AALBORG UNIVERSITET

STUDIEORDNING FOR KANDIDATUDDANNELSEN (CAND.TECH.) I LANDINSPEKTØRVIDENSKAB, 2020, KØBENHAVN

CAND.TECH.
KØBENHAVN

MODULER SOM INDGÅR I STUDIEORDNINGEN

INDHOLDSFORTEGNELSE

SURVEYING, GEOINFORMATICS AND LAND MANAGEMENT IN A CROSS-DISCIPLINARY PERSPECTIVE

2021/2022

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- must be knowledgeable about technologies and theories/methods relevant within Surveying, Geoinformatics or Land Management
- must be knowledgeable about how the use of theories/methods within surveying, geoinformatics or land management can support the efforts needed to reach the UN Sustainable Development Goals

SKILLS

- must be able to master and evaluate theories/methods related to surveying, geoinformatics or land management
- must able to identify and assess/analyse problems related to surveying, geoinformatics or land management
- must be able to suggest solutions to problems related to surveying, geoinformatics or land management
- must be able to assess the quality of the suggested solutions
- must be able to communicate/discuss problems related to surveying, geoinformatics or land management with both peers and non-specialists

COMPETENCES

- must be able to master relevant data and technologies
- must be able to master general skills required to solve typical tasks
- must be able to give advice regarding problems related to surveying, geoinformatics or land management
- must be able to work in an interdisciplinary way within the profession
- must be able to judge how and to which degree each of the elements; surveying, geoinformatics and land management should be included in the project

- must be able to structure and combine theoretical discussions with practical challenges throughout the project work and its result (the project report)

TYPE OF INSTRUCTION

Problem-oriented project work in groups with supervision. Workshops and seminars may supplement the project work.

EXAM

EXAMS

Name of exam	Surveying, Geoinformatics and Land Management in a Cross-disciplinary Perspective
Type of exam	Oral exam based on a project
ECTS	15
Permitted aids	
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	Landmåling, geoinformatik og arealforvaltning i et tværfagligt perspektiv
Module code	PLLANK20101
Module type	Project
Duration	1 semester
Semester	Autumn
ECTS	15
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Lise Schrøder

ORGANISATION

Study Board	Study Board of Planning and Surveying
Department	Department of Planning
Faculty	Technical Faculty of IT and Design

MANAGING THE USE OF LAND

2021/2022

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- must have knowledge and understanding of Land Management and regulation of land use, both in Denmark and abroad
- must have developed an understanding of the legal and administrative options in relation to planning, administration and regulation of land use
- must have knowledge of theoretical dimensions of land use management, land tenure and property rights

SKILLS

- must be able to develop analyses of land use situations in light of international comparisons, and to assess particular courses of action in relation to land administration in connection with sectorial land-use regulations
- must be able to critically reflect on land administration decisions at the local level, and to assess such decisions in accordance with theoretical and practical understandings of changing contexts and political settings
- must be able identity core issues – of both a legal, technical, organizational, economic and social nature – in relation to the development of real property
- must be able to identify general theoretical issues in land ownership arrangements and methodological approaches to land management studies

COMPETENCES

- must be able to work on developing critical understandings, analyses and assessments of theoretical aspects of land management and regulation of land use
- must be able to identify suitable analytical frameworks and perform comparative international analyses in relation to studies at different spatial scales

TYPE OF INSTRUCTION

Lectures, workshops, seminars, assignments, presentations

EXAM

EXAMS

Name of exam	Managing the Use of Land

Type of exam	Written or oral exam
ECTS	5
Permitted aids	
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	Arealforvaltning
Module code	PLLANK20102
Module type	Course
Duration	1 semester
Semester	Autumn
ECTS	5
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Lise Schrøder

ORGANISATION

Study Board	Study Board of Planning and Surveying
Department	Department of Planning
Faculty	Technical Faculty of IT and Design

