AALBORG UNIVERSITET

STUDIEORDNING FOR KANDIDATUDDANNELSEN I BÆREDYGTIG BYUDVIKLING, 2025, KØBENHAVN

CIVILINGENIØR
KØBENHAVN

MODULER SOM INDGÅR I STUDIEORDNINGEN

INDHOLDSFORTEGNELSE

WASTE MANAGEMENT, RESOURCES AND ENERGY PLANNING IN SUSTAINABLE CITIES

2025/2026

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- Has thorough knowledge of a planning tool within energy planning or resource management
- Has knowledge of selected scientific methods and their application for analysis of a chosen research problem.
- Has knowledge of the basic structures of energy system and waste/resource management
- Has knowledge of different models for the development and design of cities and the impacts of these models
- Knowledge of theories of science and research methods relevant for conducting research within the field of sustainable cities

SKILLS

- Can identify a relevant research problem within the field of sustainable cities
- Can design a research project and use relevant research methods in order to analyse the chosen problem
- Can independently collect relevant data in relation to the challenges and problems of the project, and assess the quality and reliability of this data
- Can independently structure project management activities and carry out subject specific and interdisciplinary study project
- Can motivate, substantiate and communicate the general structure and methods of the project in a scientific context
- Can critically analyse the environmental, social and economic impacts of urban development
- Can understand, apply and critically reflect on relevant quantitative as well as qualitative economic, social, environmental and/or technical methods of analysis and identify the interests connected to these
- Can apply and advance knowledge obtained during semester modules
- Can communicate research-based knowledge and discuss professional and scientific problems in relation to the interplay between urban development and sustainable development with peers and non-specialists
- Can relate critically to sources and indicate accurate references
- Can plan and manage a study project in a PBL learning environment
- Can apply spreadsheets for numerical analyses
- Can apply spreadsheets to make relevant numerical-based illustrations for the project
- Can apply a reference-handling software package to properly reference the project report (e.g. Mendeley or Refworks)

COMPETENCES

- Can carry out simple research investigations of sustainability aspects in an urban context in which the methodological approach takes into account the complex relations of cities
- Can relate critically to sources and indicate accurate references
- Can form part of and contribute to team work by planning and managing the research process
- Can reflect on the project process and identify development potentials for the next study project
- Can take responsibility for own learning

TYPE OF INSTRUCTION

Problem-oriented project work in groups

EXAM

EXAMS

Name of exam	Waste Management, Resources and Energy Planning in Sustainable Cities
Type of exam	Oral exam based on a project
ECTS	15
Permitted aids	See semester description
Assessment	7-point grading scale
Type of grading	Internal examination
Criteria of assessment	The criteria of assessment are stated in the Examination Policies and Procedures

FACTS ABOUT THE MODULE

Danish title	Affaldshåndtering, ressourcer og energiplanlægning i bæredygtige byer
Module code	PLSUSK22101
Module type	Project
Duration	1 semester
Semester	Autumn
ECTS	15
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Copenhagen
Responsible for the module	Iva Ridjan Skov

ORGANISATION

Education owner	Master of Science (MSc) in Engineering (Sustainable Cities)
Study Board	Study Board of Planning and Surveying
Department	Department of Sustainability and Planning
Faculty	The Technical Faculty of IT and Design

THEORIES OF SCIENCE AND RESEARCH DESIGNS

2025/2026

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- Has an understanding of the history and theoretical framework of theories of science at the Master's level
- Has an understanding of the relation between theories of science, research designs and research methods at the Master's level
- Has an understanding of the contents and interrelation of the positions of theories of science as well as the capability of relating critically to these at the Master's level
- Has a thorough knowledge of the relation of his/her own professional fields to theories of science and research designs.

SKILLS

- Can use the basic problems of theories of science in relation to the assessment of sources and references in projects at the Master's level
- Can independently assess the value and reliability of his/her own science production in relation to scientific basic problems
- Can use theories of science, research designs and research methods within his/her own fields at the research level
- Can communicate knowledge of theories of science and research designs to specialists as well as non-specialists.

COMPETENCES

- Is able to reflect critically on project-related choices of values, theories of science and methods
- Is able to continuously develop professionally through the acquisition of new knowledge of the development and renewal of theories of science and research designs.

TYPE OF INSTRUCTION

Types of instruction are listed in §17; Structure and Contents of the Programme.

