



Curriculum for the Master's Programme in Urban Design Cand.scient.tech.

Aalborg University
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Preface

Pursuant to Act 960 of August 14, 2014 on Universities (the University Act) with subsequent changes, the following curriculum for the Master's programme in Urban Design is stipulated. The programme also follows the Framework Provisions and the Examination Policies and Procedures for the Faculty of Engineering and Science.

Commencement of this curriculum is 1. September 2015.

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Chapter 1: Legal Basis of the Curriculum

1.1 Basis in ministerial orders

The Master's programme in Urban Design is organized in accordance with the Ministry of Higher Education and Science's Ministerial Order no. 1520 of December 16, 2013 on Bachelor's and Master's Programmes at Universities (the Ministerial Order of the Study Programmes) and Ministerial Order no. 670 of June 19, 2014 on University Examinations (the Examination Order) with subsequent changes. Further reference is made to Ministerial Order no. 1488 of December 16, 2013 (the Admission Order) and Ministerial Order no. 250 of March 15, 2007 (the Grading Scale Order) with subsequent changes.

1.2 Faculty affiliation

The Master's programme falls under the Faculty of Engineering and Science, Aalborg University.

1.3 Board of Studies affiliation

The Master's programme falls under the Board of Studies for Architecture and Design, School of Architecture, Design and Planning.

1.4 Censorship

The Master's program falls under the Danish "Ingeniøruddannelsernes landsdækkende censorkorps".

Chapter 2: Admission, Degree Designation, Programme Duration and Competence Profile

2.1 Admission

Admission to the Master's programme in Urban Design requires a:

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

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

Students with another Bachelor's degree, upon application to the Board of Studies, will be admitted after a specific academic assessment if the applicant is deemed to have comparable educational prerequisites. The University can stipulate requirements concerning conducting additional exams prior to the start of study.

2.2 Degree designation in Danish and English

The Master's programme entitles the graduate to the designation:

Cand.scient.tech. i urbant design med specialisering i urban arkitektur / Master of Science (Msc) in Technology (Urban Design with specialisation in Urban Architecture)

or

Cand.scient.tech. 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)

2.3 The programme's specification 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.

2.4 Competence profile on the diploma

The following competence profile will appear on the diploma:

A graduate of the Master's programme has competencies acquired through an educational program that has taken place in a research environment.

The graduate of the Master's programme can perform highly qualified functions on the labor market on the basis of the educational programme. Moreover, the graduate has prerequisites for research (a Ph.D. programme). Compared to the Bachelor's degree, the graduate of the Master's programme has developed her/his academic knowledge and independence, so that the graduate can independently apply scientific theory and method in both an academic and occupational/professional context.

2.5 Competence profile of the programme:

The graduate of the Master's programme:

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 be 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

Chapter 3: Content and Organization of the Programme

The programme is structured in modules and organized as a problem-based study. A module is a program element or a group of programme 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

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).

Urban Design specialisation in Urban Architecture 1st to 4th semester (Cand.scient.techn).

Semester	P= Project module C= Course modules	Module	ECTS	Assesment	Exam	
1		P	Urban Transformation and Sustainable Engineering Techniques	10	7-point scale	Internal
		C	Climate and Hydrology of the Dense City	5	7-point scale	Internal
		C	Integrated Design Theory and Metodology	5	Pass/Fail	Internal
		C	Constructing and Designing Performative Urban Environments	10	Pass/Fail	Internal
2	A or B	P	Designing Urban Mobility	15	7-point scale	External
		P	Mobilities: Place and Culture	15	7-point scale	External
		C	Simulating and Modeling Urban Flows	5 (elective)	Pass/Fail	Internal
		C	Theories of the Network City and its Technologies	5 (elective)	7-point scale	Internal
		C	Site Morphology and Landscape Techniques	5 (elective)	7-point scale	Internal
		C	Mobilities: Policy, Branding and Place Management	5 (elective)	Pass/Fail	internal
		C	Mobilities and Tracking Technologies	5 (elective)	Pass/Fail	Internal
		C	Mobile Culture and Communication	5 (elective)	7-point scale	Internal
C	Mobilities Design: Concept	5	7-point scale	internal		

			and Diagram	(elective)		
3	A or	C	Methodology and Theories of Science	5	Pass/Fail	Internal
		C	Project, Design and Construction Management in Architecture and Urban Design	5	Pass/Fail	Internal
		P	Global Challenges and Urban Technologies	20	7-point scale	Internal
	B or	C	Methodology and Theories of Science	5	Pass/Fail	Internal
		P	Academic Internship	25	7-point scale	Internal
	C or	P	Sustainable Mobilities	20	7-point scale	Internal
		C	Academic Paper Writing	5	Pass/Fail	Internal
		C	Mobilities Design: Visualisation and Representation	5 (elective)	7-point scale	Internal
		C	Sustainable Mobilities Infrastructures and Technology	5 (elective)	7-point scale	Internal
	D or	P	Academic Internship	25	7-point scale	Internal
		C	Academic Paper Writing	5	Pass/Fail	Internal
	E or	P/C	Study at another university	30	-	-
	F	P	Long Master's Thesis ¹	30	-	-
						-
4			Master's Thesis	30	7-point scale	External
Total				120		

¹ See module description for the Master's thesis. The Long Master's thesis is prepared in the 3rd and 4th semesters; the extent is 60 ECTS.

Urban Design specialisation in Mobilities and Urban Studies 1st to 4th semester (Cand.scient.techn).