GEOCOMPUTATION AND SPATIAL ANALYTICS

2021/2022

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- must have knowledge on the differences between object-based and raster-based geographic information and corresponding analytics methods
- must have knowledge of the calculation of the different characteristics of point patterns
- must have knowledge of the calculation of the different characteristics of networks
- must understand fundamental methods from spatial statistics (spatial autocorrelation, spatial regression, spatial interpolation)
- must have knowledge of the application of the above-mentioned techniques in the context of multi-criteria evaluation and decision support systems
- must have knowledge of widely used software packages for the above-mentioned techniques

SKILLS

- must be able to use software to process and analyse point patterns
- must be able to use software to perform network analysis tasks
- must be able to use software to apply spatial statistics methods
- must be able to automate analysis workflows
- must be able to evaluate the strengths and weaknesses of the different geoprocessing methods and tools for a given task

COMPETENCES

- must be able to support interdisciplinary teams in geocomputation and spatial analytics tasks, including the selection, application, and explanation of the respective techniques

- must be able to identify suitable geocomputation and spatial analytics techniques and apply them in relation to problems at different spatial scales

TYPE OF INSTRUCTION

Lectures, workshops, seminars, assignments, presentations.

EXAM

EXAMS

Name of exam	Geocomputation and Spatial Analytics
Type of exam	Written or oral exam
ECTS	5
Permitted aids	
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	Geografisk analyse og beslutningsstøtte
Module code	PLLANK20103
Module type	Course
Duration	1 semester
Semester	Autumn
ECTS	5
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Lise Schrøder

ORGANISATION

Study Board	Study Board of Planning and Surveying
Department	Department of Planning
Faculty	Technical Faculty of IT and Design

POSITIONING

2021/2022

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- must have knowledge on Geodetic infrastructure (ITRS, ITRF, ETRS and ETRF) including relevant geodetic observation and calculation methods
- must have knowledge on GNSS including strategies for error reduction in observations, as well as geophysical corrections
- must have knowledge on various height systems and their definitions
- must have knowledge on relevant mathematical and statistical tools

SKILLS

- must be able to use software or online services to perform GNSS baseline and precise point position processing
- must be able to perform reference frame transformations
- must be able to correct for intraplate deformations caused by e.g. imperfections in realisation, postglacial rebound, and earthquakes
- must be able to transform between different height systems

COMPETENCES

- must be able to judge the effect of choosing between different GNSS processing strategies
- must be able to choose observation and processing methods to obtain the best tie to a given reference frame and/or height system

TYPE OF INSTRUCTION

Lectures, workshops, seminars, assignments, presentations.

EXAM

EXAMS

Name of exam	Positioning
Type of exam	Written or oral exam
ECTS	5

Permitted aids	
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	Positionering
Module code	PLLANK20104
Module type	Course
Duration	1 semester
Semester	Autumn
ECTS	5
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Lise Schrøder

ORGANISATION

Study Board	Study Board of Planning and Surveying
Department	Department of Planning
Faculty	Technical Faculty of IT and Design

SPATIAL PLANNING AND GOVERNANCE

2021/2022

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- must have knowledge and understanding of theories, ideas and norms of spatial planning, management and governance, from rational to postmodern perspectives
- must understand the role of power, interests, democracy, participation, knowledge and legitimacy in spatial policy, planning and governance
- must understand the role of discourses, institutions and cultures in spatial policy, planning and governance
- must have knowledge of theories of territorial and spatial policy integration, coordination and governance practices across sectors and levels, also between formal and informal practices

SKILLS

- must be able to apply theories and models of urban and rural planning, governance and land management in order to facilitate spatial development and define relevant planning spaces
- must be able to analyse and assess spatial policy, planning and governance in relation to sustainability, power and democracy
- must be able to analyse and assess the practices and roles of different actors and networks in spatial policy, planning and governance, ranging from government-lead top-down activities to stakeholder and bottom-up citizen involvement activities

COMPETENCES

- must be able to manage spatial policy, planning and governance as a complex and relational technical, political, administrative and socio-cultural process
- must be able to combine and integrate theoretical discussions with practical challenges, across both disciplines and sectors
- must be able to develop, facilitate, advice and manage spatial policy, planning and governance settings and processes in cooperation and networks across disciplines, sectors and actors
- must be able to create and manage links between formal and informal spatial planning and governance activities

TYPE OF INSTRUCTION

Lectures, workshops, seminars, assignments, presentations.