EXAM

EXAMS

Name of exam	Theories of Science and Research Designs
Type of exam	Written or oral exam
ECTS	5
Permitted aids	See semester description
Assessment	7-point grading scale
Type of grading	Internal examination
Criteria of assessment	The criteria of assessment are stated in the Examination Policies and Procedures

FACTS ABOUT THE MODULE

Danish title	Videnskabsteori og forskningsdesign
Module code	PGLSUSK19102
Module type	Course
Duration	1 semester
Semester	Autumn
ECTS	5
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Copenhagen
Responsible for the module	Iva Ridjan Skov

ORGANISATION

Education owner	Master of Science (MSc) in Engineering (Sustainable Cities)
Study Board	Study Board of Planning and Surveying
Department	Department of Sustainability and Planning
Faculty	The Technical Faculty of IT and Design

TRANSITIONING FROM WASTEFUL TO SUSTAINABLE CITIES

2025/2026

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- Has a basic understanding of the infrastructural sectors making up a city and knowledge of the main sustainability challenges they face, as well as the main drivers behind the challenges
- Has basic knowledge and understanding of the structure and operation of the institutions and organisations making up cities
- Has basic knowledge of waste, waste management and resource use
- Knows the system levels, organisations, institutions and governance within the waste management sector
- Knows the waste hierarchy and its development
- Has knowledge of systems thinking and life cycle assessment tools, as well as the resource consumption issues that face cities based on life cycle thinking perspective

SKILLS

- Can use relevant tools and methods to plan and assess sustainable waste management
- Can assess strategies for handling waste and use of resources based on the waste hierarchy
- Has skills to produce basic life cycle assessments and interpret their outcomes
- Can relate changes in living standards and demographics to resource use

COMPETENCES

- Has an understanding of system impacts from changes in waste handling and resource use in cities
- Can facilitate and contribute to planning processes concerning waste handling
- Can identify and assess factors of lock-in limiting sustainable resource use and waste handling
- Can use circular economy concepts in analyses and planning
- Can engage in and critically reflect upon waste management processes and resource use in cities.

TYPE OF INSTRUCTION

Lectures, workshops, synopses, seminars, assignments, etc.

EXAM

EXAMS

Name of exam	Transitioning from Wasteful to Sustainable Cities
Type of exam	Written or oral exam
ECTS	5
Permitted aids	See semester description
Assessment	Passed/Not Passed
Type of grading	Internal examination
Criteria of assessment	The criteria of assessment are stated in the Examination Policies and Procedures

FACTS ABOUT THE MODULE

Danish title	Bæredygtige byer, affald og ressourcer
Module code	PLSUSK25103
Module type	Course
Duration	1 semester
Semester	Autumn
ECTS	5
Language of instruction	English
Location of the lecture	Campus Copenhagen
Responsible for the module	Iva Ridjan Skov

ORGANISATION

Education owner	Master of Science (MSc) in Engineering (Sustainable Cities)
Study Board	Study Board of Planning and Surveying
Department	Department of Sustainability and Planning
Faculty	The Technical Faculty of IT and Design

ENERGY PLANNING FOR SUSTAINABLE CITIES

2025/2026

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- Has knowledge of the historical development of energy systems and technologies
- Has knowledge of the key challenges of the energy system in transitioning towards 100% renewable systems
- Has knowledge of energy consumption patterns and practice in relation to energy use
- Can understand key technical characteristics relating to sustainable integration technologies and energy planning
- Has knowledge about the challenges with local energy planning
- Has knowledge of planning approaches, instruments and tools in relation to local energy planning

SKILLS

- Can independently assess potentials and impacts of technological choices using relevant tools and methods
- Has the basic skills of using a tool for holistic energy system analysis
- Has the basic skills of deploying relevant energy planning methods and tools, for example Strategic Energy Planning

COMPETENCES

- Can identify key elements of lock-in and potentials for sustainable transitions within the energy sector
- Can identify solutions within the city towards the transition to a Smart Energy System.
- Can differentiate between technological impact on the individual and system level, as well as between local, regional, national and international solutions.

TYPE OF INSTRUCTION

Lectures, workshops, synopses, seminars, assignments, etc.

