



AALBORG UNIVERSITET

# **CURRICULUM FOR THE MASTER'S PROGRAMME (CAND.TECH.) IN URBAN DESIGN, 2022**

MASTER OF SCIENCE (MSC) IN TECHNOLOGY  
AALBORG

[Link to this studyline](#)

## Curriculum for the Master's Programme (cand.tech.) in Urban Design, 2022

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

[Curriculum for the Master's programme \(cand.tech.\) in Urban Design, 2023](#)

[Curriculum for the Master's programme \(cand.tech.\) in Urban Design, 2025](#)

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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 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) and Ministerial Order no. 2271 of December 1, 2021 on University Examinations (the Examination Order). Further reference is made to Ministerial Order no. 104 of January 24, 2021 (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 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

## § 8: THE PROGRAMME TITLE IN DANISH AND ENGLISH

The Master's programme entitles the graduate to either:

### *Specialisation in Mobilities and Urban Studies:*

- Danish designation: Cand.tech. i urbant design med specialisering i mobiliteter og urbane studier
- English designation: Master of Science (MSc) in Technology (Urban Design with specialisation in Mobilities and Urban Studies)

### *Specialisation in Urban Architecture:*

- Danish designation: Cand.tech. i urbant design med specialisering i urban arkitektur

- English designation: Master of Science (MSc) in Technology (Urban Design with specialisation in Urban Architecture)

## **§ 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 have research-based knowledge of the history, theories, methods, tools, and practice of architectural, functional, technical and societal aspects of urban design.
- Must on a 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.

#### *Additional specialisation in Urban Architecture*

- Must 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.

#### *Additional specialisation in Mobilities and Urban Studies:*

- Extensive knowledge of the social significance of mobilities based on the best international research within the new mobilities turn.
- Ability to perform scientific reflection on relevant mobilities theories and methods and to identify scientific problems within development, technology, politics and strategies in relation to mobilities.
- Theoretical and methodological knowledge of the social significance and consequences of various forms of mobilities.
- Knowledge of theories of science and the methodological foundation of various theories of mobilities.
- Ability to understand, explain and reflect on the potentials and limitations of relevant theories and methods of mobilities.

#### Skills

- Must 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.
- Must be able to communicate urban design problems and proposals to peers and non-specialists, as well as to collaborators and citizens.

#### *Additional specialisation in Urban Architecture*

- Must 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 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 be able to plan and calculate the dimensions of basic infrastructural systems and urban water infrastructures.

#### *Additional specialisation in Mobilities and Urban Studies:*

- Advanced-level knowledge of scientific methods, techniques and tools pertaining to mobilities and proficiency in relation to employment within the field of mobilities in the public and private sectors as well as in research.
- Ability to identify theories, methods, techniques and tools pertaining to mobilities and create research-based solutions within mobilities technology, management and research.

- Ability to independently create technologies, policies or strategies aiming at managing the field of mobilities.
- Ability to assess theoretical, technological and practical problems in the field of mobilities and to substantiate, prepare and select relevant solutions.
- Ability to communicate research-based knowledge and discuss scientific problems in relation to mobilities with peers and non-specialists alike.

### Competencies

- Must 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.
- Must independently be able to take responsibility for own professional development and learning.

### *Additional specialisation in Urban Architecture*

- 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.

### *Additional specialisation in Modilities and Urban Studies::*

- Ability to understand relationships between society and the development of mobilities.
- Ability to initiate and implement new cross-disciplinary collaborations and solutions between the multifarious professions affected by recent mobilities research.
- Ability to manage complicated and unpredictable situations in relation to work and development requiring new solutions in the field of mobilities.
- Ability to contribute to continued professional development and innovation in the field of mobilities.

## § 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 3<sup>rd</sup> Semester. The student must apply for a preapproval of credit transfer by the Study Board of Architecture and Design.

Students who specialise in Modilities and Urban Studies may choose to write a long Master's Thesis as an experimental study during their 3<sup>rd</sup> and 4<sup>th</sup> Semester (60 ECTS). Preapproval from the study board is required for this option.

