Bachelor of Natural Resources, Sustainable Coastal Management (240 cr)

Degree: **YH-examen inom naturbruk**
Qualification title: **Miljöplanerare (YH), Bachelor of Natural Resources**
Duration of studies: **2 years**
Study type: **Full-time** D

The graduate
- has the basic knowledge of the principles of how an ecosystem functions and can identify and analyse the state of a coastal zone.
-Furthermore, s/he is able to propose how the state could be improved or managed sustainably.
- is able to identify the goods and services provided by an ecosystem.
- At the same time s/he is able to identify alternative ways of management that would support the balance between the society and the environment.
-is able to manage a coastal area in an integrated way, involving relevant stakeholders.
-is familiar with the conventions, policies and directives from the national and international environmental laws.
-has an understanding of how economic incentives and mechanisms can be used in ICZM.
-has an transdisciplinary approach in managing coastal zones.

» Generic competences
» Language Information for Students with Swedish or Finnish as Prior Language of Instruction.

Kontaktuppgifter: Enheter | Utbildningsansvariga

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Code	Name	Cr/year/total					
		1	2	3	4	5	Total
Gru	**Core studies** *At least 120 credits of Higher Education prior to the admission at YH Nove* *The core studies should have given the student the following competences:* *Study proficiency:* *-Ability to retrieve and critical exam information* *-Ability to write and present in a coherent way* *-Understand and solve problems* *-Social and communication skills* *A part from the competences the student should prove their interest/understanding in/of issues related to environmental or social or economic sustainable development.*						120 cr
Yrk	**Professional studies**						75 cr
CM13CE	**Coastal Ecology and Ecosystem Services** *The Student* *-understands the principles of ecology and that all ecosystems has an economical value* *-understands the interdependency of nature and society* *-knows the basics of coastal ecology*	15					15 cr
CM13CE01	• **Coastal Ecology I** *The Student* *-knows principles of community ecology as applied to brackish water habitats* *-can identify common species in the Baltic Sea* *-is familiar with marine environments* *-knows the basic methods for measuring important ecological parameters in the field and laboratory* *-knows how to carry out an ecological study and present the findings*	6					6 cr
CM13CE02	• **Coastal Ecology II** *The Student* *-can analyze and evaluate ecological studies and disseminate the results to decision makers and the public* *-can identify ecosystem services in the coastal area* *-understands the impacts of agriculture and forestry on the coastal ecosystems*	6					6 cr
CM13CE03	• **Fisheries Resource Management** *The Student* *-is familiar with fisheries management* *-knows different forms of aquaculture* *-knows environmental impacts of aquaculture and unsustainable fishery*	3					3 cr
CM13SW	**Sustainable Coastal and Water Management** *The Student* *- knows the concept of Integrated Coastal Zone Managment* *- is familiar with Maritime Spatial Planning* *- understands the principles of monitoring of aquatic bodies*	15					15 cr
CM13SW01	• **Sustainable Coastal Management** *At the end of this course students should:* *• know how and why water bodies are monitored* *• know the different institutions that carry out water monitoring in Finland* *• get familiar with different methods to conduct monitoring of aquatic bodies* *• learn about national and European laws that rule the aquatic monitoring*	6					6 cr
CM18SW01	• **Monitoring of Aquatic Bodies I** *The Student* *- knows what type of pollutional load threatens our water bodies* *- knows how and why water bodies are monitored* *- is familiar with authorities and other actors conductiong monitoring of aquatic bodies*	3					3 cr
CM18SW02	• **Monitoring of Aquatic Bodies II** *At the end of this course students should:* *• know the quality elements used to evaluate aquatic bodies* *• know which activities have an impact on the quality of surface waters* *• know the proper measures of management in order to lower the different types of impacts* *• be able to carry out methods used for evaluation of the state of surface waters and based on the results make an interpretation of the water quality*	3					3 cr
CM13SW02	• **Water and Sewage Management**	3					3 cr