EXAM

EXAMS

Name of exam	Energy Planning for Sustainable Cities
Type of exam	Written or oral exam
ECTS	5
Permitted aids	See semester description
Assessment	7-point grading scale
Type of grading	Internal examination
Criteria of assessment	The criteria of assessment are stated in the Examination Policies and Procedures

FACTS ABOUT THE MODULE

Danish title	Energiplanlægning for bæredygtige byer
Module code	PGLSUSK19104

Module type	Course
Duration	1 semester
Semester	Autumn
ECTS	5
Language of instruction	English
Location of the lecture	Campus Copenhagen
Responsible for the module	Iva Ridjan Skov

ORGANISATION

Education owner	Master of Science (MSc) in Engineering (Sustainable Cities)
Study Board	Study Board of Planning and Surveying
Department	Department of Sustainability and Planning
Faculty	The Technical Faculty of IT and Design

WATER MANAGEMENT, TRANSPORT PLANNING AND INFRASTRUCTURE SYNERGIES

2025/2026

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- Has knowledge of challenges for the sustainable transition of urban infrastructures
- Has thorough knowledge of a planning tool within water management, climate change adaptation, or transport and mobility planning
- Has knowledge on possible synergies that can be obtained within different infrastructures of the city as well as risks of sub-optimisation between infrastructures that should be avoided
- Has an overview of quantitative and qualitative economic, sociological, environmental and/or technical methods of analysis of solutions in relation to sustainable cities

SKILLS

- Can analyse and critically reflect on relevant policies, strategies and plans for urban development in terms of their impacts and potentials for sustainable development within a sector as well as across sectors of cities
- Can identify and justify a relevant research problem within the field of sustainable cities
- Can choose, apply and critically reflect on relevant quantitative as well as qualitative economic, sociological, environmental and/or technical methods of analysis
- Can identify solutions and strategies that promote sustainable development within water management, climate change adaptation or transport and mobility planning as well as across the infrastructural sectors in cities
- Can motivate and substantiate the general structure and methods of the project in a scientific context
- Can relate critically to sources and indicate accurate references
- Can communicate the results of the project to a selected target audience
- Can design a researh project and use relevant theories in order to analyse a relevant research problem
- Can manage a study project in an interdisciplinary and intercultural PBL learning environment
- Can independently structure and reflect on project management activities and carry out subject specific and interdisciplinary study project
- Can apply graphics programmes like Adobe Illustrator, Visio or SketchUp to make relevant illustration(s) for the project

COMPETENCES

- Can correctly apply theories of science and research methods relevant for conducting research within the field of sustainable cities in relation to the chosen research problem
- Can independently initiate and participate in interdisciplinary planning tasks and cooperation across social levels, nationalities and cultures
- Can independently identify strategies for promoting sustainable (urban) development
- Can independently identify the complex combination of synergies and potential conflicts within challenges and solutions for different sectors of the city
- Can identify and engage with relevant actors related to the chosen research problem
- Can independently reflect on and take responsibility for own learning, professional development and specialisation
- Can use online platforms for project management, communication and data management (e.g. Teams, Google Drive)

TYPE OF INSTRUCTION

Problem-oriented project work in groups

EXAM

EXAMS

Name of exam	Water Management, Transport Planning and Infrastructure Synergies
Type of exam	Oral exam based on a project
ECTS	15
Permitted aids	See semester description
Assessment	7-point grading scale
Type of grading	External examination
Criteria of assessment	The criteria of assessment are stated in the Examination Policies and Procedures

FACTS ABOUT THE MODULE

Danish title	Vand- og transportplanlægning samt synergier mellem infrastrukturer
Module code	PLSUSK22201
Module type	Project
Duration	1 semester
Semester	Spring
ECTS	15
Language of instruction	English
Location of the lecture	Campus Copenhagen
Responsible for the module	Iva Ridjan Skov

ORGANISATION

Education owner	Master of Science (MSc) in Engineering (Sustainable Cities)
Study Board	Study Board of Planning and Surveying
Department	Department of Sustainability and Planning
Faculty	The Technical Faculty of IT and Design

WATER MANAGEMENT AND CLIMATE CHANGE ADAPTATION

2025/2026

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- Has knowledge of the different functions and perceptions of water in the city as well as the main challenges within the sector
- Has knowledge of the infrastructure system for water in the cities including central concepts, drivers, components and technologies
- Has knowledge of climate change impacts on urban areas and understands how this knowledge is produced
- Has an overview of significant actors, as well as international regulation and strategies pertaining to urban water and climate change
- Has knowledge of relevant climate adaptation measures

SKILLS

- Can perform basic assessments of the need for climate change adaptation in an urban context
- Can use a scenario approach to analyse water management and climate change challenges and solutions
- Can identify relevant solutions to water management and climate change challenges
- Can assess the economic and social impacts of different strategies for water management and climate change adaptation
- Can assess flooding risk using digital GIS tools

COMPETENCES

- Can relate problems and proposals to the decision-making processes in the sector
- Can facilitate and contribute to planning processes within the sector
- Identify and address sub-optimisation and synergies between different parts of the water sector as well as other sectors

TYPE OF INSTRUCTION

Lectures, workshops, synopses, seminars, assignments, etc.