Semester		Module	ECTS	Assesment	Exam	
1		P	Analysing Contemporary Mobilities	10	7-point scale	Internal
		C	The Mobilities Turn	5	7-point scale	Internal
		C	Integrated Design Theory and Metodology	5	7-point scale	Internal
		C	Mobility Technologies and Infrastructures	5	Pass/Fail	Internal
		C	Applied Philosophy of Science and Mobile Methods	5	Pass/Fail	internal
2	A or B	P	Designing Urban Mobility	15	7-point scale	External
		P	Mobilities: Place and Culture	15	7-point scale	External
		C	Simulating and Modeling Urban Flows	5 (elective)	Pass/Fail	Internal
		C	Theories of the Network City and its Technologies	5 (elective)	7-point scale	Internal
		C	Site Morphology and Landscape Techniques	5 (elective)	7-point scale	Internal
		C	Mobilities: Policy, Branding and Place Management	5 (elective)	Pass/Fail	internal
		C	Mobilities and Tracking technologies	5 (elective)	Pass/Fail	Internal
		C	Mobile Culture and Communication	5 (elective)	7-point scale	Internal
		C	Mobilities Design: Concept and Diagram	5 (elective)	7-point scale	internal
3	A or	C	Methodology and Theories of Science	5	Pass/Fail	Internal
		C	Project, Design and Construction Management in Architecture and Urban Design	5	Pass/Fail	Internal
		P	Global Challenges and Urban Technologies	20	7-point scale	Internal
	B or	C	Methodology and Theories of Science	5	Pass/Fail	Internal
		P	Academic Internship	25	7-point scale	Internal
	C or	P	Sustainable Mobilities	20	7-point scale	Internal
		C	Academic Paper Writing (Akademisk Paper Skrivning)	5	Pass/Fail	Internal
		C	Mobilities Design: Visualisation and Representation	5 (elective)	7-point scale	Internal
		C	Sustainable Mobilities Infrastructures and Technology	5 (elective)	7-point scale	Internal
	D or	P	Academic Internship	25	Pass/Fail	Internal
		C	Academic Paper Writing	5	Pass/Fail	Internal
	E or	P/C	Study at another university	30	-	-
F		P	Long Master's Thesis ²	30	-	-
4		Master's Thesis	30	7-point scale	External	

² See module description for the Master's thesis. The Long Master's thesis is prepared in the 3rd and 4th semesters; the extent is 60 ECTS.

Total			120		
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Minimum 80 ECTS are evaluated by 7-point scale, and minimum 45 ECTS are evaluated with an external examiner.

Descriptions of modules

Master in Urban Design with specialisation in Urban Architecture

Master in Urban Design with specialisation in Urban Architecture 1st semester

Integrated Design Theory and Methodology (5 ECTS)

Integreret design-teori og -metodik

Prerequisites: A BSc degree (Bachelor) in Architecture and Design or similar.

Objective: The aim of the course is to enable students to gain a practical and theoretical understanding of project work using the problem-based learning approach (PBL) as well as of the method used in 'industrial design', architectural design' and 'urban design' respectively, viz. the integrated design process (IDP) in which strategically chosen parameters from engineering are integrated throughout the entire industrial, architectural or urban design process respectively.

Students who complete the module:

Knowledge

- Must have knowledge and understanding of project-organised problem-based learning
- Must have knowledge of the integrated design process (IDP)
- Must have knowledge of group work and ways to solve conflicts
- Must have knowledge and understanding of the planning and structuring of project documentation

Skills

- Must be able to apply problem-based learning methods and use an integrated design process in relation to respectively an industrial, architectural and urban design project
- Must be able to work in a group
- Must be able to evaluate collective working processes

Competencies

- Must be able to apply project-organised learning techniques to actual problems related to working in a group
- Must be able to apply the integrated design process in project work

Type of instruction: See general description of the types of instruction described in the introduction to Chapter 3.

Exam format: Version L.

Evaluation criteria: As stated in the Framework Provisions.

Title: **Constructing and Designing Performative Urban Environments (10 ECTS)**
Konstruksjon og design af performative urbane rum

Prerequisites: A BSc degree (Bachelor) in Architecture and Design or similar.

Objective: The aim of the course is the construction and design of performative urban structures and environments. It explores the role of new technologies and their ability to develop performative urban structures, environments and designs in an integrated design process. The module presents theories of parametric design, material and structure in relation to theories of instant urbanism, cultural grafting and city life. The course will present concepts and the use of analogue and digital technologies related to performative urban spaces.

Students who complete the module:

Knowledge

- Must have knowledge about theories related to the analysis, construction and design of performative urban environments
- Must have knowledge about performative technologies and computational design tools in relation to performative structures in the built environment
- Must have knowledge of parametric design tools that enable the generation of feedback loops from generation of form and performance analysis in relation to structure and urban space
- Must have knowledge about methodologies related to design and construction of performative urban environments

Skills

- Must be able to identify, analyse and address challenges related to the development of performative urban environments and media architecture
- Must be able to make a structural analysis of complex spatial systems when setting up design concepts
- Must be able to analyse and to use mixed technological and aesthetical methods when designing performative structures
- Must be able to analyse and identify relevant design concepts in relation to performative technologies in the built environment

Competencies

- Must be able to create a synthesis of structural, urban and performative elements in a complex urban setting by using advanced design tools that support the definition and control of complex context, advanced geometry and performance analysis
- Must be able to evaluate the effect of the design on city life including sensual experiences

Type of instruction: See general description of the types of instruction described in the introduction to Chapter 3.

Exam format: Version L.

Evaluation criteria: As stated in the Framework Provisions.

Title:	Climate and Hydrology of the Dense City (5 ECTS) <i>Klima og hydrologi i den tætte by</i>
Prerequisites:	A BSc degree (Bachelor) in Architecture and Design or similar
Objective:	The course will provide practical knowledge and skills in the development of designs supporting sustainability in the urban built environment. The main goal is to gain knowledge and understanding of the design challenges involved in creating a more ecologically based city considering natural and built elements in the design process. The course will contribute to knowledge and skills about sustainable urban development in a changing built environment. Hereby the students obtain competencies in engineering solutions to guide the city through a sustainable transformation.
	Students who complete the module:
	<p>Knowledge</p> <ul style="list-style-type: none"> • Must have knowledge of causes, development, and effects of climate change from global to local scale • Must have knowledge on aquatic and terrestrial ecology and ecosystems • Must have knowledge on techniques for addressing climate adaptation • Must have knowledge on urban water management practices <p>Skills</p> <ul style="list-style-type: none"> • Must be able to utilise analytical tools and methods concerning sustainable and infrastructural design • Must be able to identify and address problems in relation to climate adaption and hydrological issues relevant to the design of the built environment • Must be able to assess similarities and differences between rural and urban ecosystems • Must be able to assess the impact of the build environment on urban climatology • Must be able to measure quantify, and model urban transformation processes in relation to the built environment <p>Competencies</p> <ul style="list-style-type: none"> • Must have the competence to analyse, plan, and guide the sustainable transformation of a city • Must be able to evaluate the quality of urban 'blue' and 'green' ecosystem structures • Must have the competence to develop strategies for urban climate adaption
Type of instruction:	See general description of the types of instruction described in the introduction to Chapter 3.
Exam format:	Version L.
Evaluation criteria:	As stated in the Framework Provisions.

