Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLU's main fields of study with subject descriptions[1]

Main field of study:	Name in Swedish:	Degree	
		Bachelor's	Master's
Agricultural science	Lantbruksvetenskap	X	X
Animal science	Husdjursvetenskap	X	X
Bioinformatics	Bioinformatik		X
Biology	Biologi	X	X
Business administration	Företagsekonomi	X	X
Chemistry	Kemi	X	X
Economics	Nationalekonomi	X	X
Environmental psychology	Miljöpsykologi		X
Environmental science	Miljövetenskap	X	X
Equine science	Hippologi	X	
Food science	Livsmedelsvetenskap	X	X
Food studies	Mat- och måltidsstudier	X	X
Forest management	Skogshushållning	X	X
Forestry science	Skogsbruksvetenskap	X	X
Forest science	Skogsvetenskap	X	X
Horticultural science	Trädgårdsvetenskap	X	X
Landscape architecture	Landskapsarkitektur	X	X
Rural development	Landsbygdsutveckling	X	X
Soil science	Markvetenskap	X	X
Sustainable development	Hållbar utveckling	X	X
Technology	Teknologi	X	X
Veterinary medicine	Veterinärmedicin	X	X
Veterinary nursing	Djuromvårdnad	X	X

[1] Decision by the Board of Education's chair on 29 March 2021 (SLU ID: SLU.ua.2021.1.1.1-1217).

Postal address: Box 7070, 750 07 Uppsala
Street address: Almas allé 8, Ultuna
Organisation ID No.: 202100-2817
www.slu.se

Tel.: 018-67 10 00
Mob. 070-201 81 62
Johan.Toren@slu.se

Previous main field of study

Landscape Planning	Landskapsplanering

Agricultural science

Agricultural science is the science of the agricultural sector's conditions, function, and interaction with the environment and human society, of agricultural resources and methods for the production of goods and services, and the processing of and markets for its products.

The concept of agriculture includes farming, forestry, horticulture and other activities in agricultural companies. Agriculture here mainly refers to crop production and animal production, i.e., the use of land, plants and animals for the production of goods and services. The agricultural industry consists of agricultural companies together with associated commercial activities. The agricultural sector consists of the agricultural industry and the activities of public organisations related to agriculture.

The subject of agricultural science considers agriculture as a complex system (agro-system) that is studied from a variety of perspectives. The connections between the conditions and production processes of the biological systems and the conditions, needs and actions of the producer, the sector and society are central to the subject. This applies locally, regionally, nationally and globally. The subject includes descriptions and analyses of these conditions and processes, but above all methods for managing and influencing the biological systems in a direction desired by humans and the effects of such an impact on the environment and the rest of society. The value-creating processes of agriculture, which are valued partly in markets and partly through political systems, are another central aspect.

Agricultural science also deals with the meanings and interpretations of the concept of agriculture, values that form the basis for human use of land, plants and animals, and the diverse development of agriculture over time and in different places. The subject deals with applied issues of relevance to companies and society.

At SLU, *agroecology* is defined as a specialisation in agricultural science based on the following description: agroecology integrates knowledge from sustainability science and agricultural science when studying the ecology and sustainability of food systems. The focus is on the interplay between ecological, social and economic processes in food production, which is studied and processed through a system perspective that includes all three sustainability dimensions (economic, environmental and social). Research and education in agroecology strives for system thinking, interdisciplinarity and stakeholder collaboration, with the aim of identifying, designing and implementing measures that lead to more sustainable agricultural and food systems.

Disciplinary foundations and delimitations

The subject of agricultural science is based on knowledge and methods from primarily natural, social and technical sciences, but also the humanities and behavioural sciences. Since agricultural science is intertwined with and builds on

several other subjects at SLU, this means that courses can be classified in two subject areas.

Working with problem solving and communication, both independently and in different types of groups, is essential in the field. A holistic view is sought when assessing problems and possible solutions. The ability to strike a balance among different interests is important.

Animal science

The subject of animal science includes knowledge of the animals kept by humans for different purposes, such as production, performance, sports, companion and research. The subject spans several research areas and aims to understand the connections between the animals' physiological conditions and the environment in which humans keep them.

In animal science, we study how genetic resources and production/performance systems interact. We study the use and usefulness of feed resources, nutrient utilisation in animals and the environmental impact of animal husbandry. The connections between breeding, feeding, housing, management, animal performance, production, product quality, health, behaviour, and welfare are central to animal science.

Animal science primarily includes the following fields:

- anatomy, histology and physiology
- genetics and breeding
- nutrition and feed science
- ethology and animal welfare
- animal husbandry systems animal management.

Disciplinary foundations and delimitations

Animal science is a well-established scientific subject that is widely practised internationally. Research in the field is published in international journals for animal science and for related subjects.

Animal science is essentially a subdomain of biology that encompasses basic and applied aspects of production and performance capacity of individual animals and animal populations. The field also includes studies in the origin of domestic animals. The subject area includes studies in chemistry, biochemistry, cell biology, genetics and microbiology. Some aspects are related to veterinary medicine, economics and technology. It differs from veterinary medicine in that animal science focuses on healthy animals and animal populations.

Bioinformatics

Bioinformatics is an interdisciplinary subject combining biology, mathematics and computer science for managing, structuring, visualising, modelling and analysing biological data. Computer science, mathematical and control technology methods and theories are used to model complex biological systems. Biological sequences (DNA, RNA and proteins) are the most common type of data used in bioinformatics, but other types of biological data can also be included, such as morphological data, three-dimensional structures of biological molecules (proteins, RNA), biological networks (metabolic, physical interacting, genetic, ecological, etc.), and structure-based and network-based models.

Bioinformatic methods include investigations of biological problems to obtain new knowledge and the development of algorithms, theories, modelling methods, and statistical techniques to solve problems connected with the management and analysis of biological data. Investigations can include such things as sequence comparisons, phylogenetic analyses, population genetics, biometrics, protein structure comparisons, joining of genome sequences for complete genomes, characterising complete genomes (genomics), comparing two or more genomes (comparative genomics), large-scale gene expression analysis (transcriptomics), large-scale protein identification and quantification (proteomics), large-scale analysis of physical interactions between protein types (interactomics), large-scale analysis of phenotypes (phenomics), and large-scale analysis of metabolites (metabolics).

