



Programme-specific Section of the Curriculum for the MSc Programme in Environmental Science at the Faculty of Science, University of Copenhagen 2012 (Rev. 2024)

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1 Title, affiliation and language

A shared section that applies to all BSc, part-time MSc and MSc Programmes at the Faculty of Science is linked to this programme-specific curriculum.

1.1 Title

The MSc Programme in Environmental Science leads to a Master of Science (MSc) in Environmental Science with the Danish title: *Cand.scient. (candidatus/candidata scientiarum) i miljøvidenskab*.

1.2 Affiliation

The programme is affiliated with the Study Board of Natural Resources, Environment and Animal Science, and the students can both elect, and be elected, to this study board.

1.3 Corps of external examiners

The following corps of external examiners is used for the central parts of the MSc Programme:

- Corps of External Examiners for Agricultural Science (*jordbrugsvidenskab*).

1.4 Language

The language of this MSc Programme is English.

2 Academic profile

2.1 Purpose

The objective of the programme is to train graduates who are capable of conducting research, monitoring, analysing, managing and regulating anthropogenic as well as perturbed natural terrestrial, aquatic and atmospheric environments. In addition, the programme strives to equip the graduates with knowledge and tools for development of innovative and sustainable solutions that meets global environmental challenges. The programme addresses all sorts of pollutants, pollutant fate, and the resulting impact on the environment and human health. The training is based on a quantitative understanding and solution-based knowledge within environmental sciences.

2.2 General programme profile

The core of the programme is to understand biogeochemical and physical environmental processes and to investigate how humans perturbate these processes and the resulting effects on human and ecosystem health. The programme forms the basis for developing solutions to ameliorate adverse impacts. The programme has three specialisations: 1) Chemistry, Toxicology and Health, 2) Soil and Water, and 3) Soil, Water and Biodiversity (EnvEuro). The Soil, Water and Biodiversity-specialisation is a double degree with mandatory mobility to a partner university. The change to the single degree Soil and Water is always possible.

Many topics can be overlapping within the three specialisations, but they diverge in the sense that the specialisation in Chemistry, Toxicology and Health focuses mainly on pollutant sources, fate, effect on organisms and ecosystems, and solutions for pollutant monitoring, mitigation, remediation and regulation. This specialisation has a molecular approach, and therefore requires a chemical and microbial understanding. The specialisation also includes human health effects of pollution and hence compulsory courses at the faculty of Health Science are part of the program. The entire specialisation can be taken at the University of Copenhagen and the MSc-thesis can be conducted either at the faculty of SCIENCE or HEALTH.

The specialisations in Soil and Water and Soil, Water and Biodiversity, on the other hand, focus more broadly on environmental challenges caused by human activity.

The specialisation in Soil and Water is a single degree combining biogeochemistry and ecology to develop sustainable solutions for ecosystems, soil protection and clean water. The specialisation focuses on chemical and biological processes in soils and the implications for fresh water and ecosystems at field scale. The knowledge can be applied for research purposes or as an input for decision-making and policy. The entire specialisation can be taken at the University of Copenhagen and the MSc thesis will typically be conducted at the faculty of SCIENCE.

The specialisation in Soil, Water and Biodiversity is a double degree programme between University of Copenhagen (Denmark), University of Hohenheim (Germany), Swedish University of Agricultural Science (Sweden) and the University of Natural Resources and Life Sciences Vienna (Austria), all members of the Euroleague for Life Sciences collaboration. This specialisation combines one year at the HOME university and one year at the HOST university. Upon completion, the students obtain two MSc diplomas: One from the HOME and one from the HOST university.

The three specialisations each require a specific course combination and result in specific competences as described below. MSc-thesis will be conducted at the faculty of SCIENCE or at the partner university.

The specialisation Chemistry, Toxicology and Health combines the individual disciplines: chemistry, biology (including microbiology) and human health. The compulsory courses of the specialisation provide the knowledge necessary to relate the distribution and fate of pollutants in the environment to the actual and potential occurrence of harmful effects. The courses ‘Toxicology and Ecotoxicology’, ‘Soil and Water Pollution: Concepts and Theory’, ‘Soil and Water Pollution: Experimental Assessment’, ‘Air Pollution and Health’ and ‘Environmental Epidemiology’ lead to the last of the compulsory subjects, ‘Environmental and Human Health Risk Assessment of Chemicals’. Here, the knowledge acquired in the first courses are integrated in terms of risk assessment and put into perspective, creating coherence between the subject elements by giving the students a thorough knowledge about pollutant fate, impact and exposure in relation to the environment, organisms and humans, and the political and ethical considerations involved in modern regulation of environmental pollutants. The compulsory courses gather the competences, enabling a full exposure and impact analysis of pollutants, and establishing a strong basis for studies and development of innovative sustainable solutions that aligns with global sustainability goals and lower human impact on natural resources and climate. Having completed the compulsory courses, the student will have a broad foundation of knowledge on which to base the restricted elective and elective courses.

The specialisation in Soil and Water focuses on biogeochemistry in soil and water from lab to field scale combined with ecology and hydrology. The compulsory courses ‘Soil and Water Pollution – Concepts and Theory’ and ‘Land Use and Environmental Modelling’ form the core of the single degree programme with knowledge of geochemical and biological processes in soils governing the quality of surface water and groundwater formation. The restricted elective courses cover courses clustering around *i*) biogeochemistry processes and dynamics from lab to landscape scale, *ii*) analytical methods and techniques to study soil and water, *iii*) ecology and landscape elements, and *iv*) data science and modelling. Both compulsory and restricted elective courses comprise core competences and knowledge to work with soil and water challenges and apply environmental solutions for sustainable and climate friendly use of natural resources in rural and urban areas.

The specialisation Soil, Water and Biodiversity (EnvEuro) targets the use of natural resources in Europe and the effects on environment and health and aims at providing knowledge of analytical and management tools, as well as of environmental technologies for sustainable production systems in areas with high pressures on natural resources.

The double degree programme (EnvEuro) is particularly focused on European aspects of the environment and features the compulsory course ‘Environmental Management in Europe’ in addition to ‘Soil and Water Pollution – Theory and Concepts’ and ‘Land Use and Environmental Modelling’; the latter only if you spend your 1st year at UCPH.

The compulsory course ‘Environmental Management in Europe’ cover the status of the environment in Europe and reviews the main environmental framework directives in the EU, e.g. for water, air quality, and habitats, and the current strategic directions for development of the environment. Water resources have a central role in the specialisation as water quality is to a large extent determined by the composition, properties, management and pollutant loads of the soil and from the atmosphere. Water is the main carrier of substances in the terrestrial environment and connects to the atmospheric environment, the aquatic environment and to the biosphere as plants and microorganisms take up nutrients and substrate through the aqueous phase. The comprehensive and coordinated environmental framework programmes that have been implemented all over Europe are backed up by intensive and common monitoring programs, legislation, regulation, management and policy practices. The specialisation aims at providing candidates who can work professionally with problem identification, characterisation and solving related to the use of natural resources and based on insight in European ecosystems and principles used in current European environmental management.

2.3 General structure of the programme

The MSc Programme is set at 120 ECTS.

The MSc Programme in Environmental Science consists of the following elements:

- Specialisation: 120 ECTS, including the thesis.

The student must choose one of the following specialisations:

- Chemistry, Toxicology and Health
- Soil and Water
- Soil, Water and Biodiversity* (1st year at UCPH, 2nd year abroad)
- Soil, Water and Biodiversity* (1st year abroad, 2nd year at UCPH)

* Double degree programme among four universities in Europe. One year study at the University of Copenhagen and one year at a partner university: University of Natural Resources and Life Sciences, Vienna (BOKU), Swedish University of Agricultural Sciences (SLU) or University of Hohenheim (UHOH). The structure is explained in Appendix 1.

2.4 Career opportunities

The MSc Programme in Environmental Science qualifies students to become professionals within business, management and research functions and/or areas such as:

- A PhD programme or other research function within academia and research institutions
- Research and communication within industries working with developing environmentally more benign products, improved waste handling, and more sustainable production processes
- National and international advising, consultancy and project management within natural science and health science, with strong basis in environmental pollution, effects and impact, and solutions for environmental protection, ecosystem and human health.

- Clean-tech industries and related sectors developing new solutions and methodologies for cleaner technology and remediation technologies to clean air, soil and water.
- Public administration in municipalities all over the world working with monitoring, risk assessment and regulation of chemical and microbial pollutants and ecosystem management.
- Policy development, implementation and administration related to nature, environment and related technologies in the public sector (ministries and municipalities) and in private stakeholder organizations, including international NGOs

3 Description of competence profiles

Students following the MSc Programme acquire the knowledge, skills and competencies listed below. Students will also acquire other qualifications through elective subject elements and other study activities.

3.1 Generic competence profile

Graduates holding an MSc in Environmental Science have acquired the following regardless of the chosen specialisation:

Knowledge about:

- Environmental sustainability
- Structure and function of ecosystems, including the effect of human activities on ecosystem functions
- Pollutants, their properties, monitoring, origin, distribution, intrinsic properties and general fate
- Understand the properties of soil, water and air at the molecular/mechanistic and ecosystem level.
- Current solutions and mitigation goals for reducing pollutant impact
- The fundamental principles governing environmental policy/legislation, regulation and management in Europe, and how legislative and regulatory measures can be utilised for reducing environmental impact

Skills in/to:

- Select and master up-to-date methodologies for quantifying environmental load and sustainability of production systems.
- Define a scientific problem, set up corresponding hypotheses, plan and execute experiments to test a hypothesis and communicate the results written as well as orally.
- Analyse and evaluate scientific literature and assess possibilities and limitations in the application of theories, methods and new technologies.
- Communicate complex information to a wide range of national as well as international audiences using modern and appropriate information and communication tools.
- Develop and use mathematical models describing biological, physical and chemical processes for predictive purposes and in relation to planning, management and performance of new solutions
- Present deep insight in structure and functioning of natural and man-influenced rural and urban systems, environmental and health effects of ecosystem perturbations, and be able to develop environmental strategies, technologies and measures for achieving sustainable production systems.