Title:	Urban Transformation and Sustainable Engineering Techniques (10 ECTS) <i>Urban transformation og bæredygtige teknikker</i>
Prerequisites:	A BSc degree (Bachelor) in Architecture and Design or similar
Objective:	<p>The module addresses the transformation of the built urban environment in which the notion of the compact city is a driving force. Emphasis is on integrating engineering techniques and urban design. In this context, the focus is to identify potential in existing built environments and to employ techniques for e.g. densification, climate adaptation and social inclusivity. These will be put into perspective for developing engineering based solutions to environmentally responsible design strategies and interventions.</p> <p>Students who complete the module:</p> <p>Knowledge:</p> <ul style="list-style-type: none"> • Must understand the dynamics of the urban climate and its effects on the built environment • Must have knowledge of environmentally and socially sustainable techniques for densifying the urban environment • Must have knowledge of potential resources in the contemporary built environment as a catalyst to finding sustainable engineering and design solutions <p>Skills:</p> <ul style="list-style-type: none"> • Must be able to analyse and conceptualise complex urban projects and environments from a number of perspectives related to the 'compact city', e.g. climate adaptation and mitigation, densification, re-use, inclusivity • Must be able to analyse the interaction between environmental factors such as wind, water and the built environment • Must be able to utilise theories and methods in order to analyse and evaluate contemporary built environments and notions of 'compact cities' • Must be able to develop a proposal that integrates engineering techniques with conceptual and spatial design <p>Competencies:</p> <ul style="list-style-type: none"> • Must be able to work with techniques for adapting to climate change in densified built environments that compile technical, spatial, social and aesthetic qualities into an integrated design solution • Must be able to evaluate existing situations and utilise innovative and contemporary sustainable engineering techniques in the transformation of the built environment • Must be able to evaluate and communicate the effects of urban transformation as environmentally and socially sustainable
Type of instruction:	See general description of the types of instruction described in the introduction to Chapter 3.
Exam format:	Version P.
Evaluation criteria:	As stated in the framework Provisions.

Title:	Simulating and Modeling Urban Flows (5 ECTS) <i>Urbane flowsimuleringer og -modeller</i>
Prerequisites:	A BSc degree (Bachelor) in Architecture and Design or similar
Objective:	<p>The objective is to strengthen the students' ability to create functional urban design based on mobility and flows in the contemporary network city. This should be done by applying a wide field of contemporary information technologies such as interactive media, mediated surface design, mobility tracking technologies (GPS / RFID), mobile and digital networks, ICT software for urban flow simulation and design, mobile robotics and 'intelligent' cybernetics systems design.</p> <p>Students who complete the module:</p> <p>Knowledge:</p> <ul style="list-style-type: none"> • Must have knowledge about contemporary information technologies and their practical design and implementation in the network city • Must be able to understand the technical potentials in applying 'intelligent' technologies in urban design • Must be able to understand and reflect on the use of the newest digital simulation tools, 3D programming, GIS and CAD programs <p>Skills:</p> <ul style="list-style-type: none"> • Must be able to create design proposals and experiments applying new information technologies and software to mobility and flows in urban design of the network city • Must be able to evaluate the solutions presented in the field and assess their values seen in the light of 'intelligent' technologies • Must be able to use CAD and GIS programs to map and visualise relations between environmental, infrastructural and spatial parameters <p>Competencies:</p> <ul style="list-style-type: none"> • Must have competencies to create design proposals and concepts for urban mobility/flow and assess their implementation effects
Type of instruction:	See general description of the types of instruction described in the introduction to Chapter 3.
Exam format:	Version L.
Evaluation criteria:	As stated in the framework Provisions.

Title:	Theories of the Network City and its Technologies (5 ECTS) <i>Teorier om netværksbyen og dens teknologier</i>
Prerequisites:	A BSc degree (Bachelor) in Architecture and Design or similar
Objective:	<p>The objective is to strengthen the students' ability to comprehend and understand the technical factors in their social context shaping contemporary network cities. This is done by introducing state-of-the-art scientific theories relating to the development of the network city within the fields of urban theory, mobility theory, network theory and other related theoretical fields.</p> <p>Students who complete the module:</p> <p>Knowledge:</p> <ul style="list-style-type: none"> • Must have knowledge about the technical forces shaping the network city and their societal consequences • Must be able to understand the basic factors behind the creation of the network city and its technologies • Must be able to develop knowledge about the network city and its technologies as a 'large technical system' <p>Skills:</p> <ul style="list-style-type: none"> • Must be able to apply the relevant scientific theories and methods related to an analysis of the technological infrastructure systems of the network city • Must be able to evaluate proposals for intervention and design of the network city in light of state-of-the-art theories <p>Competencies:</p> <ul style="list-style-type: none"> • Must acquire competencies in analysing the network city on a theoretical and methodologically reflective level • Must acquire competencies in assessing technical solutions to traffic and mobility challenges of the network city
Type of instruction:	See general description of the types of instruction described in the introduction to Chapter 3.
Exam format:	Version L.
Evaluation criteria:	As stated in the framework Provisions.

Title: Site Morphology and Landscape Techniques (5 ECTS)

Stedets morfologi og landskabsteknikker

Prerequisites: A BSc degree (Bachelor) in Architecture and Design or similar

Objective: This module activates theories and methodologies concerning site and investigates the site as an urban landscape of technical and aesthetic features. Thus, the module draws on subjects such as Landscape Urbanism and Landscape Architecture, site mapping and spatial development, as well as geotechnical methods and theories; all of which contribute to the understanding of the site as a living organism. This course works with the spatial section as a tool in order to examine what is above and what is below the surface in order to facilitate a movement from analysis to conceptual design in an integrated process - a process within which, technique, nature and aesthetics mutually influence each other, and are parts of the same totality.

Students who complete the module:

Knowledge:

- Must exhibit knowledge of natural processes and their effect on technical and formal considerations relating to landscape and urban design
- Must be able to understand theories and methods relating to sites and technical and aesthetic landscapes
- Must be able to understand theories and methods relating to geotechnical conditions; among these knowledge about soil conditions and ground water conditions, as well as knowledge of the methods used to solve geotechnical and foundation problems.

Skills:

- Must be able to apply theories and methods relating to the site seen as a result of natural processes
- Must be able to utilise analytical and methodological tools in the determination of site characteristics, origin and development and further to use this information as a catalyst for design proposals and the generation of form and space
- Must be able to work with sectional models, using this technique as both an analytical and a conceptual design tool
- Must be able to understand the site as being made up of what occurs both above and below the surface, as well as it being constructed of both technical and aesthetic elements
- Must be able to understand what a geotechnical report is and what constitutes the content of such a report

Competencies:

- Must be able to reflect upon the interdependency and mutual influence that the built and natural environments have on each other
- Must be able to present the movement from analysis to conceptual design as an integrated proposal through the use of sectional models
- Must be able to communicate knowledge of and methods relating to the geological conditions of the soil

Type of instruction: See general description of the types of instruction described in the introduction to Chapter 3.

