AALBORG UNIVERSITET

STUDIEORDNING FOR KANDIDATUDDANNELSEN (CAND.TECH) I LANDINSPEKTØRVIDENSKAB - 2017 - AALBORG

CAND.TECH.
AALBORG

MODULER SOM INDGÅR I STUDIEORDNINGEN

INDHOLDSFORTEGNELSE

SURVEYING, GEOINFORMATICS OR LAND MANAGEMENT

2020/2021

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

Students who complete the project module must:

LEARNING OBJECTIVES

KNOWLEDGE

- be knowledgeable about technologies and theories/methods relevant within Surveying, Geoinformatics or Land Management
- be knowledgeable about the fundamental principles of Problem Based Learning (PBL) as implemented in the Aalborg PBL model (*)

SKILLS

- master theories/methods related to Surveying, Geoinformatics or Land Management.
- be able to evaluate theories/methods related to Surveying, Geoinformatics or Land Management.
- be able to identify problems related to Surveying, Geoinformatics or Land Management.
- be able to assess/analyse problems related to Surveying, Geoinformatics or Land Management.
- be able to suggest solutions to problems related to Surveying, Geoinformatics or Land Management.
- be able to assess the quality of the suggested solutions
- be able to communicate/discuss problems related to Surveying, Geoinformatics or Land Management with both peers and non-specialists
- be able to structure project management activities based on a well formulated problem formulation (*)

COMPETENCES

- be able to master relevant data and technologies
- be able to master general skills required to solve typical tasks
- be able to give advice regarding problems related to Surveying, Geoinformatics or Land Management
- must be able to structure and combine theoretical discussions with practical challengers throughout the project work and its result (the project report)
- be able to reflect on, plan and manage a study project in a PBL learning environment (*)

(*)

To obtain the knowledge, skills and competence marked with (*) it is presupposed that students follow the course in Problem Based Learning and Project Management that the school offers all foreign students in the beginning of 1st semester.

TYPE OF INSTRUCTION

Project work.

EXAM

EXAMS

Name of exam	Surveying, Geoinformatics or Land Management
Type of exam	Oral exam based on a project

ECTS	20
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	Surveying, Geoinformatics or Land Management
Module code	PGLLANK17105
Module type	Project
Duration	1 semester
Semester	Autumn
ECTS	20
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Carsten Jahn Hansen

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

2020/2021

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

Only for students in Aalborg and Cand.geom. students in Copenhagen

The aim of the module is to acquire general knowledge of regulation of land use and land management. Emphasis is placed on different levels of administration, including legal, policy and institutional contexts in relation to managing the use of land. The module also stresses international comparisons of spatial planning land administration systems and sectorial land-use regulations from different European countries and beyond.

Having completed the course module, the students

LEARNING OBJECTIVES

KNOWLEDGE

- must have knowledge and understanding of Land Management and regulation of land use, both in Denmark and abroad
- must acquire knowledge of theories of the state in relation to national, regional and local government, and the changing political landscapes that influence the scope of policy and decision-making at different levels of land administration
- must develop an understanding of the legal and administrative options in relation to planning, administration and regulation of land use

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 real property

COMPETENCES

- must be able to work in developing critical understandings, analyses and assessments of theoretical aspects of land management and regulation of land use.
- must be able to perform comparative international analyses in relation to approaches 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	Active participation/continuous evaluation
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	PGLLANK17103
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	Carsten Jahn Hansen

ORGANISATION

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

MODERN DATA ACQUISITION METHODS

2020/2021

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

Students who complete the module will acquire the following knowledge, skills and competencies:

LEARNING OBJECTIVES

KNOWLEDGE

- the role of geoinformation in e-Gov
- spatial data infrastructure (SDI),standardisation of geographic information according to ISO, Open Geospatial Consortium, and INSPIRE
- the role of crowd sourcing in data collection (Volunteered Geographic Information (VGI), Citizen Science, and PPGIS)
- available data sources like Copernicus and various geoportals like the Danish Data Distribution portal
- remote sensing using satellites, UAV (unmanned aerial vehicles) and laser scanning systems (aerial and land based)
- modern methods for distributing geospatial information
- handling and storing geospatial information
- the use of modern data acquisition methods for developing applications in smart cities, precision farming, and environmental monitoring

SKILLS

- being able to compare and assess different data acquisition technologies.
- being able to understand the principles of handling huge amounts of geographic information (Big Data)
- being able to understand the importance of standardisation and data quality, including the use of metadata
- being able to understand the importance of geographic information in solving societal challenges

COMPETENCES

- in advising on the selection of appropriate data acquisition methods for specific applications
- in advising on the use of different data handling methods

TYPE OF INSTRUCTION

Lectures, workshops, seminars, assignments, presentations.

