AALBORG UNIVERSITET

CURRICULUM FOR THE MASTER'S PROGRAMME IN GEOGRAPHY, 2020

MASTER OF SCIENCE (MSC)
AALBORG

Link to this studyline

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

Curriculum for the Master's Programme in Geography - 2017 - Aalborg

Curriculum for the Master's Programme in Geography - 2018 - Aalborg

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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 Regulationsand 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, 2020on University Examinations (the Examination Order) with subsequent changes. 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).

Two-disciplinary educational programmes are futhermore planned in accordance with guideline No. 9698 of August 28, 2018 (Retningslinjer for universitetsuddannelser rettet mod undervisning i de gymnasiale uddannelser samt undervisning i gymnasiale fag i eux-forløb).

§ 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 Built Environment

§ 6: AFFILIATION TO CORPS OF EXTERNAL EXAMINERS

The Master's programme is associated with the external examiners corps on Geography

§ 7: ADMISSION REQUIREMENTS

Applicants with a legal right of admission (retskrav)

- Bachelor of Science (BSc) in Geography, Aalborg University

Applicants without legal right of admission

- Bachelor of Science (BSc) in Biology, Aalborg University
- Bachelor of Science (BSc) in Urban, Energy and Environmental Planning, Aalborg University
- Bachelor of Science (BSc) in Geography and Geoinformatics, Copenhagen University
- Bachelor of Science (BSc) in Geography, Roskilde University
- Bachelor of Science (BSc) in Geoscience, Aarhus University
- Bachelor of Science (BSc) in Geology - Geoscience, Copenhagen University

For further information on admission, see www.en.aau.dk.

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

Admission to the two-disciplinary master's degree additionally requires a two-disciplinary bachelor's degree.

§ 8: THE PROGRAMME TITLE IN DANISH AND ENGLISH

The Master's programme entitles the graduate to the Danish designation Cand.scient. i geografi. The English designation is: Master of Science (MSc) in Geography.

§ 9: PROGRAMME SPECIFICATIONS IN ECTS CREDITS

The Master's programme is a 2-year, research-based, full-time study programme. The programme is set to 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 English and use reference works, etc., in English and 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 program:

Knowledge:

- Understand the physical, chemical and biological processes governing and sustaining the natural resources.
- On climate change modelling and scenarios and associated uncertainties
- On fundamental hydrogeology and the basic principles of numerical groundwater modelling.
- Understand and describe the fundamental transport processes of substances in the oceans and the atmosphere and the connection between the CO_2 cycle, the use of fossil fuels and the production of biomass.
- Analyse environmental consequences of the interaction between natural landscape structure and function and human land use.
- Integrate knowledge of complex landscapes using information on geology, hydrology, human activities, land use and natural ecosystem processes.
- On theory for physical, chemical and microbial processes in marine systems and on the most common types of marine pollution.
- Understand how anthropogenic activities affect the physical, chemical and biological conditions in freshwater ecosystems.
- Knowledge on the important ecological processes acting on the regional and local scale.
- Shall have knowledge on how numerical methods and experimental methods complement each other and how to use experimental data to improve models in the field of geography.
- Knowledge on the computer based data acquisition, accuracy and error handling.
- Understands and can, on a scientific basis reflect on the knowledge within the subjects studied
- Ability to identify scientific problems within in the subjects studied within the field of geography

Skills:

- To collect, analyse and visualise the data on natural resource occurrence, governing processes and human impacts that forms the basis for a conceptual resource models.
- To construct, calibrate and validate numerical resource models.
- Conceptually model biogeochemical cycles in the atmosphere, the oceans and on land.
- Select and apply relevant literature, theories and methods used to describe landscape and land use processes and collect, analyse and visualise the data on ecosystem processes and human impacts.
- Determination of the degree of pollution of freshwater ecosystems based on water chemistry data and data on the biological community structure.
- Use impact assessment methods.
- Conceptual and numerical modelling of ecosystem processes.
- Use the existing literature and theories to plan a literature study and field and/or laboratory work within the field of geography.
- Critically use a select models currently used in geography.
- Be able to represent data in time and space based on data generated by field measurements or numerical models.
- Independently explain choice of scientific theoretical and/or experimental methods.
- During the project and when finalising it make an independent and critical estimation of the chosen theories and methods as well as the analyses, results and conclusions.
- Communicate relevant scientific and professional aspects of project work in a clear and systematic way.

Competencies:

- Evaluate current and future used of natural resources.
- Discuss and analyse anthropogenic alterations to the global biogeochemical cycles.