EXAM

EXAMS

Name of exam	Spatial Planning and Governance
Type of exam	Written or oral exam
ECTS	5
Permitted aids	
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	Fysisk planlægning og styringsprocesser
Module code	PLLANK20204
Module type	Course
Duration	1 semester
Semester	Spring
ECTS	5
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Lise Schrøder

ORGANISATION

Study Board	Study Board of Planning and Surveying
Department	Department of Planning
Faculty	Technical Faculty of IT and Design

GEOVISUALISATION AND REMOTE SENSING

2021/2022

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- must have knowledge and understanding about geovisualisation as a way of communication
- must have knowledge about interpolation and geostatistical methods as a means of visualising scattered point observations
- must have knowledge and understanding of the principles for web-based geovisualisation
- must have knowledge about handling remote sensing data
- must have knowledge about supervised and unsupervised classification
- must have knowledge about methods and standards for 3D visualisation

SKILLS

- must be able to design simple web-based geovisualisation solutions
- must be able to evaluate different geovisualisation methods from a user’s point of view
- must be able to assess various remote sensing data sources and visualisation techniques
- must be able to use tools and standards for developing simple 3D visualisations

COMPETENCES

- must be able to handle advisory tasks concerning appropriate geovisualisation solutions
- must be capable of designing and setting up advanced geovisualisation systems
- must be capable of applying a combination of various remote sensing technologies to support decision making

TYPE OF INSTRUCTION

Lectures, workshops, seminars, assignments, presentations.

EXAM

EXAMS

Name of exam	Geovisualisation and Remote Sensing
Type of exam	Written or oral exam
ECTS	5
Permitted aids	
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	Geovisualisering og telemåling
Module code	PLLANK20205
Module type	Course
Duration	1 semester
Semester	Spring
ECTS	5
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Lise Schrøder

ORGANISATION

Study Board	Study Board of Planning and Surveying
Department	Department of Planning
Faculty	Technical Faculty of IT and Design

GI TECHNOLOGY

2021/2022

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- must have knowledge on spatial data models
- must have knowledge on spatial databases and spatial query languages including the temporal dimension
- must have knowledge about spatial data infrastructures including current standardisation efforts on spatial information (e.g. ISO TC211 and the INSPIRE directive)
- must have knowledge about principles of Distributed GIS
- must have knowledge about standards for web-based GI applications

SKILLS

- must be able to select appropriate data models
- must be able to design and implement spatial databases
- must be able to handle the basic principles of designing web GIS solutions

COMPETENCES

- must possess the capability to design and build simple spatially enabled web GIS applications using modern object-oriented design principles and development tools

TYPE OF INSTRUCTION

Lectures, workshops, seminars, assignments, presentations, study group/study circle

EXAM

EXAMS

Name of exam	GI Technology
Type of exam	Written or oral exam
ECTS	5
Permitted aids	
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	GI-teknologi
Module code	PLLANK20206
Module type	Course
Duration	1 semester
Semester	Spring
ECTS	5
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Lise Schrøder

ORGANISATION

Study Board	Study Board of Planning and Surveying
Department	Department of Planning
Faculty	Technical Faculty of IT and Design

PROFESSIONAL DEVELOPMENT

2021/2022

PREREQUISITE/RECOMMENDED PREREQUISITE FOR PARTICIPATION IN THE MODULE

The module adds to the knowledge obtained in 1st semester (and have followed courses and exams at the 2nd semester).

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

At the 3rd semester the student can choose between two options:

Option 1: Project Semester – with or without an integrated project-oriented study in an external organisation.

