

LÝSING AV NÁMSSKIPAN FYRI ÚTBÚGVINGINA		
DEGREE PROFILE OF		
Bachelor í Vistfrøði <i>Bachelor of Science in Ecology</i>		
TYPE OF DEGREE & LENGTH	Single degree consisting of 180 ECTS over 3 years (60 ECTS/year)	
INSTITUTION(S)	University of the Faroe Islands.	
ACCREDITATION ORGANISATION(S)	The Ministry of Education, Research and Culture (MMR), The Faroe Islands	
PERIOD OF REFERENCE	Degree programme starting 2014, and has been valid since.	
CYCLE /LEVEL	National level: Bachelor; QF for EHEA: 1 st cycle; EQF level 6. QF: Qualifications Framework. EHEA: European Higher Education Area. EQF: European Qualifications Framework for Lifelong Learning. Cycle: 1. cycle – BSc; 2. cycle – MSc; 3. cycle – PhD EQF level 6 ~ 1. cycle EHEA; level 7 ~ 2. cycle; level 8 ~ 3. cycle	
A	PURPOSE	
	To provide students with a comprehensive understanding of general biology with emphasis on ecology, and give the necessary tools from supporting sciences. Where possible the fields of study are taken from Faroese settings, including the terrestrial nature, the continental shelf and the ocean.	
B	CHARACTERISTICS	
1	DISCIPLINE(S) / SUBJECT AREA(S)	Academic Skills and Science Theory; General, Inorganic, Organic Chemistry; General Biology; Earth, Sea & Air;; Biochemistry; Molecular Cell Biology; Genetics; Microbiology; Mathematics and Statistics; Study Design & Data Analysis; Terrestrial Ecology; Marine Biology;

		Fishereries Biology; Biological Oceanography, Aquaculture; Ecotoxicology and Pollution.
2	GENERAL / SPECIALIST FOCUS	General education in theoretical and experimental biology and supporting fields of science.
3	ORIENTATION	Based on previous research and with topics from current international and local national research giving ample opportunities for employability and further studies.
4	DISTINCTIVE FEATURES	The programme is in some extend focusing on Faroese issues, both in the human population and with numerous topics in the terrestrial and marine environment.
C	EMPLOYABILITY & FURTHER EDUCATION	
1	EMPLOYABILITY	Positions in fish and aquaculture industry and other companies (e.g. within quality assurance), marine and terrestrial research institutions (research assistant) and in administrative, management and consultancy institutions. Scientific journalist. Supplemented with courses in pedagogy, teaching on various levels is also an option.
2	FURTHER STUDIES	Master programmes and PhD-projects in a wide range of fields within biology and in related areas such as biological oceanography, aquaculture, and marine and terrestrial resource management. Entering some academic unchartered waters may need acquisition of further competences.
D	EDUCATION STYLE	
1	LEARNING & TEACHING APPROACHES	Lectures, laboratory classes, report and essay writing, problem solving, group work, oral presentations by students, seminars, individual study based on literature, discussions with academic staff, field work and excursions, preparing Bachelor treatise.
2	ASSESSMENT METHODS	Written exams; laboratory, field and project reports; formative and summative evaluation; essays; oral exams and presentations; assessment and defence of Bachelor treatis.
E	PROGRAMME COMPETENCES	
1	GENERIC	

