AALBORG UNIVERSITET

CURRICULUM FOR THE MASTER'S PROGRAMME (CAND.POLYT.) IN URBAN DESIGN, 2025

MASTER OF SCIENCE (MSC) IN ENGINEERING
AALBORG

Link to this studyline

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

Curriculum for the Master’s Programme (cand.polyt.) in Urban Design, 2022
Curriculum for the Master´s programme (cand.polyt.) in Urban Design, 2023

TABLE OF CONTENTS

§ 1: PREFACE

Pursuant to consolidation Act 391 of April 10, 2024 on Universities (the University Act), the following is established.

The programme also follows the Examination Policies and Procedures incl. the Joint Programme Regulations 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. 2285 of December 1, 2021 on Full-time University Programmes (the University Programme Order) with subsequent changes and Ministerial Order no. 2271 of December 1, 2021 on University Examinations (the Examination Order) with subsequent changes. Further reference is made to Ministerial Order no. 51 of January 14, 2024 (the Admission Order) and Ministerial Order no. 1125 of July 4, 2022 (the Grading Scale Order

§ 3: CAMPUS

The programme is offered in Aalborg.

§ 4: FACULTY AFFILIATION

The Master's programme falls under The Technical Faculty of IT and Design, Aalborg University.

§ 5: STUDY BOARD AFFILIATION

The Master's programme falls under Study Board of Architecture and Design

§ 6: AFFILIATION TO CORPS OF EXTERNAL EXAMINERS

The Master's programme is associated with the external examiners corps on Civil engineering corps of external examiners

§ 7: ADMISSION REQUIREMENTS

Applicants with a legal right of admission (retskrav)

Aalborg University offers no bachelor's educations with a legal right of admission to this education.

Applicants without legal right of admission

- Bachelor of Science (BSc) in Engineering (Architecture and Design with specialisation in Architecture and Urban Design), AAU
- Bachelor of Science (BSc) in Architectural Engineering, DTU
- Bachelor of Engineering (B Eng) in Architectural Engineering, DTU
- Bachelor of Science (BSc) in Engineering (Urban, Energy and Environmental Planning), AAU

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

Admission to the master's programme in Engineering (Urban Design) requires that the applicant has passed a relevant qualifying bachelor's degree programme. A bachelor's degree programme is defined as relevant if the degree programme provides competencies to a minimum of 30 ECTS in one or more of the following subject areas: urban design, planning, urban studies, landscape architecture or architecture.

As a prerequisite for admission to the master's programme, students must have completed a bachelor programme in technical sciences, a bachelor of engineering programme or a bachelor in natural science.

§ 8: THE PROGRAMME TITLE IN DANISH AND ENGLISH

The Master's programme entitles the graduate to the Danish designation Civilingeniør, cand.polyt. i urbant design. The English designation is: Master of Science (MSc) in Engineering (Urban Design).

§ 9: PROGRAMME SPECIFICATIONS IN ECTS CREDITS

The Master's programme is a to-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.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 and use reference works, etc., in English.

§ 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

- Must from an engineering perspective have research-based knowledge of the history, theories, methods, tools, and practice of architectural, functional, technical and societal aspects of urban design.
- Must on an engineering and research-based foundation be able to understand and reflect upon urban design problems and potentials, and thereby be able to identify contemporary urban design issues.
- Must have knowledge of the principles of Problem Based Learning (PBL) as implemented in the Aalborg PBL model at the Faculty of IT and Design.
- Must from an engineering perspective have knowledge of urban design as an integrated field and profession, including knowledge of urban planning, architecture, landscape architecture, infrastructural systems, and sustainable urban environments and ecosystems.
- Must have knowledge of urban design methods of measuring, mapping, analyzing and designing.
- Must have knowledge of analogue and digital tools of urban design.
- Must have knowledge of critical themes, progression of theories and key works in the history of urban design.
- Must have knowledge of ethics and global challenges of urban design.

