AALBORG UNIVERSITET

MASTER OF SCIENCE (MSC) IN TECHNOLOGY (ENVIRONMENTAL SCIENCE), 2019

MASTER OF SCIENCE (MSC) IN TECHNOLOGY
AALBORG

Link to this studyline

Link(s) to other versions of the same line:

Master of Science (MSc) in Technology (Environmental Science), 2020
Curriculum for the Master's Programme in Environmental Science, 2022

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§ 1: PREFACE

Pursuant to consolidation Act 172 of February 27, 2018 on Universities (the University Act) with subsequent changes, the following curriculum is established. The program also follows the Joint programme regulations and the Examination Policies and Procedures for the Faculty.

§ 2: BASIS IN MINISTERIAL ORDERS

The Master's programme is organised in accordance with the Ministry of Higher Education and Science's Order no. 1328 of November 15, 2016 on Bachelor's and Master's Programmes at Universities (the Ministerial Order of the Study Programmes) with subsequent changes and Ministerial Order no. 1062 of June 30, 2016 on University Examinations (the Examination Order) with subsequent changes. Further reference is made to Ministerial Order no. 106 of February 12, 2018 (the Admission Order) and Ministerial Order no. 114 of February 3, 2015 (the Grading Scale Order).

§ 3: CAMPUS

The programme is offered in Aalborg.

§ 4: FACULTY AFFILIATION

The Master's programme falls under The Faculty of Engineering and Science, Aalborg University.

§ 5: STUDY BOARD AFFILIATION

The Master's programme falls under Study Board of Chemistry and Bioscience

§ 6: AFFILIATION TO CORPS OF EXTERNAL EXAMINERS

The programme is affiliated with the external evaluator corps: Ingeniøruddannelsernes censorkorps – Chemistry

§ 7: ADMISSION REQUIREMENTS

Applicants with a legal right of admission (retskrav)

- There are no Bachelors from Aalborg University with legal claim (retskrav) to admission.

Applicants without legal right of admission

- Bachelor of Science in Engineering (Environmental Science), Aalborg University
- Bachelor of Science in Engineering (Environmental Engineering), Aalborg University
- Bachelor of Science in Biology, Aalborg University

§ 8: THE PROGRAMME TITLE IN DANISH AND ENGLISH

The Master's programme entitles the graduate to the title Cand.tech. i miljøvidenskab. The English title is: Master of Science (MSc) in Technology (Environmental Science).

§ 9: PROGRAMME SPECIFICATIONS IN ECTS CREDITS

The Master's programme is a 2-year, research-based, full-time study programme. The programme constitutes a total of 120 ECTS credits.

§ 10: RULES CONCERNING CREDIT TRANSFER (MERIT), INCLUDING THE POSSIBILITY FOR CHOICE OF MODULES THAT ARE PART OF ANOTHER PROGRAMME AT A UNIVERSITY IN DENMARK OR ABROAD

The Study Board can approve that passed programme elements from other educational programmes at the same level replaces programme elements within this programme (credit transfer).

Furthermore, the Study Board can, upon application, approve that parts of this programme is completed at another university or a further education institution in Denmark or abroad (pre-approval of credit transfer).

The Study Board's decisions regarding credit transfer are based on an academic assessment.

§ 11: EXEMPTIONS

The Study Board's possibilities to grant exemption, including exemption to further examination attempts and special examination conditions, are stated in the Examination Policies and Procedures published at this website: https://www.studieservice.aau.dk/regler-vejledninger

§ 12: RULES FOR EXAMINATIONS

The rules for examinations are stated in the Examination Policies and Procedures published at this website: https://www.studieservice.aau.dk/regler-vejledninger

§ 13: RULES CONCERNING WRITTEN WORK, INCLUDING THE MASTER'S THESIS

In the assessment of all written work, regardless of the language it is written in, weight is also given to the student's formulation and spelling ability, in addition to the academic content. Orthographic and grammatical correctness as well as stylistic proficiency are taken as a basis for the evaluation of language performance. Language performance must always be included as an independent dimension of the total evaluation. However, no examination can be assessed as 'Pass' on the basis of good language performance alone; similarly, an examination normally cannot be assessed as 'Fail' on the basis of poor language performance alone.

The Study Board can grant exemption from this in special cases (e.g., dyslexia or a native language other than Danish).

The Master's Thesis must include an English summary. If the project is written in English, the summary can be in Danish. The summary is included in the evaluation of the project as a whole.

§ 14: REQUIREMENTS REGARDING THE READING OF TEXTS IN A FOREIGN LANGUAGE

It is assumed that the student can read academic texts in his or her native language as well as in English and use reference works etc. in other European languages.

§ 15: COMPETENCE PROFILE ON THE DIPLOMA

The following competence profile will appear on the diploma:

A Candidatus graduate has the following competency profile:

A Candidatus graduate has competencies that have been acquired via a course of study that has taken place in a research environment.