- Acquisition of experimental data using various instrumental software; processing and visualization of experimental data and results using different statistical methods, data processing software and programming environments; mathematical modelling; digital skills.

Competences in/to:

- Assessment of environmental system sustainability e.g., risk assessment
- Handle and solve complex environmental challenges in specific work situations or in relation to research.
- Work independently and efficiently on your own, in teams as well as in interdisciplinary environments. Engage in national and international research.
- Apply life-long learning as a principle to independently assess and structure learning processes and assume responsibility for continuous academic development.
- Create ideas and strategies for development of environmental technology in relation to remediation and reduction of pollution from soil, waters and atmosphere.
- Define a scientific problem, set up corresponding hypotheses, plan and execute experiments to test the hypothesis and communicate the results written as well as orally.
- Using digital platforms the student will be able to acquire and process experimental data, to evaluate experimental data using statistics and mathematical models, to visualize results

3.2 Chemistry, Toxicology and Health

In addition to the generic competence profile, graduates holding an MSc in Environmental Science with specialisation in Chemistry, Toxicology and Health have acquired the following:

Knowledge about:

- International original specialist literature on environmental chemistry, environmental microbiology, ecotoxicology, human toxicology and environmental epidemiology.
- General knowledge and reflection of the effects and the toxicity of pollutants on living organisms.
- Intrinsic pollutant properties governing distribution, fate and effects including computational tools for predicting pollutant properties and fate.
- The classification of chemical substances in relation to their hazard level and define principles for determining threshold values for the external environment, working environment, consumer products and food.
- Analytical and instrumental methods for environmental chemistry, environmental microbiology, ecotoxicological, human toxicological and environmental epidemiological purposes.
- Instrumental and analytical methods, experimental approaches and modern biotechnological tools to study and quantify pollutant fate and effects.
- Strategies and methods for pollutant mitigation and degradation including remediation methods.

Skills in/to:

- Set up mass and energy flows and quantify substance transformations, in particular the transformation of pollutants, using modern models and be able to validate model predictions.
- Analyse, evaluate and apply international scientific literature on environmental science aspects.
- Master the most important databases on chemical, microbiological and toxicological substances in relation to pollutants.

- Participate in the design and performance of scientific experiments.
- Apply basic scientific principles in connection with the analysis of large data volumes.

Competences in/to:

- Expand the field of environmental chemistry by developing new technology, by introducing new analysis and monitoring methods as well as by assessing and solving environmental and health problems and potential threats.

3.3 Soil and Water

In addition to the generic competence profile, graduates holding an MSc in Environmental Science with specialisation in Soil and Water have acquired the following:

Knowledge about:

- Physical, chemical and biological processes and their interactions in the environment.
- Strategies and methods for handling and solving environmental problems and challenges to ensure good quality of soils and freshwater systems.
- Systemic and quantitative linkages between natural resource use in the catchment and water quality.
- Effects and toxicity of pollutants on living organisms in soil and water.
- Experimental methods for sampling, analysis, monitoring and assessment of soil and water.
- Implications of sustainability concepts
- Lessons learned from the environmental and land use history.

Skills in/to:

- Formulate the kinetics, equilibrium and mass balances for chemical, physical and biological processes affecting circulation of matter in ecosystems with special focus on soil and water.
- Understand, evaluate and select the methods and techniques used for environmental monitoring, and subsequent handling of statistical analysis and presentation of environmental data.

Competences in/to:

- Effectively communicate and collaborate by use of different media such as written texts, oral presentations, video conferences and web-forums.
- Transfer research results on environmental processes and impacts into proposals for improving sustainability of land use with special focus on agricultural, horticultural and forest systems.

3.4 Soil, Water and Biodiversity

In addition to the generic competence profile, graduates holding an MSc in Environmental Science with specialisation in Soil, Water and Biodiversity have acquired the following:

Knowledge about:

- Environmental concepts, problems and relationships in a European and global context.
- Identification of strategies for handling and solving environmental problems and challenges in a European and a global context.
- Systemic and quantitative linkages between natural resource use and water quality.
- Systematic and quantitative linkage between land use and environmental quality, with main focus on water resources.
- Identification of the implications of sustainability concepts, and insight in the environmental and land use history of Europe and the lessons learned from that.

Skills in/to:

- Formulate the kinetics, equilibrium and mass balances for chemical, physical and biological processes affecting matter circulation in ecosystems within the selected area of specialization for each student.
- Understand, evaluate and select the methods and techniques used for environmental monitoring, and subsequent handling, statistical analysis and presentation of environmental data.

Competences in/to:

- Effectively communicate and collaborate with others across distances, cultural and language borders, by use of different media such as written texts, oral presentations, video conferences and web-forums.
- Transfer research results on environmental processes and impacts into proposals for improving sustainability of agricultural and horticultural systems.

In addition, an MSc in Environmental Science with specialisation in Soil, Water and Biodiversity has acquired the following depending on the choice of profile:

3.4.1 Profile - Environmental Impact

Knowledge about:

- Structure and functioning of landscapes.
- Understand and reflect upon consequences of human actions on the environment.
- Theoretical knowledge and analytical methods used to assess the identified environmental impacts.
- Select important technologies to reduce and remediate environmental impacts.

Skills in/to:

- Evaluate, select and apply theory based and practical tools to analyse environmental impacts such as data collection/evaluation, ecotoxicological methods, environmental modelling.
- Communicate knowledge about environmental impacts by means of standard and advanced communication techniques tailored for the respective user.

Competences in/to:

- Taking professional responsibility to carry out research projects using theoretical and analytical methods to assess environmental impacts.
- Cooperate and work independently to create ideas and strategies for remediating and reducing environmental pollution, resource depletion and environmental change.
- Work in a European context and professionally support both public and private authorities dealing with environmental impacts.

3.4.2 Profile - Soil Resources and Land Use

Knowledge about:

- Soil constituents and the characteristics of common soil types.
- Understand the interactions between inorganic and organic components and the importance of soil organisms to soil functioning.
- Identify challenges and consequences of land use on soil quality and the environment.
- Evaluate and select technologies to remediate damaged and polluted soils.

Skills in/to:

- Apply and master up-to-date methodologies (molecular, analytical, modelling) for research on plant and/or environmental processes.

- Analyse and evaluate interactions between soil components and inorganic and organic compounds in soil solution in relation to land use and the environment.
- Evaluate, select and apply theory based and practical tools to analyse soils in the environment such as data collection, ecotoxicology, environmental modelling, life cycle analysis, environmental load, sustainable crop production.
- Participate in public discussion of soil resources, land use and soil quality both in international and national perspective.

Competences in/to:

- Demonstrate capacity for independent work and creativity in the application of knowledge and skills in soil work situations or in research.
- Participate in public discussions of soil resources, land use and soil quality both in international and national perspective.
- Cooperate and work independently to create ideas and strategies for reducing soil pollution, soil resource damaging and preserving soil quality in a European context.

3.4.3 Profile – Water Resources

Knowledge about:

- Water environments and the characteristics of common types of freshwater systems.
- Interactions between inorganic and organic components and the importance of water organisms to the function of freshwater systems.
- Challenges associated with and consequences of land use in the catchment to the water quality in freshwater systems.
- Evaluation and selection of technologies to remediate polluted lakes, streams and groundwater.
- Description of the effects of water utilization in the environment.
- Environmental science theories and how to apply these in a holistic way to problem solving.
- Relevance of environmental policies and local management strategies, European water framework directive and regulations.

Skills in/to:

- Apply and master up-to-date methodologies (collecting, analysing, modelling and interpreting environmental data) for research on water and environmental processes.
- Analyse and evaluate interactions between soil components and compounds in soil solution in relation to land use and the impact on the water environment.
- Communicate knowledge about integrated watershed management in writing.
- Apply hazard and risk assessment methodologies to water environments.

Competences in/to:

- Demonstrate capacity for independent work and creativity in the application of knowledge and skills in water resource assessment and in research.
- Carry out planning and management tasks in water resources management.
- Cooperate and work independently to minimise human impacts on water resources and preserving freshwater quality in a European context.
- Participate in public discussion of water resources and water quality both in an international and a national perspective.

4 Admission requirements

There is a separate application procedure for the specialisation Soil, Water and Biodiversity (EnvEuro) as the specialisation is a double degree programme among four universities in Europe.

4.1 Bachelor's degrees that automatically fulfil the academic requirements

Applicants with one of the following Bachelor's degrees automatically fulfil the academic requirements for admission to the MSc Programme in Environmental Science:

- Natural Resources (*naturressourcer*) with the specialisation in Environmental Science from University of Copenhagen (reserved access)
- Chemistry (*kemi*), Biology (*biologi*), Biochemistry (*biokemi*), Biotechnology (*bioteknologi*), or Molecular Biomedicine (*molekylær biomedicin*) from University of Copenhagen.
- Pharmacy from University of Copenhagen.
- Chemistry, Biology, Biochemistry, Biotechnology Engineering or Medicinal Chemistry from Aarhus University.
- Chemistry, Biology, Pharmacy, Engineering (Chemistry and Biotechnology) or Biochemistry and Molecular Biology from University of Southern Denmark.
- Chemical Engineering and Biotechnology or Sustainable Biotechnology from Aalborg University.
- Technical Science (*teknisk videnskab*) with specialisation in Environmental Technology (*miljøteknologi*) (the graduate engineer programme) from Technical University of Denmark.
- Natural Sciences or International Bachelor in Natural Sciences from Roskilde University.
- Bachelor of Science in Engineering (Environmental Engineering) (*Vand, Bioressourcer og Miljømanagement*), Biotechnology or Chemistry and Technology from Technical University of Denmark.