Skills

- Must from an engineering perspective master the application of research-based theories, methods, and digital and analogue tools of urban design.
- Must be able to identify and assess theoretical and practical problems of urban design, and to select and motivate relevant urban design proposals in a societal perspective.
- Must be able to communicate urban design problems and proposals to peers and non-specialists, as well as to collaborators and citizens in a societal perspective.
- Must from an engineering perspective be able to apply research-based theories and methods from relevant fields of knowledge such as planning, architecture, landscape architecture, transportation, and sustainability, to the identification, assessment and approach to urban design problems.
- Must be able to identify and address urban design engineering problems in relation to architectural, functional, technical and societal issues relevant to urban development and urban transformation.
- Must be able to use analogue and digital tools, graphics and models to develop, map, simulate, visualise and communicate urban design analyses and proposals.
- Must be able to communicate design proposals in written, visual, spatial and verbal form.
- Must from an engineering perspective be able to plan and calculate the dimensions of basic infrastructural systems and urban water infrastructures.

Competencies

- Must from an engineering perspective master the integration of architectural, functional, technical and societal aspects of urban design.
- Must independently be able to engage in professional and interdisciplinary cooperation in urban design relevant to engineering.
- Must independently be able to take responsibility for own professional development and learning in the field of engineering.
- Must be able to create urban design proposals in relation to urban development and urban transformation (and plan their realization).
- Must be able to evaluate urban design projects and assess their implementation effects.
- Must be able to collect, analyze and implement complex urban data in urban design projects.

§ 17: STRUCTURE AND CONTENTS OF THE PROGRAMME

The program is structured in modules and organized as a problem-based study. A module is a 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
- classroom instruction

- project work
- workshops
- exercises (individually and in groups)
- teacher feedback
- reflection
- portfolio work

If the student wants to study abroad, the Study Board recommends this in the third semester. The student must apply for a preapproval of credit transfer by the Study Board of Architecture and Design.

§ 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).

Offered as: 1-professional						
Module name	Course type	ECTS	Applied grading scale	Evaluation method	Assessment method	Language
1 SEMESTER						
Sustainable Urban Transformation within Engineering (AODUPM1P251)	Project	20	7-point grading scale	Internal examination	Oral exam based on a project	English
Climate and Hydrology in Urban Transformation (B-AD-K1-1)	Course	5	7-point grading scale	Internal examination	Oral exam	English
Analysing Urban Transformation (AODUM1K233)	Course	5	Passed/Not Passed	Internal examination	Written exam	English
2 SEMESTER						
Design for Urban Mobility within Engineering (AODUPM2P251)	Project	20	7-point grading scale	External examination	Oral exam based on a project	English
Cities and Mobilities (AODUM2K242)	Course	5	7-point grading scale	Internal examination	Written exam	English
Site Morphology: Advanced Analysis and Design (AODUPM2K252)	Course	5	Passed/Not Passed	Internal examination	Oral exam based on a project	English
3 SEMESTER Option A						
Electives on 3rd Semester Choose 1 course	Course	5				
Project-Oriented Study in an External Organisation (AODUPM3P251)	Project	25	Passed/Not Passed	Internal examination	Oral exam based on a project	English
3 SEMESTER Option B						
Electives on 3rd Semester Choose 1 course	Course	5				
Urban Design Semester Project within Engineering	Project	25	Passed/Not Passed	Internal examination	Oral exam based on a project	English

(AODUPM3P252)						
3 SEMESTER Option C						
Electives on 3rd Semester Choose 1 course	Course	5				
Research Semester Project related to Urban Design within Engineering (AODUPM3P253)	Project	25	Passed/Not Passed	Internal examination	Oral exam based on a project	English
4 SEMESTER						
Master's Thesis (AODUPM4P251)	Project	30	7-point grading scale	External examination	Master's thesis/final project	English

Electives on 3rd Semester Choose 1 course						
Module name	Course type	ECTS	Applied grading scale	Evaluation Method	Assessment method	Language
Academic Paper Writing (AODUM3K201)	Course	5	Passed/Not Passed	Internal examination	Written exam	English
Advanced Integrated Design IV: Extended Construction Management, Project Design and Life Cycle Cost Estimates (AODAM3K201)	Course	5	Passed/Not Passed	Internal examination	Oral exam	English

Elective courses will only be offered if 12 students or more register for the course during the registration period. Students will be offered other options if a chosen course is not offered.

§ 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 see www.create.aau.dk/education/.

§ 20: COMMENCEMENT AND TRANSITIONAL RULES

The curriculum is approved by the dean and enters into force as of September 1, 2025.

The Study Board does not offer teaching after the previous curriculum from 2023 after the summer examination 2026.

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