The explosive increase in biological sequence data over the past 20–30 years means that bioinformatics today is an inevitable part of many areas in biology, including systematics, genetics, biochemistry, molecular biology, cell biology, structural biology, ecology and microbiology. Bioinformatics has also become an invaluable tool in biotechnology and medicine. The subject can be linked to virtually all of SLU's applied areas that are based on natural sciences, including environmental assessment, food production ("from field to plate"), sustainable use of natural resources, and animal health and welfare.

Biology

The subject of biology is the science of all life forms on earth, their structures, functions, interactions and relationships. The subject studies the organisation and functions of living organisms, reproductive capacity, genome, growth and development and how they spread and interact with their environment. Biology spans a large range of specialised research disciplines that include both basic and more applied research domains.

At SLU, the anthropogenic aspect of biology is central; human dependence and impact on natural biological resources in a broad sense is fundamental to most biology subjects. This means that biology is studied not only in itself, but also often in an interdisciplinary context with societal relevance as a way of sustainably managing biological natural resources. SLU conducts education and research in several biological subdisciplines and defines its fields as follows.

Molecular biology

Molecular biology describes the molecular structure and function of cells and includes processes in cells. At SLU, we study processes like photosynthesis, enzyme catalysis, chemotaxis, bacterial adhesion, cellulose degradation, antibiotics synthesis and cell differentiation at a molecular level. Structural biology, molecular biology, biochemical methodology and bioinformatics are central tools for this work.

Cell biology

Cell biology looks at cell structure, function, regulation and interactions between cells in tissues and organs. The discipline also includes the changes that cells undergo when they divide and differentiate during an organism's development and the study of pathological changes. Signalling, metabolism, defence and adhesion have a particular emphasis at SLU.

Microbiology

Microbiology includes the science of microorganisms, which are independent, usually single-cell organisms. This includes a diverse group of bacteria, archaea, yeasts, microfungi, protozoa, single-cell algae and viruses. At SLU, we study the impact of environmental factors on the structure of microbial societies in complex ecosystems, such as in soil, water and the biogas process, and the positive properties of microorganisms in food and feed.

We also research microorganisms as pathogens on plants and animals, and we use these as models for understanding important biological processes. In addition, we study how to formulate and risk assess microorganisms that will be utilised for human purposes, e.g., as a pesticide. We also conduct research on the capacity of bacteria to cause disease, on vaccine development and on antibiotics.

Mycology

Mycology deals with fungi and their systematics, genetics, anatomy, physiology and ecology. At SLU, specific connections and interactions between fungi and higher level plants are studied (e.g. mycorrhiza in plant pathology).

Genetics

Genetics includes the study of the structure, function and evolution of the genome, the biological function of genes and biological variation. Molecular genetics deals with the organisation and function of the genome at the molecular level. This includes the study of gene expression, including the rapidly growing field of epigenetics. Plant genetics studies heredity and includes quantitative genetics and population genetics. Plant breeding is about developing new/better crops using knowledge of genetic variation and of the genetic background for different biological characteristics. Animal genetics includes knowledge in population genetics and quantitative genetics for domesticated animals aimed at developing and preserving their genetic resources.

Plant biology

Plant biology is about plant forms, functions, responses, products and relationships. Systematics is the theory of relationships between species and higher units (taxa); taxonomy is about what characterises species (species delimitation) and how taxa should be named. Morphological botany and plant anatomy deal with the shape, composition and structure of plants. Dendrology is the study of ligneous or woody plants. Plant physiology includes the various functions and processes of plants, such as photosynthesis, nutrient uptake, water management, growth, development, flowering, the function and signalling of plant hormones, perception, interaction and growth rhythms. SLU conducts extensive studies, especially on plants that are of economic/cultural importance. Plant production is about human actions that affect biological production in different environments and situations (agriculture, forestry, horticulture). Humans utilise conditions for the cultivation of crops by influencing the interaction between useful plants, soil, nutrients, pests and weeds.

Zoology

Zoology is about the forms, functions, responses, products and relationships of animals. Systematics is the theory of relationships between species and higher units; taxonomy is about what characterises species (species delimitation) and how taxa should be named. Morphology is about the animals' outer structure; anatomy refers to their internal structure. Histology is the study of tissues. Physiology includes basic animal life processes and functions, such as nutrient uptake, metabolism, temperature regulation, reproduction, growth, development, hormone function and signalling, and perception. Animal physiological reactions to external disturbances are studied in immunology, pharmacology and toxicology. Ethology studies species-specific behaviours and how these are affected by external and internal factors. SLU conducts extensive studies of animals used by humans. Animal husbandry is about human actions that often affect animals biologically.

The human impact is particularly important for the production and performance capacity of individual animals and animal populations.

Entomology

Entomology includes the study of insects and arachnids. It includes such areas as systematics, genetics, anatomy, physiology and ecology. SLU has a particular focus in its studies on the interactions between insects and higher plants and animals (e.g., in plant pest science, animal pathology and pollination). This knowledge base can allow the development of methods for species conservation (nature conservation) and biological control (plant protection).

Ecology

Ecology describes the interaction of living organisms with each other and their surroundings. Ecology can be divided into chemical ecology, population ecology, community ecology, ecosystem ecology, evolutionary ecology and behavioural ecology. The first four of these are primarily represented at SLU. Population ecology describes the connections within a population of the same species or between different species. Community ecology (sometimes included in population ecology) is about the connections between different species and the processes that determine the dynamics and structure of species communities (e.g., biodiversity). Ecosystem ecology deals with the connections between organisms and the abiotic environment, where flows of energy and substances are central. Ecology can also be subdivided based on the type of ecosystem being studied. At SLU, the focus is on the ecology of forests, arable land and freshwater. Plant protection biology focuses particularly on developing sustainable and environmentally friendly methods for controlling pests through knowledge of ecological connections.

Disciplinary foundations and delimitations

Biology is a well-established scientific subject with a well-developed theory and method base and is widely applicable internationally. Scientific development occurs mainly within those parts of the subject connected to the above-noted sub-disciplines.

There are close links between biology and other subjects. Biology touches on several scientific disciplines and applications in biochemistry, biometrics, biomechanics, bioenergy and other areas. However, these are considered a part of chemistry, mathematics, mathematical statistics and technology.

Biology interacts with certain other, often thematic, subjects at SLU. These subjects are largely based on biological knowledge with applications in specific subject areas. This means that courses can be classified in two subject areas.

Business administration

Business administration includes knowledge of and understanding of how companies and other organisations function internally and how they relate to the world around them. The subject includes theories, methods and techniques concerning planning, governance, evaluation and development of company operations.