- Critically evaluate climate change modelling scenarios.
- Critically evaluate methods for estimating consequences of reduction of pressures on the ecosystems.
- Work with and analyse nutrient cycling in coastal marine ecosystem and describe important organic and inorganic pollutants and pollution effects in coastal marine waters.
- Recommend possible solutions to reduce anthropogenic stress on freshwater ecosystems.
- Integrate information from different ecosystems to recommend possible solutions to reduce anthropogenic stress on ecosystems.
- Be able to combine, literature surveys, experimental data and numerical methods to develop better models within the field of geography.
- Structure and produce documentation of complex problems and recommend possible solutions to natural resource problems.
- Independently initiate problem based scientific work within the field of geography.
- Can maintain focus and reflect on the literature and methods used to develop the scientific basis of the project.
- Can evaluate the scientific progress independently and select and include additional literature, experiments or data when needed in order to maintain a scientific basis for the project
- Must be able to assess and relate the content of the project to those of the UN World Goals that are relevant

§ 17: STRUCTURE AND CONTENTS OF THE PROGRAMME

The program is structured in modules and organized 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 that 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:

- project work
- project supervision
- lectures
- classroom instructions
- study groups
- teacher feedback
- workshop
- exercises
- laboratory tests
- measurements and testing in the field
- portfolio work
- independent study

The modules are evaluated either through written or oral exams as stated in the description of the modules. Project modules are normally evaluated in a group based oral exam based upon a submitted report and an oral group presentation according to the Framework provisions (examination policies).

For individual written exams the study board selects among the following possibilities:

- written exam based on handed out exercises
- multiple choice

- ongoing evaluation of written assignments

For individual oral exams the study board selects among the following possibilities:

- oral exam with or without preparation
- oral exam based on project report
- oral exam based on presentation seminar
- portfolio based oral exam

Project modules are normally examined by a group based oral exam based on a project report and an oral group based presentation.

§ 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).

Of a total of 120 ECTS, 95 - 105 ECTS are assessed by the 7-point scale and 45-75 ECTS are assessed by external examination.

Offered as: 1-professional Study programme: Geography						
Module name	Course type	ECTS	Applied grading scale	Evaluation method	Assessment method	Language
1 SEMESTER						
Soil and Groundwater (B-GEO-K1-1)	Project	15	7-point grading scale	Internal examination	Oral exam based on a project	English
Experimental Hydrology (B-GEO-K1-2)	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
Environmental Soil Science and Geostatistics (B-GEO-K1-3)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
Groundwater Flow and Resource Modelling (B-GEO-K1-4)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
2 SEMESTER						
Aquatic Geography (B-GEO-K2-1)	Project	15	7-point grading scale	External examination	Oral exam based on a project	English
Limnology (B-GEO-K2-2)	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
Marine Pollution (B-GEO-K2-3)	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
Oceanography and Time Series Analysis (B-GEO-K2-4)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
3 SEMESTER Version A						
Advanced Methods in Physical Geography (B-GEO-K3-1)	Project	20	7-point grading scale	Internal examination	Oral exam based on a project	English

Measurement Technology and Data Acquisition (B-GEO-K3-2)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
Global Change Biology (B-GEO-K3-3)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
3 SEMESTER Version B						
Project-oriented Study in an External Organisation (B-GEO-K3-4)	Project	30	7-point grading scale	Internal examination	Oral exam based on a project	English
4 SEMESTER						
Master's Thesis (B-GEO-K4-1)	Project	30	7-point grading scale	External examination	Master's thesis/final project	English
3-4 SEMESTER Version C						
Master's Thesis (B-GEO-K3-5)	Project	50	7-point grading scale	External examination	Master's thesis/final project	English
Measurement Technology and Data Acquisition (B-GEO-K3-2)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
Global Change Biology (B-GEO-K3-3)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
3-4 SEMESTER Version D						
Master's Thesis (B-GEO-K3-6)	Project	60	7-point grading scale	External examination	Master's thesis/final project	English

On the 3rd semester, the students must choose between version A, B and C. If version B is chosen the Study Board must approve the contents of the **project-oriented study**.

On the 3rd semester students can also choose to **study at another university**. The students must send an application to the Study Board before the study is commenced, where they apply for a preapproval of credit transfer of the contents of the modules at the other university.

If the longer master's thesis option is selected, the master's thesis is either 50 or 60 ECTS. If 50 ECTS (version C) is chosen additional course modules on the 3rd semester must be selected to reach 60 ECTS for the 3rd and 4th semester in total.