4.2 Other Bachelor's degrees

Applicants with a Bachelor's degree, Professional Bachelor's degree or equivalent from Danish or international universities other than those listed in 4.1 are qualified for admission to the MSc Programme in Environmental Science if the programme includes three of the following five areas:

- Biology or ecology 7.5 ECTS
- Natural resources 7.5 ECTS
- Geochemistry 7.5 ECTS
- Environmental chemistry 7.5 ECTS
- Chemistry 7.5 ECTS

4.3 Other applicants

The Faculty may also admit applicants who, after an individual academic assessment, are assessed to possess educational qualifications equivalent to those required in Subclauses 4.1-3.

4.4 Language requirements

Applicants must as a minimum document English language qualifications comparable to a Danish upper secondary school English B level or English proficiency corresponding to the tests and scores required. Accepted tests and required minimum scores are published online at science.ku.dk.

4.5 Supplementary subject elements

The qualifications of an applicant to the MSc programme are assessed exclusively on the basis of the qualifying Bachelor's degree. Supplementary subject elements passed between the completion of the Bachelor's programme and the admission to the MSc programme cannot be included in the overall assessment.

However, subject elements passed before the completion of the Bachelor's programme may be included in the overall assessment. This includes subject elements completed as continuing education as well as subject elements completed as part of a former higher education program. A maximum of 30 ECTS supplementary subject elements can be included in the overall assessment.

Subject elements passed before completing the Bachelor's programme which are to form part of the MSc programme to which the student has a legal right of admission (§15-courses) cannot be included in the overall assessment.

5 Prioritisation of applicants

With a Bachelor's degree in Natural Resources with the specialisation in Environmental Science from University of Copenhagen the student is granted reserved access and guaranteed a place on the MSc Programme in Environmental Science if the student applies in time to begin the MSc Programme within three years of the completion of the Bachelor's degree.

If the number of qualified applicants to the programme exceeds the number of places available, applicants will be prioritised according to the following criteria:

- Total number of ECTS in relevant courses in chemistry, environmental chemistry, natural resources, or ecology.
- Grade-point average achieved in qualifying degree.

6 Structure of the programme

The compulsory subject elements, restricted elective subject elements and the thesis constitute the central parts of the programme (Section 30 of the Ministerial Order on Bachelor and Master's Programmes (Candidatus) at Universities).

6.1 Chemistry, Toxicology and Health

The specialisation is set at 120 ECTS and consists of the following:

- Compulsory subject elements, 45 ECTS.
- Restricted elective subject elements
 - 30 ECTS (thesis, 30 ECTS)
 - 15 ECTS (thesis, 45 ECTS)
- Elective subject elements, 15 ECTS.
- Thesis, 30 or 45 ECTS

6.1.1 Compulsory subject elements

All of the following subject elements are to be covered (45 ECTS):

Course Code	Course Title	Block	ECTS
NPLK18000U	Toxicology and Ecotoxicology	Block 1	7.5 ECTS
NPLK14021U	Soil and Water Pollution - Concepts and Theory	Block 1	7.5 ECTS
NPLK14029U	Soil and Water Pollution - Experimental Assessment	Block 2	7.5 ECTS
NKEA09012U	Air Pollution and Health	Block 2	7.5 ECTS
SMKK09001U	Environmental Epidemiology	Block 3	7.5 ECTS
NIFK15005U	Environmental and Human Health Risk Assessment of Chemicals	Block 4	7.5 ECTS

6.1.2 Restricted elective subject elements

30 ECTS are to be covered as subject elements from the following list (thesis, 30 ECTS)

15 ECTS are to be covered as subject elements from the following list (thesis, 45 ECTS)

Course Code	Course Title	Block	ECTS
NPLK13003U	Advanced Analytical Chemistry - Sampling and Sample Preparation	Block 1	7.5 ECTS
SFKK18004U	In-vitro Techniques in Biochemistry and Pharmacology	Block 1	7.5 ECTS
NPLK17001U	Advanced Microbial Biotechnology	Block 1	7.5 ECTS
NPLK19002U	Experimental Soil Analysis	Block 1	7.5 ECTS
NKEK11002U	Atmospheric Environmental Chemistry	Block 1	7.5 ECTS
NPLK14004U	Life Cycle Assessment within Biological Production Systems	Block 1	7.5 ECTS
NMAK14003U	Applied Statistics	Block 2	7.5 ECTS
LBIK10180U	Applied Microbiology	Block 2	7.5 ECTS
NPLK13004U	Advanced Analytical Chemistry - Chromatography and Mass Spectrometry	Block 2	7.5 ECTS
LNAK10081U	Nature Perception -Theories and Methods for Investigation	Block 2	7.5 ECTS
NBIK12003U	Conservation Biology	Block 2	7.5 ECTS
NBIK14001U	Climate Change and Biogeochemical Cycles	Block 2	7.5 ECTS
NPLK16003U	Experimental Analytical Chemistry: Method Development and Quality Assurance	Block 2	7.5 ECTS
NPLK14006U	Pesticide Use, Mode of Action and Ecotoxicology	Block 3	7.5 ECTS
NFYK15002U	Advanced Methods in Applied Statistics	Block 3	7.5 ECTS
NPLB14027U	Analytical Chemistry	Block 3	7.5 ECTS
NIGK17000U	Land Use and Environmental Modelling	Block 3	7.5 ECTS
NIGK16000U	Applied Ecosystem Ecology	Block 3	7.5 ECTS
NFOK21000U	Advanced Chemometrics and Machine Learning	Block 3	7.5 ECTS
NBIK14016U	Experimental Design and Statistical Methods in Biology	Block 3	7.5 ECTS
NBIA08011U	Statistics for Molecular Biomedicine	Block 3	7.5 ECTS
NPLK22002U	Data Processing in Environmental Science and Agriculture	Block 3	7.5 ECTS
NIGK19001U	Introduction to Geomicrobiology	Block 4	7.5 ECTS
LNAK10010U	Environmental Impact Assessment	Block 4	7.5 ECTS
NIGK23005U	Carbon Storage and Biological Interactions in Soils	Block 4	7.5 ECTS
	Project outside the Course Scope	Block 1-5	7.5 ECTS
	Project outside the Course Scope	Block 1-5	15 ECTS
	Project in Practice	Block 1-5	15 ECTS

6.1.3 Elective subject elements

15 ECTS are to be covered as elective subject elements.

- All subject elements at MSc level may be included as elective subject elements in the MSc Programme.
- BSc subject elements corresponding to 15 ECTS may be included in the MSc Programme.
- Projects. See 6.1.4 Projects.

6.1.4 Projects

- Projects outside the course scope may be included in the elective and restricted elective section of the programme with up to 15 ECTS. Projects outside the course

scope may not exceed 15 ECTS in total of the programme. Projects outside course scope may be written as a combination of the restricted elective and elective section of the programme. The primary supervisor must be employed at either SCIENCE or SUND. The regulations are described in Appendix 5 to the shared section of the curriculum.

- Projects in practice may be included in the elective or restricted elective section of the programme with 15 ECTS. Projects in practice may not exceed 15 ECTS in total of the programme. Project in practice may be written as a combination of the restricted elective and elective section of the programme. The exam must be assessed with a grade (7-point grading scale). The primary supervisor must be employed at SCIENCE. The regulations are described in Appendix 4 to the shared section of the curriculum.
- Thesis preparation projects may not be included in the elective section of the programme. The regulations are described in Appendix 6 to the shared section of the curriculum.

6.1.5 Thesis

The MSc Programme in Environmental Science – Chemistry, Toxicology and Health includes a thesis corresponding to 30 or 45 ECTS as described in Appendix 2 to the shared curriculum. The thesis must be written within the academic scope of the programme.

The primary supervisor must be employed at either SCIENCE or SUND.

6.1.6 Academic mobility

The curriculum makes it possible to follow subject elements outside Faculty of Science and Faculty of Health.

For students admitted in September the academic mobility in the MSc Programme in Environmental Science with a thesis corresponding to 30 ECTS is placed in block 1+2 of the 2nd year.

For students admitted in February the academic mobility in the MSc Programme in Environmental Science with a thesis corresponding to 30 ECTS is placed in block 3+4 of the 2nd year.

Academic mobility requires that the student follows the rules and regulations regarding pre-approval and credit transfer.

In addition, the student has the possibility to arrange similar academic mobility in other parts of the programme.

6.2 Soil and Water

The specialisation is set at 120 ECTS and consists of the following:

- Compulsory subject elements, 15 ECTS
- Restricted elective subject elements, 30 ECTS
- Elective subject elements, 30 ECTS
- Thesis, 45 ECTS

6.2.1 Compulsory subject elements

All of the following subject elements are to be covered (15 ECTS):

Course Code	Course Title	Block	ECTS
NPLK14021U	Soil and Water Pollution – Concepts and Theory	Block 1	7.5 ECTS
NIGK17000U	Land Use and Environmental Modelling	Block 3	7.5 ECTS

6.2.2 Restricted elective subject elements

30 ECTS are to be covered as subject elements from the following list:

Course Code	Course Title	Block	ECTS
NPLK19002U	Experimental Soil Analysis	Block 1	7.5 ECTS
NPLK13003U	Advanced Analytical Chemistry – Sampling and Sample Preparation	Block 1	7.5 ECTS
NPLK18000U	Toxicology and Ecotoxicology	Block 1	7.5 ECTS
NPLK21001U	Plants in Populations and Communities	Block 1	7.5 ECTS
NPLK14023U	Applied Agrohydrology	Block 2	7.5 ECTS
NIGK14052U	Landscape and Restoration Ecology	Block 2	7.5 ECTS
NPLK14029U	Soil and Water Pollution – Experimental Assessment	Block 2	7.5 ECTS
NPLB14027U	Analytical Chemistry	Block 3	7.5 ECTS
NPLK22002U	Data Processing in Environmental Science and Agriculture	Block 3	7.5 ECTS
NIGK14002U	Geographical Information Systems (GIS)	Block 3	7.5 ECTS
NBIK14016U	Experimental Design and Statistical Methods in Biology	Block 3	7.5 ECTS
NBIK14004U	Freshwater Ecology	Block 4	7.5 ECTS
NIGK15005U	Ecological Modelling	Block 4	7.5 ECTS

6.2.3 Elective subject elements

30 ECTS are to be covered as elective subject elements.

- All subject elements at MSc level may be included as elective subject elements in the MSc Programme.
- BSc subject elements corresponding to 15 ECTS may be included in the MSc Programme.
- Projects. See 6.3.4 Projects.