At the undergraduate level, business administration primarily includes the following fields:

- financial control
- organisation
- marketing.

Financial control comprises the sub-disciplines of accounting, financing and business management. Financial management systems provide a basis for external and internal stakeholders to evaluate and influence the development of operations.

Organisational theory deals with the design, development, governance and management of organisations. How organisations are designed affects and is affected by the dependencies within companies and between companies and their environment. The programme develops understanding of different requirements for division of labour, the design of assignments and knowledge of how activities can be managed, controlled and developed.

Marketing deals with the company's relationships with customers, suppliers and other stakeholders in its network. The company's marketing strategy affects and is affected by its resources and its design of the internal organisation and the financial management systems.

At the Master's level, the subject business administration is partly general but also has significant applications for agricultural companies and companies in the food-industry value chain, forestry and the forest-industry chain, and horticultural companies and their markets. Applications in sustainable development, landscape and the environment are also common.

Disciplinary foundations and delimitations

Business administration is a well-established social science discipline found around the world that borrows concepts and analysis tools from economics, mathematics, statistics, sociology, psychology and other fields. The subject area focuses on methods for managing the operations of companies and other organisations so that they develop in the desired direction.

Chemistry

The subject of chemistry describes how elements and chemical compounds are structured, how they behave and how they react with each other. Chemistry is an important subject area at SLU, and a large number of departments work with chemical questions, most often with applications in the chemistry-biology-soil science subject area.

SLU teaches and conducts research mainly in the following chemical sub-disciplines:

- organic chemistry
- inorganic chemistry
- physical chemistry
- analytical chemistry
- biochemistry.

By definition, organic chemistry is the chemistry of carbon-containing compounds and includes the structures, properties and reactions of the biomolecules that occur in living systems. Organic chemistry is thus strongly linked to the fields of biology, pharmacology and medicine. Inorganic chemistry describes how all the elements and all inorganic chemical compounds arise, behave and react. Inorganic chemistry is usually divided into solid state chemistry, solution chemistry and coordination chemistry.

Physical chemistry describes and explains the structure, interactions and reaction pathways of chemical substances based on established physico-chemical principles, both theoretical and experimental. Analytical chemistry strives to correctly identify (qualitative analysis) and quantify (quantitative analysis) substances, often in very low concentrations (trace analyses). Environmental chemistry has an interdisciplinary character and includes trace analysis of environmental pollutants, how environmental pollutants are released, dispersed and broken down in the environment, and their effects on both organisms (including humans) and the abiotic environment. Analytical natural product chemistry is also studied at SLU.

Biochemistry describes the compounds that build up and occur in living systems – the chemistry of life. Biochemistry deals not only with how the molecules of life are structured and what reactions they are part of, it also looks at molecular aspects of how they function in the cell and interact with other molecules to provide together the conditions for life. This also includes bioinformatics and gene cloning.

Disciplinary foundations and delimitations

Chemistry is a well-established scientific subject with a well-developed theoretical and methodological base and is widely applicable internationally. Most scientific development within the subject of biology is related to the above-noted sub-disciplines.

Chemistry is the basis of and is integral to several other subjects offered at SLU. This applies above all to biology, soil science, food science and environmental science. For this reason, courses can be classified in two subject areas.

Economics

Economics includes theories and methods for society's management of scarce resources. An essential aspect of this management is how scarce resources are allocated among different users, e.g., distribution of capital and labour between production sectors in different regions and countries. Another is how their use is distributed and developed over time, which can be seen in economic growth and in other ways.

The two cornerstones of economics at SLU are microeconomics (allocation of scarce resources between different actors in an economy) and macroeconomics (total production and consumption in an economy, growth and employment). There are also specialisations, such as international trade, labour economics, public economics, financial economics, agricultural and forest economics, environmental economics and natural resource economics.

At SLU, in addition to micro- and macroeconomics, economics mainly comprises the following areas with emphasis at SLU on microeconomics:

- agricultural economics
- international trade
- forest economics
- environmental economics
- natural resource economics.

Agricultural economics studies such areas as investment and financing analysis, production economics, agricultural policy and international trade in agricultural products. Forest economics deals with such areas as the basis for investment decisions in forestry, the use of various natural resources, analysis of needs, and consequences of forest policy. Examples of applications in environmental and natural resource economics are environmental policy instruments, valuation of services from the environment that are not sold in a market, international environmental problems, connections between economic growth and the environment, and sustainable management of natural resources.

Disciplinary foundations and delimitations

Economics is a well-established scientific subject that is widely applicable internationally. It borrows analysis tools from several other disciplines, such as political science, psychology, law, mathematics and statistics.

Environmental psychology

Environmental psychology is interdisciplinary and focuses on studies of the interaction between humans and their living environment. Concrete problems that arise at the interface with the physical environment are a starting point for quantitative and qualitative studies of human perception, experiences and activities. Environmental psychology uses behavioural science theory and concept formation to explain and understand human interaction with the physical environment and to develop criteria for environmental design. At SLU, the subject focuses on the human relationship to nature within the framework of urban and rural landscapes and our relationship to food and animals.

Disciplinary foundations and delimitations

Education in the subject is based on an extensive international body of knowledge about how animals, nature and outdoor activities contribute to human development, well-being and health. The subject focuses on adapting activities and settings in relation to healthcare, schools and other care services and the quality of outdoor settings in residential areas and in public settings, where parks, playgrounds and the natural environment contribute to recreation and public health.

Environmental psychology research at SLU has developed within the framework of landscape planning, which was previously a main field of study and today is largely incorporated into landscape architecture. At SLU, environmental psychology is still strongly influenced by perspectives from landscape research but has also been shaped by environmental psychology as an international discipline and contacts with other sciences, such as architecture, health sciences and medicine, public health science, and sport and fitness sciences. The landscape perspective is described as one of several possible frameworks in environmental psychology education for understanding human interaction with the physical environment, alongside other more or less ecological or more specific perspectives taken from other sciences.

In addition to the subject's connections to landscape architecture, at SLU there are also connections between environmental psychology and animal science with a joint interest in health-promoting interactions with companion animals, with forest science in matters concerning recreational environments and with horticulture concerning cultivation's potential contribution to recreation and health, good eating habits and integration.

Environmental science

Environmental science is about how environmental problems arise and are related to society's development and natural conditions. It also includes methods to solve and prevent environmental problems. Environmental science encompasses all areas of science and is often interdisciplinary.