**§ 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						
Specialisation: Urban Architecture						
Module name	Course type	ECTS	Applied grading scale	Evaluation method	Assessment method	Language
<b>1 SEMESTER</b>						
<a href="#">Sustainable Urban Transformation</a> (AODUM1P201)	Project	20	7-point grading scale	Internal examination	Oral exam based on a project	English
<a href="#">Climate and Hydrology in Urban Transformation</a> (B-AD-K1-1)	Course	5	7-point grading scale	Internal examination	Oral exam	English
<a href="#">Analysing Urban Transformation</a> (AODUM1K203)	Course	5	Passed/Not Passed	Internal examination	Oral exam based on a project	English
<b>2 SEMESTER</b>						
<a href="#">Design for Urban Mobility</a> (AODUM2P201)	Project	20	7-point grading scale	External examination	Oral exam based on a project	English
<a href="#">Theories of the Network City</a> (AODUM2K202)	Course	5	7-point grading scale	Internal examination	Written exam	English
<a href="#">Site Morphology: Advanced Analysis and Design</a> (AODUM2K203)	Course	5	7-point grading scale	Internal examination	Oral exam based on a project	English
<b>3 SEMESTER</b>						
<a href="#">Electives on 3rd Semester</a> Choose 1 course	Course	5				
<a href="#">Independent Choice: Research, Practice or Development in Urban Design</a> (AODUM3P222)	Project	25	7-point grading scale	Internal examination	Oral exam based on a project	English
<b>4 SEMESTER</b>						
<a href="#">Master's Thesis</a> (AODUM4P221)	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	
<a href="#">Academic Paper Writing</a> (AODUM3K201)	Course	5	Passed/Not Passed	Internal examination	Written exam	English	
<a href="#">Advanced Integrated Design IV: Extended Construction Management, Project Design and Life Cycle Cost Estimates</a> (AODAM3K201)	Course	5	Passed/Not Passed	Internal examination	Oral exam	English	



Offered as: 1-professional						
Specialisation: Mobilities and Urban Studies						
Module name	Course type	ECTS	Applied grading scale	Evaluation method	Assessment method	Language
<b>1 SEMESTER</b>						
<a href="#">Analysing Contemporary Mobilities</a> (AODMM1P201)	Project	20	7-point grading scale	Internal examination	Oral exam based on a project	English
<a href="#">The Mobilities Turn</a> (AODMM1K202)	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
<a href="#">Applied Philosophy of Science and Mobile Methods</a> (AODMM1K223)	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	English
<b>2 SEMESTER</b>						
<a href="#">Mobilities: Place and Culture</a> (AODMM2P201)	Project	20	7-point grading scale	External examination	Oral exam based on a project	English
<a href="#">Mobilities: Policy, Branding and Place Management</a> (AODMM2K222)	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	English
<a href="#">Mobile Culture and Communication</a> (AODMM2K203)	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	English
<b>3 SEMESTER</b> Option A						
<a href="#">Independent Choice: Research, Practice or Development in Mobilities and Urban Design</a> (AODMM3P221)	Project	25	7-point grading scale	Internal examination	Oral exam based on a project	English
<a href="#">Academic Paper Writing</a> (AODUM3K201)	Course	5	Passed/Not Passed	Internal examination	Written exam	English
<b>3-4 SEMESTER</b> Option B*						
<a href="#">Master's Thesis</a> (AODUM3P203)	Project	60	7-point grading scale	External examination	Master's thesis/final project	English
<b>4 SEMESTER</b>						
<a href="#">Master's Thesis</a> (AODMM4K201)	Project	30	7-point grading scale	External examination	Master's thesis/final project	English

\*Students who specialise in Mobilities and Urban Studies may choose to write a long Master's Thesis as an experimental study during their 3<sup>rd</sup> and 4<sup>th</sup> Semester (60 ECTS). Preapproval from the study board is required for this option

## § 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 <https://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, 2022 for students starting their 1<sup>st</sup> and 3<sup>rd</sup> Semester.

The Study Board does not offer teaching after the previous curriculum from 2020 after the summer examination 2022.

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 of Education has on February 12, 2025, approved that the prerequisite for enrollment for the exam is erased in the module *Design for Urban Mobility*, valid from Spring 2025.