EXAM

EXAMS

Name of exam	Modern Data Acquisition Methods
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	Moderne metoder til tilvejebringelse af geodata
Module code	PGLLANK17104
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	Carsten Jahn Hansen

ORGANISATION

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

POSITIONING AND MAPPING

2020/2021

PREREQUISITE/RECOMMENDED PREREQUISITE FOR PARTICIPATION IN THE MODULE

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

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

To give the students the opportunity to work with problems related to positioning and mapping. Students who complete the project module must:

LEARNING OBJECTIVES

KNOWLEDGE

- be knowledgeable about positioning and mapping technologies
- be knowledgeable about theories/methods related to positioning and mapping
- be knowledgeable about theories/methods for assessing the quality of data related to positioning and mapping

SKILLS

- master theories/methods related to positioning and mapping.
- be able to evaluate theories/methods related to positioning and mapping
- be able to identify problems related to positioning and mapping
- be able to assess/analyse problems related to positioning and mapping
- be able to suggest solutions to problems related to positioning and mapping
- be able to assess the quality of the suggested solutions
- be able to communicate/discuss problems related to positioning and mapping with both peers and nonspecialists
- be able to give advice regarding problems related to positioning and mapping

COMPETENCES

- be able to master selected positioning and mapping technologies
- be able to master general skills required to solve typical positioning and mapping tasks

TYPE OF INSTRUCTION

Project work.

EXAM

EXAMS

Name of exam	Positioning and Mapping
Type of exam	Oral exam based on a project
ECTS	20
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	PGLLANK17201
Module type	Project
Duration	1 semester
Semester	Spring
ECTS	20
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg
Responsible for the module	Karsten Jensen

ORGANISATION

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

STATISTICS AND DATA FUSION

2020/2021

PREREQUISITE/RECOMMENDED PREREQUISITE FOR PARTICIPATION IN THE MODULE

The module adds to the knowledge obtained in 1st Semester.

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

To give the students thorough knowledge of selected statistical methods in surveying and mapping. To give the students thorough knowledge of methods for relating spatial coordinate systems and for defining map projections. To give the students thorough knowledge of selected data fusion methods in surveying and mapping. Students who complete the course module must:

LEARNING OBJECTIVES

KNOWLEDGE

- be knowledgeable about statistical concepts and achieve an understanding of the statistical way of thinking
- be knowledgeable about theories/methods concerning construction of map projections and conversions between spatial coordinate systems
- be knowledgeable about theories/methods for fusing mapping related data sets

SKILLS

- be able to master and evaluate selected statistical methods in relation to surveying and mapping
- be able to master and evaluate the use of spatial coordinate systems and map projections
- be able to master and evaluate relevant theories/methods in relation to data fusion

COMPETENCES

- be able to master general skills required to solve typical statistical tasks in relation to surveying and mapping
- be able to master general skills required to solve typical tasks in relation to defining and using map projection and spatial coordinate system
- be able to master general skills required to solve typical tasks related to data fusion and mapping

TYPE OF INSTRUCTION

Combined lectures and exercises.

EXAM

EXAMS

Name of exam	Statistics and Data Fusion
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	Statistik og data fusion
Module code	PGLLANK17202
Module type	Course
Duration	1 semester
Semester	Spring
ECTS	5
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg
Responsible for the module	Karsten Jensen

ORGANISATION

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

POSITIONING AND MAPPING TECHNOLOGIES

2020/2021

PREREQUISITE/RECOMMENDED PREREQUISITE FOR PARTICIPATION IN THE MODULE

The module adds to the knowledge obtained in 1st Semester.

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

To give the students thorough knowledge of various positioning/mapping methods and technologies. Students who complete the course module must:

LEARNING OBJECTIVES

KNOWLEDGE

- be knowledgeable about positioning/mapping methods and technologies like GNSS, laser scanning, photogrammetry, remote sensing, and IMU.

SKILLS

- be able to master and evaluate positioning/mapping methods and technologies.

COMPETENCES

- be able to master selected positioning/mapping technologies required to solve typical positioning/mapping tasks.

TYPE OF INSTRUCTION

Combined lectures and exercises.

EXAM

EXAMS

Name of exam	Positioning and Mapping Technologies
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 og kortlægningsteknologier
Module code	PGLLANK17203
Module type	Course

Duration	1 semester
Semester	Spring
ECTS	5
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg
Responsible for the module	Karsten Jensen

ORGANISATION

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

PROFESSIONAL DEVELOPMENT

2020/2021

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

Project Semester – with or without a project-orientated work in an 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 semester 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-orientated work in an organisation either in Denmark or abroad in the project semester. The project-orientated work in an organisation must be of maximum 2-4 months' duration and must be approved in advance by the Study Board of the Programme in Surveying, Planning and Land Management. For each individual project-oriented stay specific learning goals have to be drawn up, clearly reflecting the professional problem of the project.