6.2.4 Projects

Projects outside the course scope and projects in practice may not exceed 15 ECTS of the programme.

- Projects outside the course scope may be included in the elective section of the programme with up to 15 ECTS. The primary supervisor must be employed at either SCIENCE or SUND. The regulations are described in Appendix 5 to the shared section of the curriculum.
- Project in practice may be included in the elective section of the programme with 15 ECTS. The exam must be assessed with a grade (7-point grading scale). The primary supervisor must be employed at SCIENCE. The regulations are described in Appendix 4 to the shared section of the curriculum.
- Thesis preparation projects may not be included in the elective section of the programme. The regulations are described in Appendix 6 to the shared section of the curriculum.

6.2.5 Thesis

The MSc Programme in Environmental Science – Soil and Water includes a thesis corresponding to 45 ECTS as described in Appendix 2 to the shared curriculum. The thesis must be written within the academic scope of the programme.

The primary supervisor must be employed at either SCIENCE or SUND.

6.2.6 Academic mobility

The curriculum makes it possible to follow subject elements outside Faculty of Science.

The academic mobility in the MSc Programme in Environmental Science – Soil and Water is placed in block 3+4 of the 1st year.

Academic mobility requires that the student follows the rules and regulations regarding pre-approval and credit transfer.

In addition, the student has the possibility to arrange similar academic mobility in other parts of the programme.

6.3 Soil, Water and Biodiversity (1st year at UCPH, 2nd year abroad)

The specialisation is set at 120 ECTS and consists of the following:

- Compulsory subject elements, 22.5 ECTS.
- Restricted elective subject elements, 30 ECTS.
- Elective subject elements, 7.5 ECTS.
- Compulsory studies at partner university 60 credits including thesis (2nd year)

6.3.1 Compulsory subject elements

All of the following subject elements are to be covered (22.5 ECTS):

Course Code	Course Title	Block	ECTS
NPLK14021U	Soil and Water Pollution – Concepts and Theory	Block 1	7.5 ECTS
NPLK22000U	Environmental Management in Europe	Block 2	7.5 ECTS
NIGK17000U	Land Use and Environmental Modelling	Block 3	7.5 ECTS

6.3.2 Restricted elective subject elements

30 ECTS are to be covered as subject elements from the following two lists:

1) 15 ECTS are to be covered as subject elements from the following list:

Course Code	Course Title	Block	ECTS
NPLK18000U	Toxicology and Ecotoxicology	Block 1	7.5 ECTS
NPLK13003U	Advanced Analytical Chemistry - Sampling and Sample Preparation	Block 1	7.5 ECTS
NPLK19002U	Experimental Soil Analysis	Block 1	7.5 ECTS
NIGK14052U	Landscape and Restoration Ecology	Block 2	7.5 ECTS
LBIK10180U	Applied Microbiology	Block 2	7.5 ECTS
NPLK14029U	Soil and Water Pollution – Experimental Assessment	Block 2	7.5 ECTS
NPLK13004U	Advanced Analytical Chemistry - Chromatography and Mass Spectrometry	Block 2	7.5 ECTS
NBIK14007U	Soil Biology	Block 2	7.5 ECTS
NPLK14023U	Applied Agrohydrology	Block 2	7.5 ECTS

2) 15 ECTS are to be covered as subject elements from one of the following lists according to choice of sub-specialisation/profile:

Profile: Water Resources

Course Code	Course Title	Block	ECTS
NIGK15027U	Surface Hydrology	Block 3	7.5 ECTS
NIGK21007U	Integrated Water Resources	Block 3	7.5 ECTS
NPLB14027U	Analytical Chemistry	Block 3	7.5 ECTS
NBIK14004U	Freshwater Ecology	Block 4	7.5 ECTS
NIGK15005U	Ecological Modelling	Block 4	7.5 ECTS

Profile: Environmental Impact

Course Code	Course Title	Block	ECTS
LTEK10157U	Natural Resource Sampling and Modelling	Block 3	7.5 ECTS

Course Code	Course Title	Block	ECTS
NPLK20000U	Plant Ecophysiology in a Changing Climate	Block 3	7.5 ECTS
LNAK10010U	Environmental Impact Assessment	Block 4	7.5 ECTS
NIFK15005U	Environmental and Human Health Risk Assessment of Chemicals	Block 4	7.5 ECTS

6.3.3 Elective subject elements

7.5 ECTS are to be covered as elective subject elements.

- All subject elements at MSc level may be included as elective subject elements in the MSc Programme.
- BSc subject elements corresponding to 7.5 ECTS may be included in the MSc Programme.
- Projects. See 6.3.4 Projects.

6.3.4 Projects

- Projects outside the course scope may be included in the elective section of the programme with 7.5 ECTS. The primary supervisor must be employed at either SCIENCE or SUND. The regulations are described in Appendix 5 to the shared section of the curriculum.
- Thesis preparation projects may not be included in the elective section of the programme. The regulations are described in Appendix 6 to the shared section of the curriculum.

6.3.5 Thesis

The MSc Programme in Environmental Science with the specialisation Soil, Water and Biodiversity (1st year at UCPH, 2nd year abroad) includes a thesis corresponding to 30 ECTS. The topic of the thesis must be within the academic scope of the programme and the thesis must be carried out in accordance with the rules defined by the host university.

6.3.6 Academic mobility

Students with the specialisation in Soil, Water and Biodiversity (1st year at UCPH, 2nd year abroad) have compulsory mobility at a partner university for their 2nd year.

6.4 Soil, Water and Biodiversity (1st year abroad, 2nd year at UCPH).

The specialisation is set at 120 ECTS and consists of the following:

- Compulsory studies at partner university, 60 ECTS (1st year)
- Compulsory subject elements, 7.5 ECTS
- Restricted elective subject elements, 15 ECTS.
- Elective subject elements, 7.5 ECTS.
- Thesis, 30 ECTS

Profile: Water Resources

6.4.1 Compulsory subject elements

The entire following subject elements are to be covered (7.5 ECTS):

Course Code	Course Title	Block	ECTS
NPLK14021U	Soil and Water Pollution – Concepts and Theory	Block 1	7.5 ECTS

6.4.2 Restricted elective subject elements

15 ECTS are to be covered from the following lists after 1st year at the partner university:

Course Code	Course Title	Block	ECTS
NPLK13003U	Advanced Analytical Chemistry - Sampling and Sample Preparation	Block 1	7.5 ECTS

NPLK19002U	Experimental Soil Analysis	Block 1	7.5 ECTS
NPLK13004U	Advanced Analytical Chemistry – Chromatography and Mass Spectrometry	Block 2	7.5 ECTS
NPLK14023U	Applied Agrohydrology	Block 2	7.5 ECTS
NPLK14029U	Soil and Water Pollution – Experimental Assessment	Block 2	7.5 ECTS
NPLK16003U	Experimental Analytical Chemistry – Method Development and Quality Assurance	Block 2	7.5 ECTS

Profile: Soil Resources and Land Use

6.4.3 Compulsory subject elements

The entire following subject elements are to be covered (7.5 ECTS):

Course Code	Course Title	Block	ECTS
NPLK14021U	Soil and Water Pollution – Concepts and Theory	Block 1	7.5 ECTS

6.4.4 Restricted elective subject elements

15 ECTS are to be covered from the following lists after 1st year at the partner university:

Course Code	Course Title	Block	ECTS
NPLK17001U	Advanced Microbial Biotechnology	Block 1	7.5 ECTS
NPLK19002U	Experimental Soil Analysis	Block 1	7.5 ECTS
LBIK10180U	Applied Microbiology	Block 2	7.5 ECTS
NPLK14023U	Applied Agrohydrology	Block 2	7.5 ECTS
NPLK14029U	Soil and Water Pollution – Experimental Assessment	Block 2	7.5 ECTS

Profile: Environmental Impact

6.4.5 Compulsory subject elements

The entire following subject elements are to be covered (7.5 ECTS):

Course Code	Course Title	Block	ECTS
NPLK14004U	Life Cycle Assessment within Biological Production Systems	Block 1	7.5 ECTS

6.4.6 Restricted elective subject elements

15 ECTS are to be covered from the following lists after 1st year at the partner university:

Course Code	Course Title	Block	ECTS
NPLK17001U	Advanced Microbial Biotechnology	Block 1	7.5 ECTS
NPLK14019U	Plant Nutrition and Soil Fertility	Block 1	7.5 ECTS
NPLK21001U	Plants in Populations and Communities	Block 1	7.5 ECTS
LBIK10180U	Applied Microbiology	Block 2	7.5 ECTS
NIGK14052U	Landscape and Restoration Ecology	Block 2	7.5 ECTS

6.4.7 Elective subject elements

7.5 ECTS are to be covered as elective subject elements.

- All subject elements at MSc level may be included as elective subject elements in the MSc Programme.
- BSc subject elements corresponding to 7.5 ECTS may be included in the MSc Programme.
- Projects. See 6.5.7 Projects.

6.4.8 Projects

- Projects outside the course scope may be included in the elective section of the programme with 7.5 ECTS. The primary supervisor must be employed at either SCIENCE or SUND. The regulations are described in Appendix 5 to the shared section of the curriculum.

- Thesis preparation projects may be included in the elective section of the programme with up to 7.5 ECTS. The primary supervisor must be employed at either SCIENCE or SUND. The regulations are described in Appendix 4 to the shared section of the curriculum.

6.4.9 Thesis

The MSc Programme in Environmental Science with a specialisation in Soil, Water and Biodiversity (1st year abroad, 2nd year at UCPH) includes a thesis corresponding to 30 ECTS, as described in Appendix 2 to the shared curriculum. The thesis must be written within the academic scope of programme.

