | 30 | 3.5 |
| 6 | Regulation and Financial Supervision | 60 | 7 |
| II. GENERAL ECONOMICS | | | |
| 1 | Public Economics | 30 | 3.5 |
| 2 | Development Economics | 30 | 3.5 |
| 3 | Comparative and Institutional Economics | 60 | 7 |
| 4 | Public Policy | 30 | 3.5 |
| 5 | Socioeconomics | 60 | 7 |
| 6 | Historical Origins of Economic Thought | 30 | 3.5 |
| 7 | Experimental and Behavioral Economics | 30 | 3.5 |
| 8 | Toolkit for Applied and Empirical Economics | 60 | 7 |
| III. QUANTITATIVE ECONOMICS | | | |
| 1 | Advanced Probability and Statistics | 60 | 7 |
| 2 | Advanced Optimization | 60 | 7 |
| 3 | Advanced Econometrics | 60 | 7 |
| 4 | Advanced Microeconomics II | 60 | 7 |
| 5 | Advanced Macroeconomics II | 60 | 7 |
| 6 | Theory of Decisions | 60 | 7 |
| 7 | Advanced Game Theory | 45 | 5 |
| 8 | Advanced Industrial Organization | 30 | 3.5 |
| 9 | General Equilibrium Theory | 30 | 3.5 |
| 10 | Advanced Growth Theory | 30 | 3.5 |
| 11 | Business Cycle Analysis | 30 | 3.5 |
| 12 | Macromodelling | 30 | 3.5 |
| 13 | Monetary Economics | 30 | 3.5 |
| IV. POPULATION ECONOMICS | | | |
| 1 | Labor Economics | 30 | 3.5 |
| 2 | Qualitative and Quantitative Methods in Economic and Social Research | 60 | 7 |
| 3 | Population Economics | 60 | 7 |
| 4 | Demography and Demographic Modelling | 60 | 7 |
| V. (BIG) DATA ANALYSIS | | | |
| 1 | Mathematics | 60 | 7 |
| 2 | Optimization Methods | 60 | 7 |
| 3 | Scientific Computing Methods | 45 | 5 |
| 4 | Probability Theory for Economics | 30 | 3.5 |

| | | | |
|---|--------------------------------------|----|-----|
| 5 | Mathematical Statistics | 30 | 3.5 |
| 6 | Bayesian Methods | 30 | 3.5 |
| 7 | Stochastic Processes | 30 | 3.5 |
| 8 | Microeconometrics | 30 | 3.5 |
| 9 | Actuarial Mathematics and Statistics | 30 | 3.5 |

4. Terms and conditions of covering the education curriculum

- 4.1.** The credit term in the Doctoral School shall be the academic year and the courses included in the curriculum of a given year shall be passed with a grade. The requirements for passing a given course by the doctoral candidate shall be outlined in the course syllabus. The doctoral seminar shall be passed without a grade.
- 4.2.** The doctoral candidate shall be obliged to pass two major exams by the end of semester 4: Microeconomics and Macroeconomics. These exams shall not be included in the doctoral candidate's credit settlement of the academic year. Major courses provide preparation for major exams. The scope and form of major exams shall be outlined in the major exam cards the template of which is to be found in the annex to the education curriculum. Major exams shall be organised at least two times a year, irrelevant of the time in which major courses corresponding to them in the curriculum are covered. Major exams shall be conducted by the Examination Boards composed of 2-5 academic teachers. Passing a major exam shall exempt the doctoral candidate from attending classes in the courses corresponding to the exam in the curriculum.

5. Individual Research Plan (IPB)

- 5.1.** IPB is a compulsory element of education in the Doctoral School. IPB shall be prepared by a doctoral candidate in collaboration with the supervisor (supervisors) and the assistant supervisor, if appointed.
- 5.2.** IPB shall in particular include:
- a) outline of the doctoral dissertation
 - b) external sources of research financing,
 - c) a research plan aimed at preparing a doctoral dissertation outlining a description of tasks and a timetable of their implementation divided into semesters,
 - d) deadline for the submission of the doctoral dissertation.
- 5.3.** The doctoral candidate shall submit his/her IPB - after obtaining approval of the assistant supervisor, if appointed, and later after obtaining the approval of the supervisor (supervisors) - to the Dean not later than within 12 months of starting the programme in the Doctoral School.

6. Completing education in the Doctoral School

- 6.1.** A basis for completing education in the Doctoral School shall be obtaining the learning outcomes for the qualification level 8 of the Polish Qualification Framework and complying with the conditions stipulated in art. 189 of the act and stipulated pursuant to art. 192.2 and 3 of the act.
- 6.2.** At a request of a person who has not completed education in the Doctoral School, a certificate of the study record shall be issued.

Annex

TEMPLATE OF THE MAJOR EXAM CARD

| | | |
|---|-------------------|-----|
| Name of the education curriculum | | |
| Name of the major exam | | |
| <i>Name of the exam</i> in English | | |
| Authors of the major exam card | 1. | |
| | | |
| | | |
| Exam form | e.g. written exam | 60% |
| | e.g. spoken exam | 40% |
| | | |
| Exam scope | | |
| 1. | Problem 1: | |
| | | |
| | | |
| | | |
| Basic literature | | |
| 1. | | |
| | | |
| | | |
| Supplementary literature | | |
| 1. | | |
| | | |
| | | |
| Name of the major course corresponding in the curriculum to the major exam | | |
| 1. | | |
| | | |
| | | |