Exam format: Version L.

Evaluation criteria: As stated in the framework Provisions.

Title:	Designing Urban Mobility (15 ECTS) <i>Urbant mobilitetsdesign</i>
Prerequisites:	A BSc degree (Bachelor) in Architecture and Design or similar
Objective:	<p>The objective is to strengthen the students' ability to functional urban design in the contemporary network city covering a range from urban mobility systems (e.g. metros and subways) and their relation to the city to urban spaces and their linkages to the technical based transit network or large scale urban architecture and transit terminals and their function as urban flow spaces.</p> <p>Students who complete the module:</p> <p>Knowledge:</p> <ul style="list-style-type: none"> • Must develop knowledge of the importance of contemporary transit systems to the functionality of cities • Must be able to understand the technical factors shaping and forming the contemporary urban transit system in their social context • Must develop knowledge of the adequate functional and technical solutions to mobility challenges within the contemporary network city <p>Skills:</p> <ul style="list-style-type: none"> • Must be able to apply the theories and methods relevant to the design and development of urban transit and mobility • Must be able to evaluate the solutions presented in the field and assess their values seen in the light of urban design theories, methods and reference projects • Must be able to establish skills in analysing the mobility challenges of the contemporary city applying relevant technologies and methods <p>Competencies:</p> <ul style="list-style-type: none"> • Must have competencies to create design proposals and concepts for urban mobility and assess their implementation effects
Type of instruction:	See general description of the types of instruction described in the introduction to Chapter 3.
Exam format:	Version C.
Evaluation criteria:	As stated in the framework Provisions.

Title: **Mobilities: Place and Culture (15 ECTS)**

Mobiliteter: Sted og kultur

Prerequisites: Relevant BSc degree (Bachelor)

Objective: The project module aims at giving the students the opportunity to work at the crossroads between mobilities, place and culture and to develop a theoretical approach alongside their empirical investigations. The project module seeks to study influences and relations between mobilities, place and culture. The objective is to investigate place theory and cultural theory in relation to mobilities, with the aim of achieving an understanding of interrelations between place, culture and the mobilities perspective.

Students who complete the module:

Knowledge

- Must have knowledge of state-of-the-art theories and methods in mobilities research relating to place and culture
- Must have knowledge of relational place theory
- Must have an understanding of the relations between mobilities and place and culture
- Must have an understanding of mobilities and tracking technologies

Skills

- Must be able to apply relevant theories and methods of place and culture to empirical cases
- Must be able to analyse mobilities in relation to place and culture
- Must be able to evaluate contemporary mobilities and their relation to place and culture

Competencies

- Must have competencies in developing mobilities-related models and concepts concerning place and culture in contemporary society
- Must be able to work in interdisciplinary contexts in the field of mobilities, place and culture
- Must have competencies in organising and managing complex mobilities in cross-disciplinary contexts

Type of instruction: Problem-based project work, supervision, and plenary sessions

Exam format: Version C

Evaluation criteria: As stated in the Framework Provisions

- Title:** **Mobilities: Policy, Branding and Place Management (5 ECTS)**
Mobiliteter: Politik, branding og steder
- Prerequisites:** Relevant BSc degree (Bachelor)
- Objective:** The objective is to strengthen the student's ability to comprehend mobility policies and management as well as place management and branding in relation to the field of mobilities. This includes studies in leisure and travel, place theory and branding as well as mobility policies, mobility management, travel management and meetings management

Students who complete the module:

Knowledge

- Must have knowledge of theories and methods in the field of place theory, management, branding and policymaking in relation to the new mobilities turn.
- Must have knowledge of the strengths and weaknesses of methods and tools related to policy, branding and place management
- Must have an understanding of the relationships between spatial development, management, policies and branding
- Must have knowledge of the relationships between societal developments and mobility policies, mobility management, travel management and meetings management
- Must have knowledge of the economic implications of place, branding, policies and management
- Must have knowledge of governmentality and regulatory frameworks

Skills

- Must be able to apply relevant scientific theories and methods related to policy, branding and place management
- Must be able to evaluate, on the basis of state-of-the-art theories, both private and public sector mobility policies, plans, programmes and strategies
- Must be able to independently prepare place and mobility policies, plans, programmes and strategies
- Must be able to combine conventional tools from transport planning and travel management with new concepts, technologies, methods and theories in the field of place and mobilities research
- Must be able to analyse empirical cases in relation to policy, branding and place management
- Must be able to evaluate spatial development in relation to place management and branding

Competencies

- Must be able to professionally communicate results and concepts related to policy, branding and place management
- Must be able to work in cross-disciplinary contexts in the field of mobility policy, mobility management, travel management and meetings management

- Must have the necessary competencies in developing models and concepts that capture the relationships between spatial development and the theoretical and methodological aspects of policy, branding and place management

Type of instruction: Lectures supplemented with seminars, field trips, study circles and workshops

Exam format: Version V

Evaluation criteria: As stated in the Framework Provisions

Title: **Mobilities and Tracking Technologies (5 ECTS)**
Mobiliteter og trackingteknologier

Prerequisites: Relevant BSc degree (Bachelor)

Objective: The objective is to introduce the students to the analysis and implementation of tracking technologies in the context of contemporary mobilities. On the background of the 'mobilities turn' the module explores technologies such as GPS, RFID, Bluetooth, etc., as a tool for mobilities analysis and intervention. The module aims at integrating analytical and theoretical understandings of tracking technologies with practical and methodological explorations of the technologies.