The primary supervisor must be employed at either SCIENCE or SUND.

6.4.10 Academic mobility

Students with the specialisation Soil, Water and Biodiversity (1st year abroad, 2nd year at UCPH) has one year abroad when entering the Faculty of Science at the 2nd year of the MSc Programme.

7 Exemptions

In exceptional circumstances, the study board may grant exemptions from the rules in the curriculum specified solely by the Faculty of Science.

8 Commencement etc.

8.1 Validity

This subject specific section of the curriculum applies to all students enrolled in the programme – see however Appendix 2.

8.2 Transfer

Students enrolled on previous curricula may be transferred to the new one as per the applicable transfer regulations or according to an individual credit transfer by the study board.

8.3 Amendment

The curriculum may be amended once a year so that any changes come into effect at the beginning of the academic year. Amendments must be proposed by the study board and approved by the Dean.

Notification about amendments that tighten the admission requirements for the programme will be published online at science.ku.dk one year before they come into effect.

If amendments are made to this curriculum, an interim arrangement may be added if necessary to allow students to complete their MSc Programme according to the amended curriculum.

Appendix 1 The recommended academic progression

The table illustrates the recommended academic progression. The student is allowed to plan an alternative progression within the applicable rules.

Tables for students admitted to the MSc Programme in Environmental Science in September (summer):

Table – Chemistry, Toxicology and Health (Thesis 30 ECTS)

	Block 1	Block 2	Block 3	Block 4
1st year	Toxicology and Ecotoxicology	Air Pollution and Health	Environmental Epidemiology	Environmental and Human Health Risk Assessment of Chemicals
	Soil and Water Pollution, Concepts and Theory	Soil and Water Pollution, Experimental Assessment	Restricted elective	Restricted elective
2nd year	Elective	Elective	Thesis	
	Restricted elective	Restricted elective		

Table – Chemistry, Toxicology and Health (Thesis 45 ECTS)

	Block 1	Block 2	Block 3	Block 4
1st year	Toxicology and Ecotoxicology	Air Pollution and Health	Environmental Epidemiology	Environmental and Human Health Risk Assessment of Chemicals
	Soil and Water Pollution, Concepts and Theory	Soil and Water Pollution, Experimental Assessment	Restricted elective	Restricted elective
2nd year	Elective	Thesis		
	Elective			

Table – Soil and Water

	Block 1	Block 2	Block 3	Block 4
1st year	Soil and Water Pollution – Concepts and Theory	Restricted elective	Land Use and Environmental Modelling	Restricted elective
	Elective	Restricted elective	Restricted elective	Elective
2nd year	Elective	Thesis		
	Elective			

Table - Soil, Water and Biodiversity (1st year at UCPH, 2nd year abroad)

	Block 1	Block 2	Block 3	Block 4
1st year	Soil and Water Pollution – Concepts and Theory	Environmental Management in Europe	Land Use and Environmental Modelling	Elective
	Restricted elective	Restricted elective	Restricted elective	Restricted elective
2nd year	2 nd year at partner university			

Table - Soil, Water and Biodiversity (1st year abroad, 2nd year at UCPH)

	Block 1	Block 2	Block 3	Block 4
1st year	1 st year at partner university			
2nd year	Compulsory (according to profiles)	Elective	Thesis	
	Restricted elective	Restricted elective		

Table for students admitted to the MSc Programme in Environmental Science in February (winter):

Table – Chemistry, Toxicology and Health (Thesis 30 ECTS)*

	Block 3	Block 4	Block 1	Block 2
1st year	Environmental Epidemiology	Environmental and Human Health Risk Assessment of Chemicals	Toxicology and Ecotoxicology	Air Pollution and Health
	Restricted elective	Restricted elective	Soil and Water Pollution, Concepts and Theory	Soil and Water Pollution, Experimental Assessment
2nd year	Elective	Elective	Thesis	
	Restricted elective	Restricted elective		

*This table is only relevant for students who begin the MSc Programme in February (block 3).

Table – Chemistry, Toxicology and Health (Thesis 45 ECTS)*

	Block 3	Block 4	Block 1	Block 2
1st year	Environmental Epidemiology	Environmental and Human Health Risk Assessment of Chemicals	Toxicology and Ecotoxicology	Air Pollution and Health
	Restricted elective	Restricted elective	Soil and Water Pollution, Concepts and Theory	Soil and Water Pollution, Experimental Assessment
2nd year	Elective	Thesis		
	Elective			

*This table is only relevant for students who begin the MSc Programme in February (block 3).

Table – Soil and Water*

	Block 3	Block 4	Block 1	Block 2
1st year	Land Use and Environmental Modelling	Elective	Soil and Water Pollution – Concepts and Theory	Elective
	Restricted elective	Restricted elective	Restricted elective	Restrictive elective
2nd year	Elective	Thesis		
	Elective			

*This table is only relevant for students who begin the MSc Programme in February (block 3).

Appendix 2 Interim arrangement

The Shared Section that applies to all BSc, part-time MSc and MSc Programmes at the Faculty of Science applies to all students.

The interim arrangements below only consist of parts where the current curriculum differs from the rules and regulations that were previously valid. Therefore, if information about relevant rules and regulations are missing, it can be found in the curriculum above.

1 General changes for students admitted in the academic year 2022/23

Students admitted to the MSc Programme in the academic year 2022/23 must finish the programme as listed in the curriculum above with the following exceptions.

1.1 Chemistry, Toxicology and Health

Restricted elective subject elements

30 ECTS are to be covered as subject elements from the following list (thesis, 30 ECTS)

15 ECTS are to be covered as subject elements from the following list (thesis, 45 ECTS)

Restricted elective subject elements offered as part of the specialisation in Chemistry, Toxicology and Health in this curriculum (see above)			
NFYK13011U	Applied Statistics: From Data to Results	Block 2	7.5 ECTS
NIGK22001U	Use of Stable Isotopes for Advanced Studies of Environmental and Soil Biogeochemical Processes.	Discontinued*	7.5 ECTS

*See discontinued courses below

1.2 Land Use and Modelling

The specialisation is set at 120 ECTS and consists of the following:

- Compulsory subject elements, 22.5 ECTS.
- Restricted elective subject elements, 30 ECTS
- Elective subject elements, 22.5 ECTS.
- Thesis, 45 ECTS

Table – Land Use and Modelling (admitted in September)

	Block 1	Block 2	Block 3	Block 4
1st year	Soil and Water Pollution – Concepts and Theory	Applied Agrohydrology	Restricted elective	Restricted elective
	Elective	Restricted elective	Restricted elective	Elective
2nd year	<i>Modelling Soil-Plant-Atmosphere Systems</i>	Thesis		
	Elective			

Subject elements in italics have been discontinued. See discontinued courses below.

Table – Land Use and Modelling (admitted in February*)

	Block 3	Block 4	Block 1	Block 2
1st year	Restricted elective	Restricted elective	Soil and Water Pollution – Concepts and Theory	Applied Agrohydrology
	Restricted elective	Elective	<i>Modelling Soil-Plant-Atmosphere Systems</i>	Restricted elective
2nd year	Elective	Thesis		
	Elective			

*This table is only relevant for students who begin the MSc Programme in February (block 3).
Subject elements in italics have been discontinued. See discontinued courses below.

Restricted elective subject elements

30 ECTS are to be covered as subject elements from the following two lists:

1) 15 ECTS are to be covered as subject elements from the following list:

Course Code	Course Title	Block	ECTS
NDAK16003U	Introduction to Data Science (IDS)	Block 3	7.5 ECTS
NIGK14002U	Geographical Information Systems (GIS)	Block 3	7.5 ECTS
NBIK14016U	Experimental Design and Statistical Methods in Biology (StatBio)	Block 3	7.5 ECTS

2) 15 ECTS are to be covered as subject elements from the following list:

Course Code	Course Title	Block	ECTS
NPLK19000U	Big Data in Biotechnology	Block 1	7.5 ECTS
NPLK19002U	Experimental Soil Analysis	Block 1	7.5 ECTS
NPLK18000U	Toxicology and Ecotoxicology	Block 1	7.5 ECTS
NPLK21001U	Plants in Populations and Communities	Block 1	7.5 ECTS
NPLK16001U	Advanced Crop Production	Block 1	7.5 ECTS
NPLK13003U	Advanced Analytical Chemistry - Sampling and Sample Preparation	Block 1	7.5 ECTS
NPLK14004U	Life Cycle Assessment within Biological Production Systems	Block 1	7.5 ECTS
NMAK14003U	Applied Statistics (AppStat)	Block 2	7.5 ECTS
LBIK10180U	Applied Microbiology	Block 2	7.5 ECTS
NIGK17000U	Land Use and Environmental Modelling	Block 3	7.5 ECTS
LTEK10157U	Natural Resource Sampling and Modelling	Block 3	7.5 ECTS
NFOK21000U	Advanced Chemometrics and Machine Learning	Block 3	7.5 ECTS
NIGK15027U	Surface Hydrology	Block 3	7.5 ECTS
NDAK16003U	Introduction to Data Science (IDS)	Block 3	7.5 ECTS
NIGK14002U	Geographical Information Systems (GIS)	Block 3	7.5 ECTS
NBIK14016U	Experimental Design and Statistical Methods in Biology (StatBio)	Block 3	7.5 ECTS
NIGK13019U	Water Resources Management	Block 4	7.5 ECTS
NIGK15005U	Ecological Modelling	Block 4	7.5 ECTS
LNAK10010U	Environmental Impact Assessment	Block 4	7.5 ECTS

Elective subject elements

22.5 ECTS are to be covered as elective subject elements.

- All subject elements at MSc level may be included as elective subject elements in the MSc Programme.
- BSc subject elements corresponding to 15 ECTS may be included in the MSc Programme.
- Projects. See 6.2.4 Projects.