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	The Student *-knows important principles for managing the optimum use of water resources* *-knows the basics of prevention, management and treatment of sewage* *-can suggest suitable sewage management solutions in different settings*						
CM16ME	**Management of Environmental Impact** *The Student* *- is familiar with how to identify and manage environmental impact.*	6	6				12 cr
CM16ME01	• **Environmental Impact Assessment** *The Student* *-understands the importance of assessing the long term environmental consequences of planning and construction* *-knows the EIA process in Finland and EU* *-is familiar with different methods of assessing environmental consequences of a product, a service or an activity*	3					3 cr
CM16ME02	• **Waste Management** *The Student* *• Knows the different management and treatment methods of waste.* *• Understands the hierarchy of waste management and the importance of wise resource usage and closing of the loop* *• Is familiar with circular economy*	3					3 cr
CM13SE01	• **Management Systems** *The Student* *-has basic knowledge of environmental and quality management systems and their purpose and benefits* *-knows the ISO standards and how they are structured* *-knows environment, health and safety procedures in companies*		3				3 cr
CM16ME03	• **Conservation Biology** *The Student:* *• Is familiar with the theory and practice of conservation of biodiversity, biological aspects of conservation, and systematic conservation planning* *• Understands ecological principles and human dimensions of the conservation of biological diversity* *• Is familiar with Natura 2000 and other conservation schemes*		3				3 cr
CM16GP	**GIS and planning** *The Student* *-Can use GIS as a tool to make sustainable plans of terrestrial and marine areas.*	9	3				12 cr
CM16GP01	• **Maritime Spatial Planning** *The Student* *• understands the EU Governance and marine planning policy and legislation* *• is able to work with stakeholders and participative methods* *• can define interactions and analyze pressures between human activity and the ecosystem* *• Knows the planning process and has executed a marine planning exercise*	3					3 cr
CM13IG02	• **Geographic Information Systems** *The Student* *-is able to handle geographic data in a GIS program* *-knows how to capture data using the Global Navigation Satellite System (GNSS)* *-can analyze geographical environmental data using different data sources and methods* *-can effectively visualize geographic information for different purposes*	3					3 cr
CM13IG03	• **GIS Project** *The student* *-can apply GIS for environmental planning*	3					3 cr
CM16GP02	• **Management of Urban Development** *The Student* *• understands the importance of well-functioning urban infrastructure* *• has an understanding of the socio-technical nature of infrastructure systems and the links between urban infrastructure, urban development and economy* *• understands the main challenges that the urban areas are facing and is aware of the existing tools to tackle these challenges*		3				3 cr
CM16LR	**Outreach and Research** *The Student* *- Knows the basics of project and career management as well as leadership* *- Is able to compelete their thesis in a successful manner*	9					9 cr
CM13PR01	• **Statistics** *The Student*	3					3 cr

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	-understands the benefits, relevance and reasons for using statistics in environmental sciences as a problem solving tool *-understands and knows the usefulness of probability in decision making* *-knows how to present descriptive statistical data* *-understands and can perform basic statistical tests* *-knows how to interpret statistical reports and know how to run basic statistical tests* *-knows how to plan studies in a statistically proper and sound way avoiding common pitfalls*						
CM18LR02	• **Environmental Outreach** *The student* *• Has prepared a plan for his/her career that enables wise choices during their studies and career* *• Can write a scientific text and knows how to communicate the research outcomes to all kinds of audiences* *• Understands good ethical conduct in research and understands the importance of avoiding plagiarism*	3					3 cr
IZ10TM07	• **Research Methodology** *The Student* *-Is familiar with different scientific theories* *-Can describe and apply relevant research methods* *-Can plan a scientific study and is able to analyze and communicate research findings*	3					3 cr
CM16BI	**Bioeconomy and International Issues** *The student:* *-Knows the relevant aspects of international forestry and agriculture and international development with in the two fields* *- Understands how Bioeconomy can be used to develop a greener economy in an innovative manner*		12				12 cr
CM16BI01	• **International Forestry** *The Student* *• Can describe the circumstances for forestry in different countries* *• Can describe the principles of plantation forestry* *• Is aware of different forms of forest ownership* *• Is aware of the challenges of sustainability in a global perspective related to forestry* *• Is familiar with international wood trade and raw material flows*		3				3 cr
CM16BI02	• **International Agriculture** *The Student* *• Is familiar with development models in agriculture like Agroforestry and model farms* *• Is aware of the challenges of sustainability in a global perspective related to agriculture and climate change* *• Is familiar with international Agribusniess and food production and trade* *• Is knowledgeable in international agreements and trade barriers and their effect on agriculture*		3				3 cr
CM16BI04	• **Bioeconomy Innovation** *Bioeconomy Innovation* *The Student* *• Knows the principles for developing sustainable innovation in a responsible manner* *• Understands the concept of Bioeconomy and how it relates to the forestry, agriculture and other Bioeconomy sectors* *• Is knowledgeable of working with innovation in a sustainable manner* *• Is familiar with the main companies in Finland working with Bioeconomy*		6				6 cr
Pra	**Practical training**						30 cr
	Practical training *The practical training provides students the opportunity to earn academic credit for relevant knowledge outside the University. The aim of the training is to acquire hands-on experience in real life work in national and international Coastal Management and Sustainable Development settings. The practical training permits students to integrate in-class experiences with experiential knowledge, gain in-field job experience and expand their professional skills. We highly recommend students to conduct their practical training abroad to enlarge their social network and experience.*	12	18				30 cr
EXA	**Thesis** *The student will be able to prove his/her ability to:* *- critically evaluate information* *- work systematically within a given theme or in a project* *- to plan and independently write thesis or a project report* *- to present and critically evaluate thesis*						15 cr

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