Linnæus University

Dnr: LNU-2023/2552

Programme syllabus

School of Business and Economics

Nationalekonomi, masterprogram, 120 högskolepoäng
Economics, master programme, 120 credits

Level
Second Level

Date of Ratification
Approved by School of Business and Economics 2019-06-12

Revised 2023-09-13

The programme syllabus is valid from autumn semester 2024

Prerequisites
General entry requirements for second-cycle studies and a minimum of 30 credits in Economics, Statistics, Finance, Mathematics, or the equivalent and English 6 or the equivalent.

Description of Programme

The objective of the Master's programme in economics is to equip students with theoretical and empirical tools to analyse economic issues. As one of few universities in Sweden, we offer a modern programme which includes the option of taking a full semester of courses that integrate the latest methods for big data analytics and machine learning with economic policy analysis. Mathematical models are used to study the interaction between individuals, businesses, organisations, states and other actors in various markets. A large part of the course programme is devoted to building up an understanding of economic theory that is deeper than first-cycle studies. The programme also introduces students to more advanced empirical methods for descriptive analysis, identification of causal effects and economic experiments. Compared with first-cycle studies, a deeper understanding of econometrics and statistics in general is also achieved. The programme follows a nationally and internationally accepted structure with a base block of advanced courses in analytical methods, microeconomics, macroeconomics and econometrics. The base block is followed by a semester with a specialisation in economic methodology. Here the focus is to understand the role of the government in developed market economies, analysing the effects of various policy measures at the local and national level, and learning to evaluate such effects empirically. In the third semester, we offer optional courses that integrate big data analysis and machine learning with economic policy analysis to prepare our students for analysing big data sets. The students in the Master's programme in economics at Linnaeus University can also spend this semester with optional courses abroad through our well-developed exchange programme. This

semester could also be studied at another university in Sweden.
The programme is well suited for individuals who want to work with qualified tasks as investigators and analysts at government agencies, private firms and organisations, banks and financial institutes.
The programme aims to build up a general problem solving ability, which is useful in various professions. A Master's degree in economics at Linnaeus University is also an excellent preparation for further studies in economics at the doctoral level. The programme is conducted in close connection with research in economics at Linnaeus University, which primarily concerns labour market economics, public economics and macroeconomics. The researchers at the department belong to a large national and international network of researchers, which guarantees that the programme has strong ties to research.

Objectives

Central degree objectives in accordance with the Higher Education Ordinance

Knowledge and understanding
For a Degree of Master (120 credits) the student shall

- demonstrate knowledge and understanding in the main field of study, including both broad knowledge of the field and a considerable degree of specialised knowledge in certain areas of the field as well as insight into current research and development work, and
- demonstrate specialised methodological knowledge in the main field of study.

Competence and skills
For a Degree of Master (120 credits) the student shall

- demonstrate the ability to critically and systematically integrate knowledge and analyse, assess and deal with complex phenomena, issues and situations even with limited information
- demonstrate the ability to identify and formulate issues critically, autonomously and creatively as well as to plan and, using appropriate methods, undertake advanced tasks within predetermined time frames and so contribute to the formation of knowledge as well as the ability to evaluate this work
- demonstrate the ability in speech and writing both nationally and internationally to clearly report and discuss his or her conclusions and the knowledge and arguments on which they are based in dialogue with different audiences, and
- demonstrate the skills required for participation in research and development work or autonomous employment in some other qualified capacity.

Judgement and approach
For a Degree of Master (120 credits) the student shall

- demonstrate the ability to make assessments in the main field of study informed by relevant disciplinary, social and ethical issues and also to demonstrate awareness of ethical aspects of research and development work
- demonstrate insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used, and
- demonstrate the ability to identify the personal need for further knowledge and take responsibility for his or her ongoing learning.

Programme specific objectives

- demonstrating an ability to identify relevant socioeconomic problems and identify adequate methods to study them.
- demonstrating an ability to solve applied economic problems by using advanced theoretical and empirical analysis methods.

This is in accordance with the intended learning outcomes set for a masters' degree in the Swedish Higher Education Ordinance and School of Business and Economics' mission.

Content

Organisation

The Programme is placed and taught at the School of Business and Economics.