Projects

- Projects outside the course scope may be included in the elective section of the programme with up to 15 ECTS. The primary supervisor must be employed at either the Faculty of Science or the Faculty of Health and Medical Sciences at the University of Copenhagen. The regulations are described in Appendix 5 to the shared section of the curriculum.
- Projects in practice may be included in the elective section of the programme with 15 ECTS. The regulations are described in Appendix 4 to the shared section of the curriculum.
- Thesis preparation projects may not be included in the elective section of the programme. The regulations are described in Appendix 6 to the shared section of the curriculum.

1.3 Soil, Water and Biodiversity (1st year at UCPH, 2nd year abroad)

Restricted elective subject elements

30 ECTS are to be covered as subject elements from two lists.

1) 15 ECTS are to be covered as subject elements from the following list:

Restricted elective subject elements offered as part of the specialisation in Soil, Water and Biodiversity in this curriculum (see above)			
LFKK10265U	Conflict Management	Block 2	7.5 ECTS

1.4 Soil, Water and Biodiversity (1st year abroad, 2nd year at UCPH)

Profile: Water Resources

Restricted elective subject elements

1) 15 ECTS are to be covered as subject elements from the following list after 1st year at the partner university:

Restricted elective subject elements offered as part of the specialisation in Soil, Water and Biodiversity in this curriculum (see above)			
NPLK19001U	Modelling of Soil-Plant-Atmosphere Systems	Discontinued*	7.5 ECTS

*See discontinued courses below

2 General changes for students admitted in the academic year 2021/22

Students admitted to the MSc Programme in the academic year 2021/22 must finish the programme as listed in the curriculum above with the following exceptions.

2.1 Chemistry, Toxicology and Health

Restricted elective subject elements

30 ECTS are to be covered as subject elements from the following list (thesis, 30 ECTS)

15 ECTS are to be covered as subject elements from the following list (thesis, 45 ECTS)

Restricted elective subject elements offered as part of the specialisation in Chemistry, Toxicology and Health in this curriculum (see above)			
SFAK20014U	Principles and Practice of Bioanalysis	Block 1	7.5 ECTS
NFYK13011U	Applied Statistics: From Data to Results	Block 2	7.5 ECTS
NIGK17007U	Advanced Soil Science and Isotope Geochemistry	Discontinued*	7.5 ECTS
NIGK22001U	Use of Stable Isotopes for Advanced Studies of Environmental and Soil Biogeochemical Processes.	Discontinued*	7.5 ECTS

*See discontinued courses below

2.2 Soil, Water and Biodiversity (1st year at UCPH, 2nd year abroad)

The specialisation is set at 120 ECTS and consists of the following:

- Compulsory subject elements, 15 ECTS.
- Restricted elective subject elements, 37.5 ECTS.
- Elective subject elements, 7.5 ECTS.
- Compulsory studies at partner university 60 credits (2nd year)

Table – MSc Programme in Environmental Science-Soil, Water and Biodiversity (1st year at UCPH, 2nd year abroad)

	Block 1	Block 2	Block 3	Block 4
1st year	<i>Environmental Management in Europe</i>		Restricted elective	Elective
	Restricted elective	Restricted elective	Restricted elective	Restricted elective
2nd year	2nd year at partner university			

Subject elements in italics have been discontinued. See discontinued courses below.

Restricted elective subject elements

37.5 ECTS are to be covered as subject elements from two of the following lists:

1) 15 ECTS are to be covered as subject elements from the following list:

NPLK14021U	Soil and Water Pollution – Concepts and Theory	Block 1	7.5 ECTS
NPLK18000U	Toxicology and Ecotoxicology	Block 1	7.5 ECTS
NPLK13003U	Advanced Analytical Chemistry - Sampling and Sample Preparation	Block 1	7.5 ECTS
NPLK21001U	Plants in Populations and Communities	Block 1	7.5 ECTS
NIFK18001U	Planning Interdisciplinary Research	Block 1	7.5 ECTS
NPLK19002U	Experimental Soil Analysis	Block 1	7.5 ECTS
NFYK13011U	Applied Statistics: From Data to Results	Block 2	7.5 ECTS
NIGK14052U	Landscape and Restoration Ecology	Block 2	7.5 ECTS
LBIK10180U	Applied Microbiology	Block 2	7.5 ECTS
LFKK10265U	Conflict Management	Block 2	7.5 ECTS
NPLK14029U	Soil and Water Pollution – Experimental Assessment	Block 2	7.5 ECTS
NPLK13004U	Advanced Analytical Chemistry - Chromatography and Mass Spectrometry	Block 2	7.5 ECTS

2) 22.5 ECTS are to be covered as subject elements from the following lists according to choice of profile:

Profile: Soil Resources and Land Use

NIGK17000U	Land Use and Environmental Modelling	Block 3	7.5 ECTS
NPLK14006U	Pesticide Use, Mode of Action and Ecotoxicology	Block 3	7.5 ECTS
NIGK14002U	Geographical Information Systems (GIS)	Block 3	7.5 ECTS
NBIK14018U	Terrestrial Ecosystem Processes and Global Change	Block 4	7.5 ECTS
NIFK14026U	Entrepreneurship and Innovation	Block 4	7.5 ECTS
LLEK10246U	Advanced Chemometrics	Discontinued*	7.5 ECTS
NIGK17007U	Advanced Soil Science and Isotope Geochemistry	Discontinued*	7.5 ECTS

*See discontinued courses below

Profile: Environmental Impact

NIGK17000U	Land Use and Environmental Modelling	Block 3	7.5 ECTS
NIGK14002U	Geographical Information Systems (GIS)	Block 3	7.5 ECTS
LTEK10157U	Natural Resource Sampling and Modelling	Block 3	7.5 ECTS
NPLK14006U	Pesticide Use, Mode of Action and Ecotoxicology	Block 3	7.5 ECTS
NIFK14026U	Entrepreneurship and Innovation	Block 4	7.5 ECTS
LNAK10010U	Environmental Impact Assessment	Block 4	7.5 ECTS
LLEK10246U	Advanced Chemometrics	Discontinued*	7.5 ECTS

*See discontinued courses below

Profile: Climate Change

NFYK13000U	Climate Change Mechanisms and Tipping Points	Block 3	7.5 ECTS
NIFK13006U	The Economics of Climate Change	Block 3	7.5 ECTS
NIFK14029U	Motivation and Pro-Environmental Behaviour - Managing Change	Block 3	7.5 ECTS
LNAK10072U	Global Environmental Governance	Block 3	7.5 ECTS
NIGK21035U	Past Climate	Block 4	7.5 ECTS
SGBK200007U	Climate Change and Biodiversity	Block 4	7.5 ECTS
NIGK13005U	Energy Systems and Climate Mitigation	Block 4	7.5 ECTS
NIGK13012U	Human Adaptation to Climate Change and Variability	Block 4	7.5 ECTS
NFYK17002U	Climate Models and Observations	Block 4	7.5 ECTS
NIFK14037U	Climate Change and Forestry: Monitoring and Policies	Discontinued*	7.5 ECTS

*See discontinued courses below

Profile: Ecosystems and Biodiversity

NIGK16000U	Applied Ecosystem Ecology	Block 3	7.5 ECTS
NIGK17000U	Land Use and Environmental Modelling	Block 3	7.5 ECTS
NBIK14004U	Freshwater Ecology	Block 4	7.5 ECTS
NIGK15005U	Ecological Modelling	Block 4	7.5 ECTS
NBIK14017U	Invasion Biology	Block 4	7.5 ECTS
NBIK14018U	Terrestrial Ecosystem Processes and Global Change	Block 4	7.5 ECTS
SGBK200007U	Climate Change and Biodiversity	Block 4	7.5 ECTS
NIGK14000U	Conservation and Management of Genetic Resources	Discontinued*	7.5 ECTS

*See discontinued courses below

2.3 Soil, Water and Biodiversity (1st year abroad, 2nd year at UCPH).

The specialisation is set at 120 ECTS and consists of the following:

- Compulsory studies at partner university, 60 ECTS (1st year)
- Restricted elective subject elements, 22.5 ECTS.
- Elective subject elements, 7.5 ECTS.
- Thesis, 30 ECTS

Restricted elective subject elements

22.5 ECTS are to be covered as subject elements from one of the following lists according to the sub-specialisation/profile chosen after 1st semester at the partner university:

Profile: Soil Resources and Land Use

NPLK14021U	Soil and Water Pollution – Concepts and Theory	Block 1	7.5 ECTS
NPLK21001U	Plants in Populations and Communities	Block 1	7.5 ECTS

NPLK14021U	Soil and Water Pollution – Concepts and Theory	Block 1	7.5 ECTS
NPLK14019U	Plant Nutrition and Soil Fertility	Block 1	7.5 ECTS
NIGK17010U	Remote Sensing of the Bio-geosphere	Block 1	7.5 ECTS
NIGK17016U	Environmental Soil Science	Block 2	7.5 ECTS
NPLK14029U	Soil and Water Pollution – Experimental Assessment	Block 2	7.5 ECTS
NMAK14003U	Applied Statistics	Block 2	7.5 ECTS
NPLK14023U	Applied Agrohydrology	Block 2	7.5 ECTS
	Thesis Preparation Project	Block 1-4	7.5 ECTS
	Thesis Preparation Project	Block 1-4	15 ECTS

*See discontinued courses below

Profile: Environmental Impact

NPLK21001U	Plants in Populations and Communities	Block 1	7.5 ECTS
NPLK14019U	Plant Nutrition and Soil Fertility	Block 1	7.5 ECTS
NIGK17010U	Remote Sensing of the Bio-geosphere	Block 1	7.5 ECTS
NIGK17013U	Ecosystems, Climate and Climate Change	Block 1	7.5 ECTS
NPLK14004U	Life Cycle Assessment within Biological Production Systems	Block 1	7.5 ECTS
LBIK10180U	Applied Microbiology	Block 2	7.5 ECTS
NIGK14052U	Landscape and Restoration Ecology	Block 2	7.5 ECTS
NMAK14003U	Applied Statistics	Block 2	7.5 ECTS
	Thesis Preparation Project	Block 1-4	7.5 ECTS
	Thesis Preparation Project	Block 1-4	15 ECTS
LPLK10382U	Advanced Plant Ecophysiology	Discontinued*	7.5 ECTS
LNAK10069U	Climate Change Impacts, Adaptation and Mitigation	Discontinued*	15 ECTS