Fundamental for environmental science is knowledge of processes in nature, the character of the natural environment and the effects of different kinds of human impact. This is based on overarching knowledge in chemistry, biology and soil science. In addition, there is in-depth study of environmentally relevant aspects within these subjects and knowledge of applications in the environmental field, including the following:

- biogeochemical cycles
- ecosystem structure and dynamics, biodiversity
- landscape ecology and landscape development
- natural resources – occurrence, human use and effects of human impact
- environmental assessment, environmental monitoring, environmental measuring methods
- environmental engineering.

Fundamental to the social science aspects of environmental science is knowledge of the social causes of environmental problems and, for solving environmental problems, knowledge of relevant instruments. This builds on knowledge in subjects like law, cultural geography, planning, economics, political science and sociology. Both an authority/regulatory perspective and an operational perspective are used for solutions to environmental issues. This includes such aspects:

- environmental legislation and administrative law
- physical planning as an instrument of environmental policy
- financial instruments in environmental policy
- environmental audits and cost-benefit analyses
- environmental impact assessments and strategic environmental assessments
- environmental considerations and environmental protection through business operations
- environmental communication as a tool for sustainable development
- environmental conflicts, environmental ethics, cultural environment.

Disciplinary foundations and delimitations

Environmental science education firmly based in science requires good prior knowledge in natural sciences and/or social sciences. Large parts of environmental science education and research are linked to sustainable development and require a

multidisciplinary or interdisciplinary approach. Courses in environmental science are often classified in an additional subject area.

Environmental science education takes global, regional and local perspectives. EU policies and EU regulations significantly control national environmental protection efforts and are included in the education, as are international conventions on, e.g., climate, chemicals and biodiversity. The education also emphasises ethical and democratic questions and developing critical thinking. At SLU, education in environmental science is often related to the use of land, water and landscapes.

Equine science

The subject/field of knowledge known as equine science studies horses and how humans and horses interact.

This is an interdisciplinary discipline that includes the fields of animal science, veterinary medicine and biology. The subject integrates knowledge about the horse as a biological being and knowledge about the use of the horse for work, sports and leisure. Subject emphasis is on issues concerning horse–human interaction. The subject has both breadth and depth, with analysis and assessment of questions related to horses and horse keeping.

Equine science mainly includes the following areas:

- anatomy and physiology
- ethology, function and health
- feeding and environment
- breeding and reproduction.

The practical artistic part of the subject includes the following skill-oriented elements:

- horse management
- riding and driving
- training of the horse and rider
- training methods.

Disciplinary foundations and delimitations

Developments in equine science as a field of knowledge are based both on traditional veterinary medicine and animal science subjects with relevance to horses and on artistic aspects. Veterinary medicine and animal science are well-established scientific subjects widely practised internationally. As such, riding and driving as art forms are based on wide-ranging and long-established traditions and documentation.

Equine science is essentially a subdomain of biology that encompasses basic and applied aspects of the horse and its functions. It is a unique field that is also related to other subjects, mainly animal science, veterinary medicine, pedagogy and business administration. It differs from veterinary medicine in that equine science focuses on the healthy horse.

Food science

Food science includes knowledge and understanding of the composition, properties and functionality of both the raw materials and the finished food. The subject applies basic sciences to study various aspects of food, such as the underlying principles behind both product spoilage and opportunities to improve the quality of a food. Food science also includes food technology, which is the application of food science fundamentals to food in the industrial preparation process. Food technology is the study of what happens to the food chemically, physically and technically in different process steps, e.g., in heat treatment, processing, packaging, storage, distribution and cooking.

In the subject of food science at SLU, special focus is given to the composition and quality properties of the food raw material. In addition, the focus is on how the raw material – the food – is affected by the various process steps of the value chain and the food's health effects, and how food products and food processes fit into and affect the whole of the food system. Sustainability aspects of food production and consumption, including waste and waste management, are also included.

Food science primarily includes the following fields:

- food raw material
- food processing
- food technology
- food safety
- food microbiology
- human nutrition
- quality assurance
- product development
- product properties
- marketing, innovation and business management
- sustainable food supply.

Disciplinary foundations and delimitations
Food science at SLU is based on the application of basic sciences, such as physics, chemistry, biochemistry, microbiology, nutrition and dietetics, to study various aspects of food. Food science also includes food technology and social science aspects within the food chain as well as knowledge of the food system as a whole. For this reason, courses can be classified in two subject areas.

Food studies

Food studies is a subject that analyses societies' food cultural values, food systems and the individual's eating habits utilising different scientific disciplines. This involves critical studies of food and its context within, e.g., landscape architecture, science, art, history, archaeology, society, politics and religious studies. Here, humans are a thinking and culturally creative transformer of the landscape in which they live, and they use values about food and drink to build social communities and use the landscape as a resource. Humans build society with the help of political ideas about food, dishes and meals. This differs from other, more purely scientific subjects, such as food science, nutrition and medicine.

The subject examines such questions as: What impact does food have on the environment? What ethical foundations determine food choices? How can food contribute to injustices? In what way are foods symbolic markers of identity? Who chooses what we eat and why? What is the boundary between cultural heritage and invented tradition? What effects do food choices have in a spatial perspective and what is the relationship between food and place? The latter question has led to the development of the concept of "foodscapes".

Education in the field of food studies combines strategies from the humanities and social sciences to prepare students to analyse cultural, political, economic, environmental and geographical contexts regarding food in local, urban and global contexts. The connection between food and sustainable development is examined and our cultural heritage is viewed as a resource for future benefit and growth. Meals are of great importance for health, well-being and social interaction, and food culture is one of the strongest influencing factors for sustainability and opportunities for achieving the objectives of adjusting to a changing climate.

Disciplinary foundations and delimitations

Food studies is multidisciplinary and transdisciplinary and encompasses a wide range of research methods. The subject attracts many different types of researchers in philosophy, history, science, geography, landscape architecture, literary studies, archaeology, sociology, art history, anthropology, ethnology and other fields. Food studies is based on the values of cultural eating that impact humans, the landscape, cultivation, production, emissions and the sustainability of our eating. This is reflected in food prepared from value-laden and selected foods, food served in meals, eating habits, diets, ideals, attitudes, changing diet and eating plant-based meals, the development of eating through the course of life from child to older adults, food choices throughout life, state dietary advice and political regulations of eating. Interest in food is not limited to the modern era, and also includes eating habits and views of food throughout history.

The subject's multidisciplinary background and wide-ranging approach means that courses may be classified in two subject areas.