Students completing the project module acquire the following:

LEARNING OBJECTIVES

KNOWLEDGE

- Must within a selected part of his/her professional field of specialisation have knowledge that bases on 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 specialization.

TYPE OF INSTRUCTION

Project work, possibly with an internship integrated into the project course.

EXAM

EXAMS

Name of exam	Professional Development
Type of exam	Oral exam based on a project
ECTS	30
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	PGLLANK17301
Module type	Project
Duration	1 semester
Semester	Autumn
ECTS	30
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Carsten Jahn Hansen

ORGANISATION

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

EXTENDED MASTER'S THESIS

2020/2021

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

Students may choose to complete the 3rd and 4th semesters as one long thesis (60 ECTS). Long final project is especially recommended to work with project topics, where an extraordinarily large collection of data is necessary. Final projects must be approved in advance by the Study Board, and the student must fulfil knowledge, skills and competences as indicated for Master's theses.

Students completing the module acquire the following:

LEARNING OBJECTIVES

KNOWLEDGE

- Has thorough knowledge of relevant theories and methods in relation to the chosen problem and can reflect on them.
- Is 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.
- Has knowledge of the scientific-theoretical and methodical roots of the used theories and can reflect on them.
- Has thorough knowledge of the research roots of the chosen problem including knowledge of the most important national and international research in the field.

SKILLS

- Is independently able to plan and complete a project progress at a high professional level.
- Is 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.
- Is 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.
- Is able to analyse and describe the chosen problem by using relevant theories and empirical investigations.
- Is 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.
- Is able to point at relevant forward-directed strategies, possibilities of change and/or solution proposals.
- Is able to communicate knowledge of the problem to both professionals and non-profes-sionals.

COMPETENCES

- Is 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 in groups.

EXAM

EXAMS

Name of exam	Extended Master's Thesis
Type of exam	Oral exam based on a project
ECTS	60
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	Langt kandidatspeciale
Module code	PGLLANK17302
Module type	Project
Duration	2 semesters
Semester	Autumn
ECTS	60
Language of instruction	English
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Carsten Jahn Hansen

ORGANISATION

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

MASTER'S THESIS

2020/2021

PREREQUISITE/RECOMMENDED PREREQUISITE FOR PARTICIPATION IN THE MODULE

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

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

Students completing the module acquire the following:

LEARNING OBJECTIVES

KNOWLEDGE

- Has thorough knowledge of relevant theories and methods in relation to the chosen problem and can reflect on them.
- Is 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.
- Has knowledge of the scientific-theoretical and methodical roots of the used theories and can reflect on them.
- Has thorough knowledge of the research roots of the chosen problem including knowledge of the most important national and international research in the field.

SKILLS

- Is independently able to plan and complete a project progress at a high professional level.
- Is 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.
- Is 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.
- Is able to analyse and describe the chosen problem by using relevant theories and empirical investigations.
- Is 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.
- Is able to point at relevant forward-directed strategies, possibilities of change and/or solution proposals.
- Is able to communicate knowledge of the problem to both professionals and non-profes-sionals.

COMPETENCES

- Is 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 in groups.

EXAM

EXAMS

Name of exam	Master's Thesis
Type of exam	Oral exam based on a 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	PGLLANK17401
Module type	Project
Duration	1 semester
Semester	Spring
ECTS	30
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Copenhagen, Campus Aalborg
Responsible for the module	Carsten Jahn Hansen

ORGANISATION

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

SPATIAL DEVELOPMENT AND PLANNING

2020/2021

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

The main focus of the project module is on managing and facilitating urban and/or rural spatial development, land use and planning in a societal context and on levels above the individual property. The project must identify and analyse a specific spatial development challenge in an urban or rural context, and must be able to develop this into a specific land use policy or planning challenge. The project analyses relevant political, legal and administrative frameworks and practices, including relevant norms, interests, actors, regulations, organisational settings, procedures and processes related to the chosen challenge. If relevant, aspects of land economics and/or e-governance can also be included. Finally, the project discusses, critically relates to and concludes the implications of the analysis. The project can propose specific changes and solutions to relevant policies, plans and/or settings, procedures and processes. The overall aim of the project is to provide the students with abilities to advice, manage, facilitate and develop land use and spatial policy, planning and management processes.

Having carried out the project module, the students

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 – with respect to the chosen challenge.
- must have knowledge of different norms and interests related to the specific activities of spatial policy, planning and governance associated with the chosen challenge, 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 land management if this is particularly relevant for the chosen challenge.
- must have knowledge of and be able to critically relate to practical and scientific challenges concerning policy-making, planning, management, facilitation, administration and implementation of spatial development and land use – to the extent that it is relevant for the chosen challenge.