The Programme has a programme coordinator who has overall responsibility for the Programme and who serves as a representative of the Programme and coordinates Programme-related issues. The coordinator is responsible for the Programme's content and development and works actively to maintain good relationships and communication channels. This takes place with the Programme's teaching staff by means of continuous dialogue, with the Programme's students through a programme council, and with trade and industry through collaboration and interaction with relevant stakeholders.

Programme overview

The first year of the programme introduces, reinforces and applies various analytical economic methods and tools. The programme begins with a base semester with four compulsory courses with the aim of conveying relevant theoretical knowledge in mathematical methods, economic analysis and econometrics. The second semester is a specialisation semester with compulsory courses in economic methods and their use in analysing economic policy. In the programme's third semester, students are offered an optional course package that integrates big data analysis and machine learning with economic policy evaluation. The student also has the choice to take other courses at LNU or in Sweden or to study abroad. If a student goes on exchange, a programme coordinator coordinates the students' exchange studies. The fourth semester is devoted to the degree project where each student is assigned a principal supervisor and an assistant supervisor. The degree project can be carried out in cooperation with private companies, government agencies and other organisations.
In consultation with the programme coordinator, the courses in the programme can be exchanged with corresponding courses in the programme's specialisation. In such case, the programme coordinator checks that the programme's objectives are still met. The entry requirements for courses and the local rules for degrees at Linnaeus University must always be met.

Courses in the programme

Semester 1:

- Advanced Mathematical Economics 7.5 credits, A1N, (compulsory)*

This course gives the student the basic mathematical knowledge required for more advanced studies in economics. The course includes fundamental concepts in linear algebra, analysis in one and multiple variables and optimisation.

- Advanced Econometrics 7.5 credits, A1N, (compulsory)*

This course addresses statistical derivation, fundamental concepts in econometrics and identification issues. The students will learn different methods and to critically evaluate them based on modern statistical analysis. The students also learn to use statistical methods using Stata.

- Advanced Microeconomics 7.5 credits, A1N, (compulsory)*

Advanced Microeconomics is a course that gives the students a more in-depth understanding of consumption and production theory, equilibrium analysis, market failures, economic instruments, and game theory.

- Advanced Macroeconomics 7.5 credits, A1N, (compulsory)*

The course Advanced Macroeconomics takes up such subjects as economic growth, business cycles, consumption behaviour, financial theory, unemployment and macro-economic policy using advanced theories and methods.

Semester 2:

- Advanced empirical methods in economics 7.5 credits, A1F, (compulsory)*

This course introduces and analyses the most commonly occurring econometric methods in economics, such as selection methods, difference in differences, instrument variable regression and methods based on discontinuities.

- Advanced labour economics 7,5 credits, A1F, (compulsory)*

This course introduces students to the most common economic theories of the labour market and their empirical applications. The course addresses issues such as unemployment theory, human capital theory, wage setting and migration.

- Advanced public economics 7.5 credits, A1F (elective)*

This course analyses the role of government in the economy and the design of taxes and social insurance to promote an efficient resource allocation and a desirable distribution of incomes, combining theoretical models with empirical examples.

- Advanced economic methodology 7.5 credits, A1F, (elective)*

This course introduces the research process in economic research. Topics include the formulation of research questions, basics of economic methodology/philosophy of science, and examines the role of theoretical and empirical tools in economic research. The course also includes critically analysing scientific articles and research reports.

Alternative outcome to a one-year Master’s degree

- Economics, degree project (master) 15 credits, A1E (elective)*

The degree project aims for the students to write a Master's thesis in the main field of study (economics), to independently choose a relevant subject, implement the thesis work and show proficiency in all stages of the research progress, as well as participate in opposition seminars. The degree project overlaps with, and is not applicable to the

30-credit degree project (Economics, degree project (master), 30 hp).

Semester 3:

- Optional courses, 30 credits

The student has optional opportunities in this semester and can choose courses according to his or her own interest from the offering at LNU or at other Swedish universities. The student is offered a modern course package that integrates big data analysis and machine learning with economic policy evaluation.
Entry requirements for courses, as well as the rules of Linnaeus University and the internal rules of other universities must always be met.

Semester 4:

- Economics, degree project (master), 30 credits, A2E, (compulsory)*

The degree project aims for the student to write a full-semester Master's thesis focused on economics, independently choose a subject with theoretical relevance, conduct advanced thesis work and present and discuss the thesis at seminars.

Some of the courses on the Programme are studied together with students from other programmes and single subject courses, and may be taught in another order.