*See discontinued courses below

Profile: Climate Change

Restricted elective subject elements offered as part of the specialisation in Soil, Water and Biodiversity (1 st year abroad, 2 nd year at UCPH) in this curriculum (see above)			
NFYK15008U	Earth and Climate Physics	Block 1	7.5 ECTS
NFYK14007U	Paleo-Climatology	Block 1	7.5 ECTS
NIGK17013U	Ecosystems, Climate and Climate Change	Block 1	7.5 ECTS
NPLK14030U	Climate Change and Land Use	Block 2	7.5 ECTS
NBIK14001U	Climate Change and Biogeochemical Cycles	Block 2	7.5 ECTS
LPLK10381U	Climate Solutions	Block 2	15 ECTS
NIGK14056U	Climate Change and Water Resources	Block 2	7.5 ECTS
	Thesis Preparation Project	Block 1-4	7.5 ECTS
	Thesis Preparation Project	Block 1-4	15 ECTS
LNAK10069U	Climate Change Impacts, Adaptation and Mitigation	Discontinued*	15 ECTS

* See discontinued courses below

Profile: Ecosystems and Biodiversity

NPLK21001U	Plants in Populations and Communities	Block 1	7.5 ECTS
NBIK14021U	Evolutionary Ecology	Block 1	7.5 ECTS
NPLK14019U	Plant Nutrition and Soil Fertility	Block 1	7.5 ECTS
LNAK10099U	Biodiversity in Urban Nature	Block 1	7.5 ECTS
NIGK17013U	Ecosystems, Climate and Climate Change	Block 1	7.5 ECTS
NIGK21036U	Thematic Course: Ecology and Management of Forests and other semi-natural Terrestrial Ecosystems	Block 1	15 ECTS

NPLK21001U	Plants in Populations and Communities	Block 1	7.5 ECTS
SGBK20002U	Macroecology and Community Ecology	Block 2	7.5 ECTS
NBIK14007U	Soil Biology	Block 2	7.5 ECTS
NBIK12003U	Conservation Biology	Block 2	7.5 ECTS
NIGK14052U	Landscape and Restoration Ecology	Block 2	7.5 ECTS
NMAK14003U	Applied Statistics	Block 2	7.5 ECTS
NIGK13007U	Ecosystem Services from Forests and Nature	Block 2	7.5 ECTS
	Thesis Preparation Project	Block 1-4	7.5 ECTS
	Thesis Preparation Project	Block 1-4	15 ECTS

*See discontinued courses below

3 General changes for students admitted in the academic year 2020/21

Students admitted to the MSc Programme in the academic year 2020/21 must finish the programme as listed in the curriculum above with the following exceptions.

3.1 Chemistry, Toxicology and Health

The specialisation is set at 120 ECTS and consists of the following:

- Compulsory subject elements, 45 ECTS.
- Restricted elective subject elements
 - 30 ECTS (thesis, 30 ECTS)
 - 15 ECTS (thesis, 45 ECTS)
- Elective subject elements, 15 ECTS.
- Thesis, 30 or 45 ECTS

Restricted elective subject elements

30 ECTS are to be covered as subject elements from the following list (thesis, 30 ECTS)

15 ECTS are to be covered as subject elements from the following list (thesis, 45 ECTS)

Restricted elective subject elements offered as part of the specialisation in Chemistry, Toxicology and Health in this curriculum (see above)			
SFAK20014U	Principles and Practice of Bioanalysis	Block 1	7.5 ECTS
NFYK13011U	Applied Statistics: From Data to Results	Block 2	7.5 ECTS
NIGK15005U	Ecological Modelling	Block 4	7.5 ECTS
NBIK14004U	Freshwater Ecology	Block 4	7.5 ECTS
NIGK19001U	Introduction to Geomicrobiology	Block 4	7.5 ECTS
LLEK10246U	Advanced Chemometrics	Discontinued*	7.5 ECTS
NGEK12002U	Groundwater Geochemistry	Discontinued*	7.5 ECTS
NIGK17007U	Advanced Soil Science and Isotope Geochemistry	Discontinued*	7.5 ECTS
NIGK22001U	Use of Stable Isotopes for Advanced Studies of Environmental and Soil Biogeochemical Processes	Discontinued*	7.5 ECTS

*See discontinued courses below

3.3 Soil, Water and Biodiversity (1st year at UCPH, 2nd year abroad)

Restricted elective subject elements

37.5 ECTS are to be covered as subject elements from the following two lists:

1) 15 ECTS are to be covered as subject elements from the following list:

Restricted elective subject elements offered as part of the specialisation in Soil, Water and Biodiversity (1 st year at UCPH, 2 nd year abroad) in this curriculum (see above)			
LFKK10265U	Conflict Management	Block 2	7.5 ECTS
NPLK14009U	Plants in Populations, Communities and Ecosystems	Discontinued*	7.5 ECTS

*See discontinued courses below

2) 22.5 ECTS are to be covered as subject elements from the following lists according to choice of sub-specialisation/profile:

Profile: Soil Resources and Land Use

NIGK17000U	Land Use and Environmental Modelling	Block 3	7.5 ECTS
NPLK14006U	Pesticide Use, Mode of Action and Ecotoxicology	Block 3	7.5 ECTS
NIGK14002U	Geographical Information Systems (GIS)	Block 3	7.5 ECTS
NBIK14018U	Terrestrial Ecosystem Processes and Global Change	Block 4	7.5 ECTS
NIFK14026U	Entrepreneurship and Innovation	Block 4	7.5 ECTS
NGEK10029U	Groundwater Exploitation and Protection	Discontinued*	7.5 ECTS
LLEK10246U	Advanced Chemometrics	Discontinued*	7.5 ECTS
NIGK17007U	Advanced Soil Science and Isotope Geochemistry	Discontinued*	7.5 ECTS

*See discontinued courses below

Profile: Environmental Impact

NIGK17000U	Land Use and Environmental Modelling	Block 3	7.5 ECTS
NIGK14002U	Geographical Information Systems (GIS)	Block 3	7.5 ECTS
LTEK10157U	Natural Resource Sampling and Modelling	Block 3	7.5 ECTS
NPLK14006U	Pesticide Use, Mode of Action and Ecotoxicology	Block 3	7.5 ECTS
NIFK14026U	Entrepreneurship and Innovation	Block 4	7.5 ECTS
LNAK10010U	Environmental Impact Assessment	Block 4	7.5 ECTS
LLEK10246U	Advanced Chemometrics	Discontinued*	7.5 ECTS

* See discontinued courses below

Profile: Climate Change

NFYK13000U	Climate Change Mechanisms and Tipping Points	Block 3	7.5 ECTS
NIFK13006U	The Economics of Climate Change	Block 3	7.5 ECTS
NIFK14029U	Motivation and Pro-Environmental Behaviour - Managing Change	Block 3	7.5 ECTS
LNAK10072U	Global Environmental Governance	Block 3	7.5 ECTS
NIGK21035U	Past Climate	Block 4	7.5 ECTS
SGBK200007U	Climate Change and Biodiversity	Block 4	7.5 ECTS
NIGK13005U	Energy Systems and Climate Mitigation	Block 4	7.5 ECTS
NIGK13012U	Human Adaptation to Climate Change and Variability	Block 4	7.5 ECTS
NFYK17002U	Climate Models and Observations	Block 4	7.5 ECTS
NIFK14037U	Climate Change and Forestry: Monitoring and Policies	Discontinued*	7.5 ECTS
NIGK17002U	Past Climate and Sea Level: Processes and Proxies	Discontinued*	7.5 ECTS

* See discontinued courses below

3.4 Soil, Water and Biodiversity (1st year abroad, 2nd year at UCPH).

The specialisation is set at 120 ECTS and consists of the following:

- Compulsory studies at partner university, 60 ECTS (1st year)
- Restricted elective subject elements, 22.5 ECTS.
- Elective subject elements, 7.5 ECTS.
- Thesis, 30 ECTS

Restricted elective subject elements

22.5 ECTS are to be covered as subject elements from one of the following lists according to the sub-specialisation/profile chosen after 1st semester at the partner university:

Profile: Soil Resources and Land Use

NPLK14021U	Soil and Water Pollution – Concepts and Theory	Block 1	7.5 ECTS
NPLK21001U	Plants in Populations and Communities	Block 1	7.5 ECTS
NPLK14019U	Plant Nutrition and Soil Fertility	Block 1	7.5 ECTS
NIGK17010U	Remote Sensing of the Bio-geosphere	Block 1	7.5 ECTS
NIGK17016U	Environmental Soil Science	Block 2	7.5 ECTS
NPLK14029U	Soil and Water Pollution – Experimental Assessment	Block 2	7.5 ECTS
NMAK14003U	Applied Statistics	Block 2	7.5 ECTS
NPLK14023U	Applied Agrohydrology	Block 2	7.5 ECTS
	Thesis Preparation Project	Block 1-4	7.5 ECTS
	Thesis Preparation Project	Block 1-4	15 ECTS
NPLK14009U	Plants in Populations, Communities and Ecosystems	Discontinued*	7.5 ECTS

* See discontinued courses below

Profile: Environmental Impact

NPLK21001U	Plants in Populations and Communities	Block 1	7.5 ECTS
NPLK14019U	Plant Nutrition and Soil Fertility	Block 1	7.5 ECTS
NIGK17010U	Remote Sensing of the Bio-geosphere	Block 1	7.5 ECTS
NIGK17013U	Ecosystems, Climate and Climate Change	Block 1	7.5 ECTS
NPLK14004U	Life Cycle Assessment within Biological Production Systems	Block 1	7.5 ECTS
LBIK10180U	Applied Microbiology	Block 2	7.5 ECTS
NIGK14052U	Landscape and Restoration Ecology	Block 2	7.5 ECTS
NMAK14003U	Applied Statistics	Block 2	7.5 ECTS
	Thesis Preparation Project	Block 1-4	7.5 ECTS
	Thesis Preparation Project	Block 1-4	15 ECTS
NPLK14009U	Plants in Populations, Communities and Ecosystems	Discontinued*	7.5 ECTS
LPLK10382U	Advanced Plant Ecophysiology	Discontinued*	7.5 ECTS
LNAK10069U	Climate Change Impacts, Adaptation and Mitigation	Discontinued*	15 ECTS