SKILLS

- must be able to identify and analyse a specific urban and/or rural spatial development challenge, and must be able to relate and develop this into a specific spatial policy, planning or governance challenge.
- must be able to apply theories and methods of relevance to the chosen challenge. 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 challenge, e.g. in relation to different societal norms, such as sustainability and democracy.
- must be able to identify conflicting or mutually reinforcing aspects.
- 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, plans and/or organisational settings, procedures and processes related to the chosen challenge.

COMPETENCES

- must be able to advice, manage, facilitate and develop policymaking, planning 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 (the project report).
- 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. Workshops, seminars, assignments and/or mini projects that supplements the project work.

EXAM

EXAMS

Name of exam	Spatial Development and Planning
Type of exam	Oral exam based on a project
ECTS	20
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	Spatial udvikling og planlægning
Module code	PGLLANK17204
Module type	Project
Duration	1 semester
Semester	Spring
ECTS	20
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg, Campus Copenhagen
Responsible for the module	Carsten Jahn Hansen

ORGANISATION

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

SPATIAL PLANNING AND GOVERNANCE

2020/2021

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

Having carried out the course module, the students

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 have understanding of the role of power, interests, democracy, participation and knowledge in spatial policy, planning and governance.
- must have understanding of the role of cultures, institutions and discourses in spatial policy, planning and governance.
- must have knowledge of theories of territorial policy integration, networking and governance across sectors and levels.

SKILLS

- must be able to apply theories and models of urban and rural planning, governance and land management in order to facilitate spatial development.
- 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 advice, manage, facilitate and develop spatial policy, planning and governance settings and processes in cooperation and networks across disciplines, sectors and actors.

TYPE OF INSTRUCTION

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

EXAM

EXAMS

Name of exam	Spatial Planning and Governance
Type of exam	Active participation/continuous evaluation
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	PGLLANK17205
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	Carsten Jahn Hansen

ORGANISATION

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

LAND USE REGULATION AND LAND ECONOMICS

2020/2021

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

Having carried out the course module, the students

LEARNING OBJECTIVES

KNOWLEDGE

- must have knowledge of the organisation, principles and administration of governing systems, authorities, legislation and legal procedures related to spatial planning and regulation of land use.
- must have knowledge of the conditions, limitations and opportunities as well as the competence of planning and land management authorities.
- must have knowledge of the relationship between public sector planning and regulation and land and property economics, including financing of urban development and housing.
- must have knowledge of challenges and opportunities concerning Public-private partnerships and agreements related to spatial development and planning.

SKILLS

- must be able to identify and apply theories and models of legislation and administration concerning the development of urban and rural areas.
- must be able to assess the role of the public sector in land economics.
- must be able to identify, analyse and assess challenges and opportunities for public-private interaction in spatial planning, administration and property development, in particular concerning public-private partnerships and agreements
- must be able to critically analyse and discuss scientific and practical challenges to relations between the public and private sector, planning legislation and administration, as well as between urban development and financing.
- must be able to communicate research based knowledge and discuss problems and challenges concerning the relation between public and private actors in development of urban and rural areas.

COMPETENCES

- must be able to advice and manage complex spatial development situations and produce solution models for specific measures, including planning and regulation of land use, financing of land and the built environment and infrastructures, and public-private interaction.

TYPE OF INSTRUCTION

Lectures, workshops, seminars, assignments, presentations, miniproject (possibility).

EXAM

EXAMS

Name of exam	Land Use Regulation and Land Economics
Type of exam	Active participation/continuous evaluation
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	Arealregulering og -økonomi
Module code	PGLLANK17206
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	Carsten Jahn Hansen

ORGANISATION

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

GEOSPATIAL INFORMATION TECHNOLOGY

2020/2021

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

Students who complete the module will acquire the following knowledge, skills and competencies:

LEARNING OBJECTIVES

KNOWLEDGE

- Systems design
- System development for geospatial applications using AGILE methods
- Spatial databases and query languages
- Principles of Distributed GIS
- Standards for web-based GI applications

SKILLS

- Understanding the path from user requirements over design to implementation and test.
- Applying up-to-date system development methods and programming tools
- Evaluating the various approaches to systems design and development.

COMPETENCES

- Ability to design and build simple spatially enabled applications using modern object orientated development tools.

TYPE OF INSTRUCTION

Combined lectures and exercises.

EXAM

EXAMS

Name of exam	Geospatial Information Technology
Type of exam	Written 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	Geospatial informationsteknologi
Module code	PGLLANK17106
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	Lise Schrøder

ORGANISATION

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

3RD SEMESTER ASSIGNMENT

2020/2021

EXAM

EXAMS

Name of exam	3rd Semester Assignment
Type of exam	Written exam
ECTS	5
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	3. semester opgave
Module code	PGLLANK17303
Module type	Project
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