The student may choose to carry through a traditional project semester which will normally develop the professional competence that the student has acquired within the 1st-2nd semesters and/or prepare for the subject about which the student wants to write his/her thesis. The semester comprises preparation of a project report or a scientific article – possibly with the supervisor as the last author of the article.

The student may choose to integrate a project-oriented study in an external organisation either in Denmark or abroad in the project semester. The project-oriented study must be of maximum 2 - 3 months' duration and must be approved in advance by the semester coordinator on behalf of the Study Board of Planning and Surveying. For each individual project-oriented study specific learning goals have to be drawn up, clearly reflecting the professional problem of the project.

In both cases the semester includes one course module and one project module.

Option 2: International or national credit

After preceding approval by the Study Board the 3rd semester can be carried through at another educational institution in Denmark or abroad. Preceding approval (pre-credit) may be expected if studies at another educational institution will impart knowledge, skills and competences, which correspond to the knowledge, skills and competences, that could otherwise be obtained by following the 3rd semester in full, see learning objectives of the project semester and of the course module.

LEARNING OBJECTIVES

KNOWLEDGE

- must within a selected part of his/her professional field of specialisation have knowledge based upon the highest international research

- must be able to understand and relate critically to the knowledge of the professional field and be able to identify either scientific or practical problems in a given complex context

SKILLS

- must be able to master the scientific methods and tools of the professional field and to master general skills connected with the solution of the chosen problem

- must be able to assess and choose among the scientific methods, tools and general skills and prepare new analysis and solution models

- must be able to discuss professional and scientific problems with both colleagues and non-specialists

COMPETENCES

- must be able to control work and development situations that are complex, unpredictable and to imply new solution models
- must be able to start and carry through professional and inter-professional cooperation independently and to take a professional responsibility
- must be able to independently take the responsibility for own professional development and specialisation

TYPE OF INSTRUCTION

Problem-oriented project work with supervision, possibly with project-oriented study in an external organisation integrated.

EXAM

EXAMS

Name of exam	Professional Development
Type of exam	Oral exam based on a project
ECTS	25
Permitted aids	
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 udvikling
Module code	PLLANK20304
Module type	Project
Duration	1 semester
Semester	Autumn
ECTS	25
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Lise Schrøder

ORGANISATION

Study Board	Study Board of Planning and Surveying
Department	Department of Planning
Faculty	Technical Faculty of IT and Design

PROJECT MANAGEMENT AND PROJECT ECONOMY

2021/2022

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- must have knowledge about project management theories, models and tools
- must have knowledge about how to combine theories, models, and tools as well as the strength and weaknesses regarding these combinations
- must have knowledge about documentation requirements
- must have knowledge about project economy models
- must have knowledge about dialogue-based collaboration including conflict anatomy, the cycle of conflict, conflict development and psychological mechanisms in conflicts

SKILLS

- must be able to carry out simple budget/after calculations
- must be able to understand the basic principles in project economy
- must be able to carry out risk assessment
- must be able to create and close a project
- must be able to account for how critical phases and problems can be avoided or minimised

COMPETENCES

- must be able to independently lead a project

TYPE OF INSTRUCTION

E-learning modules.

EXAM

EXAMS

Name of exam	Project Management and Project Economy
Type of exam	Written or oral exam

ECTS	5
Permitted aids	
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	Projektstyring og projektøkonomi
Module code	PLLANK20302
Module type	Course
Duration	1 semester
Semester	Autumn
ECTS	5
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Lise Schrøder

ORGANISATION

Study Board	Study Board of Planning and Surveying
Department	Department of Planning
Faculty	Technical Faculty of IT and Design

MASTER'S THESIS

2021/2022

PREREQUISITE/RECOMMENDED PREREQUISITE FOR PARTICIPATION IN THE MODULE

Students must have passed the first three semesters of the programme.