A Candidatus graduate is qualified for employment on the labour market based on his or her academic discipline as well as for further research (PhD programmes). A Candidatus graduate has, compared to a Bachelor, developed his or her academic knowledge and independence so as to be able to apply scientific theory and method on an independent basis within both an academic and a professional context.

§ 16: COMPETENCE PROFILE OF THE PROGRAMME

The graduate of the Master's programme:

Knowledge

Has knowledge within environmental science that in selected areas such ecosystem engineering, ecosystem services, soil science, pollution and remediation of ecosystems, and environmental management is based on the highest international research.

Is able, on a scientific basis, to understand and reflect over the knowledge in the above-mentioned areas and to identify scientific problems

Skills

Masters the scientific methods and tools of the above-mentioned areas and master the general skills that are tied to work within environmental science and technology.

Can evaluate and select among the scientific theories, methods, tools and general skills of environmental science and technology and environmental management, and set up, on a scientific basis, new analysis and solution models

Can communicate research-based knowledge and discuss professional and scientific problems with both peers and non-specialists.

Competencies

Is able to develop methods and models for environmental management issues, and evaluate and solve assignments concerning environmental and management issues in private and public enterprises.

Manages work and development situations that are complex, unpredictable and require new solutions.

Can independently initiate and implement discipline-specific and interdisciplinary cooperation and assume professional responsibility.

Can independently take responsibility for own professional development and specialization

§ 17: STRUCTURE AND CONTENTS OF THE PROGRAMME

The program is structured in modules and organised as a problem-based study. A module is a program element or a group of program elements, which aims to give students a set of professional skills within a fixed time frame specified in ECTS credits, and concluding with one or more examinations within specific exam periods. Examinations are defined in the curriculum.

The program is based on a combination of academic, problem-oriented and interdisciplinary approaches and organized based on the following work and evaluation methods that combine skills and reflection:

- Lectures
- Project work
- Exercises (individually and in groups)
- eacher feedback
- Scientific reflection

§ 18: OVERVIEW OF THE PROGRAMME

All modules are assessed through individual grading according to the 7-point scale *or* Pass/Fail. All modules are assessed by external examination (external grading) or internal examination (internal grading or by assessment by the supervisor only).

Offered as: 1-professional						
Module name	Course type	ECTS	Applied grading scale	Evaluation method	Assessment method	Language
1 SEMESTER						
Human Impact on the Environment (K-BIO-K1-53)	Project	15	7-point grading scale	External examination	Oral exam based on a project	Danish and English
Global Change Biology (K-BIO-K1-13)	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
Environmental Soil Science and Geostatistics (B-VM-K1-3)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
Experimental Hydrology (B-VM-K1-2)	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
2 SEMESTER						

Ecosystem Analysis (K-BIO-K2-39)	Project	15	7-point grading scale	External examination	Oral exam based on a project	Danish and English
Marine Pollution (K-BIO-K2-6)	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
Electives	Course	5				
Electives	Course	5				
3-4 SEMESTER						
Master's Thesis (K-BIO-K3-81)	Project	60	7-point grading scale	External examination	Master's thesis/final project	English

Electives 2nd semester						
Module name	Course type	ECTS	Applied grading scale	Evaluation Method	Assessment method	Language
Conservation Biology (K-BIO-K2-4)	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
Hydrodynamics and Time Series Analysis of Environmental Flows (B-VM-K2-7)	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
Fundamentals of Wastewater Treatment (B-VM-B6-7)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Danish
Danish Biotopes (K-BIO-K2-5)	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	Danish

Danish Biotopes is also part of the MSc programme in Biology and taught in Danish.

The study board can cancel modules if the number of enrolled students is low.

A compulsory course in Problem based learning (PBL) and student responsibility is offered as an integrated part of all project modules to students not acquainted with PBL at Aalborg University.

§ 19: ADDITIONAL INFORMATION

More detailed information about the programme, including exams and literature is published on Moodle (learning management system).

All students who have not participated in Aalborg University's PBL introductory course during their Bachelor's degree must attend the introductory course "Problem-based Learning and Project Management". The introductory course must be approved before the student can participate in the project exam. For further information, please see the course description

§ 20: COMMENCEMENT AND TRANSITIONAL RULES

The curriculum is approved by the dean and enters into force as of 1st September, 2019.

The Study Board does not offer teaching after the previous curriculum from 2017 after the summer examination 2020.

§ 21: AMENDMENTS TO THE CURRICULUM AND REGULATIONS

Changes to the curricumlum in 2019:

- Conservation biology has been changed from a mandatory course to an elective course
- Project work in an external organisation is no longer an option during the 3rd semester.

April 4 2019: The module "*Hydrogeology and Ground Water Modelling"* on the 1st semester has been replaced with the module "*Experimental Hydrology".*