Forest management

The subject of forest management looks at how humans should use timber resources with an awareness of the limited and limiting potential for promoting and considering economic, environmental, social and cultural values.

Forest management primarily includes the following fields:

- bioenergy
- silviculture
- forest conservation
- forest landscape conservation
- forest technology
- forest economics
- forest planning with inventory
- wood technology.

Disciplinary foundations and delimitations

The subject of forest management has long been an established concept as well as an international scientific concept. University-level research and education in the field are conducted at several Swedish and many foreign universities, and scientific studies in the field are published in many forestry, economics, biology and ecology journals. Forest management can be described as the forest application of biology, soil science, technology and economics. For this reason, courses can be classified in two subject areas.

Forestry science

Forestry science looks at finding rational solutions for how forests are managed and used to achieve purposes linked to the responsible use of forest ecosystems. There are often multiple purposes that can be economic, environmental and social in nature. The focus is on the role of trees in how objectives are achieved but includes the effects of use on the entire forest ecosystem. Central to the subject are connections between the conditions and production processes of the biological systems and the conditions, needs and actions of the producer, the sector and society.

The subject is based on knowledge of how forest ecosystem processes and functions enable and limit the achievement of desired objectives. It is also based on knowledge of how human activities affect the ability to achieve objectives of use. The subject covers the producer's opportunities and effects across different space and time scales, where understanding of local, short-term processes and objectives is integrated with overarching long-term processes and objectives.

Forestry science mainly comprises three sub-areas, which are based on a process approach in the form of a) defining, integrating and coordinating overarching objectives of forest management, b) management at the local level, and c) directing how forests are managed.

a) Objectives, planning and policy

The objectives are the values that people want to create and maintain in the forest ecosystem and create from the forest ecosystem. These can consist of, for example, products, services, functions and experiences. There are often multiple and competing objectives and objectives on different spatial and time scales. The sub-area encompasses how these complex targets are defined and integrated and includes an understanding and definitions of the properties that are sought from individual values.

It also includes the processes intended to guide local natural processes and work processes in a coordinated manner towards set overarching and long-term objectives. The sub-area thus focuses on the farm's spatial and temporal holistic approach and includes both individual actors' use of forest holdings and society's political system for influencing what values are created and how they are created locally and globally.

b) Natural processes

The sub-area includes how biotic and abiotic processes can be used to achieve production objectives on a local scale (from trees to stands) by controlling or adapting to the processes. The focus is on how the trees are affected by and impact the processes but also includes the effects of the control on the entire forest ecosystem. The sub-area is based on and uses fundamental scientific knowledge, theories and methods to control, among other things, the rejuvenation, growth,

competition and mortality of organisms. The sub-area does not include how control is applied through human actions.

c) Work processes

The focus is on the implementation of the control and adaptation defined in the *natural processes* sub-area and the measures and coordination defined in o*bjectives, planning and policy*. The sub-area thus includes how forestry-related work processes can be controlled to implement measures on a local scale to achieve both local and overarching objectives. The focus is on measures linked to the forest ecosystem but can also include measures linked to the production of products and services and other things. The implementation and organisation of measures is governed using methods and theories from both technology and social sciences.

The sub-areas are highly communicative in that they influence each other. For example, decisions within objectives, planning and policy affect how natural processes and work processes are governed just as how given conditions for how natural processes and work processes can be controlled affect which decisions are possible within objectives, planning and policy.

The sub-areas are generic, in that different conditions and the focus on objectives and control result in different forms of forestry. This means they include, for example, raw material-oriented plantation forestry with fast-growing exotic tree species, urban forestry with a focus on social values, and forest management with a focus on maintaining and creating ecological values.

Disciplinary foundations and delimitations

Forestry science is based on and applies knowledge from the natural sciences, technology and social sciences. Descriptions and analyses of systems, processes, functions and methods from these sciences are an important basis for forestry science. Forestry science differs from other sciences by focusing on the use of knowledge from the basic sciences to achieve purposes linked to the responsible management of forest ecosystems. The interaction with other subjects means that forestry science courses can be classified in two subject areas.

Forest science

Forest science includes scientifically grounded knowledge for forest ecosystem processes and functions and for cultivation and sustainable use of various forest values with respect to economic, environmental, social and cultural interests. Values refers to the land resource and its production capacity, wood and the processed product, multiple-use products such as berries, mushrooms and lichens, social and aesthetic values, conservation values, and hunting and fishing.

Forest science primarily includes forest applications in the following fields:

- biology
- chemistry
- soil science
- nature and landscape conservation
- business administration and economics
- mathematics and mathematical statistics
- forest management.

Within biology, forest science mainly covers genetics, plant physiology, vegetation ecology, zooecology, systems ecology, entomology, microbiology and mycology.

Disciplinary foundations and delimitations

Forest science is a well-established scientific subject that is widely practised internationally. Research in the field is published in international forest science journals and in journals for related natural and social sciences.

Forest science is a systems science based on various natural science sub-areas but also includes social science subjects. For this reason, courses can often be classified in two subject areas. The subject is characterised by fundamental and applied science.

Horticultural science

Horticulture science includes plant breeding, production, handling, sale and use of garden products and plants for consumption or for interior decoration, in conservatories and for planting in public settings or private gardens. Typical for commercial production of garden products are opportunities for precise control of cultivation efforts and controlled product management.

Garden products can be divided into three main groups:

- edible products, such as fruits, berries, vegetables, herbs and edible mushrooms
- plants (both ornamental and flowering plants), ornamental grasses, hedge plants, and plants for other purposes, such as fruit trees and berry bushes
- plant species intended for the extraction of industrial raw materials.

Important aspects of the subject are the quality of garden products and plants, the health benefits of edible garden products, the environmental impact of horticulture and its interaction with the rest of society. The subject also covers economic questions at company, market and societal levels and technical questions in the production and handling of garden products. Design and expression in horticultural science touches on aesthetic issues linked to the use of horticultural products and the creation of horticultural settings.

Disciplinary foundations and delimitations

Horticulture science integrates knowledge from biology, chemistry, design, economics and technology and various forms of systems analysis. Since horticultural science interacts with and builds on several other subjects at SLU, courses can be classified in two subject areas.

Landscape architecture

Landscape architecture is an environmental design discipline with a focus on humans and their outdoor environment. Landscape architecture involves planning, designing and managing the landscape to create, maintain, protect, preserve and develop places and areas so that they are appropriate, aesthetically pleasing and economically, ecologically and socially sustainable.