Students who complete the module:

Knowledge

- Must have knowledge of tracking and location-based technologies and methods for the exploration of the application of new hardware and software products in understanding contemporary mobilities
- Must have knowledge of tracking technologies as method

Skills

- Must be able to further develop their skills in creating representations and visualisations of location-based data
- Must be able to further develop their analytical skills in analysing the implications of new tracking technologies for mobilities in contemporary society

Competencies

- *Must have competencies in assessing* normative, cultural and ethical repercussions of pervasive mobilities monitoring and tracking technologies

Type of instruction: Supervision and plenary sessions

Exam format: Version L

Evaluation criteria: As stated in the Framework Provisions

Title: Mobile Culture and Communication (5 ECTS)

Mobilkultur og -kommunikation

Prerequisites: Relevant BSc degree (Bachelor)

Objective: The objective is to enable the students to understand and analyse the relationship between information and communication technologies, mobilities systems, space and society by introducing state-of-the-art theories relating to mobility cultures, to the integration of communication technologies with the spatial environment, to mobilities-related consequences of new social media and digital networks as well as to interaction design

Students who complete the module:

Knowledge

- Must have a profound knowledge of contemporary information and communication technologies and their application in mobile cultures and systems
- Must have an understanding of the technological as well as cultural factors that are shaping and enabling mobilities systems

Skills

- Must be able to apply theories of information and communication technology and relevant cultural theories to the analysis of mobilities cultures and systems
- Must be able to evaluate the relevance and impact of information and communication technologies on mobilities cultures and systems

Competencies

- Must have competencies in analysing on a theoretically level mobilities cultures and systems and their integration with communication technologies
- Must have competencies in professional communication in relation to both professional and lay audiences

Type of instruction: Lectures supplemented with seminars, study circles, workshops and fieldwork

Exam format: Version V

Evaluation criteria: As stated in the Framework Provisions

Title:	Mobilities Design: Concept and Diagram (5 ECTS) <i>Mobilitetsdesign: Konsept og diagram</i>
Prerequisites	Relevant BSc degree (Bachelor)
Objective:	The objective is to introduce students to the two of the key tools within mobilities design: the concept and the diagram. The course introduces to the nature of conceptual thinking and diagrammatical analysis as a way of analyzing and understanding mobilities. Various approaches to conceptual development and analysis are explored as well as the manifold applications of diagrams to mobilities analysis are discussed. The course illustrates concepts and diagrams both theoretically as well as with case based examples.

Students who complete the module:

Knowledge

- Must have knowledge about theories of conceptual thinking and diagrammatical analysis
- Must be able to understand and identify key approaches to conceptual thinking and diagrammatic analysis

Skills

- Must be able to discuss and compare key approaches to conceptual thinking and diagrammatic analysis
- Must be able to evaluate advantages and challenges to different perspectives and approaches of conceptual thinking and diagrammatical analysis

Competencies

- Must have competencies to apply concepts in cases of mobilities thinking and diagrams in mobilities analysis

Type of instruction: Supervision, case work, workshops and plenary sessions

Exam format: Version L

Evaluation criteria: As stated in the Framework Provisions

Title: **Project, Design and Construction Management in Architecture and Urban Design (5 ECTS)**
Projekt-, design- og byggeledelse i arkitektur og urbant design

Prerequisites: The student must have knowledge, skills and competencies within the architectural design and engineering field corresponding to the completion of the MSc01 and MSc02 Architectural Engineering education or similar.

Objective: An introduction to project, design and construction management.

Students who complete the module:

Knowledge:

- Must have knowledge and understanding of theories and methods within project, design or construction management Must have knowledge of ethical, economical, legal and social interests in the field of construction management
- Must have knowledge of current theories and practice in construction management

Skills:

- Must be able to analyse and assess the cross-disciplinary inclusion of actors involved in the decision-making processes
- Must be able to use methods and techniques for preparing cost estimates for building construction projects
- Must be able to apply methods of planning and scheduling of construction projects
- Must be able to identifying work elements, estimating activity durations, preparing network schedules and schedule updates, analysing planned vs. actual project progress

Competencies:

- Can apply methods and theories for project, design or construction management within a given budget using specified materials and construction methods

Type of instruction: See general description of the types of instruction described in the introduction to Chapter 3.

Exam format: Version L.

Evaluation criteria: As stated in the Framework Provisions.

Title:	Methodology and Theories of Science (5 ECTS) <i>Forskningsmetode og videnskabsteori</i>
Prerequisites:	The student must have knowledge, skills and competencies within the urban design and engineering field corresponding to the completion of the MSc01 and MSc02 Urban Design Engineering education or similar.
Objective:	The objective is to give the students the necessary skills to participate in the academic and professional practice within the fields of Architecture, Design and Planning (or related areas) as contributing scholars and researchers by training the basic academic skills of paper writing and design of research methodology seen in light of the adequate positions within theories of science / philosophy of science. Students who complete the module: Knowledge: <ul style="list-style-type: none"> • Must have knowledge about the academic production process, the systems of research quality assessments and monitoring governing the field of research and the channels for publication and dissemination of academic knowledge • Must be able to understand societal and contextual conditions for a situation of increasing 'scientification' of practice fields • Must be able to understand how the 'state-of-the-art' within academic fields of relevance are emerging and how these are evolving Skills: <ul style="list-style-type: none"> • Must be able to apply established models for paper writing and methodological reflection to a specific case within architecture, design or planning • Must be able to write a methodologically reflective paper which positions itself in relation to relevant and adequate positions within theories of science / philosophy of science • Must be able to evaluate the paper in relation to established practices and systems of academic research Competencies: <ul style="list-style-type: none"> • Must have competencies to write an academic paper and/or a design for research methodology relating to the state-of-the-art of knowledge production within architecture, design or planning
Type of instruction:	See general description of the types of instruction described in the introduction to Chapter 3.
Exam format:	Version L.
Evaluation criteria:	As stated in the framework Provisions.

Title: Global Challenges and Urban Technologies (20 ECTS)

Globale udfordringer og urbane teknologier

Prerequisites: The student must have knowledge, skills and competencies within the urban design and engineering field corresponding to the completion of the MSc01 and MSc02 Urban Design Engineering education or similar.

Objective: The objective of this module is to address the challenges affecting contemporary global societies and environments in a technical, critical and reflective manner. This is achieved through the identification and selection of a physical problem within a global perspective, registration and mapping of the existing situation and the subsequent analytical and technical assessment of the situation and utilisation of empirical case studies. Further this module creates an understanding of these challenges as design challenges solvable by the proposal of strategies that integrate technical solutions with aesthetic practices and that develop a holistic approach to urban problem-solving in a global context.

Students who complete the module:

Knowledge:

- Must have knowledge about the technical and design based problems facing contemporary global societies and urban environments
- Must be able to understand a local problem in their global context
- Must have knowledge of methods for the attainment of data and information regarding the identified problem
- Must have knowledge of empirical cases that illuminate the given problem from both technical and design based angles

Skills:

- Must be able to identify a global challenge and relate it to specific challenges in the built environment
- Must be able to identify technical solutions and work with and develop form and space as integral elements in the adaptation of technical solutions
- Must be able to apply technical and analytical methods to extract data and amass critical information regarding the chosen locality and nature of the identified problem
- Must be able to evaluate the quality of the proposed solutions as experiential realities

Competencies:

- Must be able to critically assess and synthesise gathered registration and case study material from both a technical and design based perspective
- Must be able to implement the synthesised information into the development of conceptual and spatial strategies
- Must be able to integrate technical and aesthetic factors into a holistic approach
- Must be able to communicate the technical and aesthetic elements of the proposal as a spatially understood reality

Type of instruction: See general description of the types of instruction described in the introduction to Chapter 3.

