DEGREE PROFILE OF

BSc Ískoytisútbúgving fyri maskinmeistarar

BSc Supplementary Degree for Marine Engineers

TYPE OF DEGREE & LENGTH	**Single supplementary degree** (75 ECTS)
INSTITUTION(S)	Fróðskaparsetur Føroya, Føroyar *University of the Faroe Islands, The Faroe Islands*
ACCREDITATION ORGANISATION(S)	Ministry of Foreign Affairs and Culture (UMMR), The Faroe Islands.
PERIOD OF REFERENCE	Degree programme starting in August 2021.
CYCLE /LEVEL	Bachelor level QF for EHEA: 1st cycle EQF level 6

A	**PURPOSE**
	To provide persons with a Faroese Marine Engineering Qualification with supplementary general knowledge in mathematics and natural sciences with focus on engineering and thus providing them with qualifications on the same level as a Bachelor of Science Degree.

B	**CHARACTERISTICS**	
1	DISCIPLINE(S) / SUBJECT AREA(S)	Mathematics, natural sciences, and general engineering. Mathematics 47%, chemistry 7%, general engineering 13%, elective courses 13%, bachelor's project 20%.
2	GENERAL / SPECIALIST FOCUS	General programme in mathematical and natural science with focus on engineering.
3	ORIENTATION	An academic supplementary degree based on previous as well as current research, with focus on engineering science, giving wide opportunities for employability and further studies.
4	DISTINCTIVE FEATURES	The programme has the following features. It is a supplementary programme for students who hold a Faroese Marine Engineering Qualification. Examples relevant to the Faroese community are used whenever possible. The programme is taught in Faroese, Danish (Nordic), and English. Students have the option to either enrol in full-time or in part-time studies.

C	**EMPLOYABILITY & FURTHER EDUCATION**	
1	EMPLOYABILITY	Positions in the public or private sector that require qualifications on the level of a Bachelor of Science Degree.

2	FURTHER STUDIES	With a BSc Supplementary Degree for Marine Engineers, it is possible to apply for admission to master's degree programmes on the same terms as persons with a Bachelor of Science Degree, for instance at DTU, Technical University of Denmark. It is necessary to ensure that all pre-requisites have been met for the individual programme prior to applying, given that institutions will differ in their terms of admission.

D	**EDUCATION STYLE**	
1	LEARNING & TEACHING APPROACHES	Student-centred, teacher-centred, problem-based learning, task-based learning, research-based learning, learning through laboratory exercise, group work and individual study.
2	ASSESSMENT METHODS	Written examinations, oral examinations, presentations, reports, project work and self- or peer reflection.

E	**PROGRAMME COMPETENCES**
1	GENERIC
	Development ability: Ability to gain new knowledge through independent and collaborative project work. **Teamwork**: Ability to work as part of a team and to assume responsibility for tasks **Management ability**: Ability to plan and manage projects while considering resource constraints. **Problem solving**: Ability to handle stress and effectively solving practical and theoretical problems. **Creativity**: Ability to be creative in developing ideas and in formulating and solving problems. **Communication skills**: Ability to communicate efficiently and to present complex information in a concise manner. **Abstract and analytical thinking**: Ability to apply abstract and analytical thinking, and in this way reach conclusions based on facts and logic.
2	SUBJECT SPECIFIC
	Mathematical skills: Ability to use mathematics to describe and solve problems in engineering and natural sciences. **General engineering skills**: Ability to understand engineering problems; to design solutions for the problems; to implement the solutions as part of engineering systems; and to operate systems, thus solving the engineering problems. **Natural science skills**: Ability to provide explanations of a wide range of natural processes and objects. **Computational skills**: Ability to use appropriate software such as programming languages and packages in mathematical and engineering investigations and to gather and interpret relevant data. **Estimation skills:** Ability to make order-of-magnitude estimates and find approximate solutions with explicit statements of assumptions and the use of special limiting cases. **Experiment skills:** Ability to perform experiments independently, as well as to describe, analyse and critically evaluate experimental data.

F	**COMPLETE LIST OF PROGRAMME LEARNING OUTCOMES**
	On completion of the programme, the student will be able to: • Combine research-based knowledge and practical knowhow to solve technical problems. • Apply basic standard methods from mathematics and natural science to evaluate and solve problems in engineering. • Use mathematical terminology in oral and written expositions.

	• Organise collaboration that apply mathematical concepts and methods in an application context. • Use symbolic software tools to solve and graphically display mathematical problems. • Apply basic knowledge of programming. • Evaluate and select standard controllers. • Demonstrate knowledge of scientific methods in engineering analyses and to identify solutions for engineering problems. • Apply technical/scientific problem-solving techniques. • Communicate technical information, theory, and results to a wide audience with the aid of graphic and written and oral communication. • Plan, structure and carry out a substantial workload within a given time frame. • Apply acquired skills to contribute to problem solving through project work, both independently and as a team member. • Collect relevant information and critically evaluate its proper usage. • Apply and interpret important statistical concepts. • Describe and interpret output from commonly used statistical software. • Debate and criticise empirically based information.