Landscape architecture involves using knowledge of the landscape and its history to understand and guide decisions about changes in the landscape at different scale levels. This requires expertise in applying knowledge in a specific situation, known as action knowledge. In landscape architecture, landscapes are seen as a whole entity where natural and social processes operate.

Landscape architecture's view of the landscape is in line with the European Landscape Convention, which defines landscape as "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors". The concept of landscape is complex and represents both a physical reality and a cultural construction.

Landscape architecture as a main field of study is divided into three areas:

- *Landscape design* uses design and planning to guide decisions and develop supporting material for practical implementation of changes in the landscape's detailed scale, often in the near future.
- *Landscape planning* includes the conservation and development of the landscape's resources to achieve societal objectives and in agreement with the perceptions of people. Questions of landscape planning are often of a strategic nature, involving both balancing different interests and decisions that have consequences over a long period of time.
- *Landscape management* involves, in consultation with those concerned, supporting decision-making and producing both fundamental and practical data relating to the conservation and development of the landscape's resources in an ongoing process.

Disciplinary foundations and delimitations

Landscape architecture is based on and applies knowledge from technology, social sciences and the humanities. The multidisciplinary nature of landscape architecture means that the subject is developed by applying theories and methods from different fields. Landscape architecture is an applied discipline in the field of environmental design. Research in the different subdomains of landscape architecture builds on the subject's points of departure in the landscape, both the biophysical and the perceived and cultural-historical, and the close connection to practice and its focus on the future.

Rural development

Rural development is the study of change processes in rural areas and of the special conditions and problems of rural areas. Processes of change are studied from social, cultural, political, economic, demographic and spatial perspectives. The connections between natural resource use, natural resource management, ecosystem production and societal development processes are central to the subject, as are issues of communication, planning and learning.

The subject includes analyses and descriptions of change processes and methods for managing and influencing rural development in terms of sustainability, quality of life, livelihood and participation.

Based on the above, rural development as a subject mainly addresses questions about the following:

- Meanings and interpretations of the concepts of sustainability and development.
- Differentiated rural development in light of global changes in the economy and politics.
- The connections between urbanised areas and rural and sparsely populated areas.
- Socio-ecological aspects of landscapes, natural resource use and natural resource management.
- The significance of socio-economic conditions and living conditions for development processes.
- Relations among local actors and between local actors and the local community and institutions at other societal levels.
- Work with local and regional development in rural areas both nationally and internationally.

Disciplinary foundations and delimitations

The subject has an interdisciplinary nature and integrates knowledge and methods from the humanities, social sciences, natural sciences and behavioural sciences. This means that rural development intersects multiple subjects. Rural development uses theories and methods from mainly sociology, pedagogy, anthropology, geography, economics, political science, history and agricultural science. Since the subject is taught at SLU, the various issues and theories are closely connected to natural resources. Internationally, the subject is closely associated with *development studies* and *rural studies*.

Soil science

The soil is the upper part of the terrestrial crust that interacts with the climate, animals, plants and microorganisms. It is a mixture of minerals, organic matter, water, air and living organisms. The soil is a limited natural resource and a prerequisite for survival for all terrestrial plants, animals and microorganisms on the planet. Humans are dependent on the soil for the production of food, fibres and energy as well as a number of other ecosystem services.

Soil science as a subject deals with soil constituents, properties and processes in different time and space scales as well as the formation and classification of soils. Soil science includes the study of soil management in agriculture and forestry, as well as other forms of land use and soil conservation. Soil science primarily includes the following fields:

- soil physics
- soil chemistry
- soil biology.

Soil science also includes the part of geology that has a direct bearing on the properties of the soil. This usually refers to the properties of the bedrock, the formation of mineral and organogenic soil types and the surface shape of the landscape.

Soil physics studies the physical states and processes that regulate flows and storage of energy, gases and water and the substances dissolved in these in the soil-plant-atmosphere system. This includes the structure and mechanical properties of the soil and the parts of hydrology that include the hydrological processes just above and below the soil surface, in the unsaturated zone and the upper part of the groundwater zone.

Soil chemistry includes the inorganic, organic and physical chemistry related to the composition, properties and reactions in the soil. Examples of such reactions are the weathering of soil minerals and the adsorption, precipitation and dissolution reactions of solutes. These processes are important for the availability and transport of plant nutrients and soil contaminants.

Soil biology studies biodiversity and how plants, animals and microorganisms in the soil interact with each other and with the other components and processes of the soil system. Important examples are the plants' supply of organic material to the soil and the microbial degradation and circulation of organically bound nutrients like nitrogen, phosphorus and sulphur.

Soil science is also an interdisciplinary subject that includes interactions between physical, chemical and biological processes. The biogeochemical cycles of the elements and issues related to plant nutrition, erosion, acidification, eutrophication

and gas exchange between soil and atmosphere are research and teaching areas in soil physics, soil chemistry and soil biology.

Disciplinary foundations and delimitations

Soil science is a system science based on theories and methods originating in physics, chemistry, biology and earth sciences. The soil is an open system that forms a boundary layer between atmosphere, biosphere, lithosphere and hydrosphere. This makes it difficult to draw strict boundaries between soil science and surrounding fields of knowledge. For this reason, courses can be classified in two subject areas. The soil as the primary object of study unites different disciplines within the subject of soil science.

SLU has a central role in the advancement of soil science as a subject. Research on soil chemistry, soil physics and soil biology is the scientific basis for the subject at SLU. Applied soil science at SLU focuses on how soil properties relate to the growing location, urban land use and environmental problems related to soil.

Sustainable development

The concept of sustainable development takes a holistic approach to the environmental, economic and social dimensions of development. The concept of sustainable development was created by the UN World Commission on Environment and Development in 1987 using the following definition: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

The subject of sustainable development focuses on studies and knowledge of sustainable development in society. Central to the subject is knowledge of basic biological and environmental contexts and how they enable and limit economic and social development. Knowledge and a deeper understanding of the impact of social and economic systems on the ability to use natural resources are also important. The field also studies how economic and social systems can be designed to limit negative human impacts on natural resources or to promote positive development of these. This means that the conditions and processes related to the environmental, economic and social dimensions need to be integrated into the education.

Disciplinary foundations and delimitations

Sustainable development as a scientific field encompasses all scientific fields and uses a systems theory approach to solve complex and interdependent challenges of the future.

