AALBORG UNIVERSITET

CURRICULUM FOR THE MASTER'S PROGRAM IN URBAN DESIGN CAND.TECH., 2017

MASTER OF SCIENCE (MSC) IN TECHNOLOGY
AALBORG

Link to this studyline

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

Curriculum for the Master's Programme (cand.tech.) in Urban Design, 2020

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§ 1: PREFACE

Pursuant to Act 261 of March 18, 2015 on Universities (the University Act) with subsequent changes, the following curriculum for the Master's program in Urban Design is stipulated. The programme also follows the Joint Program Regulations and the Examination Policies and Procedures for The Technical Faculty og IT and Design, The Faculty of Engineering and Science, and The Faculty og Medicine.

Commencement of this curriculum is 1. September 2017 – for both 1st and 3rd semester.

§ 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) and Ministerial Order no. 1062 of June 30, 2016 on University Examinations (the Examination Order). Further reference is made to Ministerial Order no. 258 of March 18, 2015 (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 Nationwide engineering examiners/Design

§ 7: ADMISSION REQUIREMENTS

All students applying must document English language qualifications comparable to an 'English B level' in the Danish upper secondary school (minimum average grade 02).

Applicants with a legal claim to admission (retskrav):
Aalborg University has no program with legal claim to admission.

Applicants without legal claim to admission:
Applicants with one of the following degrees meet the admission requirements:

- Bachelor of Science (BSc) in Engineering (Architecture or Design), Aalborg University
- Bachelor of Science (BSc) in Techno-Anthropology, Aalborg University
- Bachelor of Science (BSc) in Geography, Aalborg University
- Natural and Cultural Heritage Management, University College of Northern Denmark

Students with another Bachelor degree may, upon application to the Board of Studies, be admitted following a specific academic assessment if the applicant is considered as having comparable educational prerequisites. The University can stipulate requirements concerning conducting additional exams prior to the start of study.

§ 8: THE PROGRAMME TITLE IN DANISH AND ENGLISH

The Master's programme entitles the graduate to the designation Cand.tech. i urbant design. The English designation is: Master of Science (MSc) in Technology (Urban Design).

The Master's program entitles the graduate to the designation cand.tech. (candidatus/candidate technologiae) i urbant design med specialisering i urban arkitektur / Master of Science (Msc) in Technology (Urban Design with specialisation in Urban Architecture)
or

Cand.tech. (candidatus/candidate technologiae) i urbant design med specialisering i mobiliteter og urbane studier / Master of Science (Msc) in Technology (Urban Design with specialisation in Mobilities and Urban Studies)

§ 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 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 program:

Knowledge

- Must have a broad knowledge of theories, methods and practices associated with the professions of engineering, architecture and design combined with a knowledge of methods and practices associated with the professionalisms of engineering, architecture and design ranging from the design component to the building section to the city as a whole
- Must have advanced knowledge of analytical approaches to technical and societal aspects 'of the profession

Additional specialisation in Urban Architecture

- Must have a broad knowledge of both analogue and digital tools for the development and representation of architecture, design and urban design
- Must have extensive knowledge of the methods and theories of engineering related design applied to the styling of design components, building parts, buildings and entire building developments
- Must have an advanced knowledge of periods, theories, works and principal figures in the history of architecture, urban and general design
- Must develop the knowledge on an international level about urban design in relation to global urban challenges
- Must develop knowledge on an international level about theories and methods concerning measuring, mapping and analysing the built environment in engineering related areas
- Must obtain knowledge concerning traffic systems and urban planning
- Must have 'Research based knowledge at highest international level' about design methods and related theories on the built environment
- Must develop knowledge on an international level about sustainable urban environments and urban ecosystems in relation to the design of cities adapting to change.
- Must be able to understand and reflect on the use of the newest digital tools when simulating, calculating, analysing, and mapping the built environment
- Must have knowledge about design theories related to computational 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 be able to assess theoretical and practical problems and to select and motivate relevant solutions in architecture, design and engineering on the basis of scientific methods
- Must be able to practically apply theories, methods and tools within architecture, industrial design and urban design and to apply skills associated with employment within the fields of engineering and architecture on a scientific basis
- Must be able to communicate disciplinary problems and solutions to both peers and non-specialists as well as to collaborators and users, and to analyse and understand the connections between design, architecture, cities and society as a whole

Additional specialisation in Urban Architecture

- Must be able to demonstrate the ability to make advanced integrated design* proposals at different scales
- Must able to apply advanced theories and methods in technical fields of knowledge such as planning, construction, technique and climatology
- Must on the highest international level be able to identify and address design challenges in relation to urban development and urban transformation
- Must be able to identify and address engineering related problems in relation to climatic, infrastructural, social and cultural issues relevant to the design of the built environment
- Must be able to use computational tools to map, simulate and visualize relations between environmental, infrastructural and spatial, aesthetic parameters
- Must be able to create design proposals for the built environment and communicate those in both digital models and utilised these in advanced production methods for physical models
- Must be able to plan and calculate the dimensions of basic infrastructural systems such as roads, traffic systems and urban water infrastructures in relation to the design of the built environment
- Must be able to utilise analytical and methodological tools concerning sustainable and infrastructural design
- Integrated Design: Is a methodic process where research and evidence based knowledge is continuously applied and integrated through a succession of engineering, design and architectural based theories and methods throughout the design process of the project.