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- must have thorough knowledge of relevant theories and methods in relation to the chosen problem and can reflect on them
- must be able to describe the used theory or theories so that the special characteristics of this theory are brought to light and in this way, document understanding of it or the potentials and limitations of the used theory within the problem field concerned
- must have knowledge of the scientific-theoretical and methodical roots of the used theories and can reflect on them
- must have thorough knowledge of the research roots of the chosen problem including knowledge of the most important national and international research in the field

SKILLS

- must be able to plan and complete a project at a high professional and academic level
- must be able to account for possible methods for solving the problem of the project and describe and assess the suitability of the chosen methods and also account for chosen limitations and their significance to the results of the product
- must be able to account for the relevance of the chosen problem to the education, including a precise account of the core of the problem and the professional context in which it appears
- must be able to analyse and describe the chosen problem by using relevant theories and empirical investigations
- must be able to analyse and assess the results of empirical investigations, whether it is a question of the students' own investigations or those of others, including an assessment of the importance of the investigation method to the validity of the results
- must be able to point at relevant forward-directed strategies, possibilities of change and/or solution proposals

- must be able to communicate knowledge of the problem to both professionals and non-profes-sionals

COMPETENCES

- must be able to form a synthesis between the professional problem, theoretical and empirical investigations and to make a critical assessment of the formed synthesis and the other results of the project work

- is able to independently participate in interdisciplinary discussions and develop work based on the acquired knowledge of the problem

- is able to independently acquire the newest knowledge within the field and on this basis currently improve the professional skills and competences

TYPE OF INSTRUCTION

Problem-oriented project work with supervision.

EXAM

EXAMS

Name of exam	Master's Thesis
Type of exam	Master's thesis/final project
ECTS	30
Permitted aids	
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	PLLANK20401
Module type	Project
Duration	1 semester
Semester	Spring
ECTS	30
Language of instruction	English
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Lise Schrøder

ORGANISATION

Study Board	Study Board of Planning and Surveying
Department	Department of Planning

Faculty	Technical Faculty of IT and Design

LAND MANAGEMENT

2021/2022

PREREQUISITE/RECOMMENDED PREREQUISITE FOR PARTICIPATION IN THE MODULE

The module adds to the knowledge obtained in the 1st semester

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- must have knowledge and understanding of relevant theories and practices concerning the framework conditions, organisation and processes of spatial development, policy, planning, management and governance
- must have knowledge of different norms and interests related to the specific activities of spatial policy, planning and governance associated with the chosen problem, e.g. norms of democracy, participation, efficiency and economic, socio-cultural and environmental sustainability
- must have knowledge of the integration of e-governance and spatial data infrastructures in spatial policy, planning and property regulation
- must have knowledge of and be able to critically relate to both practical and scientific challenges concerning policy-making, planning, management, regulation, facilitation, administration and/or implementation of spatial development and land use

SKILLS

- must be able to identify and analyse a specific urban and/or rural spatial development problem, and must be able to develop this into a specific spatial policy, planning, regulation or governance problem
- must be able to apply theories and methods of relevance to the chosen problem
- must be able to argue the design and general methods of the project in relation to scientific methodology
- must be able to analyse and critically assess relevant interests, actors, legislation, organisational settings, procedures and processes related to the chosen problem, e.g. in relation to different societal norms, such as sustainability, democracy, justice and legitimacy. Must be able to identify conflicting or mutually reinforcing aspects in doing so
- must be able to conclude and discuss the theoretical and/or practical implications of the analysis and assessments performed in the project
- must be able, if relevant, to propose specific changes and solutions to relevant policies, regulation, plans and/or organisational settings, procedures and processes

COMPETENCES

- must be able to develop, facilitate, advice and manage policymaking, planning as well as regulatory and administrative settings, procedures and processes concerning spatial development and land use
- must be able to structure and combine theoretical discussions with practical challenges throughout the project work and its result
- must be able to independently initiate and carry out tasks of planning, management and administration in interdisciplinary cooperation and must be able to take on professional responsibility

TYPE OF INSTRUCTION

Problem-oriented project work in groups with supervision. Workshops and seminars may supplement the project work.

