

Sector Economics and Economics of Enterprise

Objectives of the study programme

The goal of the study is the scientific education of highly qualified experts in the field of economic theory, economic analysis and general economic processes at the corporate and sectoral level, equipped with purposeful interdisciplinary and advanced methodological knowledge. The aim is to equip students with knowledge of current issues and problems in the field of study, advanced economic theories and advanced methods of analysis, teach students to effectively apply economic theories in the analysis of economic phenomena, teach students systematic scientific work and equip students with competencies for the implementation of innovations, the ability to collaborate in the scientific community at the national and international level, and, last but not least, the ability to disseminate results in scientific journals and at international conferences/seminars, and to the private and management spheres.

Profile of the graduate of the SEEE programme

The graduate is expected to master the advanced theory of the field of study, advanced methods of scientific work and master the basic forms of permanent acquisition of information about the level of knowledge in the given field in the process of lifelong education. Graduates will acquire skills in designing descriptive and normative economic models of economic processes at the macro and microeconomic levels and gathering relevant documents for their formalization. They will also acquire competence in the application of models in ex-post and ex-ante analysis and in the generalization of acquired scientific knowledge in the form of economic regularities and their application in the interpretation of specific economic tasks to support sustainable development and the ability to independently solve serious economic problems, including environmental protection on sectoral as well as the corporate level. The graduate manages variant approaches to the solution of complex economic issues both at the enterprise and supra-enterprise level and is capable of interdisciplinary synthesis supporting the optimization of economic events. Graduates of the proposed field will find employment in scientific workplaces, universities, state administration and institutions of the European Union, international organizations, national and multinational enterprises and companies, service and consulting enterprises, and banking and financial spheres. At the same time, the nature and form of the study will enable a comprehensive inclusion and a high degree of adaptability to the changing conditions in the labour market.

Study requirements

The study obligations of a DSP Sector Economics and Economics of Enterprise student are based on the internal regulations of the CZU in Prague, "Study and Exam Rules for Study in Doctoral Study Programmes of the Czech University of Life Sciences Prague", dated March 29, 2017 (hereinafter "Study and Exam Rules"), and Rector's Directive No. 2/2018 "Credit system of CULS doctoral degree programmes" (hereinafter "Credit System"), which evaluate the study obligations of students in DSP credits according to the ECTS system. These documents in both the Czech and English languages are linked above. The study is based on an approved individual study plan (ISP). The ISP must be compiled to include all the following study obligations and to ensure that the student has obtained at least 240 credits. The following are compulsory and optional study obligations and their recommended inclusion in individual years of study. Credit ratings are given in the Credit System.

Dissertation methodology

Students submit their dissertation methodology after approval by the supervisor within 12 months from the start of the study. The methodology is defended and contains mainly the research plan of the dissertation. See the "Other study obligations" section for more details.

Methodological seminar

The seminar focused on methods of scientific work, work with information sources, ethics of scientific work, presentation of results of research activities and their evaluation, obtaining resources for research realization and other key topics that will enable the student to move from master's level to doctoral level. The seminar is included in the 1st year of study and the graduate obtains the necessary knowledge for the creation of the doctoral thesis methodology.

Academic writing

A compulsory subject that will be taught in the 1st year of study, which aims to increase the student's ability to use English at a professional or scientific level, as it will be necessary to work with foreign language literature, undertake internships abroad, communicate with partners abroad, produce outputs and present results of the undertaken work in English, etc. The course will be taught in the form of contact seminars in English. Teaching will be conducted by a teacher with language competence at the level of a native speaker

Compulsory subjects

A student of DSP Sector Economics and Economics of Enterprise usually completes the compulsory subjects in the first or second year of study.

Contemporary Issues in Economic Theory – a compulsory subject, which in the form of a series of seminars introduces students to the latest scientific knowledge, the current state of the field and research challenges in the field of economic theories. Intended guarantor: prof. Ing. Luboš Smutka, Ph.D

Contemporary Issues in Applied Economics – a compulsory subject which, in the form of a series of seminars, acquaints students with the latest scientific findings, the current state of the field and research challenges in the field of applied economic sciences. Intended guarantor: prof. Ing. Lukáš Čechura, Ph.D.

Optional subjects

The student of DSP Sector Economics and Economics of Enterprise can complete optional subjects. The student can select a subject from the following:

- *Agrarian Policy*
- *Econometrics - Advanced Models*
- *Economics of Product Verticals*
- *Economics of World Agriculture*
- *Global Trade*
- *Dynamic Economics*

Successful completion of compulsory or optional subjects requires the creation of at least one of the following outputs:

- a) Scientific article ready for publication
- b) Critical analysis of published work by a renowned author in the field
- c) Review study of selected scientific field
- d) Repetition of an already implemented experiment/research in a specific environment

The outputs serve as a basis for the professional debate to be conducted within the exam. The student will pass the exam based on success in the professional debate.

After approval by the supervisor and approval by the Doctoral Degree Programme Boards, the student may also choose another optional subject from the offer of accredited DSPs on CZU or other institutions in the Czech Republic or abroad.

Literature Review for Dissertation

Foundation for the state doctoral exam, which includes especially the literature review and content of the upcoming dissertation. The thesis is reviewed, and the debate on the thesis is part of the state doctoral examination.

