



Faculty of Arts and Social Sciences

Programme Syllabus

Reg. no. HS 2024/1317

Master Programme in Applied Economics and Advanced Analytical Methods

Programme code:	SANEA
Programme title:	Master Programme in Applied Economics and Advanced Analytical Methods <i>Masterprogram i tillämpad nationalekonomi och avancerade analysmetoder</i>
Credits:	120
Programme approval:	The programme syllabus was approved by the Faculty Board of Arts and Social Sciences on 10 March 2025 and is in effect as of the autumn semester of 2025.
Language of instruction:	English
Degree level:	Second (Master's)
Degree type:	Degree of Master of Science in Business and Economics (120 credits) with the possibility of a Degree of Master (60 credits)
Entry requirements:	A Degree of Bachelor of at least 180 credits, of which 90 credits are in Economics as the main field of study. Upper secondary school level English 6. Equivalence assessment can be made.

General information

The programme allows students to gain specialised knowledge in economics with a focus on applications and advanced analytical methods. Students gain skills to analyse complex societal problems, which is crucial for navigating a rapidly changing global economy. A solid foundation equips students to address societal challenges in dynamic environments and pursue diverse careers in both public and private sectors, by providing the tools and knowledge necessary for making well-informed, data-driven decisions.

Graduates from the programme will be qualified to perform independent investigative and analytical work in positions commonly found within government offices, state agencies, financial companies and consulting firms. Graduates are also eligible for doctoral studies in economics.

Programme outcomes

For programme completion, students must meet the national requirements for a Degree of Master (60 or 120 credits).

National outcomes for a Degree of Master (60 credits)

Knowledge and understanding

For a Degree of Master (60 credits) the student shall

- demonstrate knowledge and understanding in the main field of study, including both an overview of the field and 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 (60 credits) the student shall

- demonstrate the ability to 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 autonomously as well as to plan and, using appropriate methods, undertake advanced tasks within predetermined time frames
- demonstrate the ability in speech and writing to report clearly 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 employment in some other qualified capacity.

Judgement and approach

For a Degree of Master (60 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.

Independent project (degree project)

A requirement for the award of a Degree of Master (60 credits) is completion by the student of an independent project (degree project) for at least 15 credits in the main field of study.

National outcomes for a Degree of Master (120 credits)

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.

Independent project (degree project)

A requirement for the award of a Degree of Master (120 credits) is completion by the student of an independent project (degree project) for at least 30 credits in the main field of study. The degree project may comprise less than 30 credits, however no less than 15 credits, if the student has already completed an independent project in the second cycle for at least 15 credits in the main field of study or the equivalent from a programme of study outside Sweden.

Programme structure

The programme is designed with a focus on practical application based on current research. Issues on sustainable development and gender equality are central components in several of the courses throughout the programme as these aspects are discussed in relation to the subject area. The programme aims to equip students with the qualifications needed to manage complex and advanced tasks across various types of organisations. Generally, the courses are characterised by a focus on practical application, while being grounded in research. Students have an active role in the learning process and through independent assignments. In addition to lectures and exercises, teaching also consists of seminars based on written and oral presentations with a special focus on critically discussing methods, theories and assumptions.

Through the programme, students have the opportunity to develop an understanding of how theories and models used in economic research can be applied to real-world problems. The programme is designed to enhance the students' motivation and interest in the subject, as well as develop their problem-solving skills and critical thinking to prepare them for the challenges and opportunities they will encounter in their future career.

The general specialisation is applied economics. During the first semester, students take courses with a focus on methods in applied economics and advanced data analysis (econometrics). This semester is identical regardless if the student chooses to conclude with a 2-year master's (120 credits) or a 1-year master's (60 credits). In the second semester, students take courses that connect advanced analytical methods to their applications in various economic areas. Students choose the applications that best suit their interests, such as finance. For students who choose to conclude with a 1-year master's (60 credits), the semester ends with an independent project of 15 credits, while those choosing to conclude with a 2-year master's (120 credits) study theory courses of 15 credits. During the third semester, students choose to specialise in methods for applied economics and advanced data analysis, or to do a placement. The third semester also offers an opportunity to study abroad. In the fourth semester, students complete an independent project of 30 credits.

Programme curriculum

Note that the programme courses can have other titles and be offered in a different order than listed below.

Degree of Master (60 credits)*Semester 1*

- Behavioural economics (7.5 credits)
- Applied econometrics (7.5 credits)
- International macroeconomics (7.5 credits)
- Economic policy evaluation (7.5 credits)

Semester 2

- Public economics and politics (7.5 credits), or Portfolio analysis (7.5 credits)
- Economic growth/Macroeconomics (7.5 credits)
- Economics – independent project (15 credits)

Master (120 credits)*Semester 1*

- Behavioural economics (7.5 credits)
- Applied econometrics (7.5 credits)
- International macroeconomics (7.5 credits)
- Economic policy evaluation (7.5 credits)

Semester 2

Elective courses comprising 30 credits:

- Public economics and politics (7.5 credits), or Portfolio analysis (7.5 credits)
- Economic growth/Macroeconomics (7.5 credits), or Corporate finance (7.5 credits)
- Environmental and natural resource economics (7.5 credits), or Price theory (7.5 credits)
- Labour economics (7.5 credits), or Financial risk management (7.5 credits)

Semester 3

- Optional course (7.5 credits)
- Elective courses comprising 22.5 credits: Causal inference (7.5 credits), Industrial organisation and business strategies (7.5 credits), Time series analysis (7.5 credits), or Economics, advanced practical training (15 credits)

Semester 4

- Independent project in economics – master (30 credits)

Degree title

Students who have already completed a Degree of Bachelor of Science in Business and Economics will be awarded the following degree title:

Degree of Master of Science in Business and Economics (60 credits)

Main field of study: Economics

Degree of Master of Science in Business and Economics (120 credits)

Main field of study: Economics

Students who have already completed a Degree of Bachelor of Science with Economics as the main field of study will be awarded the following degree title:

Degree of Master of Science (60 credits)

Main field of study: Economics

Degree of Master of Science (120 credits)

Main field of study: Economics

Students who have already completed a Degree of Bachelor of Science in Political Sciences with Economics as the main field of study will be awarded the following degree title:

Degree of Master of Political Sciences (60 credits)

Main field of study: Economics

Degree of Master of Political Sciences (120 credits)

Main field of study: Economics

Credit transfer

According to the Higher Education Ordinance, Chap. 6, Sect. 6–8, students have the right to transfer credits and have prior learning recognised upon approval.

Additional information

The local regulations for first and second cycle education at Karlstad University stipulate the obligations and rights of students and staff.