



## SLUkurs

### **Horticultural Management - Gardening and Horticultural Production, Bachelor´s Programme**

**Version 6.** Is valid from autumn 2022

#### **DECISION**

**Programme code:**

LK005

**Scope:**

180 ECTS

**Date:**

2016-12-08

**Decision by:**

Utbildningsnämnden

**Revised by:**

2021-10-27

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

**SLU Id:**

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**Board responsible:**

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

#### **PRIOR KNOWLEDGE AND OTHER ENTRY REQUIREMENTS**

##### **Previous studies**

Admission to the Horticultural Management: Gardening and Horticultural Production - Bachelor´s Programme requires, besides general eligibility, special eligibility as specified in field-specific eligibility A14 (general exception from the demand for Social Studies 1a2):

- Mathematics 2a or Mathematics 2b or Mathematics 2c
- Natural Studies 2 (can be replaced by Biology 1, Physics 1a, Chemistry 1 or Biology 1, Physics 1b1+1b2, Chemistry 1)
- Social Studies 1b eller Social Studies 1a1

Grade requirements: in each individual course above, the applicant must have earned at least a pass grade.

There are more replacement possibilities for courses within the field-specific eligibility.

The requirements for special eligibility can also be fulfilled with corresponding qualifications from current or earlier Swedish education. The requirement can also be fulfilled if the corresponding knowledge has been acquired in some other way.

Admission to the different courses included in the programme is subject to individual eligibility requirements for each one.

## **INTENDED LEARNING OUTCOMES**

### **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 Bachelor, the student shall have:

#### *Knowledge and understanding*

- demonstrated knowledge and understanding in the main field of study, including knowledge of the disciplinary foundation of the field, understanding of applicable methodologies in the field, specialized study in some aspect of the field as well as awareness of current research issues.

#### *Competence and skills*

- demonstrated the ability to search for, gather, evaluate and critically interpret relevant information for a formulated problem and also discuss phenomena, issues and situations critically
- demonstrated the ability to identify, formulate and solve problems autonomously and to complete tasks within predetermined time frames
- demonstrated the ability to present and discuss information, problems and solutions in speech and writing and in dialogue with different audiences, and
- demonstrated the skills required to work autonomously in the main field of study.

#### *Judgement and approach*

- demonstrated the ability to make assessments in the main field of study informed by relevant disciplinary, social and ethical issues
- demonstrated insight into the role of knowledge in society and the responsibility of the individual for how it is used, and
- demonstrated the ability to identify the need for further knowledge and ongoing learning.

In accordance with the appendix to the Ordinance for the Swedish University of

Agricultural Sciences, for a Higher Education Diploma in Horticultural Management, the student shall have:

*Knowledge and understanding*

- demonstrate knowledge of relevance for the horticulture sector, based on scientific principles, within biology, technology, business economics and horticultural science or landscape planning
- have insights into the horticulture market in Sweden and internationally and have basic knowledge of how businesses and their stakeholders operate
- have basic knowledge of how plants function as biological organisms and of their interactions with other organisms and the environment
- have knowledge of how to work for sustainable development
- have knowledge of controlling a horticultural crop to a specified time, quantity and quality based on the demands of the market and predict the environmental consequences within both small and large companies and enterprises
- have knowledge and understanding of the marketing of horticultural products in the value chain from production to consumption and of quality and product development

*Competence and skills*

- demonstrate an ability to identify problems and issues relevant for the horticulture area
- demonstrate an ability to locate and evaluate information within the horticulture area in a critical manner
- demonstrate the skill and ability to communicate knowledge of the horticulture area, both orally and in writing, to various target groups

*Judgement and approach*

be aware of ethical issues concerning the impact of the horticulture sector on biological systems and their relations to the individual, the environment and society at different levels.

**DEGREE**

**Degree awarded on completion of the programme**

The Horticultural Management: Gardening and Horticultural Production - Bachelor's programme aims at a bachelor's degree, and enables a Higher Education Diploma in Horticultural Management, which is a professional qualification. Other degrees may be awarded after completion of the programme, provided that the requirements for the degree are fulfilled. See local instructions.

Students who fulfill the qualification requirements for the Degree of Bachelor (180

credits) will be provided with a degree certificate upon request. The degree certificate will specify the qualification as Degree of Bachelor of Science with a major in Horticultural Science (180 credits).

Students who fulfill the qualification requirements for the professional qualification will be provided with a degree certificate upon request. The degree certificate will specify the qualification as Higher Education Diploma in Horticultural Management (120 credits).

### **Degree requirements**

Bachelor's degree according to the programme syllabus with the main field of study Horticultural Science is awarded following completion of course requirements (passed courses) of 180 credits, including the following demands:

- 120 credits mandatory programme courses,
- a minimum of 60 credits within Horticultural Science(G1N; G1F),
- a minimum of 15 credits specialized study in Horticultural Science(G2F),
- a minimum of 15 credits independent project within Horticultural Science(bachelor's project/G2E).

A maximum of 30 credits in a Bachelor's degree may consist of passed courses at second cycle level.