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 be able to handle and manage complex and development-oriented situations in relation to both study and work
- Must be able with a professional approach independently and with demonstrable overview to participate in professional and interdisciplinary cooperation in the fields of engineering, architecture and design
- Must be able to identify own learning needs and structure own learning in various learning environments with a view to solving new types of problems
- Must possess high-level professional competencies in the intersection between the disciplines of engineering, architecture and design

Additional specialisation in Urban Architecture

- Must have competences on the highest international level to create urban design proposals in relation to urban development and urban transformation
- Must have competencies on the highest international level to create technically sound urban design proposals and plan their realization
- Must have the ability to evaluate projects in the built environment and assess their implementation effects in the city
- Must have the ability to carry out design proposals for urban design on highest international level concerning traffic systems, urban water infrastructures in an changing social and cultural context
- Must have the ability to collect, analyse and document urban data and implement these in strategies for urban development
- Must have competencies to communicate the newest urban design projects and participate in interdisciplinary teams concerning the built environment
- Must be able to communicate scientific knowledge applying international recognized methods within urban design engineering

Additional specialisation in Mobilities 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

* Integrated Design: Is a methodic process where research and evidence based knowledge is continuously applied and integrated through a succession of engineering, design and architectural based theories and methods throughout the design process of the project

§ 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. Examinations are defined in the curriculum. The programme 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

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).

Minimum 85 ECTS are evaluated by 7-point scale, and minimum 45 ECTS are evaluated with an external examiner.

§ 18: OVERVIEW OF THE PROGRAMME

Offered as: Specialisation: Mobilities and Urban Studies						
Module name	Course type	ECTS	Applied grading scale	Evaluation method	Assessment method	Language
1 SEMESTER						
Analysing Contemporary Mobilities	Project	15	7-point grading scale	Internal examination	Oral exam based on a project	English
The Mobilities Turn	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
Mobility Technologies and Infrastructures	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
Applied Philosophy of Science and Mobile Methods	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	English
2 SEMESTER						

Mobilities: Place and Culture	Project	15	7-point grading scale	External examination	Oral exam based on a project	English
Electives on 2 semester Choose 3 courses		15				
3 SEMESTER Version A						
Sustainable Mobilities	Project	20	7-point grading scale	Internal examination	Oral exam based on a project	English
Academic Paper Writing	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
Electives on 3 semester Choose 1 course	Course	5				
3 SEMESTER Version B						
Academic Internship	Project	25	7-point grading scale	Internal examination	Oral exam based on a project	English
Academic Paper Writing	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
3 SEMESTER Version C - Study Abroad*						
3-4 SEMESTER Version D						
Long Master's Thesis	Project	60	7-point grading scale	External examination	Master's thesis/final project	English
4 SEMESTER						
Master's Thesis	Project	30	7-point grading scale	External examination	Master's thesis/final project	English

On 3rd semester the student of Mobilities and Urban studies must choose between version A, B, C or D.

*3rd semester Version C: 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.

Electives on 2 semester Choose 3 courses						
Module name	Course type	ECTS	Applied grading scale	Evaluation Method	Assessment method	Language
Mobilities: Policy, Branding and Place Management	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	English
Mobilities and Tracking Technologies	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
Mobile Culture and Communication	Course	5	7-point grading scale	Internal examination	Active participation/continuous evaluation	English
Mobilities Design: Concept and Diagram	Course	5	7-point grading scale	Internal examination	Written or oral exam	English

Three out of four course modules are offered on 2 semester

Electives on 3 semester Choose 1 course						
Module name	Course type	ECTS	Applied grading scale	Evaluation Method	Assessment method	Language
Mobilities Design: Visualisation and Representation	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
Sustainable Mobilities Infrastructures and Technology	Course	5	7-point grading scale	Internal examination	Written or oral exam	English

Offered as: Specialisation: Urban Architecture						
Module name	Course type	ECTS	Applied grading scale	Evaluation method	Assessment method	Language
1 SEMESTER						
Urban Transformation and Sustainable Engineering Techniques	Project	15	7-point grading scale	Internal examination	Oral exam based on a project	English
Climate and Hydrology of the Dense City	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
Constructing and Designing Performative Urban Environments	Course	10	Passed/Not Passed	Internal examination	Written or oral exam	English
2 SEMESTER						
Designing Urban Mobility	Project	15	7-point grading scale	External examination	Oral exam based on a project	English
Simulating and Modeling Urban Flows	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
Theories of the Network City and its Technologies	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
Site Morphology and Landscape Techniques	Course	5	7-point grading scale	Internal examination	Written or oral exam	English
3 SEMESTER Version A						
Academic Paper Writing	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
Project, Design and Construction Management in Architecture and Urban Design	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English
Global Challenges and Urban Technologies	Project	20	7-point grading scale	Internal examination	Oral exam based on a project	English
3 SEMESTER Version B						
Academic Internship	Project	25	7-point grading scale	Internal examination	Oral exam based on a project	English
Academic Paper Writing	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	English

3 SEMESTER Version C - Study Abroad*						
3-4 SEMESTER Version D						
Long Master's Thesis	Project	60	7-point grading scale	External examination	Master's thesis/final project	English
4 SEMESTER						
Master's Thesis	Project	30	7-point grading scale	External examination	Master's thesis/final project	English

On 3rd semester the student of Urban Architecture must choose between version A, B, C or D.