EXAM

EXAMS

Name of exam	Water Management and Climate Change Adaptation
Type of exam	Written or oral exam
ECTS	5
Permitted aids	See semester description
Assessment	Passed/Not Passed
Type of grading	Internal examination
Criteria of assessment	The criteria of assessment are stated in the Examination Policies and Procedures

FACTS ABOUT THE MODULE

Danish title	Vand- og klimatilpasning
Module code	PLSUSK25202
Module type	Course
Duration	1 semester
Semester	Spring
ECTS	5
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Copenhagen
Responsible for the module	Iva Ridjan Skov

ORGANISATION

Education owner	Master of Science (MSc) in Engineering (Sustainable Cities)
Study Board	Study Board of Planning and Surveying
Department	Department of Sustainability and Planning
Faculty	The Technical Faculty of IT and Design

SUSTAINABLE TRANSPORT AND MOBILITY

2025/2026

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- Has knowledge of the current status and as well as the historical development of the transport and mobility sectors and the related infrastructure
- Has knowledge of the key challenges regarding the transition towards a low carbon transport sector
- Understands the demand and consumption of the mobility sector as well as the impacts of different modal choices
- Has a basic knowledge of relevant organisations, institutions, planning authorities and governance schemes within the transport sector

SKILLS

- Can understand and reflect on important drivers for mobility demand and modal choices.
- Can reflect critically on relations between use of tools and methods and the reached conclusions
- Can independently use tools and methods to analyse mobility demand and related impacts
- Can reflect on the connection between urban planning and transport choices

COMPETENCES

- Can carry out research investigations into sustainable mobility aspects in an urban context, by using relevant theories, tools and methods
- Can assess alternative transportation modes and the potentials of modal shifts towards more sustainable mobility
- Can reflect on mobility planning in the context of urban planning, demography and sustainable development

TYPE OF INSTRUCTION

Lectures, workshops, synopses, seminars, assignments, etc.

EXAM

EXAMS

Name of exam	Sustainable Transport and Mobility
Type of exam	Written or oral exam
ECTS	5
Permitted aids	See semester description
Assessment	7-point grading scale
Type of grading	Internal examination
Criteria of assessment	The criteria of assessment are stated in the Examination Policies and Procedures

FACTS ABOUT THE MODULE

Danish title	Bæredygtig transport og mobilitet
Module code	PGLSUSK19203

Module type	Course
Duration	1 semester
Semester	Spring
ECTS	5
Language of instruction	English
Location of the lecture	Campus Copenhagen
Responsible for the module	Iva Ridjan Skov

ORGANISATION

Education owner	Master of Science (MSc) in Engineering (Sustainable Cities)
Study Board	Study Board of Planning and Surveying
Department	Department of Sustainability and Planning
Faculty	The Technical Faculty of IT and Design

URBAN INFRASTRUCTURE SYNERGIES

2025/2026

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- Has understanding of cities and their design as complex systems in which different contexts, structures and changes mutually affect each other
- Has an understanding of key concepts such as networked infrastructure, nexus, urban socio-technologies, lock-in and different modes of governance
- Understands the socio-economic mechanisms shaping urban infrastructure development, and the policies that support these developments
- Has an understanding of different analytical perspectives/theories for understanding infrastructure development

SKILLS

- Can critically assess system effects from changes in infrastructures
- Can identify cross sectoral synergies from a sustainability perspective
- Can identify opportunities/constraints for developing integrated Infrastructures
- Can analyse and evaluate infrastructure development, across sectors

COMPETENCES

- Can carry out holistic planning tasks from an urban sustainability perspective and facilitate the planning process that sustainable development requires
- Can align infrastructure planning and urban planning at the city level
- Can critically reflect on approaches to improving the efficiency, quality and sustainability across infrastructures
- Can co-operate with citizens, authorities, consultancies and industry in developing new approaches to infrastructure development

TYPE OF INSTRUCTION

Lectures, workshops, synopses, seminars, assignments, etc.