* course in the main field of study Economics

A Master's programme of 120 credits must, in accordance with the Higher Education Ordinance, contain at least 60 credits of specialised study in the main field, of which a degree project of at least 30 credits. Courses previously given within the same programme code, EANA2, can also be included in the programme degree and thus replace courses with equivalent content. For supplemental information, see the local Degree Ordinance.

Societal relevance
The economics profession is a profession of the future, as an increasingly complex and globalised economy requires societal actors to use economic analyses to inform their decision-making processes. The students in the programme become societal analysts with in-depth knowledge of socioeconomic issues and are equipped with relevant theoretical and empirical tools to analyse these issues. The focus on using econometric, big data, machine learning, and other analytical methods to analyse the effects of government policies is likely to be highly valued on the labour market, as governments, institutions and the private sector are faced with challenges in areas such as migration, population ageing, climate change, health and education. A Master's degree in economics provides a good foundation for analysing these and many other challenges in society.

Internationalization
Studies abroad can be pursued in semester 3. Internationalisation is an integrated part of the programme syllabus and learning environment. Students come from many parts of the world, which creates a genuinely international learning environment. Since development in the subject of economics largely takes place at an international level, the entire programme perspective is international.

Sustainable social development
All course literature in economics has an international perspective and the knowledge and skills obtained are broadly applicable. Both theoretical and practical applications are gathered from different parts of the world. Dialogue and exchange of experience between students from different parts of the world enriches the programme. In our courses in labour market economics, we illustrate how different people's conditions (such as ethnic background) affect outcomes in the working life. In our courses in public economics, the role of government in the economy is analysed from different perspectives. For example, the government can equalise differences in outcomes, but also differences in opportunities (equal life chances). In our applications of basic economic theory, various sustainability perspectives, such as those in relation to environmental issues and the structure of public policy, are also addressed. The programme uses educational and examination formats that stimulate the students' capacity for analysis, critical thinking, abstraction and theorisation.

Quality Development

Continuous evaluation and improvement of the Programme takes place, among other things, through the University's course evaluations, where the results are handled by the programme coordinator and programme council and feedback is then provided to students and archived. Programme students actively participate in the follow-up and development of the programme through the programme council and through student representatives in the faculty-wide Education Committee. All programmes of the School of Business and Economics also undergo a quality analysis based on the standards of the Association to Advance Collegiate Schools of Business (AACSB), and quality evaluations are conducted for all main subjects through the national quality assurance system with the help of UKÄ (Swedish Higher Education Authority). The School of Business and Economics' faculty-wide quality plan requires, among other things, that a recurrent programme analysis is conducted and that course evaluations are monitored. As part of the university-wide survey, the Linnaeus Barometer, students are asked about their experiences of their education in terms of different quality aspects.

Degree Certificate

After completing their studies which correspond to the requirements stated in the Higher Education Ordinance and in Linnaeus University's local Degree Ordinance, students may apply for a degree.
Students, who have completed the Economics, master programme, can obtain the following degree:

Students that have a qualifying first cycle degree with Economics as the main field of study , may obtain the following degree:

Master of Science (120 credits) in Business and Economics (Main field of study: Economics)

Ekonomie masterexamen (Huvudområde: Nationalekonomi)

Students with any other qualifying first cycle degree may obtain the following degree: :

Master of Science (120 credits) (Main field of study: Economics)

Filosofie masterexamen (Huvudområde: Nationalekonomi)

Students who have completed one year of the programme's two years, and meet the

requirements for a one-year Master's degree, and have a qualifying first cycle degree within the main field of study of Economics, can receive the following degree:

Master of Science (60 credits) in Business and Economics (Main field of study: Economics)

Ekonomie magisterexamen (Huvudområde: Nationalekonomi)

Students who have completed one year of the programme's two years, and meet the requirements for a one-year Master's degree, and have another qualifying first cycle degree than that referred to above, can receive the following degree:

Master of Science (60 credits) (Main field of study: Economics)

Filosofie magisterexamen (Huvudområde: Nationalekonomi)

The degree certificate is bilingual (Swedish/English). A Diploma Supplement (English) will be provided along with the degree certificate.

Other Information

In order to be admitted to the courses on the programme, the specific entry requirements stated in each course syllabus must be fulfilled by the start of the course. Should deviations be found between the Swedish and English version of this programme syllabus, the Swedish one is superior.