*3rd semester Version C: 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.

§ 19: ADDITIONAL INFORMATION

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 spelling and formulation 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 Board of Studies 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 must be in Danish. The summary must be at least 1 page and not more than 2 pages. The summary is included in the evaluation of the project as a whole.

[1] Or another foreign language (upon approval from the Board of Studies).

[2] The Board of Studies can grant exemption from this.

Rules concerning credit transfer (merit), including the possibility for choice of modules that are part of another at a university in Denmark or abroad
In the individual case, the Board of Studies can approve successfully completed (passed) elements from other Master's s in lieu of elements in this (credit transfer). The Board of Studies can also approve successfully completed (passed) elements from another Danish or a outside of Denmark at the same level in lieu of elements within this curriculum. Decisions on credit transfer are made by the Board of Studies based on an academic assessment. See the Joint me Regulations for the rules on credit transfer.

Rules for examinations
The rules for examinations are stated in the Examination Policies and Procedures published by The Technical Faculty of IT and Design, The Faculty of Engineering and Science, and The Faculty of Medicine on their website.

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 School of Architechture, Design and Planing's website.

Exemption
In exceptional circumstances, the Board of Studies can grant exemption from those parts of the curriculum that are not stipulated by law or ministerial order. Exemption regarding an examination applies to the immediate examination.

Additional information

The current version of the curriculum is published on the Board of Studies' website, including more detailed information about the , including exams.

Evaluation formats for the Bachelor and Master mes under the Board of Studies for Architecture and Design, School of Architecture, Design and Planning.

Please refer to the semester description of the relevant semester and module for further descriptions of the chosen evaluation format.

Evaluation format C – Oral examination based on project report with external examination:
The module is assessed by an oral assessment based on written material, typically a jointly prepared (or in exceptional cases, prepared by the individual student) project module report (containing the report/analyzes/posters/drawings/models or similar) where the individual examinee's contribution is not indicated.

The module is assessed with external examination.

Evaluation format P – Oral examination based on project report with internal examination:
The module is assessed by an oral assessment based on written material, typically a jointly prepared (or in exceptional cases, prepared by the individual student) project module report (containing the report/analyzes/posters/drawings/models or similar) where the individual examinee's contribution is not indicated.

The module is assessed with internal examination.

Evaluation format L –Oral or written assessment.

Comprising of:

Evaluation format La –Oral assessment:
The module is assessed with an oral assessment based on the objectives for the module.

The course coordinator may request that the students bring materials produced during the course to the examination or submit either in printed copy or on Moodle prior to the exam.

Evaluation format Lb – Oral assessment:
The module is assessed with an oral exam based on the objectives for the course module.

The examinee pulls a known and predefined question, after which the assessment begins.

The course coordinator may request that the students bring materials produced during the course to the examination or submit either in printed copy or on Moodle prior to the exam.

Evaluation format Lc – Oral assessment:
The module is assessed with an oral exam based on the objectives for the course module.

The examinee pulls a question, gets preparation time, after which the assessment begins.

The course coordinator may request that the students bring materials produced during the course to the examination or submit either in printed copy or on Moodle prior to the exam.

Evaluation format Ld – Written assessment:
The module is assessed with a written assignment based on central parts of the objectives for the course module through one or more written assignments (including reports/analyses/posters/drawings/models or the like).

A written assignment is developed during the execution of the course module.

The written material must be digitally uploaded to the directory assigned by the semester secretary. This according to the current delivery requirements in the Semester Description.

Evaluation format Le – Written assessment:
The module is assessed with a written assignment based on central parts of the objectives for the course module.

A written assignment given by the end of the course module and completed within a defined time frame.

The written material must be digitally uploaded to the directory assigned by the semester secretary. This according to the current delivery requirements in the Semester Description.

Evaluation format Lf – Oral or written assessment:
You can choose between P and L (La,Lb,Lc and Ld)

Evaluation format V – Regular and active participation:
The module is passed by the student's regular and active participation in teaching/ evaluation seminars or the like and by compliance with the assignment requirements of the module.

The module is assessed by internal assessment.

§ 20: COMMENCEMENT AND TRANSITIONAL RULES

The curriculum is approved by the Dean of The Technical Faculty of IT and Design and enters into force as of 1st September 2017 – for both 1st and 3rd semester.

§ 21: AMENDMENTS TO THE CURRICULUM AND REGULATIONS

Minor editorial changes have been made in connection with the digitisation of the study Curriculum