EXAM

PREREQUISITE FOR ENROLLMENT FOR THE EXAM

- An approved PBL competency profile is a prerequisite for participation in the project exam

EXAMS

Name of exam	Land Management
Type of exam	Oral exam based on a project
ECTS	15
Permitted aids	
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	Planlægning og arealforvaltning
Module code	PLLANK20201
Module type	Project
Duration	1 semester
Semester	Spring
ECTS	15
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Lise Schrøder

ORGANISATION

Study Board	Study Board of Planning and Surveying

Department	Department of Planning
Faculty	Technical Faculty of IT and Design

POSITIONING AND MAPPING

2021/2022

PREREQUISITE/RECOMMENDED PREREQUISITE FOR PARTICIPATION IN THE MODULE

The module adds to the knowledge obtained in the 1st semester

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- must be knowledgeable about positioning and mapping technologies
- must be knowledgeable about theories/methods related to positioning and mapping

SKILLS

- must be able to use theories/methods related to positioning and mapping
- must be able to identify and assess/analyse problems related to positioning and mapping
- must be able to apply theories and methods of relevance to the chosen problem
- must be able to argue the design and general methods of the project in relation to scientific methodology
- must be able to suggest solutions to problems related to positioning and mapping
- must be able to assess the quality of the suggested solutions
- must be able to communicate/discuss problems related to positioning and mapping with both peers and non-specialists

COMPETENCES

- must be able to manage relevant positioning and mapping technologies
- must be able to manage typical positioning and mapping tasks
- must be able to give advice regarding problems related to positioning and mapping
- must be able to work in an interdisciplinary way within the profession

TYPE OF INSTRUCTION

Problem-oriented project work in groups with supervision. Workshops and seminars may supplement the project work.

EXAM

PREREQUISITE FOR ENROLLMENT FOR THE EXAM

- An approved PBL competency profile is a prerequisite for participation in the project exam

EXAMS

Name of exam	Positioning and Mapping
Type of exam	Oral exam based on a project
ECTS	15
Permitted aids	
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	Positionering og kortlægning
Module code	PLLANK20202
Module type	Project
Duration	1 semester
Semester	Spring
ECTS	15
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Lise Schrøder

ORGANISATION

Study Board	Study Board of Planning and Surveying
Department	Department of Planning
Faculty	Technical Faculty of IT and Design

GEOINFORMATICS

2021/2022

PREREQUISITE/RECOMMENDED PREREQUISITE FOR PARTICIPATION IN THE MODULE

The module adds to the knowledge obtained in the 1st semester

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- must be knowledgeable about different spatial analysis and geocomputational techniques and understanding their strengths and weaknesses
- must be knowledgeable about different geovisualisation techniques
- must be knowledgeable about the role of geographic information for the fulfilling of the sustainable development goals

SKILLS

- must be able to identify and analyse geospatial problems
- must be able to apply theories and methods of relevance to the chosen problem
- must be able to argue the design and general methods of the project in relation to scientific methodology
- must be able to evaluate the potential of different geographic datasets in the context of a given problem
- must be able to apply spatial analysis and geocomputation techniques to solve a problem
- must be able to communicate data and findings through geovisualisation tools

COMPETENCES

- must be able to support organisations in the development of solutions for geospatial problems

TYPE OF INSTRUCTION

Problem-oriented project work in groups with supervision. Workshops and seminars may supplement the project work.

EXAM

PREREQUISITE FOR ENROLLMENT FOR THE EXAM

- An approved PBL competency profile is a prerequisite for participation in the project exam

EXAMS

Name of exam	Geoinformatics
Type of exam	Oral exam based on a project
ECTS	15
Permitted aids	
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	Geoinformatik
Module code	PLLANK20203
Module type	Project
Duration	1 semester
Semester	Spring
ECTS	15
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Lise Schrøder

ORGANISATION

Study Board	Study Board of Planning and Surveying
Department	Department of Planning
Faculty	Technical Faculty of IT and Design