

SLUkurs

Agroecology - Master´s Programme

Version 3. Is valid between autumn 2019 and spring 2020

DECISION

Programme code:

LM005

Scope:

120 ECTS

Date:

2018-10-11

Decision by:

Utbildningsnämnden

SLU Id:

SLU ua 2018.3.1.1-3693

Board responsible:

Programnämnden för utbildning inom landskap och trädgård (PN - LT)

PRIOR KNOWLEDGE AND OTHER ENTRY REQUIREMENTS

To be eligible for the Agroecology – Master’s Programme, the requirements are:

- general entry requirements: a Bachelor’s degree (undergraduate cycle) corresponding to a minimum of 180 credits
- specific entry requirements: 90 credits specialisation in one of the following subjects/educational areas:
 - Natural sciences,
 - Social sciences,
 - Technology.

The specific admission requirements according to the above can also be fulfilled by those having corresponding qualifications from a foreign degree or if corresponding qualifications have been obtained in alternative ways.

In addition, knowledge corresponding to English 6 (Swedish secondary school) is required. This is according to a local SLU decision fulfilled by those who have a degree comprising at least 180 credits at first cycle level from a Swedish higher educational institute or 120 credits completed studies at SLU. English 6 can also be achieved in other ways, which are specified at universityadmissions.se.

For entry to the different courses included within the programme, the specific entry requirements prescribed for each individual course apply.

INTENDED LEARNING OUTCOMES

General objectives

The general objectives for first- and second-cycle courses and programmes are specified in the Swedish Higher Education Act (Chapter 1, Sections 8–9).

Objectives for a Degree in XX

In accordance with the appendix to the Ordinance for the Swedish University of Agricultural Sciences, for a Degree of Master, the student shall have:

Knowledge and understanding

- 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

- 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 specialised 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 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 autonomous employment in some other qualified capacity.

Judgment and approach

- demonstrate the ability to make assessments in the main field of study informed by relevant disciplinary, social and ethical considerations 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.

DEGREE

Degree awarded on completion of the programme

Agroecology – Master’s Programme aims at a Degree of Master of Science with a major in Agricultural Science, a general qualification. See local instructions.

Students who fulfill the qualification requirements for the Degree of Master of Science (120 credits) will be provided with a degree certificate upon request. The degree certificate will specify the qualification as Degree of Master of Science (120 credits) with a major in Agricultural Science.

Degree requirements

A Degree of Master of Science (120 credits) with Agricultural Science as the main field of study will be awarded on completion of the course examinations (Pass grades) to the value of 120 credits, with the following requirements:

- a minimum of 30 credits courses shall concern in-depth study within Agricultural Science (A1N; A1F),
- a minimum of 30 credits shall concern independent work (degree project) within Agricultural Science (A2E),
- a maximum of 30 credit courses at first cycle level.

In addition the student must hold a Degree of Bachelor or professional qualification of at least 180 credits or an equivalent qualification.

CONTENT AND OUTLINE

Programme description

The Agroecology – Master’s Programme strives to provide a holistic understanding of how biological processes, biophysical and socio-economic conditions interact and influence sustainable development of farming and food systems. Agroecology is an interdisciplinary subject, with foundations in biology (with emphasis on ecology), economics, sociology and technology, as well as interdisciplinary sciences such as agricultural, horticultural and environmental sciences. The programme combines research-based and scientific knowledge with experiential knowledge obtained through interactions with e.g. farmers and, as well as issues related to practical applications.

The programme emphasizes opportunities and obstacles for sustainable development of agricultural production, with a system perspective that integrates the economic, environmental and social sustainability dimensions. Therefore, ecosystem services, economics, environmental factors, resource use, social interactions and incentives that influence the agroecosystem are important elements of the studies.

The programme begins with courses that provide basic knowledge in agroecology and sustainability assessment of agricultural production systems. Thereafter, students can choose to deepen their knowledge in environmental economics, environmental impacts in crop production, project management, business management, stakeholder collaboration, scientific methods and insight into research work and the possibility to study abroad at one of SLU's partner universities. The programme ends with an independent project in which the student chooses a topic that is investigated in relation to agroecological knowledge, system thinking and sustainable development in an agricultural and/or food system perspective.

The courses aim to develop and deepen the student's knowledge in agroecology. Within the courses, a broad knowledge base is provided by the use of e-cases (digital case studies) as real-life cases for studies of an agricultural system - often a farm or related agribusiness - is to be analyzed with the aim to identify potential improvements. The tasks include both preparation and planning as well as selecting suitable tools for evaluating the studied system.

The courses within the Agroecology – Master's Programme utilize many different teaching methods to stimulate the students' learning and self-activity throughout the programme. Both teacher- and student led knowledge mediation and discussion take place at lectures, literature studies, seminars, study visits, case studies, project work, assignments, essays and thesis work. Knowledge and understanding achieved by using models and tools play a key role in the programme. The teaching methods are applied in practical terms that reflect the unique conditions of different situations and are followed up by methodological interpretation and analysis. The choice of suitable method is also an important part of the students' own planning and problem formulation for specific assignments throughout the studies.

After the programme, the student should have skills related to system thinking in an interdisciplinary perspective and be able to identify actions that promote sustainable development. Students should be able to initiate or participate in multi-actor collaboration with the aim to develop and implement solutions for enhanced sustainability at farming or food system levels. The Master's Programme has a clear link to current research and global issues, which provides good possibilities for employment both nationally and internationally after graduation.

The programme is taught in English.

Courses in the programme

Agroecology Basics, 15 credits (Agricultural Science/Horticultural Science, A1N)
 Agroecology and Sustainability of Production Systems, 15 credits (Agricultural Science /Biology, A1N)

Environmental Economics and Management, 15 credits (Agricultural Science/Business Administration, A1N)

Project Management and Process Facilitation, 15 credits (Agricultural Science/Horticultural Science, AXX)

Scientific Methods, Tools and Thesis Writing, 15 credits (Agricultural Science/Horticultural Science, A1N)

Environmental Issues in Crop Production, 15 credits (Biology/Horticultural Science, A1N)

Project Based Research Training, 15 or 30 credits (Agricultural Science/Horticultural Science, A1F)

Degree Project, 30 credits (Agricultural Science, A2E)

The courses offered may change during the course of the programme. Decisions on the courses offered are taken well in advance of the next academic year.

Course syllabus – detailed information is available on the SLU student web.

OTHER INFORMATION

General regulations for first- and second-cycle courses and programmes

For more information on semester dates, examination and credit transfer, see the Regulations for education at Bachelor's and Master's level available on the SLU student web.

Possibilities for further studies

Students who complete the Agroecology – Master's Programme and are awarded a degree have the possibility to continue their studies at doctoral level.