Exam format: Version P.

Evaluation criteria: As stated in the framework Provisions.

Title: Academic Internship (25 ECTS)

Projektorienteret forløb

Prerequisites: The student must have knowledge, skills and competencies within the urban design and engineering field corresponding to the completion of the MSc01 and MSc02 Urban Design Engineering education or similar.

Objective: The objective of this module is to give the students an opportunity to use and test the skills they have acquired during the 1st and 2nd semesters by participating in projects developed in a company setting. The testing of the urban design engineering skills is attained not only through gaining practical experience, but also through the choice of a focus area for academic reflection and the subsequent investigation and illumination of this. The choice of a focus area should be related to urban design engineering skills attained in the first part of the Master program.

Students who complete the module:

Knowledge:

- Must have practical, technical, conceptual and professional knowledge of relevance to urban design practice
- Must have knowledge of the analytical methods utilised in urban design practice
- Must be aware of the practice of urban design as a practice containing technical, design based and societal factors

Skills:

- Must be able to engage professionally in the environment within which the urban design assignment takes place
- Must be able to identify a relevant and specific technical focus for subsequent investigation and reflection
- Must be able to utilise analytical and investigative techniques in the development of urban design proposals
- Must be able to work both independently and in a team setting in project development

Competencies:

- Must be able to describe specific problems relating to urban design engineering and find technical and design based strategies for illuminating them
- Must be able to participate in the solving of urban design engineering problems
- Must be able to make academic reflections on an identified technical and design focus area relating to urban design engineering and implement previously attained knowledge to qualify it and set it into perspective

Type of instruction: See general description of the types of instruction described in the introduction to Chapter 3.

Exam format: Version P.

Evaluation criteria: As stated in the framework Provisions.

Title: **Sustainable Mobilities (20 ECTS)**

Bæredygtige mobiliteter

Prerequisites: Relevant BSc degree (Bachelor)

Objective: The module addresses global mobilities issues from a sustainability perspective. Emphasis is on a broad definition of sustainability, i.e. its economic, social and ecological perspectives. The objective is to strengthen the student's ability to integrate in their work with mobilities a sustainability perspective including environmental mobilities, green technologies and environmental urbanism as well as social mobilities and sustainable migration.

Students who complete the module:

Knowledge

- Must have knowledge of global mobilities issues both on a global, national and local scale
- Must have an understanding of the connection between sustainability and mobilities
- Must have knowledge of economic consequences in relation to sustainable solutions
- Must have an understanding of dynamic visualisation and mobilities tracking data
- Must have an understanding of sustainable technologies and infrastructures of mobilities

Skills

- Must be able to apply relevant theories and methods to the study of sustainable mobilities
- Must be able to assess global mobilities issues in various contexts

Competencies

- Must be able to offer input for sustainable solutions to global mobilities issues
- Must have competencies in organising and managing complex mobilities in cross-disciplinary contexts

Type of instruction: Project (studio) with supervision and interactive dialogue

Exam format: Version P

Evaluation criteria: As stated in the Framework Provisions

Title: **Academic Paper Writing (5 ECTS)**
Akademisk publicering

Prerequisites: Relevant BSc degree (Bachelor)

Objective: By training the basic skills of academic paper writing and designing a research methodology, the students will develop the tools necessary for participation in academic work within the field of mobilities. The module will furthermore enable the students to acquire competencies in communicating with lay and professional audiences.

Students who complete the module:

Knowledge

- Must have knowledge of the academic production process, the procedures in research quality assessments and monitoring and the channels for publication and dissemination of academic knowledge
- Must have an understanding of the societal and contextual conditions underlying the increasing 'scientification' of the practice field

Skills

- Must be able to apply to a specific mobilities case established models for academic paper writing and methodological reflection
- Must be able to evaluate their own academic papers in relation to established practices and systems of academic mobilities research

Competencies

- Must have competencies in writing an academic paper and/or a design for a research methodology relating to state-of-the-art research inspired by the 'mobilities turn'
- Must have competencies in communicating with lay and professional audiences

Type of instruction: Supervision and plenary sessions

Exam format: Version L

Evaluation criteria: As stated in the Framework Provisions

Title: **Sustainable Mobilities Infrastructures and Technology (5 ECTS)**
Bæredygtige mobilitetsinfrastrukturer og -teknologier

Prerequisites: Relevant BSc degree (Bachelor)

Objective: The objective is to enable students to acquire the skills necessary to conduct a study concerning issues relating to environmental mobilities, green technologies and environmental urbanism. Relevant theories and concepts, such as mobility management and sustainable mobilities, are explored with a view to their application in mobilities studies of contemporary society.

Students who complete the module:

Knowledge

- Must have knowledge of state-of-the-art research, theories and technologies in the mobilities field in relation to current challenges to the environment
- Must have an understanding of the development of green technologies, means of transportation, infrastructures and environmental urbanism and mobilities from a theoretical as well as a practical perspective

Skills

- Must be able to apply relevant theories for the analysis of contemporary environmental challenges and potential developments based on the mentioned theoretical perspectives
- Must be able to apply tools related to green technologies, means of transportation, infrastructures and environmental urbanism and mobilities

Competencies

- Must have competencies in developing sustainable mobilities solutions applicable to contemporary society

Type of instruction: A mixture of lectures supplemented with seminars and workshops

Exam format: Version L

Evaluation criteria: As stated in the Framework Provisions

Title: **Mobilities Design: Visualisation and Representation (5 ECTS)**
Mobilitetsdesign: Visualisering og repræsentation

Prerequisites A BSc degree (Bachelor) in social science, humanities or engineering

Objective: The objective is to introduce students to technologies and approaches for visualization and representation within mobilities design. The course explores the various ways of illustrating and giving visual indication of mobilities and flows. Techniques of representations in visual as well as other media are explored and the students will work towards creating concrete visualizations and representations related to specific examples and cases of mobilities design.