EXAM

EXAMS

Name of exam	Urban Infrastructure Synergies
Type of exam	Written or oral exam
ECTS	5
Permitted aids	See semester description
Assessment	7-point grading scale
Type of grading	Internal examination
Criteria of assessment	The criteria of assessment are stated in the Examination Policies and Procedures

FACTS ABOUT THE MODULE

Danish title	Synergier mellem infrastrukturer
Module code	PGLSUSK19204
Module type	Course
Duration	1 semester
Semester	Spring
ECTS	5
Language of instruction	English
Location of the lecture	Campus Copenhagen
Responsible for the module	Iva Ridjan Skov

ORGANISATION

Education owner	Master of Science (MSc) in Engineering (Sustainable Cities)
Study Board	Study Board of Planning and Surveying
Department	Department of Sustainability and Planning
Faculty	The Technical Faculty of IT and Design

PROFESSIONAL DEVELOPMENT

2025/2026

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

The students can choose to do a traditional project semester typically founded on subject knowledge from the 1st and 2nd semesters and/or prepare for the subject about which the student wish to write a thesis. The semester comprises the preparation of a scientific article or a project report.

The student can choose to integrate project-oriented study in an external organisation into the project module. The project-oriented study in an external organisation is typically of three months' duration and has to be approved in advance by the semester coordinator on behalf of the Study Board of Planning and Surveying.

A student who has completed the module:

LEARNING OBJECTIVES

KNOWLEDGE

- Has knowledge based on the highest international research within a selected part of his/her field of specialisation
- Can identify either a scientific or practical problem in a given complex context and relate the problem to knowledge within the field of study

SKILLS

- Can master the scientific methods and tools as well as general skills of the field in order to address the identified problem
- Can assess and choose among the scientific methods, tools and general skills of the field and draw up new models of analysis and solution
- Can discuss professional and scientific problems with both peers and non-specialists

COMPETENCES

- Can manage work and development situations which are complex and unpredictable and require new solution models
- Can take responsibility for own learning and reflect on the context within which the learning takes place

TYPE OF INSTRUCTION

Problem-based project work, possibly with project-orientated study in an external organisation

EXAM

EXAMS

Name of exam	Professional Development
Type of exam	Oral exam based on a project
ECTS	30
Permitted aids	See semester description
Assessment	7-point grading scale
Type of grading	Internal examination
Criteria of assessment	The criteria of assessment are stated in the Examination Policies and Procedures

FACTS ABOUT THE MODULE

Danish title	Faglig og professionel udvikling
Module code	PGLSUSK20301
Module type	Project
Duration	1 semester
Semester	Autumn
ECTS	30
Language of instruction	English
Location of the lecture	Campus Copenhagen
Responsible for the module	Iva Ridjan Skov

ORGANISATION

Education owner	Master of Science (MSc) in Engineering (Sustainable Cities)
Study Board	Study Board of Planning and Surveying
Department	Department of Sustainability and Planning
Faculty	The Technical Faculty of IT and Design

MASTER'S THESIS

2025/2026

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

Students may choose to complete the 3rd and 4th semester as a long master's thesis (60 ECTS). A long final project is especially recommended in the project work which requires an extraordinary collection of data. If choosing to do a long master thesis, it has to include experimental work and has to be approved in advance by the Study Board of Planning and Surveying. The amount of experimental work must reflect the allotted ECTS, and the student must meet the requirements indicated for master's theses in terms of knowledge, skills and competences (see below).

A student who has completed the module:

LEARNING OBJECTIVES

KNOWLEDGE

- Has thorough knowledge of relevant theories and methods in relation to the chosen problem and can reflect on these
- Can describe the theory or theories used in such a way that the special characteristics of the theory are brought to light and thereby document the understanding of the possibilities and limitations of the theories applied within the concerned field of problems
- Has knowledge of the scientific and methodical basis of the used theories and can reflect on these
- Has thorough knowledge of the research basis of the chosen problems, including knowledge of the most important national and international research in the field.