The systems theory and holistic approach combined with a multidisciplinary and interdisciplinary approach to teach sustainable development adds expertise at an overarching system level and an ability to develop future-oriented solutions to complex sustainability challenges. Education in the subject includes knowledge of how different systems function at a basic level and their sustainability. This knowledge needs to build on theoretical frameworks within the various dimensions. Examples can be models for transformation of societies or governance of societies based on different objectives for democracy, conflicts, governance of society or on different views of humanity or views on the relationship between humans and nature (the social dimension). It could also be about climate models or quantitative models for sustainable extraction of natural resources (the environmental dimension) or economic growth models for optimising different objectives or for behaviour on a market and how this can be governed by different policy measures (the economic dimension). However, the various dimensions are wide ranging and other theoretical frameworks may be equally relevant. The key is using a scientific approach, integrating the three dimensions, and always focusing on a systems perspective. At an overarching level, generic systems theory can be used for understanding how different complex systems work and can be studied. The education needs to include knowledge of how different systems interact, of how sustainable development can be measured and monitored over time, and of opportunities for change processes in society. This knowledge will provide students with skills for critically analysing concepts like sustainability, development, and welfare, and for managing values and ethical aspects in relation

to sustainable development. The studies will also prepare students to handle different perspectives and alternatives for a sustainable development of society. This will help students develop their ability to formulate and critically evaluate different future scenarios and possible measures for change. To achieve this, knowledge of and ability to integrate environmental, economic and social dimensions of sustainable development are included in the courses' learning outcomes.

At SLU, sustainable development is also integrated into several main fields of study that do not have sustainable development as their primary starting point. This differentiates these from sustainable development as a field.

Applicable regulations for classifying courses in sustainable development as the main field of study

(SLU ID: SLU.ua.2020.1.1.1-2004)

Sustainable development education

The Higher Education Act emphasises that higher education institutions must promote sustainable development through their activities. SLU's governing document for education (the Education Planning and Administration Handbook) emphasises that all dimensions of sustainable development must be integrated into the education SLU provides. SLU has an overall environmental programme objective for sustainable development, which states that all students on SLU programmes should have a solid foundation for managing all perspectives of sustainability in their future professional life. Sustainable development education means that teachers develop methods and course content and encourage student interest in acquiring the ability to contribute to change and improvement in one or more aspects of sustainability. Sustainable development education also aims to provide several general skills, as defined by Unesco and others.

The department director of studies (or equivalent) and course coordinators are responsible for integrating sustainable development perspectives at the course level. This will be achieved by the departments continually assessing and improving the course components dealing with sustainable development and sustainable use of natural resources where it is relevant.

In Chapter 16 on sustainable development education of the Education Planning and Administration Handbook, the departments are instructed to divide courses into three different groups:
"1. 'Sustainable development course', i.e., the entire course covers issues related to sustainable development.
2. Course with sustainable development components.
3. Course completely without sustainable development components."

Courses in sustainable development as the main field of study

According to these regulations, courses in sustainable development as the main field of study belong to Group 1. The main purpose of these courses is for students to develop knowledge dealing with sustainable development. Sustainable development as a subject is to be integrated into the entire course content. Students are to be given the opportunity to develop knowledge of and ability to integrate environmental, economic and social dimensions of sustainable development. Where appropriate, the focus may be on one of the dimensions, but courses in sustainable development must always address all three dimensions of sustainable development and the integration among them. A characteristic of courses in sustainable development is that students are able to develop a holistic approach to the environmental, economic and social dimensions of development.

Through an interdisciplinary approach to sustainable development, the courses will provide students with a foundation for developing expertise at an overarching system level and an ability to develop future-focused solutions to complex sustainability challenges. A systems perspective is central to the courses. Courses in sustainable development will provide students the opportunity to develop knowledge about:

- how different systems function, their sustainability and how different systems interact. This knowledge is to be based on theoretical frameworks within the various dimensions;
- how sustainable development can be assessed over time, and what opportunities exist for change processes in society, including tools for handling objective conflicts;
- different views about key concepts and different values on sustainable development;
- methods for collaborating when working with sustainable development.

Courses in sustainable development can be divided into two categories, depending on the course content. On the one hand, there are *courses that deal with sustainable development on a general level*. In these, sustainable development is discussed based on several different fields of study. The treatment of environmental, economic and social dimensions of sustainable development provides an opportunity for a system understanding of different sustainability challenges in many fields and for developing an ability to formulate future scenarios and measures for change. The content in *courses that deal with sustainable development based on a specific focus area*, on the other hand, allows development of an understanding of and ability to integrate environmental, economic and social dimensions of sustainable development based on a specific focus area, e.g., energy systems, food safety, urban planning, or biodiversity. On these courses, the treatment of the environmental, social and economic dimensions opens the door for a better system understanding and the ability to understand various sustainability challenges for the specific focus area. Furthermore, the courses provide an opportunity for developing the ability to formulate and assess future scenarios and

change measures for this focus area. The latter category of courses can be classified in two subject areas (see below).

Intended learning outcomes for courses in sustainable development

The subject description for sustainable development as the main field of study establishes that "Knowledge of and ability to integrate environmental, economic and social dimensions of sustainable development are included in the courses' learning outcomes".

The learning outcomes will guarantee that sustainable development is addressed in all course activities and in examinations. The learning outcomes, teaching activities and examination forms are to be linked to each other. The learning outcomes are formulated based on the course's purpose, focus and level. Below are suggestions for different formulations, which can be adapted as needed.

Examples of outcomes for courses dealing with *sustainable development based on several different fields of study*.

(For example, explain)...

> . . . the concept of sustainable development using social, economic and environmental dimensions, within an integrated systems analysis framework.
>
> . . . different dimensions (environmental, economic, and social) of sustainable development and have gained insight into how the different dimensions interact with each other.
>
> . . . the concept of sustainable development based on the three social, economic and environmental sustainability dimensions from an interdisciplinary perspective, and discuss/analyse the complex relationship between the three dimensions and thus between different interests/objective conflicts.

Examples of outcomes for courses dealing with *sustainable development based on a specific focus area:*

(For example, explain)...

. . . the concept of sustainable development based on environmental, economic and social dimensions and their interactions, and how it relates to /*focus area of the course*/.

. . . various dimensions of sustainable development (environmental, economic and social) and their interactions, especially focusing on /*focus area of the course*/.

. . . how different dimensions of sustainable development (environmental, social, economic) affect /*focus area of the course*/ and describe sustainability challenges faced by /*focus area of the course*/.