A Higher Education Diploma in Horticultural Management is awarded after fulfilled course requirements (passed courses) of 120 credits, including the following demands:

- 105 credits programme courses, from which a minimum of 90 credits from the compulsory programme courses,
- 15 credits independent project according to established instructions for the programme.

## **CONTENT AND OUTLINE**

### **Programme description**

Horticultural Management: Gardening and Horticultural Production – Bachelor's programme provides knowledge of relevance for sustainable development in the horticultural sector. The Bachelor's programme consist of 120 credits compulsory programme courses on academic year 1-2, followed by 45 credits optional courses and Bachelor's degree project on academic year 3. The compulsory courses provide necessary basic and applied knowledge, based on horticultural science, biology, technology and business administration, while the elective courses give possibility for specialisation and in-depth-studies. Elective courses are presented in the schedule

but relevant courses can also be chosen outside the programme, at e.g. another higher education institution. In most cases, they need to be evaluated for including in the degree. During the education there are also good possibilities to locate a semester at one of SLU's partner universities abroad. Business connection is clear in the programme. There are possibilities to choose a practical training course, a project course where problem-solving in relevant companies is trained as well as that degree project can be performed in collaboration with an external partner. Knowledge of horticultural plants and their different end uses, the value chain from production to consumption as well as horticultural market in Sweden and internationally are of importance in the programme. Understanding of how companies function, the concept of quality, product development and marketing of horticultural products are centrally in education. To be able to control plant production to a defined time, quantity and quality based on market's requirements as well as anticipate environmental impacts in both smaller and larger companies are basic. How plants function as biological organisms and their interactions with environment and other organisms give basis for knowledge of sustainable crop production and product quality.

To identify problems and issues relevant for horticultural sector, to search and evaluate information on a critical way as well as to communicate knowledge in horticulture both orally and in writing, towards different target groups are important proficiencies trained in the programme. Understanding of ethical questions concerning horticultural sector's influence on biological systems and its relation to individuals, environment and society on different levels are discussed in relevant context.

The programme is given mainly in Swedish, whereas elective courses in English can occur.

### **Courses in the programme**

#### *Year 1 (compulsory courses)*

Botany, 7,5 credits (biology/horticultural science, G1N)

Basic chemistry, 7,5 credits (chemistry/horticultural science, G1N)

Crop management and quality of horticultural products, 15 credits (horticultural science/biology, G1N)

Technology, Soil and Climate for Horticultural Production 15 credits (technology/horticultural science, G1N)

The horticultural market, 15 credits (business administration/horticultural science, G1N)

#### *Year 2 (compulsory courses)*

Plant Protection, Basic Course, 7.5 credits (biology/horticultural science, G1N)

Basic Course in Plant Physiology 7.5 credits (biology/horticultural science, G1F)

The horticultural firm, 15 credits (business administration/landscape architecture, G1N)

Crop Management in Horticultural Business, 15 credits (biology/horticultural science, G1F)

Horticultural Production Systems, 15 credits (biology/horticultural science, G1F)

*Year 3 (elective courses, compulsory Independent project)*

Production and processing of fruits, berries and grapevine, 15 credits (biology/horticultural science, G2F)

Basic ecology, 7.5 credits (biology, G1F)

Basic Statistics with Applications to Natural Sciences, 7.5 credits (statistics, G1N)

Basic and applied ecology, 15 credits (biology, G1F)

Healthcare gardens, 15 credits (landscape architecture, horticultural science, G2F)

Project Course in Horticulture, 15 credits (horticultural science/biology G2F)

Plant Breeding and Plant Physiology, 15 credits (biology/horticultural science, G2F)

Hydroponic Systems in Horticultural Production and Public Environment, 15 credits (biology/horticultural science, G2F)

Sustainable Production Systems in a Global Perspective, 15 credits (biology/agricultural science, G2F)

Postharvest - Biology and Technology, 15 credits (biology/horticultural science, G2F)

Plant chemistry and biochemistry, 15 credits (biology/ chemistry, G1F)

Plant protection and microbiology, 15 credits (biology/horticultural science, G2F)

Urban Agriculture and Social Interaction, 15 credits (landscape architecture, horticultural science, G2F)

Horticultural Practice, 15 credits (horticultural science, GXX)

Practical research training, 15 credits (biology/horticultural science, A1N)

Independent project in Horticulture Science, 15 credits (horticultural science, G2E)

*Year 1-3 (optional course)*

Work Experience Course, 15 credits (horticultural science, GXX)

Exchange studies can be carried out during autumn or spring semester in year 3.

Every programme course has a syllabus stating specific information for the course. Detailed information about course dates can be found on SLU:s student web.

The range of courses can alter during the education, which can lead to a new version of the programme syllabus where, if necessary, information about provisional

regulations is given. Decision about range of courses will be made well in advance before upcoming academic year.

## **TRANSITIONAL REGULATIONS AND OTHER REGULATIONS**

### **Transitional regulations**

If courses are permanently cancelled, the demand for compulsory courses can be fulfilled through available programme courses, but each individual case will be tried for crediting.

### **Possibilities for further studies**

Students who complete the Horticultural Management: Gardening and Horticultural Production - Bachelor's Programme and are awarded a Degree of Bachelor have the possibility to continue their studies at second cycle level.