The students are given options in the project modules as they can select among different projects within the same general theme. Moreover, the master thesis on the 4th semester or long master's thesis on the 3rd and 4th semester can be selected freely within the field of geography.

Offered as: 2-professional

Study programme: Central Subject Geography, Elective Subject within Engineering and Science

Module name	Course type	ECTS	Applied grading scale	Evaluation method	Assessment method	Language
1 SEMESTER						
Elective Subject		30				
2 SEMESTER						
Elective Subject		15				

Remote Sensing (B-GEO-B6-2)	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	Danish
Dissemination and Didactics (B-GEO-B6-3)	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	Danish
Advanced Geoinformatics (B-GEO-B6-4)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	Danish
3 SEMESTER						
Globalization and Development (B-GEO-B5-1)	Project	15	7-point grading scale	Internal examination	Oral exam based on a project	Danish
Natural Ressources (B-GEO-B5-2)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	Danish
Globalization Geography (B-GEO-B5-3)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Danish
Demography and Development (B-GEO-B5-4)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Danish
4 SEMESTER						
Master's Thesis (B-GEO-K4-2)	Project	30	7-point grading scale	External examination	Master's thesis/final project	Danish

Offered as: 2-professional

Study programme: Central Subject Geography, Elective Subject within Humanities/Social Science

Module name	Course type	ECTS	Applied grading scale	Evaluation method	Assessment method	Language
1 SEMESTER						
Elective Subject		30				
2 SEMESTER						
Elective Subject		30				
3 SEMESTER						
Elective Subject		15				
Natural Ressources (B-GEO-B5-2)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	Danish
Globalization Geography (B-GEO-B5-3)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Danish
Demography and Development (B-GEO-B5-4)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Danish
4 SEMESTER						
Globalization and Development (B-GEO-B5-1)	Project	15	7-point grading scale	Internal examination	Oral exam based on a project	Danish

Remote Sensing (B-GEO-B6-2)	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	Danish
Dissemination and Didactics (B-GEO-B6-3)	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	Danish
Advanced Geoinformatics (B-GEO-B6-4)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	Danish
5 SEMESTER						
Master's Thesis (B-GEO-K4-2)	Project	30	7-point grading scale	External examination	Master's thesis/final project	Danish

Offered as: 2-professional Study programme: Elective Subject Geography, Central Subject within Engineering and Science						
Module name	Course type	ECTS	Applied grading scale	Evaluation method	Assessment method	Language
1 SEMESTER						
Globalization and Development (B-GEO-B5-1)	Project	15	7-point grading scale	Internal examination	Oral exam based on a project	Danish
Natural Ressources (B-GEO-B5-2)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	Danish
Globalization Geography (B-GEO-B5-3)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Danish
Demography and Development (B-GEO-B5-4)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Danish
2 SEMESTER						
The City as Space and Place (B-GEO-B3-1)	Project	15	7-point grading scale	External examination	Oral exam based on a project	Danish
Central Subject		15				
3 SEMESTER						
Central Subject		30				
4 SEMESTER						
Central Subject		30				

Offered as: 2-professional Study programme: Elective Subject Geography, Central Subject within Humanities/Social Science						
Module name	Course type	ECTS	Applied grading scale	Evaluation method	Assessment method	Language
1 SEMESTER						

Globalization and Development (B-GEO-B5-1)	Project	15	7-point grading scale	Internal examination	Oral exam based on a project	Danish
Natural Ressources (B-GEO-B5-2)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	Danish
Globalization Geography (B-GEO-B5-3)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Danish
Demography and Development (B-GEO-B5-4)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Danish
2 SEMESTER						
Local Scale Physical Geography Problems (B-GEO-B2-1)	Project	15	7-point grading scale	External examination	Oral exam based on a project	Danish
Applied Statistics (F-FYS-B2-2)	Course	5	7-point grading scale	Internal examination	Oral exam	Danish
Danish Biotypes (B-GEO-B2-4)	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	Danish
Advanced Geoinformatics (B-GEO-B6-4)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	Danish
3 SEMESTER						
The City as Space and Place (B-GEO-B3-1)	Project	15	7-point grading scale	External examination	Oral exam based on a project	Danish
Central Subject		15				
4 SEMESTER						
Central Subject		30				
5 SEMESTER						
Central Subject		30				

§ 19: ADDITIONAL INFORMATION

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 visit this website.

§ 20: COMMENCEMENT AND TRANSITIONAL RULES

The curriculum is approved by the dean and enters into force as of the 1st of September 2020 for all new, enrolled students.

The Study Board does not offer teaching after the previous curriculum from 2018 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