

DEGREE PROFILE OF Bachelor í Mýlalívsvísindi <i>Bachelor of Molecular Life Sciences</i>
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TYPE OF DEGREE & LENGTH	Single degree, 180 ECTS
INSTITUTION(S)	Fróðskaparsetur Føroya, Náttúruvísindadeildin <i>University of the Faroe Islands, Faculty of Science and Technology.</i>
ACCREDITATION ORGANISATION(S)	Ministry of Foreign Affairs and Culture (UMMR).
PERIOD OF REFERENCE	Accreditation from August 2020
CYCLE /LEVEL	Bachelor (BSc). QF-EHEA level: "1st cycle". EQF-LLL level 6.

A	PURPOSE
	To give a broad education in molecular biology, based on general biology, and provide the students with the necessary tools from supporting sciences. We will provide students with an education which is directly comparable to programmes in molecular biology internationally, but with a particular focus on the Faroese context, in terms of nature, resources and people. The programme will enable students to develop the knowledge and skills required to work as biologists internationally, and in particular on the Faroe Islands.

B	CHARACTERISTICS	
1	DISCIPLINE(S) / SUBJECT AREA(S)	Molecular and cell biology (45%). Ecology and marine biology (25%). Chemistry (10%). Mathematics and statistic (10%). Other (10%).
2	GENERAL / SPECIALIST FOCUS	The focus of the programme is theoretical and practical molecular biology.
3	ORIENTATION	The programme is based on existing knowledge but is supported with new examples from international and Faroese research. The degree programme provides good opportunities for employment and further studies.
4	DISTINCTIVE FEATURES	Numerous examples from the Faroe Islands are included in the programme (air, land, and sea). The teaching is mainly in Faroese, but English and Scandinavian languages are also utilized. The first two years of the degree are undertaken jointly with the Biology programme.

C	EMPLOYABILITY & FURTHER EDUCATION	
1	EMPLOYABILITY	In research institutes, within the health care system, in administration and management settings (e.g. scientific adviser), and in fisheries and food industries as well as other companies (e.g. quality control).
2	FURTHER STUDIES	With this degree the student can expect to meet the requirements to continue their education on relevant programmes at other institutions. It is necessary to ensure that

	all pre-requisites have been met for the individual programmes applied for prior to applying, given that institutions will differ in their acceptance conditions.
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D EDUCATION STYLE		
1	LEARNING & TEACHING APPROACHES	Lectures, individual study based on literature, supervision and discussion with academic staff, laboratory exercises, group work, oral presentations, written reports, excursions and fieldwork, and other means and methods as appropriate.
2	ASSESSMENT METHODS	Written examination, oral examination, laboratory reports, field reports, project reports, essays; write, present and defend bachelor thesis, and other means and methods as appropriate.

E PROGRAMME COMPETENCES		
Please list below the key generic and specific competences up to a total of 15 (see page 28-29 for details). In the case of regulated professions, please refer to page 28-29.		
1	GENERIC	
	<ul style="list-style-type: none"> ○ Learning: Identify own learning needs and structure own learning in different learning environments. ○ Knowledge: Ability to search for, process, and analyse information from a variety of sources. ○ Academic skills: Ability to describe, analyse, and compose information by using rational argumentation based on evidence and facts. ○ Problem solving: Ability to identify, pose, and solve problems using required knowledge. ○ Independent work: Ability to organize and work independently. ○ Language skills: Ability to use specific language, both written and oral, in Faroese and English. ○ Communication: Ability to communicate and discuss in a clear and accurate way; both orally and in writing. ○ Teamwork: Ability to work in teams, take responsibility for tasks, and timekeeping. ○ Project work: Ability to participate in and manage small projects, working individually and collectively. ○ Ethics: Ability to work and act on an ethical basis; both generally and scientifically. ○ Practical work: Ability to transfer literature to practical work/situations and vice versa. 	
2	SUBJECT SPECIFIC	
	<ul style="list-style-type: none"> ○ Academic competences: Ability to describe and explain a wide variety of phenomena and processes in molecular life sciences and biology, ranging from molecular systems to populations, food webs and ecosystems. ○ Learning competence: Ability to learn new knowledge in molecular life sciences by utilizing acquired information in this subject area. ○ Scientific competences: Ability to apply scientific principles and methods. ○ Field studies: Ability to plan and execute fieldwork independently. ○ Laboratory competences: Ability to organize and carry out laboratory work safely. ○ Analysis competences: Ability to analyse and interpret data from investigations and to relate these findings to pertinent theories. ○ Computer competences: Ability to utilize relevant software to analyse and interpret data from studies in molecular life sciences and other subjects. ○ Cross-disciplinary competences: Ability to synthesize information from molecular life sciences and supporting scientific subjects. ○ Cooperation competences: Ability to participate in professional and multidisciplinary cooperation on various topics in molecular life sciences. 	

F COMPLETE LIST OF PROGRAMME LEARNING OUTCOMES		

	<ul style="list-style-type: none">○ Describe and classify the diversity of life.○ Describe, classify and explain important factors in botanics, zoology, ecology, marine biology, molecular life sciences and related fields.○ Explain theoretically and demonstrate in practical terms a broad knowledge and competences in biology at the level of molecules, cells, organisms, and ecosystems.○ Plan, execute and critically review a biological inquiry. This includes collecting, registering, identifying, interpreting, analyzing and describing data relevant to biological inquiries.○ Explain in general the analytical fields supporting biology (chemistry, mathematics, statistics), and how these enhance understanding of biology.○ Describe basal physical environment (geology, oceanography, meteorology) and explain how changes in the earth systems can influence the biosphere.○ Describe how the different levels and fields in biology are interconnected.○ Describe how evolutionary processes, from the molecular level to the ecological level, have shaped the diversity of life and show how molecular phylogeny can be used in analyses of such processes.○ Describe and discuss sustainable management of natural resources and populations.○ Describe in extensive detail the structure and functions of eukaryotic and prokaryotic cells.○ Explain, in detail, 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 (biochemistry, cell biology, genetics, microbiology, human health).○ Explain overall and in some molecular details how molecules can influence cellular processes (like signal transduction, gene expression, cell cycle) and thereby can influence the functions and actions of cells.○ Describe and review toxic molecules and their mechanisms of toxicity.○ Explain and delineate theoretically and practically how molecules and cells can be analysed and how the actions and functions of molecules can be inferred.○ Apply the acquired competences in laboratory and field experiments and perform the calculations needed for such experiments (e.g., concentrations, dilutions, pH). The student should demonstrate understanding of the methods used in these experiments, the instruments and equipment used, and the application of critical interpretation to the results and observations obtained by such experiments.○ Demonstrate the knowledge and correct usage of scientific terminology and biological concepts in proper context.○ Demonstrate the ability to write scientific reports, in a clear and succinct manner, by combining (a) background knowledge, (b) methodological knowledge, (c) interpretational skills, and (d) the ability to put the results into perspective, and (e) and make proper conclusions.○ 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.
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