Students who complete the module:

Knowledge

- Must have knowledge about technologies and approaches for visualization and representation within mobilities design
- Must be able to understand and identify key approaches to visualization and representation within mobilities design

Skills

- Must be able to discuss and compare key approaches to visualization and representation within mobilities design
- Must be able to evaluate advantages and challenges to different perspectives and approaches visualization and representation within mobilities design

Competencies

- Must have competencies to apply visualization and representation to specific cases of mobilities design

Type of instruction: Supervision, case work, workshops and plenary sessions

Exam format: Version L

Evaluation criteria: As stated in the Framework Provisions

Title:	Master's Thesis (30 ECTS) <i>Kandidatspeciale</i>
Prerequisites:	The student must have knowledge, skills and competencies within the urban design and engineering field corresponding to the completion of the MSc01 - MSc03 Urban Design Engineering education or similar.
Objective:	To give the students the ability to on the highest international level make an integrated urban design project as an experimental, technological/engineering, empirical, and/or theoretical investigation of one or more central issues within the field of urban design engineering. This happens with reflective incorporation of relevant theories and methods acquired throughout the full master program in urban design engineering.
	Students who complete the module:
	Knowledge: <ul style="list-style-type: none"> • Must develop knowledge on an international level about urban design in relation to global urban challenges • Must have knowledge on highest international level about relevant theories and methods in relation to the chosen project theme • Must be able to on the highest international level to understand and reflect the theories and methods applied in relation to the practice of an integrated urban design engineering profession
	Skills: <ul style="list-style-type: none"> • Must on the highest international level be able to identify and address design challenges in relation to urban development and urban transformation • Must on highest international level be able to analyse, map and apply theories on a high reflective level • Must on highest international level be able to make proposals for design, strategies and interventions of relevance to the urban design field applying technical challenges as a central design element
	Competencies: <ul style="list-style-type: none"> • Must have competencies on the highest international level to create urban design proposals in relation to urban development and urban transformation • Must on highest international level have competencies to integrate mapping, analysis and theories into an integrated urban design engineering proposal • Must on highest international level have competencies to make strategies, plans and designs into an integrated urban design engineering proposal
Type of instruction:	See general description of the types of instruction described in the introduction to Chapter 3.
Exam format:	Version C
Evaluation criteria:	As stated in the framework Provisions.

Master in Urban Design with specialisation in Mobilities and Urban Studies

Master in Urban Design with specialisation in Mobilities and Urban Studies 1st semester

Integrated Design Theory and Methodology (5 ECTS)

Integreret design-teori og -metodik

Prerequisites: A BSc degree (Bachelor) in Architecture and Design or similar.

Objective: The aim of the course is to enable students to gain a practical and theoretical understanding of project work using the problem-based learning approach (PBL) as well as of the method used in 'industrial design', architectural design' and 'urban design' respectively, viz. the integrated design process (IDP) in which strategically chosen parameters from engineering are integrated throughout the entire industrial, architectural or urban design process respectively.

Students who complete the module:

Knowledge

- Must have knowledge and understanding of project-organised problem-based learning
- Must have knowledge of the integrated design process (IDP)
- Must have knowledge of group work and ways to solve conflicts
- Must have knowledge and understanding of the planning and structuring of project documentation

Skills

- Must be able to apply problem-based learning methods and use an integrated design process in relation to respectively an industrial, architectural and urban design project
- Must be able to work in a group
- Must be able to evaluate collective working processes

Competencies

- Must be able to apply project-organised learning techniques to actual problems related to working in a group
- Must be able to apply the integrated design process in project work

Type of instruction: See general description of the types of instruction described in the introduction to Chapter 3.

Exam format: Version L.

Evaluation criteria: As stated in the Framework Provisions.

Title: Analysing Contemporary Mobilities (10 ECTS)

Analyse af nutidens mobiliteter

Prerequisites: A relevant Bachelor's degree (BSc)

Objective: The objective is to strengthen the student's ability to understand and analyse specific cases of contemporary mobilities (e.g. transit spaces, everyday life mobility, virtual mobility and communication) in the light of the cross-disciplinary 'mobilities turn'. The project aims at giving the student an opportunity to apply theories and methods inspired by the mobilities turn, with a particular focus on societal needs and challenges in relation to technological infrastructures, applied philosophy of science and methodology.

Students who complete the module:

Knowledge

- Must have knowledge of state-of-the-art theories and methods of the mobilities turn
- Must have understanding of key societal challenges related to technology and applied philosophy of science
- Must have an understanding of technologies and infrastructures of mobilities

Skills

- Must be able to apply theories and methods of the mobilities turn to empirical cases of contemporary mobilities analysis
- Must be able to evaluate policies and management proposals related to organising contemporary mobilities

Competencies

- Must have competencies in preparing proposals for contemporary mobility projects and assess the effects of their implementation
- Must have competencies in communicating with lay and professional audiences
- Must have competencies in organising and managing complex mobilities in cross-disciplinary contexts

Type of instruction: Problem-based project work, supervision and plenary sessions.

Exam format: Version P

Evaluation criteria: As stated in the Framework Provisions.

Title: **The Mobilities Turn (5 ECTS)**
Mobilitetsvendingen

Prerequisites: Relevant BSc degree (Bachelor)

Objective: The objective is to introduce the students to the new 'mobilities turn' as an innovative approach to the study of contemporary mobility. In the module the student is acquainted with key thinkers and state-of-the-art research in mobilities. The module also gives an introduction to the international community of mobilities researchers as represented by their networks, centres and journals.

Students who complete the module:

Knowledge

- Must have knowledge of state-of-the-art theory within the mobilities turn
- Must be able to identify and understand key thinkers and concepts involved in the mobilities turn

Skills

- Must be able to discuss and compare key theories within the mobilities turn
- Must be able to assess advantages and challenges to different theoretical positions within the mobilities turn

Competencies

- Must have competencies in preparing designs for the analysis of contemporary mobility projects by operationalisation of theories of mobilities
- Must have competencies in reflective learning processes and be able to contribute to cross-disciplinary professional practices

Type of instruction: Supervision and plenary sessions

Exam format: Version L

Evaluation criteria: As stated in the Framework Provisions

Title: **Mobility Technologies and Infrastructures (5 ECTS)**
Mobilitetsteknologier og -infrastrukturer

Prerequisites: Relevant BSc degree (Bachelor)

Objective: This module addresses and discusses the relationship between transport/infrastructure planning, mobilities and spatial development. The module furthermore offers an introduction to infrastructure and transportation planning focusing on traditional theories and techniques for transport planning. The course further addresses new ways to analyse the different mobilities systems. The students are consequently introduced to methods for analysing infrastructure-related problems in both public and private transport.