Double classification of courses in sustainable development and in other subjects/main fields of study

A course in sustainable development may be classified in two subject areas. SLU's Education Planning and Administration Handbook states that double classification should be done with care. "… a course should only have a double classification if its content makes up a clear and important part of both subjects, and if there is substantial progression in both subjects/main fields of study. Double classification can be used when a course contains both a traditional subject discipline and a synthesis and/or sector-related application."

Sustainable development as the main field of study is to be seen as a synthesis subject. Courses that address sustainable development within a specific focus area may therefore be suitable for double classification if the courses also meet criteria for classification in another subject/main field of study. In these cases, they should have learning outcomes as described under the heading "Examples of outcomes for courses dealing with sustainable development based on a specific focus area."

Technology

Technology is a generic term for the sciences that deal with technical methods to utilise different resources and the effects of this. The subject of technology is based on the natural sciences, mathematics and statistics and aims to transform our physical environment into resources. Technology includes development, design, modelling, dimensioning of equipment, machines and systems, and practical working methods. Engineering is a synonymous subject term used at some higher education institutions.

The subject of technology at SLU focuses on systems, engineering and methods within the areal industries for the conversion of resources and/or waste into resources like food, nutrients, energy, clean water and recreational areas. At SLU, technology primarily includes the following fields:

- agricultural technology
- forestry technology
- horticultural technology
- work environment and work planning
- bioenergy technology
- building technology and animal environment
- hydrotechnology
- food technology
- environmental engineering.

Disciplinary foundation

Technology is a well-established scientific subject internationally. The subject is published in a wide range of international scientific journals. Most journals that are relevant for research at SLU cover only a small part of the more general subject of technology.

The subject of technology is based on natural sciences like physics, chemistry, biology, earth sciences, mathematics and statistics. Technology differs from basic sciences by focusing on the use of knowledge from the basic sciences to build production systems, where the control of energy and material flows and effective organisation are important components. Most technical applications use combinations of knowledge from several basic sciences, e.g., physics, mathematics, chemistry and biology.

Veterinary medicine

The subject of veterinary medicine includes knowledge necessary to understand, diagnose and treat medical problems in animals, mainly sports and companion animals, food-producing animals and laboratory animals, as well as how to maintain good food safety, good animal welfare and disease control.

Veterinary medicine includes primarily veterinary medicine aspects in the following fields:

- anatomy, histology, physiology
- biochemistry, cell biology, pharmacology and toxicology
- immunology, virology, bacteriology and parasitology
- pathology and diagnostics
- disease genetics, epidemiology and nutrition
- ethology, animal welfare and animal hygiene
- surgery, medicine and reproduction
- public health science and food safety.

Veterinary medicine includes knowledge necessary to understand the structure and functions of healthy animals to be able to assess which symptoms indicate disease in individuals and in animal groups. Veterinary medicine also studies pathogenic organisms and other disease causative agents and their interaction with the individual in terms of both animal health and food safety, as well as the links between disease and breeding, feeding, management, environment, and welfare. Diagnostics, treatment and prevention of disease and suffering in animals are key concepts in veterinary medicine.

Disciplinary foundations and delimitations

Veterinary medicine is a well-established scientific subject with a clinical focus that is widely applicable internationally. Research in the field of veterinary medicine is published in journals on both veterinary and human medicine as well as in the fields of biology and food science.

In some aspects, veterinary medicine is related to human medicine, biology, animal science and food science. Veterinary medicine differs from human medicine in the crucial differences between animal species which the veterinarian must master. The differentiation from biology, animal science and food science is in that veterinary medicine specifically covers medical and clinical aspects of animals and animal populations or foods.

Licensing

SLU offers training in veterinary medicine within the veterinary medicine programme. A successfully completed veterinary education results in a Degree of Master of Science in Veterinary Medicine. The licence to practise veterinary medicine is issued by the Swedish Board of Agriculture.

Veterinary nursing

Veterinary nursing studies the animals in veterinary care and the process, the situation and the environment in which care is given, the aids used and the results achieved.

The subject of veterinary nursing includes nursing and care planning for various pathological conditions, rehabilitation and aftercare. An ethical approach and animal welfare aspects must inform the care of the animal and an important focus is the animal's well-being and the interaction with the animal owner and with other people in the animal's environment.

Veterinary nursing primarily includes the following fields:

- animal care in veterinary care
- infection prevention and control
- the behaviour and needs of the sick animal
- communication and advice
- pathology
- anaesthesiology
- preventive animal health care
- aftercare and rehabilitation.

Disciplinary foundations and delimitations

Veterinary nursing is a relatively new scientific subject. The research is based on an interdisciplinary perspective in the study of infection prevention and control, nursing and rehabilitative measures. Studies of the relationships between animals and animal owners and between animal health care professionals and animal owner-animal mean nursing research is a discipline where social sciences and natural sciences meet.

Veterinary nursing includes basic and applied aspects of animals in veterinary care. Veterinary nursing is a unique area that is also linked to other subject areas, such as veterinary medicine, animal science, communication and pedagogy.

Licensing

SLU offers training in veterinary nursing within the veterinary nursing programme. The licence to practise veterinary nursing is issued by the Swedish Board of Agriculture.

Landscape planning (previous main field of study)

Landscape refers to all land areas, cultural and natural, in urban areas and rural areas. The dynamics of the landscape and the communication of alternatives are central to landscape planning and landscape architecture.

Landscape planning includes planning and management (development) of the physical environment through the coordination of several landscape stakeholders. The starting points are societal changes, natural and cultural conditions, and governing legislation.

Disciplinary foundations and delimitations

The theoretical basis is found in the historical (dynamic) development of planning, community development and cultural landscapes and in the methods and practice of planning and administration. The theoretical framework derives from planning theory, landscape theory, rhetoric, landscape analysis and landscape ecology.

The subject of landscape planning has many common points of contact with the subject of landscape architecture. For this reason, some courses at the undergraduate level are classified in both subject areas.

Transitional provisions

The SLU Board's decision of 26 June 2012 revising the division of main fields of study regarding landscape architecture and landscape planning (reg.no. SLU ua Fe.2012.3.0-526, available in Swedish only) specifies the timetable and rules for the transition.

The timetable means that students with the right to be awarded general degrees in landscape planning were admitted for the last time in the 2011/12 academic year. From the 2017/18 academic year, no more courses in landscape planning are offered. However, it is still possible to be awarded a general degree in landscape planning if the degree requirements are met.