



AALBORG UNIVERSITET

# **MASTER OF SCIENCE (MSC) IN TECHNOLOGY (ENVIRONMENTAL SCIENCE), 2020**

MASTER OF SCIENCE (MSC) IN TECHNOLOGY  
AALBORG

[Link to this studyline](#)

## Master of Science (MSc) in Technology (Environmental Science), 2020

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

[Curriculum for the Master's Programme in Environmental Science, 2022](#)  
[Master of Science \(MSc\) in Technology \(Environmental Science\), 2019](#)

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## § 1: PREFACE

Pursuant to consolidation Act 778 of August 7, 2019 on Universities (the University Act), the following is established.

The programme also follows the Joint Programme Regulations and the Examination Policies and Procedures for Aalborg University.

## § 2: BASIS IN MINISTERIAL ORDERS

The Master's programme is organised in accordance with the Ministry of Higher Education and Science's Order no. 20 of January 9, 2020 on Bachelor's and Master's Programmes at Universities (the Ministerial Order of the Study Programmes) and Ministerial Order no. 22 of January 9, 2020 on University Examinations (the Examination Order). Further reference is made to Ministerial Order no. 153 of February 26, 2020 (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

There are no Bachelors from Aalborg University with a legal right of admission (retskrav).

### Applicants without legal right of admission (retskrav)

- Bachelor of Science in Environmental Science, Aalborg University
- Bachelor of Science in Biology, Aalborg University
- Bachelor of science byggeri og anlæg, vand og miljø, Aalborg University
- Bachelor of science in Biology, Copenhagen University
- Bachelor of science in Biology, University of Southern Denmark
- Bachelor of science in Biology, Aarhus University
- Bachelor of science in agrobiologi, Aarhus University
- Bachelor of science in Environmental Biology, Roskilde University
- Bachelor of science in naturressourcer, Copenhagen University
- Bachelor of science in vand, bioressourcer og miljømanagement, Technical University of Denmark

All applicants without a legal claim must prove that their English language qualifications is equivalent to level B (Danish level) in English

## § 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.studyservice.aau.dk/rules>

## **§ 12: RULES FOR EXAMINATIONS**

The rules for examinations are stated in the Examination Policies and Procedures published at this website:

<https://www.studyservice.aau.dk/rules>

## **§ 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

### **AAU Micro**

AAU Micro are small e-learning modules of limited, well-defined scope. AAU Micro modules are extra-curricular but may be employed to support learning in curricular course and project modules.

## **§ 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	ECT S	Applied grading scale	Evaluation method	Assessment method	Language
<b>1 SEMESTER</b>						
<a href="#">Human Impact on the Environment</a> (K-BIO-K1-53A)	Project	15	7-point grading scale	External examination	Oral exam based on a project	Danish and English
<a href="#">Global Change Biology</a> (K-BIO-K1-13)	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
<a href="#">Environmental Soil Science and Geostatistics</a> (B-VM-K1-3)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
<a href="#">Experimental Hydrology</a> (B-VM-K1-2)	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
<b>2 SEMESTER</b>						
<a href="#">Ecosystem Analysis</a> (K-BIO-K2-39A)	Project	15	7-point grading scale	External examination	Oral exam based on a project	Danish and English
<a href="#">Marine Pollution</a> (K-BIO-K2-6)	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
Electives	Course	10				
<b>3 SEMESTER</b> Option A						
<a href="#">Project-Oriented Study in an External Organisation</a> (K-BIO-K3-66)	Project	30	Passed/Not Passed	Internal examination	Oral exam based on a project	English
<b>4 SEMESTER</b>						
<a href="#">Master's Thesis</a> (K-KMB-K4-5)	Project	30	7-point grading scale	External examination	Master's thesis/final project	English
<b>3-4 SEMESTER</b> Option B						
<a href="#">Master's Thesis</a> (K-KMB-K4-4)	Project	60	7-point grading scale	External examination	Master's thesis/final project	English

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

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All modules in the Master's degree programme are taught in English. As an exception, the elective modules *Fundamentals of Wastewater Treatment* and *Danish Biotopes* are taught in Danish.

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

### **§ 19: ADDITIONAL INFORMATION**

All students who have not participated in Aalborg University's course "Problem-based learning" or PBL introductory course during their undergraduate education must follow and have passed the PBL introductory course before they can participate in the project exam.

### **§ 20: COMMENCEMENT AND TRANSITIONAL RULES**

The curriculum is approved by the dean and enters into force as of 1st September, 2020.

The Study Board does not offer teaching after the previous curriculum from 2019 after the summer examination examination 2021.

The Study Board will offer examinations after the previous curriculum, if there are students who have used examination attempts in a module without passing. The number of examination attempts follows the rules in the Examination Order.

### **§ 21: AMENDMENTS TO THE CURRICULUM AND REGULATIONS**

The Vice-dean has on November 24, 2023, approved an addition of Micro Modules in section 17, valid from spring 2024.