* See discontinued courses below

Profile: Ecosystems and Biodiversity

NPLK21001U	Plants in Populations and Communities	Block 1	7.5 ECTS
NBIK14021U	Evolutionary Ecology	Block 1	7.5 ECTS
NPLK14019U	Plant Nutrition and Soil Fertility	Block 1	7.5 ECTS
LNAK10099U	Biodiversity in Urban Nature	Block 1	7.5 ECTS
NIGK17013U	Ecosystems, Climate and Climate Change	Block 1	7.5 ECTS
NIGK21036U	Thematic Course: Ecology and Management of Forests and other semi-natural Terrestrial Ecosystems	Block 1	15 ECTS
SGBK20002U	Macroecology and Community Ecology	Block 2	7.5 ECTS
NBIK14007U	Soil Biology	Block 2	7.5 ECTS

NPLK21001U	Plants in Populations and Communities	Block 1	7.5 ECTS
NBIK12003U	Conservation Biology	Block 2	7.5 ECTS
NIGK14052U	Landscape and Restoration Ecology	Block 2	7.5 ECTS
NMAK14003U	Applied Statistics	Block 2	7.5 ECTS
NIGK13007U	Ecosystem Services from Forests and Nature	Block 2	7.5 ECTS
	Thesis Preparation Project	Block 1-4	7.5 ECTS
	Thesis Preparation Project	Block 1-4	15 ECTS
LNAK10064U	Thematic Course: Ecology and Management of Forests and other semi-natural Terrestrial Ecosystems	Discontinued*	15 ECTS
NPLK14009U	Plants in Populations, Communities and Ecosystems	Discontinued*	7.5 ECTS

*See discontinued courses below

4 Discontinued courses

Course Code	Course Title	ECTS	Interim arrangement
LLEK10246U	Advanced Chemometrics	7.5	<p>The course was compulsory on the specialisation in Chemistry, Toxicology and Health in the academic year 2020/21 and earlier.</p> <p>Offered for the last time: 2020/21</p> <p>The course is identical to Advanced Chemometrics and Machine Learning (NFOK21000U), 7.5 ECTS</p>
LPLK10382U	Advanced Plant Ecophysiology	7.5	<p>The course was restricted elective on the specialisation in Soil, Water and Biodiversity in the academic year 2019/20 and earlier.</p> <p>Offered for the last time: 2019/20</p> <p>Last exam if applicable (cf. SCIENCE's Teaching and exam rules): 2020/21</p>
NIGK17007U	Advanced Soil Science and Isotope Geochemistry	7.5	<p>The course was restricted elective on the specialisation Chemistry, Toxicology and Health and Soil, Water and Biodiversity in the academic year 2021/22 and earlier.</p> <p>Offered for the last time: 2021/22</p> <p>The course is identical to NIGK22001U Use of Stable Isotopes for Advanced Studies of Environmental and Soil Biogeochemical Processes.</p>
NNMK15003U	Climate Change and Biodiversity	7.5	<p>The course was restricted elective on the specialisation in Soil, Water and Biodiversity in the academic year 2019/20 and earlier.</p> <p>Offered for the last time: 2019/20</p> <p>The course is identical to Climate Change and Biodiversity, (SGBK20007U), 7.5 ECTS</p>

Course Code	Course Title	ECTS	Interim arrangement
NIFK14037U	Climate Change and Forestry: Monitoring and Policies	7.5	The course was restricted elective on the profile Climate Change on the specialisation Soil, Water and Biodiversity (1st year at UCPH, 2nd year abroad) in the academic year 2021/22 and 2020/21. Offered for the last time: 2022/23 Last exam if applicable (cf. SCIENCE's Teaching and exam rules): 2023/24
LNAK10069U	Climate Change Impacts, Adaptation and Mitigation	15	The course was restricted elective on the Profile: Environmental Impact and Profile: Climate Change in the academic year 2021/22 and 2020/21. Offered for the last time: 2023/24 Last exam if applicable (cf. SCIENCE's Teaching and exam rules): 2024/25
LNAK10043U	Environmental Management in Europe	15	The course was restricted elective in the academic year 2021/22 and earlier. Offered for the last time: 2021/22 Last exam if applicable (cf. SCIENCE's Teaching and exam rules): 2022/23
NFYK14025U	Ice Core Glaciology	7.5	The course was restricted elective on the specialisation in Soil, Water and Biodiversity in the academic year 2019/20 and earlier. Offered for the last time: 2019/20 Last exam if applicable (cf. SCIENCE's Teaching and exam rules): 2020/21
NGEK10029U	Groundwater Exploitation and Protection	7.5	The course was restricted elective on the specialisation in Soil, Water and Biodiversity in the academic year 2020/21 and earlier. Offered for the last time: 2020/21 Last exam if applicable (cf. SCIENCE's Teaching and exam rules): 2021/22
NGEK12002U	Groundwater Geochemistry	7.5	The course was restricted elective on the specialisation in Chemistry, Toxicology and Health in the academic year 2020/21 and earlier. Offered for the last time: 2020/21 Last exam if applicable (cf. SCIENCE's Teaching and exam rules): 2021/22
NIGK17000U	Land Use and Environmental Modelling	7.5	The course was restricted elective on the specialisation in Soil, Water and Biodiversity in the academic year 2021/22 and earlier. From 2022/23 the course is compulsory.

Course Code	Course Title	ECTS	Interim arrangement
NBIK15015U	Macro Ecology and Community Ecology	7.5	<p>The course was restricted elective on the specialisation in Soil, Water and Biodiversity in the academic year 2019/20 and earlier.</p> <p>Offered for the last time: 2019/20</p> <p>The course is identical to Macro Ecology and Community Ecology (SGBK20002U), 7.5 ECTS</p>
NPLK19001U	Modelling of Soil-Plant-Atmosphere Systems	7.5	<p>The course was compulsory on the specialisation Land Use and Modelling in the academic year 2022/23.</p> <p>The course was restricted elective on the profile Water Resources on the specialisation Soil, Water and Biodiversity (1st year at UCPH, 2nd year abroad) in the academic year 2022/23.</p> <p>Offered for the last time: 2022/23 Last exam if applicable (cf. SCIENCE's Teaching and exam rules): 2023/24.</p>
NIGK17002U	Past Climate and Sea Level: Processes and Proxies	7.5	<p>The course was restricted elective on the specialisation in Soil, Water and Biodiversity in the academic year 2020/21 and earlier.</p> <p>Offered for the last time: 2020/21</p> <p>The course is identical to Past Climate (NIGK21035U), 7.5 ECTS</p>
NPLK14009U	Plants in Populations, Communities and Ecosystems	7.5	<p>The course was restricted elective on the specialisation in Land Use and Modelling and Soil, Water and Biodiversity in 2020/21 and earlier.</p> <p>Offered for the last time: 2020/21</p> <p>The course is identical to Plants in Populations and Communities (NPLK21001U), 7.5 ECTS</p>
SFKK18003U	Principles and Practice of Bioanalysis	7.5	<p>The course was restricted elective on the specialisation in Chemistry, Toxicology and Health in the academic year 2019/20 and earlier.</p> <p>The course is identical to Principles and Practice of Bioanalysis (SFAK20014U), 7.5 ECTS</p>

Course Code	Course Title	ECTS	Interim arrangement
LNAK10064U	Thematic Course: Ecology and Management of Forests and other semi-natural Terrestrial Ecosystems	7.5	The course was restricted elective on the specialisation in Soil, Water and Biodiversity in the academic year 2020/21 and earlier. Offered for the last time: 2020/21 The course is identical to Thematic Course: Ecology and Management of Forests and other semi-natural Terrestrial Ecosystems (NIGK21036U), 7.5 ECTS
NIGK22001U	Use of Stable Isotopes for Advanced Studies of Environmental and Soil Biogeochemical Processes.	7.5	The course was restricted elective on the specialisation Chemistry, Toxicology and Health in the academic year 2022/23 and earlier. Offered for the last time: 2022/23 The course is identical to NIGK23005U Carbon Storage and Biological Interactions in Soils
NIGK14026U	Water Resources part 2	7.5	The course was restricted elective on the specialisation in Soil, Water and Biodiversity in the academic year 2020/21 and earlier. Offered for the last time: 2020/21 Last exam if applicable (cf. SCIENCE's Teaching and exam rules): 2021/22

Appendix 3 Description of objectives for the thesis

After completing the thesis, the student should have:

Knowledge about:

- Define and explain scientific problems within the study programme's subject areas.
- Methodologies/theories based on international research for defining the problem formulation.
- Digital tools to use for analysis, evaluation and visualization of data
- Theories/models based on an organised value system and with a high degree of independence.

Skills in/to:

- Apply and critically evaluate theories/methodologies/ digital tools, including their applicability and limitations.
- Assess the extent to which the production and interpretation of findings/material depend on the theory/methodology chosen and the delimitation chosen.
- Discuss academic issues arising from the thesis.
- Draw conclusions in a clear and academic manner in relation to the problem formulation and, more generally, considering the topic and the subject area.
- Discuss and communicate the academic and social significance, if any, of the thesis based on ethical principles.
- Substantiate the idea of conducting experimental work/producing own data in order to shed light on the topic as formulated in the problem formulation.
- Process data through a choice of academic analysis methods and present findings objectively and in a concise manner.
- Assess the credibility of own findings based on relevant data processing.

Competences in/to:

- Initiate and perform academic work in a research context.
- Solve complex problems and carry out development assignments in a work context.