	<p>1. Learning competence: Ability, to learn new information and enter new subject fields by using acquired ecological knowledge.</p> <p>2. Communication competence: Ability to discuss and communicate effectively and present complex information in a concise manner orally and in writing, using ICT and appropriate scientific language.</p> <p>3. Problem solving and co-operation competence: To work independently and in teams to solve problems at home, in class room, in laboratory and fields. The bachelors have developed time management skills and are able to accomplish multiple tasks and meet deadlines.</p> <p>4. Knowledge and information updating competence: ability to search the scientific literature and information outside the textbooks, and use this information in a critical manner.</p> <p>5. Research competence: Having the knowledge and background to perform and manage simple research projects.</p> <p>6. Competence of self-critical evaluation and management: ability to assess their own needs in their studies and learning process, accept their personal responsibility in the learning process, and to seek the support they find necessary.</p> <p>7. Ethical commitment: Ethical and moral commitment and professional integrity as well as awareness of detrimental impacts on nature and life on earth.</p>
2	SUBJECT SPECIFIC
	<p>1. Academic competence in ecology: Broad knowledge and understanding of biology and the diversity of life, expressed as the ability to describe and explain a wide variety of biological phenomena and processes ranging from molecular systems to populations, foodwebs and ecosystems. Thus, the bachelor should have knowledge and understanding of, and be able to explain, the structure and functions of molecules like DNA, RNA and proteins, how molecules interact to create metabolic pathways, mechanisms of evolution, the interactions of different populations, and the interactions between the living organisms and the abiotic environment.</p> <p>2. The competence of applying scientific principles in theoretical terms: ability to apply scientific methods and scientific reasoning to distinguish between fact, fiction and faith, and have knowledge and understanding of biology as sciences of inquiry (experimental, observational, modelling).</p> <p>3. The basic competence of applying principles of scientific investigations in practical terms: ability to apply the scientific principles and knowledge to basic experimental and/or observational design and practice, i.e., formulate a problem to be studied (hypothesis), suggest ways of investigating the problem and put these suggestions into practice, evaluate sources of error and uncertainty, and finally report the process and its results, and discuss its implications.</p> <p>4. Analytical competence: ability to analyse a problem formulation, extract the essential parts, and break the problem down into manageable parts that each can be solved.</p> <p>5. Synthetic competence: ability to combine knowledge from several fields, and apply them into new settings.</p> <p>6. Language competence: English and Faroese (applies to natives) used in biological context.</p>
F	COMPLETE LIST OF PROGRAMME LEARNING OUTCOMES
	<p>On the completion of the study programme Bachelor of Science in Ecology the bachelor is able to:</p> <ol style="list-style-type: none"> 1. Demonstrate knowledge and understanding of biology at the level of molecules, cells, organisms, and terrestrial and marine ecosystems, and apply this knowledge into inquiries at the different levels. 2. Describe and classify the diversity of oceanic, terrestrial and avian life forms. 3. Demonstrate knowledge and understanding how the different fields of biology are interconnected. 4. Demonstrate knowledge and understanding in a variety of fields in biology, like botanics, zoology, ecology, marine biology, molecular biology and related areas (biochemistry, cell biology, genetics, microbiology). 5. Demonstrate basic knowledge and comprehension in fields supporting biology (chemistry, mathematics, statistics, study design, data analysis) and influencing biology (for example how

the parameters of descriptive oceanography are influencing marine biology).

6. Explain how changes in the environment, including earth, sea and air, may influence all forms of life in the biosphere.

7. Demonstrate knowledge and comprehension of natural resources, including fishery and aquaculture, and sustainable management thereof.

8. Apply knowledge and understanding of laboratory and field experiments and perform the calculations needed for such experiments (e.g., concentrations, dilutions, pH). The bachelor should demonstrate understanding of the methods used in these experiments, the instruments and equipment used, and the application of critical interpretation of the results and observations obtained by such experiments.

9. Demonstrate an extensive knowledge of the structure and functions of cells (eukaryotes and prokaryotes).

10. Demonstrate knowledge of evolutionary processes from the molecular level to the ecological level, and describe how these processes have shaped the diversity of life.

11. Demonstrate an extensive understanding of the structure and functions of DNA, RNA and proteins, and how the functions of these molecules are important in a multitude of fields in biology and related areas (e.g. biochemistry, cell biology, genetics, microbiology, human health).

12. Demonstrate the knowledge and correct usage of scientific terminology and biological concepts in a multitude of fields in biology.

13. Describe different forms of toxic wastes and explain the detrimental effect of pollution in nature

14. Demonstrate the ability to write scientific reports by combining clearly and succinctly (a) background knowledge, (b) methodological knowledge, (c) interpretational skills, (d) the results put into perspective, and (e) a intelligible conclusion.

15. Search the scientific literature for information to find both primary references, review articles, and other relevant information, and use this information in a critical manner and in appropriate context.