State Doctoral Exam

In accordance with Article 10, Paragraph 2 of the Study and Exam Rules, the state doctoral exam in DSP Sector Economics and Economics of Enterprise consists of three parts:

- professional debate on the submitted theses of the dissertation and the problems dealt with in the dissertation;
- debate on a selected area of the general subject *Sector Economics and Economics of Enterprise*, which includes topics from:
 - Consumer theory – advanced analysis (Slutsky and Hicks decomposition; duality; integrability; expressed preferences; uncertainty)
 - Theory of the firm - advanced analysis (duality in production)
 - Market and welfare (partial equilibrium, general equilibrium)
 - Game theory
 - Information – adverse selection, moral hazard and the market
 - AD in an open economy
 - Balance of payments – monetary theory
 - Solow growth model
 - Endogenous growth
 - Business cycle theory
 - Nominal rigidity
 - The dynamic model of general equilibrium - fluctuation
 - Inflation and monetary policy
 - Public finance and FP
- debate on a selected area of the specialized subject *Specialization in Sector Economics and Economics of Enterprise*, which includes topics from the following fields:
 - Input-output analysis (multiplicative effects, linear programming, system of national accounts, I-O analysis of international trade)
 - Productivity and efficiency analysis (index analysis, SFA, DEA)
 - Consumer analysis (AIDS model)
 - Equilibrium analysis – estimation of partial and general equilibrium models
 - Econometric analysis of price transmission in the agricultural and food vertical
 - Vertical and horizontal integration of product verticals
 - Abuse of market power in product verticals

- Agrarian policy as part of the economic policy of the state
- Regulatory and subsidy mechanisms of agrarian markets
- Sustainable development of the countryside and society
- International business environment – foreign, international, global approaches
- Relative supply, relative demand and international equilibrium
- Relative prices and structure of international exchange
- Microeconomic aspects of economic policy
- Analysis of theoretical concepts of economic competition

The subject areas for discussion in both subjects and their updating are approved by the Doctoral Programme Board.

Dissertation Defence

In the fourth year of study, students focus primarily on completing their dissertations. Their obligation is to submit an application for the defence of the dissertation so that the thesis is defended within the standard period of study.

Publication activity requirements

The creative activity of the students is irreplaceable and is evaluated annually by the supervisor, the head of the department and the Doctoral Degree Programme Board during regular attestations of the students. The minimum requirements for the creative activity of students in DSP Sector Economics and Economics of Enterprise are:

1) According to Article 11, paragraph 1 of the Study and Exam Rules the DSP student must be the first author of at least one publication published or accepted for publication in a Web of Knowledge journal with a non-zero Impact factor index (IF) assigned in the publication year of the publication or in the SCOPUS journal with a non-zero Scientific Journal Ranking Index assigned (SJR) in the year of publication. Without fulfilling this requirement, the student is not allowed to defend his/her dissertation.

2) According to Article 8, Paragraph 3e of the Study and Exam Rules the DSP student must present at least once a year the results of their work at a recognized professional forum, scientific conference, symposium or seminar. Compliance with this obligation is confirmed by the supervisor and is also subject to evaluation by the Doctoral Degree Programme Board within the framework of the annual attestation.

Beyond these minimum requirements, a student can include other creative activities in his ISP (own research activity financed by research grants, preparation of other publications for journals listed in WoS or SCOPUS, participation in international conferences, etc.). It is assumed that the student will at least participate in grants from CZU's internal grant agencies and that he will participate in the creative activities of his supervisor, thereby acquiring the necessary creative skills.

The above-mentioned activities are part of the ISP and are evaluated with credits according to the Credit System (the preparation of grants and their solutions are evaluated indirectly, through the publications created).

Requirements for study visits

The individual study plan must, according to Article 8, paragraph 3f of the Study and Exam Rules, include a foreign study visit of a total duration of at least one month. The recommended inclusion of this activity is in the second or third year of study. After approval by the supervisor and head of the department, all study stays are registered in the university information system of CZU and evaluated by the number of credits according to the Credit System. According to Article 8, paragraph 3f of the Study and Exam Rules, the fulfilment of this obligation can be replaced by the student's active participation in solving an international research project with results published or presented abroad. Fulfilment of the requirement to complete the internship by this, in addition to the supervisor and the head of the department, the subject board also approves the form. After approval by the branch council, the DSP student will receive the number of credits according to the Credit System.

Other study obligations

Dissertation methodology defence

During the first year of study, each DSP student of Sector Economics and Economics of Enterprise elaborates on the Dissertation Methodology. The Dissertation Methodology mainly includes the research plan of the dissertation and the student elaborates it using knowledge from the Methodological Seminar, completed subjects, self-study and consultations with the supervisor. The framework curriculum of the dissertation is approved by the Doctoral Degree Programme Board. The student submits the dissertation methodology after being approved by the supervisor within one year from the start of the study. The methodology is reviewed by one member of the Doctoral Degree Programme Board and the DSP student then defends it in front of a committee set by the Doctoral Degree Programme Board. Successful defence of the Dissertation Methodology is a necessary precondition for progress to the second year of study.

Teaching Practice

According to Article 8, paragraph 6 of the Study and Exam Rules, part of the study in DSP Sector Economics and Economics of Enterprise is a pedagogical practice primarily used to develop presentation experience. This internship usually takes place for at least four semesters, with an average of four hours per week in one academic year. The total involvement of a student in the full-time form of study in classes may exceed six hours per week only with their written

consent. Exceptions to this pedagogical practice are permitted by the head of the trainee workplace by agreement with the supervisor.