SKILLS

- Can identify a research problem that is relevant for society
- Can give an account of the relevance to the education of the chosen problem, including a precise account of the core of the problem and the professional context
- Can independently plan and carry out a master's thesis course on a high professional and academic level
- Can account for possible methods for solution of the problem presented in the project and describe and assess the suitability of the chosen method, including an account of the chosen limitations and their impact on the results of the product
- Can analyse and describe the chosen problem by using relevant theories and empirical data
- Can analyse and assess the results of empirical studies, both the student's own investigations and those of others, including an assessment of the impact of the investigation method on the validity of the results
- Can point out relevant future strategies, possibilities of change and/or suggested solutions
- Can communicate knowledge of the problem to both professionals and non-professionals
- Can communicate project results via social media platforms like Linkedin and Instagram

COMPETENCES

- Can form a synthesis between the professional problem and theoretical and empirical studies and make a critical assessment of the synthesis formed and the other results of the project work
- Can independently, based on the chosen problem, participate in interdisciplinary discussions and development work
- Can independently acquire the most recent knowledge in the field and is, on this basis, able to continually develop his/her professional skills and competences.

TYPE OF INSTRUCTION

Problem-oriented project work in groups

EXAM

EXAMS

Name of exam	Master’s Thesis
Type of exam	Master's thesis/final project
ECTS	60
Permitted aids	See semester description
Assessment	7-point grading scale
Type of grading	External examination
Criteria of assessment	The criteria of assessment are stated in the Examination Policies and Procedures

FACTS ABOUT THE MODULE

Danish title	Kandidatspeciale
Module code	PLSUSK22302
Module type	Project
Duration	2 semesters
Semester	Autumn
ECTS	60
Language of instruction	English
Location of the lecture	Campus Copenhagen
Responsible for the module	Iva Ridjan Skov

ORGANISATION

Education owner	Master of Science (MSc) in Engineering (Sustainable Cities)
Study Board	Study Board of Planning and Surveying
Department	Department of Sustainability and Planning
Faculty	The Technical Faculty of IT and Design

MASTER'S THESIS

2025/2026

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- Has thorough knowledge of relevant theories and methods in relation to the chosen problem and can reflect on these
- Can describe the theory or theories used in such a way that the special characteristics of the theory are brought to light and thereby document the understanding of the possibilities and limitations of the theories applied within the concerned field of problems
- Has knowledge of the scientific and methodical basis of the used theories and can reflect on these
- Has thorough knowledge of the research basis of the chosen problems, including knowledge of the most important national and international research in the field.

SKILLS

- Can identify a research problem that is relevant for society
- Can give an account of the relevance to the education of the chosen problem, including a precise account of the core of the problem and the professional context
- Can independently plan and carry out a master's thesis on a high professional and academic level
- Can account for possible methods for solution of the problem presented in the project and describe and assess the suitability of the chosen method, including an account of the chosen limitations and their impact on the results of the product
- Can analyse and describe the chosen problem by using relevant theories and empirical data
- Can analyse and assess the results of empirical studies, both the student's own investigations and those of others, including an assessment of the impact of the investigation method on the validity of the results
- Can point out relevant future strategies, possibilities of change and/or suggested solutions
- Can communicate knowledge of the problem to both professionals and non-professionals
- Can communicate project results via social media platforms like Linkedin and Instagram

COMPETENCES

- Can form a synthesis between the professional problem and theoretical and empirical studies and make a critical assessment of the synthesis formed and the other results of the project work
- Can independently, based on the chosen problem, participate in interdisciplinary discussions and development work
- Can independently acquire the most recent knowledge in the field and is, on this basis, able to continually develop his/her professional skills and competences.

TYPE OF INSTRUCTION

Problem-oriented project work in groups

EXAM

EXAMS

Name of exam	Master's Thesis
Type of exam	Master's thesis/final project
ECTS	30

Permitted aids	See semester description
Assessment	7-point grading scale
Type of grading	External examination
Criteria of assessment	The criteria of assessment are stated in the Examination Policies and Procedures

FACTS ABOUT THE MODULE

Danish title	Kandidatspeciale
Module code	PLSUSK22401
Module type	Project
Duration	1 semester
Semester	Spring
ECTS	30
Language of instruction	English
Location of the lecture	Campus Copenhagen
Responsible for the module	Iva Ridjan Skov

ORGANISATION

Education owner	Master of Science (MSc) in Engineering (Sustainable Cities)
Study Board	Study Board of Planning and Surveying
Department	Department of Sustainability and Planning
Faculty	The Technical Faculty of IT and Design