Students who complete the module:

Knowledge

- Must have an understanding of the relationship between infrastructure development, physical mobility and spatial development
- Must know the primary determinants for transport behaviour and transport demands (the determinants of trip production, trip distribution, modal split and routing)
- Must know about the principles behind transport modelling, and the limitations of the models
- Must have an understanding of the relation between conventional traffic planning and the 'mobilities turn'

Skills

- Must be able to identify and analyse infrastructure-related transport problems in both public and private transport
- Must be able to understand and analyse mobilities designs and mobilities systems (e.g. automobility, velomobility, aeromobility, metromobility etc.) and the interplay between these
- Must be able to formulate solutions to infrastructure-related transport problems

Competencies

- Must be able to identify discrepancies between road network performance, environmental strains and mobility demands
- Must be able to critically evaluate and examine proposed infrastructure investments
- Must be able to formulate schemes and strategies for the utilisation of technologies of mobilities aiming at balancing considerations to mobilities and environmental strains
- Must have an understanding of various traffic models and their underlying mechanisms

Type of instruction: Lectures, workshops, supervision and plenary sessions

Exam format: Version L

Evaluation criteria: As stated in the Framework Provisions

Title:	Applied Philosophy of Science and Mobile Methods (5 ECTS) <i>Anvendt videnskabsteori og mobile metoder</i>
Prerequisites:	Relevant BSc degree (Bachelor)
Objective:	The objective of the module is to acquaint the students with the role of the researcher and with selected schools in the philosophy of science of relevance to mobilities studies. Moreover, the objective is to enable students to acquire the necessary skills to conduct research within the mobilities field as well as knowledge of different approaches and methods, e.g. mobile ethnography, field studies, tracking technologies and mapping.
Students who complete the module:	
	<p>Knowledge:</p> <ul style="list-style-type: none"> • Must have knowledge of various philosophies of science and advanced methods within mobilities research • Must have an understanding of differences between relevant philosophies of science as well as the connection between the different components in a research design (i.e. philosophies of science, theories of mobilities, the research question and the choice of methods) <p>Skills:</p> <ul style="list-style-type: none"> • Must be able to assess the applicability of various positions in the philosophy of science in relation to a specific mobilities project and to apply their perspective on the study • Must be able to apply various methods of relevance to the study of mobilities • Must be able to evaluate the results of data collected by any given mobile method <p>Competencies:</p> <ul style="list-style-type: none"> • Must be able to create a research design that combines relevant philosophies of science, theories and methods in answering a research question • Must have competencies in ensuring validity and reliability in a conducted mobilities study • Must have competencies in professional communication in cross-disciplinary contexts
Type of instruction:	A mixture of lectures supplemented with hands-on exercises, seminars and workshops
Exam format:	Version V
Evaluation criteria:	As stated in the Framework Provisions

Master in Urban Design with specialisation in Mobilities and Urban Studies 2nd semester

For description of course / project elective in the 2nd semester of Mobilities and Urban Studies, please see description of modules in the 2nd semester of Urban Architecture as all modules are identical.

Master in Urban Design with specialisation in Mobilities and Urban Studies 3rd semester

For description of course / project elective in the 3rd semester of Mobilities and Urban Studies, please see description of modules in the 3rd semester of Urban Architecture as all modules are identical.

Master in Urban Design with specialisation in Mobilities and Urban Studies 4th semester

For description of project in the 4th semester of Mobilities and Urban Studies, please see description of modules in the 4th semester of Urban Architecture as all modules are identical.

Chapter 4: Entry into Force, Interim Provisions and Revision

The curriculum is approved by the Dean of the Faculty of Engineering and Science and enters into force as of September 2015.

Students who wish to complete their studies under the previous curriculum must conclude their education by the summer examination period 2016 at the latest, since examinations under the previous curriculum are not offered after this time.

In accordance with the Framework Provisions for the Faculty of Engineering and Science and The Faculty of Medicine at Aalborg University, the curriculum must be revised no later than 5 years after its entry into force.

Chapter 5: Other Provisions

5.1 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.³ If the project is written in English, the summary must be in Danish.⁴ 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.

5.2 Rules concerning credit transfer (merit), including the possibility for choice of modules that are part of another program at a university in Denmark or abroad

In the individual case, the Board of Studies can approve successfully completed (passed) program elements from other Master's programs in lieu of program elements in this program (credit transfer). The Board of Studies can also approve successfully completed (passed) program elements from another Danish program or a program outside of Denmark at the same level in lieu of program elements within this curriculum. Decisions on credit transfer are made by the Board of Studies based on an academic assessment. See the Framework Provisions for the rules on credit transfer.

5.3 Rules for examinations

The rules for examinations are stated in the Examination Policies and Procedures published by the Faculty of Engineering and Science on their website.

5.4 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.

³ Or another foreign language (upon approval from the Board of Studies).

⁴ The Board of Studies can grant exemption from this.

5.5 Completion of the Master's programme

The Master's program must be completed no later than four years after it was begun.

5.6 Rules and requirements for the reading of texts

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.

5.7 Additional information

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

Enclosure 1: Evaluation formats

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

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

Project modules

Evaluation format C – Project module 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. It is further presumed that the student has regularly and actively participated in evaluation seminars etc..

The module is assessed with external examination.

The written material is submitted in physical form to the semester secretary and also digitally uploaded to the directory assigned by the semester secretary. This according to the current delivery requirements in the Semester Description or Study Guide.

Evaluation format P – Project module 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. It is further presumed that the student has regularly and actively participated in evaluation etc..

The module is assessed with internal examination.

The written material is submitted in physical form to the semester secretary and also digitally uploaded to the directory assigned by the semester secretary. This according to the current delivery requirements in the Semester Description or Study Guide.

Course modules:

Evaluation format L – Course module, oral or written assessment.

Comprising of:

Evaluation format La – Course module, oral assessment:

The module is assessed with an oral assessment based on written material prepared by the individual student such as a portfolio presentation or a (possibly jointly prepared) project module report (containing the report/analyses/posters/drawings/models or similar). It is further presumed that the student has regularly and actively participated in evaluation seminars.

Oral assessment with aid and without preparation time.

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 or Study Guide.

Evaluation format Lb – Course module, 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.

Oral assessment without aid and without preparation time

Evaluation format Lc – Course module, 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.

Oral assessment without aid and with preparation time – aid is allowed in the preparation time.

Evaluation format Ld – Course module, 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 or Study Guide.

Evaluation format Le – Course module, 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 or Study Guide.

Evaluation format V – Course module:

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 course module.

The module is assessed by internal assessment.